

Addenda for the years 1881-1893, to the descriptive catalogue of the anatomical and pathological museum of St. Bartholomew's Hospital.

Contributors

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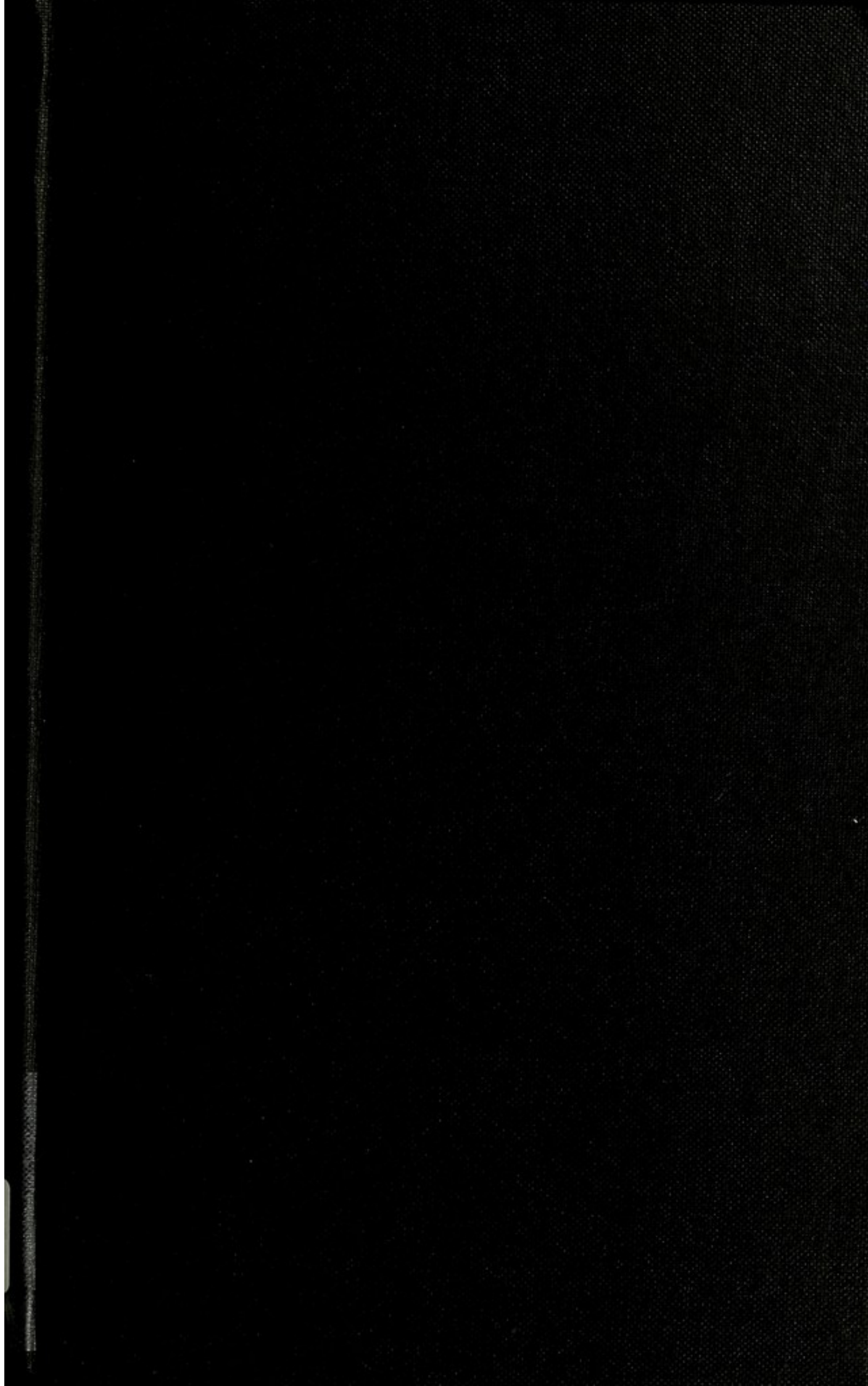
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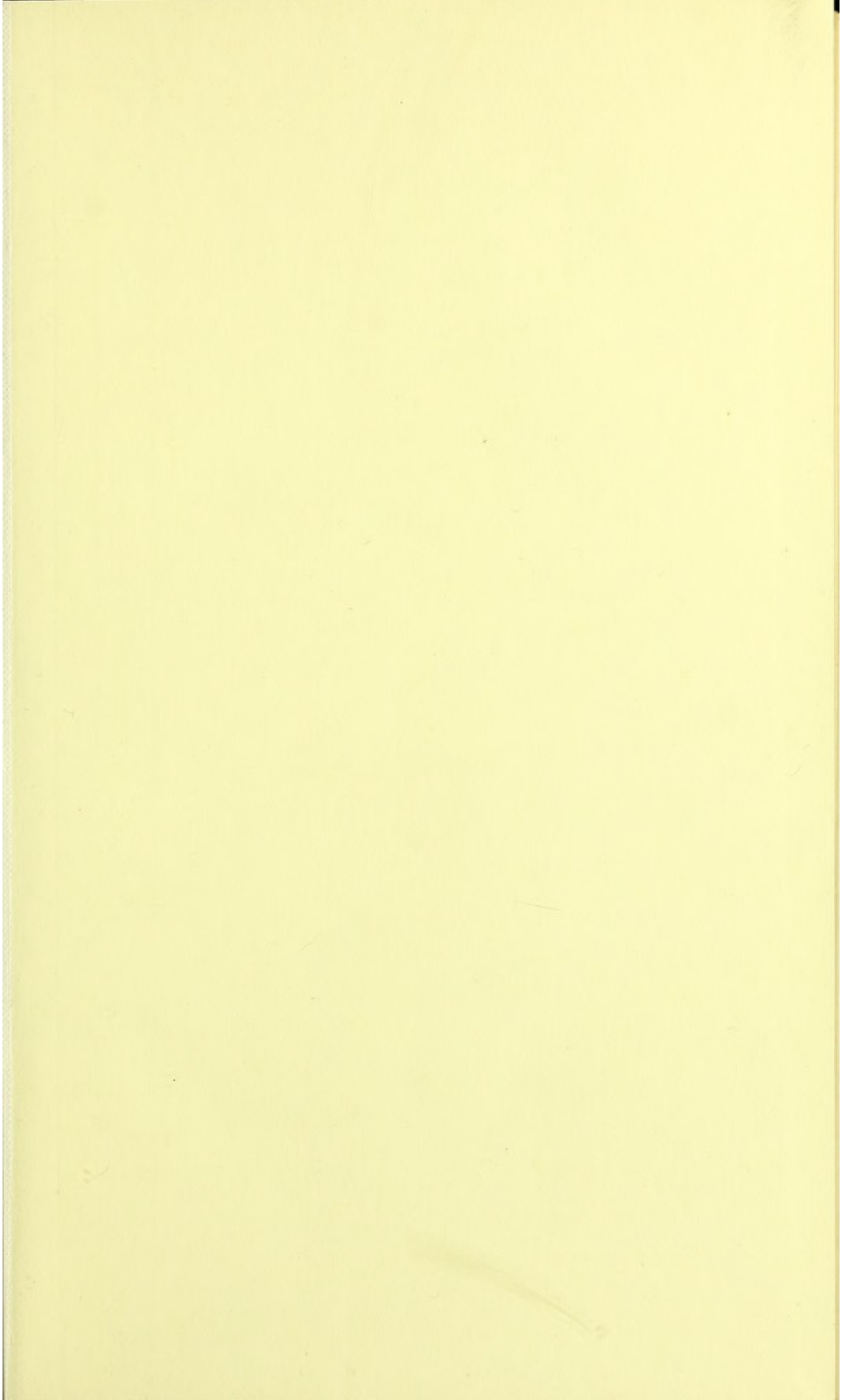
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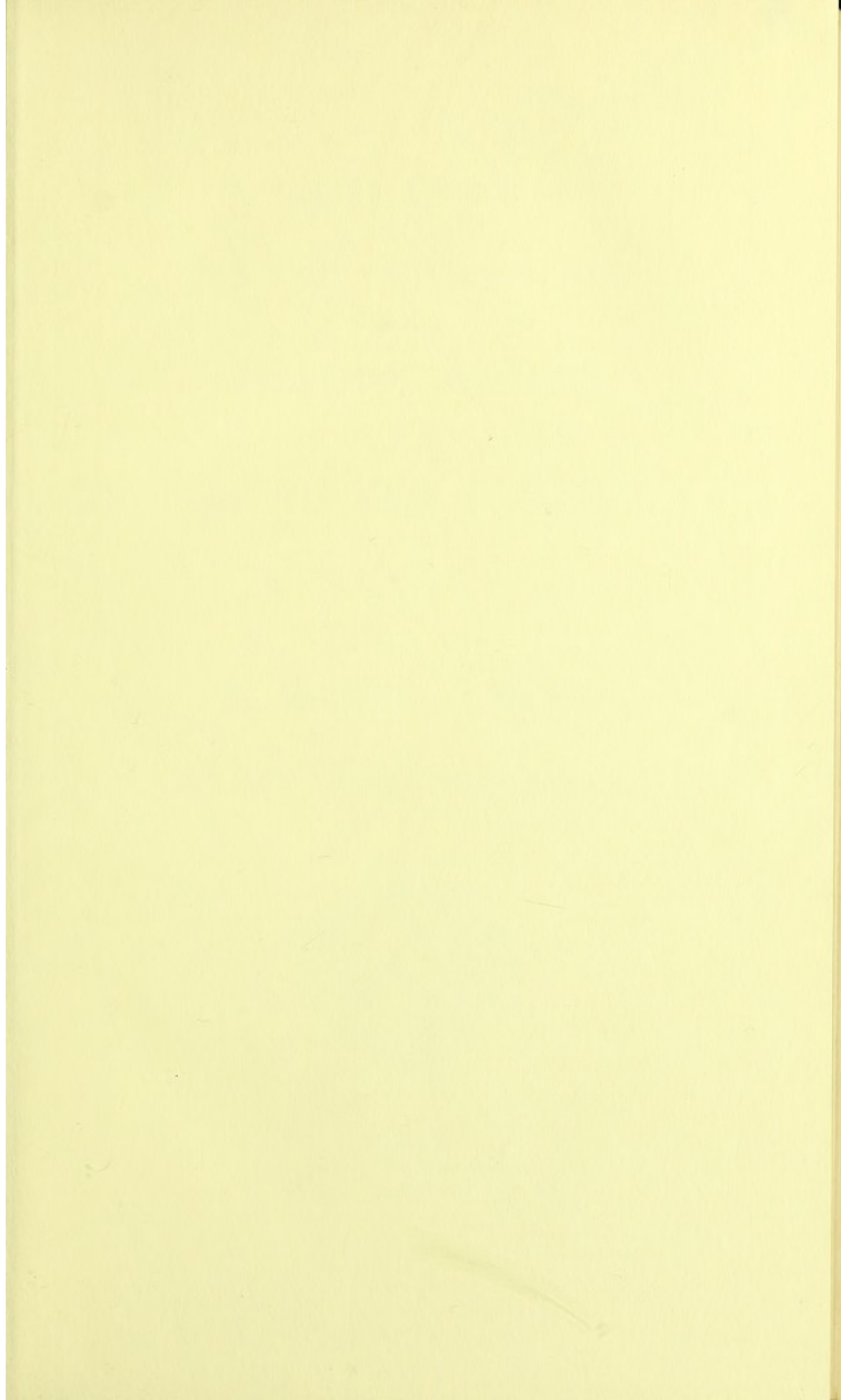
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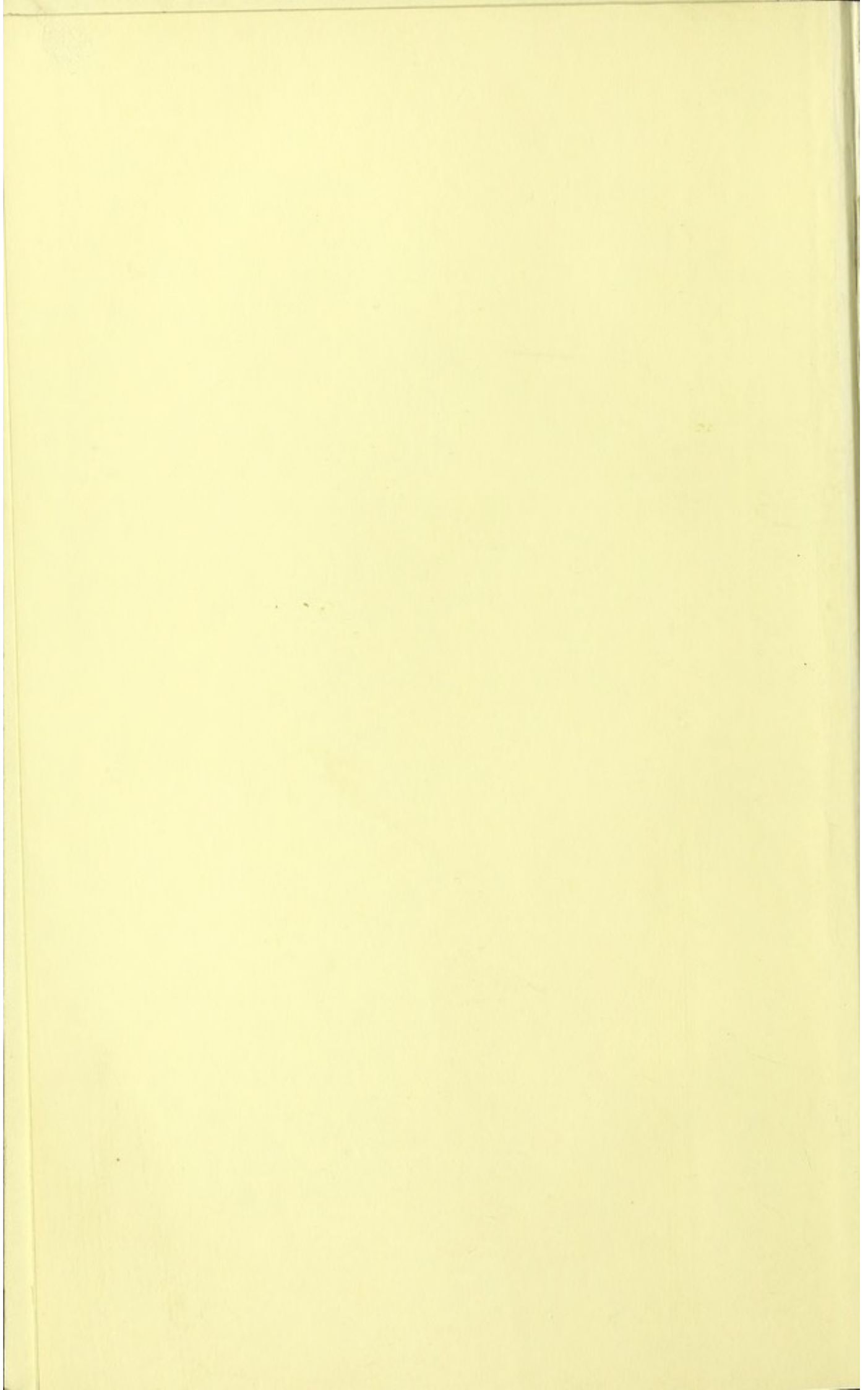




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ADDENDA
FOR THE YEARS 1881-1893,
TO THE
DESCRIPTIVE CATALOGUE
OF THE
ANATOMICAL AND PATHOLOGICAL
MUSEUM
OF
St. Bartholomew's Hospital.

PUBLISHED BY ORDER OF THE GOVERNORS.



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SERIES I.

DISEASES OF BONES.

ATROPHY.

- 1a. A Skull-Cap, the inner surface of which is extremely irregular, thinned, and finely porous, from the number of minute vessels by which it is perforated. The parietal Bones are perforated by three irregular openings, with thin edges, upon either side of the Sagittal Suture; Pacchionian bodies probably were situated in these openings. The external surface of the Skull on either side of the Sagittal Suture presents a chalky appearance, and the bone is perforated by the foramina of numerous minute vessels. 1881

(In Case E.)

From a female, aged 28 years; there was no evidence of syphilis.—See *Post-Mortem Book*, vol. viii., p. 161.

- 1b. Portion of a Calvaria which has undergone considerable thickening. The outer table of the parietal bone has a circular porous patch in it. The inner table is everywhere roughened from a deposit of new bone. The Skull-cap was very adherent to the dura mater, and the surface of the latter was much roughened by the development of fibrin. It was very thick, but its under surface was natural. The other meninges and the brain were normal. 1888

(In Case E.)

From a bricklayer, aged 68, who had pericarditis and chronic pachymeningitis. He fell a distance of eleven feet, striking the left side of his head, about a fortnight before his death. Two years previously he was struck on the left eye by a piece of scaffolding, and was laid up for six months.

See *Male Surgical Register* for the Ophthalmic Wards (1888), s.v. Ed. Barney.

- 1c. The Tibio-Tarsal Bones of a Mongrel Pigeon—Fantail Tumbler—aged two years at the time of its death. The right tibio-tarsus presents an united fracture, situated in the middle of its length. The date of the injury was unknown, but most of the provisional callus seems to have been absorbed. The interesting feature in the case seems to be the fibula, which is hypertrophied both as regards length and breadth. It is firmly united to the distal fragment. In the fresh state, the bony union of it with the distal fragment was much strengthened by very dense and thick fibrous bands, extending from the fibula itself to the spicula of bone now seen on the distal fragment, and it seems to have acted as a splint during the union of the Tibio-Tarsus. The uninjured Tibio-Tarsus of the opposite side is preserved for comparison. 1889

Presented by A. G. Francis, Esq.

- 1d. A Calvaria, showing numerous patches of erosion upon its inner surface. The patches are longest and best marked on the parietal bones immediately behind the level of the tuberosities. They are tolerably symmetrical, and appear to be due to a deficiency of the inner table of the bone. As a result of this deficiency, the cancellous structure of the diploë is exposed in the form of a number of bony processes set vertically in the outer table like the teeth of a comb. The outline of

the erosion is very irregular, and appears like a fretwork pattern, in many cases it seems to have followed the lines of the blood-vessels. The remainder of the Calvaria shows in many places a similar erosion, though it is less marked. 1889

From a child, aged five years, who died from Hodgkins' disease.

The Dura Mater from the same case is preserved in the next specimen.

1e. A portion of the Dura Mater which covered the eroded parts of the parietal bones in the preceding specimen. The external surface of the Membranes presents a soft reddish velvety growth, the processes of which appear to correspond with the erosion in the skull. The inner surface of the Dura Mater is normal. 1889

1f. A Skull-Cap, greatly thickened, particularly in the left frontal region. 1890

(In Case E.)

From a man, aged 45, who died of cerebral hæmorrhage.

See *Medical Post-Mortem Book*, vol. xv., p. 373.

12a. The Right Tibia and Fibula, which, as the result of disuse, have undergone an extreme amount of Atrophy. Both bones are extremely thin and are quite translucent. At the upper and lower extremities of the bone the atrophy has proceeded so far as to leave circular apertures, which give a cancellous appearance to the compact bone. 1889

(In Case E.)

From a girl, aged 13, whose thigh was amputated on account of central necrosis of the femur. She had been confined to her bed for three years.

The thigh is preserved in Series i., Nos. 138b and c.

See *Female Surgical Register*, vol. i. (1889), No. 367.

14a. A Calvaria, showing numerous small pits on the inner table, apparently due to an absorption of the bone around the Pacchionian bodies. 1889

(In Case E.)

From a man in whose skull there was a great excess of clear cerebro-spinal fluid, which apparently compensated for much atrophy and shrinking of the brain. The patient presented no cerebral symptoms, and died from cellulitis of the leg.

See *Male Surgical Register*, vol. ii. (1889), No. 210.

17a. The upper part of a Sternum showing the perforation made by an Aortic Aneurysm. 1882

17b. The Manubrium and a portion of the Gladiolus of the Sternum, with the Costal Cartilages attached. The central portion of the bone has been completely absorbed by the pressure of an aneurysm. 1886

(In Case E.)

From the dissecting-rooms.

17c. The Manubrium and attached portions of the Left Clavicle and Two First Ribs. Most of the bones have a spongy and worm-eaten appearance, due to the erosion caused by a large aneurysm of the innominate artery (see No. 1506a). The sternal end of the right clavicle, with its articulation, has been completely destroyed. 1893

(In Case E.)

The aneurysm and large vessels of the neck are preserved in Series viii., No. 1506a, to which refer for a history of the case.

31a. A Humerus, the whole of which is completely necrosed. The upper epiphysis is separated from the shaft, but the periosteum is attached in shreds to the greater part of the circumference of the bone, being separated to only a very slight extent at the upper and posterior surface of the shaft. In the recent state the medullary canal was filled with a soft semi-purulent mass. 1883

From a girl, aged 14 years, who died of pyæmia.—See *President Ward Book*, vol. viii., p. 430.

34a. Portions of a Tibia and Fibula from a case of Diffuse Periostitis. The periosteum has entirely disappeared over a great part of the shaft of the tibia, leaving the subjacent bone rough, bare, and discoloured. A small portion of the lower end of the fibula is in a similar condition. 1882

34b. The Astragalus and the lower ends of the Tibia and Fibula from the same case. The tibial epiphysis had been partially separated from the shaft previous to amputation being performed, its cancellous tissue is in a state of acute inflammation. A glass rod has been passed along a narrow channel, which leads from the ankle-joint into the space between the tibia and fibula. The articular cartilage covering the bones forming the ankle-joint has been entirely destroyed and the bony surfaces are in a carious condition. 1882

39a. The Right Femur of a Child. The bone has been sawn across transversely, and shows a very unusual appearance, resulting from Acute Periostitis. Immediately above the condyles, and extending up the shaft for more than its lower half, the outline of the bone is much enlarged; the section shows the original shaft of the bone lying in the centre of a cavity with bony walls, the space between the centre of the shaft and the inner edge of the wall of this cavity measuring five-eighths of an inch; extending across this space are a few irregular fibrous bands: it contained pus when opened. A red glass rod has been placed in a small opening on the outer side of the bone, corresponding to an incision which was made seventeen days before death. The peculiar appearance is, without doubt, due to the fact that the periosteum has first been separated off the shaft by acute periostitis, the intervening space being filled with pus, and that the periosteum itself has subsequently become ossified. A somewhat similar condition in an earlier state is seen in the next specimen, which was obtained from the opposite femur of the same child. 1891

The patient was an infant, aged one year, admitted into the Metropolitan Hospital on November 18th, 1890. The history given was that for a few days before admission the legs and thighs had been swollen and the child seemed ill; he had never been strong or healthy; he had general bronchitis. On November 25th he was in a good deal of pain and restless; temperature 100° F. There was no evidence of rickets, and the chest, head, and upper limbs were well formed. The legs were swollen and oedematous. The lower part of each thigh was greatly swollen, especially the right; there was no effusion into the joints. Fluctuation was detected on the outer side of the right femur, and pus was evacuated by an incision. The legs were put up in splints, and gave but little further trouble. The bronchitis increased, was complicated by laryngitis, and on December 11th the child died.

39b. The Lower Half of a Left Femur (from the same case as the preceding specimen), which has been divided longitudinally, and shows separation and ossification of the periosteum. The intervening space is occupied by soft fibrous tissue, but did not contain blood or pus. 1891

Drawings of this and of the preceding specimen, when fresh, are contained in Series lvii., No. 19.

They were both presented by Anthony A. Bowlby, Esq.

40a. The Tibia, Astragalus, and Os Calcis, with a portion of the Fibula of the right side, removed by operation on account of long-standing Osteitis and Periostitis. The bones have been sawn through longitudinally, and show considerable thickening and deposition of new bone throughout the whole shaft of the Tibia, with almost complete obliteration of the medullary cavity. The inflammation, which originated in the Tibia, has spread to the neighbouring bones, causing complete obliteration of the ankle and astragalo-calcaneal joints, with firm bony ankylosis of these bones to each other and to the Tibia. The Fibula, which has also been sawn through longitudinally, is firmly ankylosed to the Tibia and Astragalus, but its medullary cavity has not been encroached upon by the thickening of the bone. The outer

surface of the Tibia is for the most part smooth, with the exception of an oval patch measuring three inches in its long diameter, and situated on the inner surface of the lower third : this marks the seat of an ulcer of one year's duration. 1892

(In Case E.)

44a. Bones from a case of old Compound Fracture of the Leg, which was followed by chronic ulceration of the integuments at the seat of injury. The fracture of the Fibula has occurred considerably higher up than that of the Tibia, the lower extremity of which is displaced backwards. Both bones have been the seat of a widely diffused periostitis, resulting in the formation of stalactitic masses of new bone : the Tibia under the cutaneous ulcer is carious, and a considerable amount of the bone has been destroyed. Amputation was performed on account of the constant pain and uselessness of the limb. 1882

(In Case E.)

OSTEITIS DEFORMANS.

72a. A Portion of the Frontal Bone, illustrating very well the great Hypertrophy that occurs in Osteitis Deformans. On the cut surface the remains of the diploë can still be seen at an equal distance from the inner and outer tables, thus showing that the thickness has resulted from a deposition of a new bone from both the inner and the outer periosteum. The inner surface is marked by the depression of numerous blood-vessels, and the outer surface is pierced here and there by vessels of a larger calibre than usual, showing the great vascularity of the bone during life. 1893

(In Case E.)

The patient was a lady, aged 57, who had noticed gradual enlargement of her head during the last nine years of her life. The clavicles, humeri, femora, tibiæ, and fibulæ were all thickened, and their curves exaggerated. There was also some thickening and fixation of the vertebræ. Her height had diminished from 5 feet to 3 feet 9 inches. There was no malignant disease.

A photograph taken shortly before her death is preserved in Series lvii., No. 17.

Presented by R. H. W. Wilbe, M.D.

74a. Section of a Femur affected with Osteitis Deformans. The whole bone is curved in an outward and forward direction, the curvature affecting the entire length of the shaft, though most marked in its upper half. The shaft itself is much increased in circumference and very flattened in its antero-posterior diameter ; the girth of the thickest portion measures as much as six and a quarter inches, measurements of normal femora at the same level averaging about three and a half to three and three-quarter inches. The entire surface is rough and uneven from the presence of flattened, nodular growths of new periosteal bone, most marked in the upper third and along the *linea aspera*, and almost absent from the lower sixth of the shaft. The articular surfaces of the condyles are natural. The neck of the bone is placed at right angles to the shaft, but is not shorter than normal ; the canals for blood-vessels about its base are unusually large. Some parts of the head and neck present changes exactly similar to those noted in an early stage of rheumatoid arthritis, the bone being smooth and porcellaneous, without growths of nodular osteophytes, and with the worm-eaten appearance so common in this disease. On making a longitudinal section, the first thing noticed was the very soft state of the bone, and the ease with which it might be sawn. The medullary canal is irregular in shape, and its calibre is encroached upon by new bone, sometimes of a hard, porcellaneous appearance, and again of a more cancellous nature. The compact tissue is immensely increased in thickness, and there is a general tendency exhibited to a separation of its constituent laminae. At about the centre of the shaft, in the anterior portion of the sawn bone, is a small cavity about the size of a nut, which contained a sequestrum of rather hard bone ; similar irregularly shaped

cavities may be seen in other parts. The compact tissue of the upper articular surface is much increased, and the normal arrangement of its cancellous tissue destroyed. 1883

(In Case E.)

The patient was a cabman, aged 64, who died in the Hospital from a fractured skull. For the last ten years of his life the right femur had become gradually bent, so that, at the time of his death, the right lower extremity was two and a half inches shorter than the left. The progress of the deformity was not marked by any pain. The patient had suffered occasionally from gout, but was otherwise healthy. All the remaining bones were normal. The other half of the specimen is in the Museum of the Royal College of Surgeons.—See account of case by Mr. Bowlby in *The Transactions of the Pathological Society*, vol. xxxiv., p. 193.

74b. Section of a Femur. It is very little greater in circumference than natural, but is bowed forwards in one uniform curve, fairly equally distributed over the whole length of the shaft, so that when the bone rests by its two extremities on an even surface, the under portion of the centre of the femur is raised two and three-quarter inches above the subjacent plane. There is absolutely no external curvature. The surface is slightly roughened by the deposit of thin irregularly placed laminae and spicula of new bone, widely diffused over the entire shaft. The head and trochanters are natural, the condyles are flattened, and around their margins and on the surface of the external one are nodular outgrowths of new bone. A longitudinal section shows considerable thinning of the compact osseous tissue, a condition which is most marked in the lower third of the bone. Immediately above the condyles is a small cavity, containing masses of a soft material exactly resembling cheese, and above this the spaces of the cancellous tissue are much widened and filled with a substance having the consistence of soft mortar. At first sight the medullary canal appears filled up with sclerosed bone, but a closer investigation shows that this is only the case to a very limited extent, and that the material that mainly blocks it up readily receives the impress of the nail, and is apparently of the same nature as the mortar-like substance already mentioned. An inch below the lesser trochanter is a cavity similar to but smaller than that at the lower end of the bone, not bounded by any distinct walls and containing a similar cheesy material. 1883

(In Case E.)

From a man, aged 64, who died of morbus cordis. When ten years old he met with an injury to his leg; this was followed by extensive suppuration, and for some years he was unable to get about. His knee became stiff and his thigh bent, so that in a few years the latter assumed its present shape. There had been no increase of the deformity for the last forty years of his life. The limbs were of equal length, and three adherent scars marked the site of the former suppuration.—The specimen is described by Mr. Bowlby in *The Transactions of the Pathological Society*, vol. xxxiv., p. 192.

74c. A well-developed Adult Femur, showing the deformity produced by Osteitis Deformans. The shaft of the bone has a marked antero-posterior curvature, and is flattened from before backwards. The lower half of the bone is more affected 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 of 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. 1886

(In case E.)

The bone had no history attached. It was found amongst a number of pathological specimens collected in the latter part of the first half of the present century by a medical practitioner in Trowbridge.

See also *Transactions of the Pathological Society*, vol. xxxvii., p. 369.

Presented by G. C. Tayler, M.D.

- 74d. The Upper Portion of a Tibia, showing the deformity produced by Osteitis Deformans. The bone is characteristically curved, and has undergone very considerable thickening. The thickening is in great measure due 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, though the process has proceeded farther; it cuts easily, and the pores are occupied by a soft pinkish material, consisting, as the microscopic sections show, of embryonic medulla. The outer surface of the bone is roughened and the haversian canals are enlarged. 1886

From a man, aged 74, who died from the effects of prostatic enlargement. There was no evidence of gout or osteo-arthritis. The tibia was the only bone in the body which showed signs of osteitis deformans. (Cf. No. 74a.)

See *Transactions of the Pathological Society*, vol. xxxvii., p. 370.

- 74e. A Right Tibia, showing in a very marked degree the changes due to Osteitis Deformans. The bone has been sawn through longitudinally, by that means displaying the fact that the greatly increased thickness of the bone is almost entirely due to the deposition of new material on the outer surface, and that the medullary cavity has not been encroached upon.

This deposition is almost entirely confined to the anterior and posterior surfaces; the result is that while the bone is much thickened when measured from before backwards, from side to side it is of about the normal size: further, the triangular shape of the tibia is lost; the sharp crest and the internal and external borders are quite obliterated. It may also be noted that the upper two-thirds are more affected than the lower part, that the head is but slightly thickened, and the lower end is of normal size. The surface of the upper part of the shaft is rough and porous, and is pierced by numerous blood-vessels: the orifice for the nutrient artery shows that this vessel was of large dimensions. 1892

(In case E.)

This and the succeeding specimen (a right radius) were removed from an old woman, aged 67; each of them measured three-quarters to one inch more in length than the corresponding bone of the opposite side; they were the only bones affected; no others, including the bones of the skull, showed any increase in size.

See *Female Surgical Register*, vol. v. (1891), No. 2639*.

- 74f. A Right Radius from the same case as the preceding specimen, and affected like it by Osteitis Deformans. The bone has been sawn through longitudinally, and shows, as usual, that the increase in thickness is due mainly to a deposition of new bone on the outer surface. The general shape of the shaft is quite lost, and there is a well-marked anterior bowing; on either side of the attachment of the interosseous membrane the surface is much roughened and slightly porous in appearance, as is also the insertion of the biceps tendon. At the lower end, the tendons of the supinator longus and extensor proprius pollicis have formed grooves on the dorsal aspect of the shaft. At both extremities, especially at the lower, the margins of the articular surfaces are surrounded by rough deposits of new bone. 1892

(In case E.)

- 80a. Portion of a Calvaria, showing at the posterior superior angle of the left parietal bone a circular raised patch of finely porous, slightly softened bone, about

two inches in diameter, which, in the recent state, was of a livid colour. The whole thickness of the bone is here finely porous from the numerous minute vessels penetrating its substance. A small patch is situated in front of the larger one.

(In case E.) 1881

From a female, who died of chronic interstitial nephritis; there was no evidence of syphilis.

- 96a. Lower portions of the Radius and Ulna, showing the effects of an injury to the Wrist many years before death. 1885

(In case E.)

- 101a. Section of a Tibia which has become much thickened and enlarged as a result of Chronic Osteitis. In its middle and lower thirds is the site of a long-standing ulcer. The cut surface shows that the base has undergone much sclerosis, the medullary canal being practically obliterated. The bone is somewhat curved, and was two inches longer than its fellow. 1887

(In case E.)

From a man, aged 46, who had an abscess on the right shin thirty-five years before his death; the abscess was followed by an ulcer, which never properly healed. Shortly before his death the ulcer developed the characteristics of an epitheliomatous growth, and Cruden's amputation was performed.

See *Male Surgical Register*, vol. iii. (1887), No. 1740.

- 106a. A Tibia, the shaft of which, at the junction of the lower and middle thirds, presents an irregular thickening, extending around one-half of the circumference of the bone. 1882

(In Case F.)

From a man, aged 40. No history of a previous injury could be obtained.—See *Pathological Society's Transactions*, vol. xxxiii., p. 275.

- 113a. Sections of a Humerus and a Metatarsal Bone from different Fowls affected with Osteitis. The bones are enlarged, their medullary cavities are filled up, and the sections of the bone are throughout of an uniform dense texture, penetrated by numerous small vessels. 1881

Presented by the Royal College of Surgeons.

- 119b. A Femur which has been affected with Rarefying Osteitis. The epiphysis has undergone less change than the diaphysis. New bone has been deposited on the outside of the shaft. 1884

- 119c. Section of the Lower Portion of a Femur which has undergone a process of Rarefying Osteitis owing to the long-continued presence of a sequestrum. The outer and posterior portion of the bone has undergone partial absorption, due to the invasion of an epitheliomatous ulcer which commenced at the opening of the sinus leading to the sequestrum. 1885

M., æt. 43. The sequestrum appeared to have existed twenty-nine years. See *Male Surgical Register*, vol. iii. (1884), No. 2713.

- 132a. Section through the lower part of the Left Tibia and Ankle, showing an abscess in the bone, with some inflammation of the tibio-astragaloid joint. 1885

From a man, aged 47, who had injured his ankle thirty years previously, and who for ten or twelve years subsequently had sinuses about the part, from which pieces of dead bone came away at different times. Seven years before the amputation the patient suffered from a "gathered ankle," and was laid up for five weeks; the "gathering" burst, but no dead bone was discharged. In March, 1884, he had rheumatic pains in his ankle, which swelled. On admission to the Bristol Infirmary, the joint was stiff, but not uniformly enlarged. The skin was adherent, glazed, and pigmented. There was a good deal of hard swelling over the tendo-Achillis. No tenderness existed anywhere above the joint. The abscess may have been secondary to the joint-disease, or else it may have supervened on the long-standing osteitis of the tibia.

Presented by W. Dowson, M.B.

TUBERCULAR ULCERATION OF THE CRANIAL BONES, LEADING TO PERFORATION.

- 133a. The Base of a Skull, from a young subject, exhibiting extensive ulceration through a part of the parietal and temporal bones, the effects of tubercular disease. A. 75. 1888
(In Case F.)

- 134a. A Clavicle extensively affected with Caries and Necrosis. Over some parts of the shaft porous new bone has been deposited. 1882

- 138a. Section of the Upper Portion of a Femur. The cartilage on the articular surface is almost entirely destroyed, and its place taken by fibrous adhesions which unite it to the acetabulum. In the centre of the neck is a small cavity which contained a few drops of pus, but no sequestrum. The bone forming the great trochanter is greatly sclerosed, but presents no sign of caries; a considerable amount of new bone has been formed in this situation. 1882

From a boy, aged 13 years. Seven months previous to removal some carious bone had been gouged from the great trochanter; the patient, however, showed signs of commencing amyloid disease, and amputation at the hip was deemed advisable.

- 138b. Section of the Lower Third of the Femur, from a case of Central Necrosis. A sinus runs from the outer side of the limb upwards and inwards to sclerosed bone forming the external border of the femur. A curved sequestrum, measuring two and a half inches in length by one-eighth of an inch in thickness, is embedded in the centre of the bone immediately to the inner side of the medullary canal. The bone at the upper part of the section is sclerosed as a result of chronic osteitis, and the outer lamellæ are singularly irregular, the compact bone at the periphery being converted into a soft diffluent material, which was of a deep claret colour. The lower part of the section, including the whole of the cancellous tissue of the epiphysis, was of the same claret colour, and was so soft that the finger could be readily passed through its substance. This condition is due to the cancellous tissue being entirely filled with inflammatory products which have almost become purulent, the colour being due to the presence of altered blood-pigment. 1889

A school-girl, aged 13 years, received an injury to the lower part of the thigh three years before her admission to the Hospital. Three weeks after the injury an abscess was opened, and a pint of pus was let out from beneath the periosteum of the femur. When first seen, she had been confined to bed for two years, and was suffering from amyloid disease. Three sinuses were found to lead down to hard bone in the femur; no sequestrum could be detected.

The bones of the leg, showing an extreme amount of atrophy resulting from the disuse, are preserved in Series i., No. 12a.

A drawing is preserved in Series lvii., No. 7.

See *Female Surgical Register*, vol. i. (1889), No. 367.

- 138c. The opposite Half of the Femur, from the same patient as the preceding specimen, macerated and dried. The whole of the shaft of the bone, except the part in the immediate neighbourhood of the sequestrum, has undergone a process of rarefying osteitis. 1889

OSTEITIS AND PERIOSTITIS.

- 140a. The Lower Half of a Left Femur. On the outer surface there is a large excavated cavity, into which cloacæ from the inner and posterior surfaces lead. The outer wall of the bone has been removed from this region, partly by ulceration, and partly by an extensive operation performed shortly before death. The front and posterior surfaces are covered by a rough irregular layer of new bone, which is honeycombed in all directions by the channels of numerous blood-vessels, the

result of periostitis of very long duration. There are also bony outgrowths round the margins of the condyles, both outside and inside the knee-joint; this was firmly ankylosed by fibrous adhesions. 1893

(In case F.)

From a woman, aged 50. When 10 years of age she received a severe injury to her femur, resulting in the formation of sinuses which never healed. Twenty-three years later she underwent an operation, and some sequestra were removed. On admission to the hospital, these sinuses were still unclosed. An extensive operation for the removal of dead bone was performed, but she developed septicæmia and died.

See *Female Surgical Register*, vol. v. (1891), No. 1887.

141a. Sections of the Lower End of a Femur, with a small carious cavity immediately beneath the articular cartilage. 1881

From a child who died with suppuration in the knee-joint, and diffuse periostitis of the femur. The inflammation in the knee-joint was supposed to have been caused by the disease in the epiphysis.

Presented by W. Marrant Baker, Esq.

152a. The Lower Jaw of a child which has undergone Acute Necrosis of the central portion. On each side the section has been made through healthy bone. As a result of the necrosis the teeth have dropped out. 1884

For details of the case see *Lawrence Ward Book* for February, 1884, under the name Amelia Simmonds.

159a. The entire diaphysis of the Ulna of a child, which separated as the result of Acute Periostitis. The shaft of the bone was reformed. 1882

164a. Portions of the Left Fourth Rib, which were exfoliated six months after a slight injury. The larger of the necrosed portions of the rib measures about three and a half inches in length, and is very jagged at either end; whilst the smaller piece is only half an inch in length. 1887

From a delicate girl, aged 13.

See *Female Surgical Register*, vol. i. (1887), No. 329.

167a. The Lower Two-Thirds of the Left Femur, which has undergone Central Necrosis. The bone is much thickened, especially at its upper and posterior portion, by a deposit of new osseous material derived from the periosteum; whilst the lower portion of the bone is sclerosed so that the medullary canal is filled up with dense bone. In the upper part of the specimen the shaft has undergone lamellar necrosis. The dead bone has not exfoliated, but is in many places ensheathed by new bone derived from the endosteum and periosteum. 1886

The patient, a boy, aged 17, had experienced shooting pains in his left hip for seven months previous to his admission to the Hospital. Shortly after he first felt the pain, he noticed a fulness about the hip, accompanied by tenderness, heat, and redness. He kept his bed for three months. On admission, a large tense swelling was found at the upper and inner part of the thigh, and the knee-joint was swollen and tender. Three-quarters of a pint of pus flowed from an incision made into the swelling. The knee-joint was afterwards drained, but amputation through the middle third of the thigh was ultimately performed. At the time of the amputation the medullary canal contained pus in its upper portion. The pus had burrowed behind the semi-membranosus muscle, and had made its way into the knee-joint, but the epiphysis remained healthy.

See *Male Surgical Register*, vol. v. (1885), No. 2840. Also *Transactions of the Pathological Society*, vol. xxxvii., p. 372.

173a. A Section through an Os Calcis which has undergone Necrosis. The periosteum is almost entirely stripped off the bone, which is dead. The cartilage on the posterior articulation of the astragalus has completely disappeared, whilst that covering the sustentaculum tali is eroded and can readily be stripped off the bone. 1889

From a woman, aged 46, who had swelling and pain in her foot after a slight injury. When she first came under observation, two months after the injury, there were two discharging sinuses situated on the inner and dorsal surfaces of the foot. On passing a probe along the sinuses, bare bone could be felt in the neighbourhood of the os calcis. The patient made a good recovery after the performance of Syme's amputation.

See *Female Surgical Register*, vol. iv. (1889), No. 1887.

ACUTE NECROSIS.

- 180a. The Left Malar Bone of a child, aged five years, which was removed as a sequestrum after Acute Necrosis following a blow three months previously. With the exception of the zygomatic process and parts of the internal surface, where there has been some slight erosion, the bone has undergone hardly any loss of substance. 1893

See *Female Surgical Register*, vol. iii. (1892), No. 1774.

- 188a. A portion of the Right Innominate Bone, including the Acetabulum. The ascending ramus of the ischium, with that portion of the body which bounds the thyroid foramen, is stripped of its periosteum and has undergone necrosis. The necrosis is limited anteriorly by the cartilage intervening between the ascending ramus of the ischium and the descending ramus of the pubes. 1889

From a boy, aged 10 years, who was quite well until a fortnight before his death, when he received a kick on the thigh. Five days after the injury he had pain in all his joints, and when first seen, his right thigh was swollen and there was considerable induration over the pectineus and gracilis. Nine days later the boy died of pyæmia.

See *Male Surgical Register*, vol. iii. (1889), No. 19.

- 190a. The Lower Third of a Femur, with a Sequestrum involving a portion of the posterior surface and centre of the shaft; the dead bone is partially enclosed by new bone and the thickened wall of the shaft. The surface of the lower extremity of the femur is extensively carious; the knee was affected with destructive disease. 1881

(In Case F.)

- 190b. A Section of the Lower Two-Thirds of the Shaft of the Right Femur, showing a cavity in the anterior surface containing a sequestrum measuring an inch and a half in length. The walls of the cavity are very dense and thick; its bottom is formed by a mass of sclerosed bone, and its roof by a similar mass of bone, which has been newly formed by the periosteum, as a result of the continued irritation. The cavity communicates with the exterior by means of two apertures. The edges of the sequestrum are thinned, as if they were undergoing absorption, and it lies quite loosely in the cavity. The shaft of the femur in the neighbourhood of the sequestrum is of the density of ivory. 1888

(In Case F.)

From a coachmaker, aged 25, who had typhoid fever in October, 1885. He felt shooting pains in his thigh during convalescence, and an abscess subsequently developed in the popliteal space. The abscess healed, but was followed by many others, which healed like the first. The amputation was performed on May 21st, 1887. The sequestrum could not be felt during life, and was not detected until the femur had been divided.

See *Male Surgical Register*, vol. i. (1887), No. 141, and *St. Bartholomew's Hospital Reports*, vol. xxiii., pp. 220-222.

- 194a. A Section of the Upper End of a Tibia. A portion of the extremity of the diaphysis about three inches in length, is necrosed, and lies in a cavity formed by a thin layer of new sub-periosteal bone, which is perforated by cloacæ. The surface of the sequestrum is very irregular as if from absorption, and it is surrounded by granulation-tissue, which connects it with the surrounding new bone. The limitation of the disease at the intermediary cartilage between the epiphysis and diaphysis is very distinct. 1881

The patient, a healthy lad, had received a slight blow on the shin from a fir-cone. Five days afterwards the leg was acutely painful, the skin over the tibia being swollen and very tender. A month later the limb was amputated.

Presented by Gregory White, Esq.

- 198a. A Sequestrum removed from the Thigh four years after a Compound Fracture. 1885

M., æt. 20. The sequestrum had given no trouble during the four years until about a week before its removal.

See *Male Surgical Register*, vol. iii. (1885), No. 2027.

- 200a. Portion of a First Metatarsal Bone, which was introduced between the ends of an un-united Fracture of a Tibia. The bone was engrafted on the 20th of January, and was removed as a sequestrum on the 10th of June in the same year. Its edges are thinned and eroded, the periosteum has disappeared, and the whole thickness of the bone has died. 1889

From a man, aged 37 years, who had an un-united fracture of the left tibia for eight months previous to the time of grafting the bone.

See *Male Surgical Register*, vol. iii. (1889), No. 86.

- 202a. Portions of the Compact Layer of the Parietal and Frontal Bones, which exfoliated after a wound of the scalp. 1890

From a man, aged 46.

See *Colston Ward Book* (July, 1874), No. 3.

- 202b. Portions of the Compact Layer of the Frontal Bone, which separated after an extensive Compound Depressed Fracture of the skull. The lowest and largest fragment shows the marks of the saw, used soon after the admission of the patient to relieve the compression caused by the depressed fracture. 1890

From a boy, who ultimately recovered, though he suffered for some time from a hernia cerebri.

See *Colston Ward Book* (1881), s.v. A. Aves.

- 202c. A Portion of the Outer Table of the Parietal Bone, which separated after an extensive injury to the scalp. 1890

From a case under the care of Mr. Luther Holden, in *Colston Ward*.

- 210a. One Half of the Upper Part of a Right Femur which has been sawn through longitudinally. The great trochanter is hollowed out and contains in its centre an oval sequestrum, measuring more than an inch in its long diameter: it is covered with soft granulations, and the cavity where it lies is lined by the same material: a small sinus led down from the top of the trochanter to the sequestrum: there is another abscess cavity filled by curdy pus in the lower part of the neck. 1892

From a patient, aged 50. Forty years previously she had been under the care of Sir William Lawrence for disease of the hip-joint.

See *Female Surgical Register*, vol. ii. (1889), No. 2586.*

- 214a. The Bones forming a right Knee-Joint. The tibia is placed at a right angle to the femur, and their inner condyles are united by bone. The patella is ankylosed to the outer condyle of the femur, a considerable portion of which has been destroyed by caries and necrosis. 1881

(In Case F.)

- 226a. Portion of the Temporal and Occipital Bones, showing the results of Necrosis of the Mastoid Process. The temporal was trephined shortly before death. 1885

(In Case F.)

See *Male Surgical Register*, vol. iii. (1885), No. 482.

- 226b. Part of the Temporal Bone of a Child. The mastoid portion is brown and rough; it has undergone necrosis. The periosteum is retracted over the internal surface of the petrous portion, leaving the bone bare. 1886

From a child, who died with a cerebral abscess consequent upon the necrosis of the mastoid process. The brain is preserved in Series xxx., No. 2486a.

See *Male Surgical Register*, vol. v. (1885), No. 482.

- 242a. A Portion of the Lower Jaw, including the Symphysis, with one incisor tooth attached. The whole mass has undergone necrosis after a severe injury, and separated as a sequestrum. 1890

From a woman, aged 46, who received a violent kick on the lower jaw which knocked out several teeth; the sequestrum was removed eight months later.

Presented by A. G. Francis, Esq.

- 244a. The Epiphysis of the Head of the Right Femur, which, following on pyæmic periostitis, became necrosed and separated as a sequestrum. 1891

The patient was a child, aged nine, who suffered from chronic pyæmia. The disease commenced as acute periostitis of the opposite femur, necessitating at length amputation just below the great trochanter. Suppuration subsequently occurred in the right hip-joint, and resulted in the separation of this sequestrum.

See *Female Surgical Register*, vol. v. (1891), No. 565.

- 258a. Section of a Femur, in which a small portion of the compact tissue, about the junction of the middle and upper third, has become necrosed. Immediately around this, and for some distance along the shaft, an excessive amount of new bone has been formed. The surrounding soft tissues have shared in the morbid action, and the inflammatory process has resulted in the formation of a tumour-like mass of condensed tissue around the sclerosed bone. In the upper part of the preparation, the bone has become thickened at the expense of the medullary canal, which is occluded. A very small channel leads from the cavity containing the necrosed bone into the mass of tissue surrounding the shaft, and along this a glass rod is passed into a small abscess cavity which contained a few drops of pus. 1882

From a man, aged 29, who had noticed a swelling on the thigh for three months, it was painful and tender. On an incision being made into this, it was thought to be a periosteal sarcoma, and amputation was performed at the hip-joint.—See *Henry Ward Book*, vol. viii., p. 140.

CENTRAL NECROSIS.

- 258b. One half of the lower end of a left Femur. The bone has been sawn through longitudinally, thereby exposing a small flat sequestrum lying in a distinct cavity in the expanded lower end of the shaft. Immediately above the epiphysis, and extending for six inches up the shaft, the bone is much thickened by an irregular deposit of new bony material, which is nodular on the surface. This increase occurs mostly on the inner side. It has been deposited beneath the periosteum, as shown by the fact that the outline of the shaft is clearly discernible beneath the new bone.

On the posterior surface of the bone is a small depression which formed part of a small abscess cavity; this protruded slightly into the popliteal space, but lay deeply, and was not found until after the removal of the limb. 1893

From a boy, aged 14, who had noticed a swelling in the lower part of the thigh for six weeks. It increased rapidly, and was thought to be a sarcoma. It was not until the bone had been divided that the real nature of the disease was detected.

See *Male Surgical Register*, vol. v. (1892), No. 1280.

- 258c. A portion of the lower end of a Femur which has been sawn through longitudinally to expose an abscess lying in the centre of the shaft, caused by the presence of sequestra after necrosis. The cavity of the abscess commences at about one inch from the lower end, at or about the junction of the epiphysis with

the shaft, and extends upwards for two and a half inches ; it is lined by a thick membrane with an irregular surface, and leads, near its lower end, through an opening in the bone into a sinus in the popliteal space. When the bone, subsequent to the amputation, had been sawn through, the cavity of the abscess was found to contain four or five small spicules of dead bone, the largest of which measured about one-third of an inch in its longest diameter. Around the abscess the bone is thickened and condensed, and its general outline is considerably altered. 1893

259a. Sections of a Tibia, exhibiting great thickening of its walls, the result of the irritation of a Central Sequestrum. The necrosis apparently involved the layer of bone surrounding the medullary canal ; portions of the necrosed bone appear to have been undergoing absorption, as in the preceding specimen. Both malleoli have been separated by fractures, and are imperfectly united to the shaft. 1881

(In Case F.)

271a. Portions of Two Ribs, with their Costal Cartilages, showing the "beading" characteristic of Rickets. 1885

284a. Section of a Tibia from a child who had formerly suffered from Rickets. The bone presents a sharp anterior curve, the concavity of which is partly filled up by a considerable quantity of white compact bone. 1883

288a. Sections of the Humerus of a Rickety Child. The whole bone is extremely soft, and can readily be bent in any direction. The compact bone is thinner than natural, and is surrounded by thickened periosteum. At the centre of the shaft is a fracture, three weeks old, surrounded by a considerable deposit of callus. The line of fracture of the upper epiphysis is irregular. 1883

288b. Lower end of the Radius, to show the enlargement characteristic of Rickets. 1884

288c. The Lower End of the Radius and Ulna of a Child, aged seventeen months, who suffered from advanced Rickets. The bones have been divided longitudinally, and show that the cartilage uniting the shaft and epiphysis is greatly increased in thickness. There was well-marked "beading" of the ribs. 1891

289a. Sections of the Upper Extremity of a Right Humerus. There is a large cavity in the head, which was filled with thin blood-stained fluid. The enlarged medullary canal contains a soft fatty material, which was yellow and red in the recent state. The wall of the bone is thinned, especially near the head. 1881

289b. Sections of the Upper Extremities of the Femora from the same person as the preceding. Occupying the upper part of the bottle, is a section of the head of the left femur, showing the surface of a fracture through the neck. Close to the line of fracture are two small cavities in the cancellous tissue, containing some blood-clot. Below, is a section of a portion of the right femur. Occupying its head is a smooth-walled cavity, almost as large as a walnut ; it contained a thin yellow fluid. Another smaller cavity is situated at the junction of the neck with the shaft. The medullary cavity is filled with a fleshy substance, of a red colour, and having somewhat the appearance of a myeloid tumour in the recent state. 1881

The two preceding specimens were taken from a man, aged 50 years, who died a few days after admission to the Hospital, with a fracture of the neck of the left femur, which occurred in the following manner :—he was cleaning his boot, with the foot placed upon a chair, when the chair upset, and he fell to the ground with his left leg and thigh twisted beneath him.

On post-mortem examination the long bones were found to be affected with mollities ossium. The skull-cap was so soft that it could be bent with ease. The vertebræ were soft and fatty, and the pelvis was slightly beaked. The ribs easily snapped asunder, and a small myeloid

tumour had grown within the sixth right rib, just below the angle (see No. 3313). Series L. contains also two myeloid tumours from the same patient.—See an account of the case by Mr. H. T. Butlin in the *Transactions of the Pathological Society*, vol. xxxi., p. 271; also *Harley Ward Book*, vol. v., p. 305.

- 289c. The Other Half of the Right Femur macerated. The corresponding half of the cavity in the head of the femur (shown in the preceding specimen) may be observed. The cancellous tissue of the neck is extremely thinned by absorption, and the compact layer is perforated by large, irregular apertures. The wall of the shaft is very porous, has a chalky appearance, and is somewhat thinned at its lower extremity. Absorption of the compact external layer is commencing just above the internal condyle. 1881

MOLLITIES OSSIUM.

- 293a. A portion of the Thorax of an Old Person, showing the changes which result from Osteomalacia. 1886

(In Case E.)

From an old female subject brought for dissection.

- 293b. The Right Ilium and Femur, showing a condition of Mollities Ossium combined with Osteo-Arthritis, from a patient who was said to be more than a hundred years of age. The os innominatum is extremely thin and friable, whilst the acetabulum and head of the femur present the "lipping" which is characteristic of osteo-arthritis. 1888

(In Case F.)

From a woman who was brought to the Hospital for dissection.

- 293c. An extremely Atrophied Pelvis, showing a condition of Mollities Ossium. The bones are so light and porous as to resemble a sponge, whilst the pelvis is so "beaked" that the ascending rami of the ischium are parallel with each other. 1889

(In Case F.)

From an old subject who was brought to the Hospital for dissection.

- 296a. A Calvaria which has undergone much thickening. The inner surface is not corrugated. 1885

(In Case F.)

For further details see *Post-Mortem Book*, vol. xi., p. 174.

- 296b. A Calvaria much thickened, apparently as a result of Syphilis. 1885

(In Case F.)

- 312a. The Calvaria from a case in which many of the joints were ulcerated in an unusual manner. A little below and behind the right parietal eminence is a circular ulcerated patch filled with caseating material. The patch closely resembles a gumma, and it was in connection with the subjacent roughened and bare bone. A similar but smaller and firmer mass is situated more anteriorly on the left parietal bone. The membranes are adherent to the inner table of the bone in the neighbourhood of both these patches. Microscopically each patch consists of a small-celled growth, inflammatory in character. There is much young connective tissue, some of which has undergone caseation. 1886

From a boy, aged 18, who was admitted with multiple periosteal abscesses and synovitis of both knees. He had previously been operated upon for the removal of dead bone from his tibiae. There was no history attainable of congenital or of acquired syphilis. The patient had suffered from disease of the bones for about eight years before his death. At the autopsy, all the joints which were examined were found to be diseased, each containing an excessive quantity of inspissated synovial fluid. The liver weighed 10lbs. 9 oz. Its surface was scarred, puckered, and contracted. Under the microscope it was found to have undergone almost typically the changes which result from amyloid degeneration; but without any increase of fibrous tissue. The spleen was enormously enlarged, weighing more than three

pounds. Microscopically it was blurred and indistinct, with a slight infiltration of amyloid material. The kidneys were large and pale; they presented the appearance of catarrhal nephritis with commencing amyloid degeneration in the glomeruli. In the posterior wall of the pharynx, immediately above the upper opening of the œsophagus, was a considerable amount of cicatricial tissue.

See *Male Surgical Register*, vol. v. (1886), No. 2691*.

312b. The Right Humerus from the same case as the preceding. The articular cartilage of the head is thinned in almost its whole extent, and is of a bluish colour. On the posterior aspect of the head, near the anatomical neck, is a deeply-cut groove, extending for an inch or more towards the centre, after which it turns towards the great tuberosity, and ramifies over the greater part of the posterior surface of the head. The posterior portion of the articular surface looks as if portions of cartilage had been gouged away, so as to leave irregular tracts with crescentic margins. Islands of cartilage here and there remain intact. At those parts where the cartilage is most deeply destroyed the ulceration has involved the bone, and it has undergone the same gouging process as the cartilage. Crossing the bone, and closely attached to it, is a thin membranous layer. When this is peeled off the bone is found to be rough and softer than usual. Microscopically this membrane is cellular, and is continuous with the synovial membrane. It fades gradually as it approaches the centre of the cartilage. The cartilage capsules are larger than usual, the cells are multiplying, and the matrix is fibrillating. The synovial membrane is more vascular, and is thicker than usual, but otherwise it appears to be normal. The shaft is thickened and misshapen by the deposit of porous new bone. The new bone is in parts tolerably firm, but in other parts is soft and crumbling. Beneath the periosteum in some parts are seen deposits of inspissated pus. The lower two-thirds of the shaft are more affected than the upper third. 1886

A section is preserved in Series lv., No. 26.

312c. The Head of the Left Humerus from the same case as the preceding specimens. The articular cartilage is thinned over a large extent of its surface, the thinning being less marked at the centre than towards the circumference. The thinner portions are of a bluish colour. At the lateral and posterior margins of the head, near the anatomical neck, are deeply excavated tracts. The lateral excavation commences at the margin of the head and extends forwards towards the centre of the articular surface. The base of the excavation is covered by a fibrillated membrane, which is continuous with the thickened synovial membrane of the joint. A process of the synovial membrane extends forwards and accurately fits into the excavated surface, though it is not adherent to it. The excavation on the posterior surface of the head is more irregular, and has exposed roughened bone. From the lower portion of this surface the excavation extends downwards for a short distance along the shaft into the substance of the bone itself. The synovial membrane is thickened and fringed as in cases of osteo-arthritis. 1886

312d. The Right Knee-Joint from the same case has undergone very much the same changes as those described in the preceding specimens. The synovial membrane is everywhere thickened and hyper-vascular. The patella is surrounded by a mass of fringes, some very pedunculated, others almost sessile; some large, and resembling masses of fat, others delicate and filamentous. The external condyle presents a deep groove which runs antero-posteriorly for about an inch and a quarter. The groove extends down to and involves, but does not expose, the bone, which is covered by a membrane similar to that which lines the "ulcerated" or grooved portions in the shoulder-joint. Towards the upper and anterior part the groove becomes shallower, and an island of cartilage remains intact. The cartilage on the upper part of the condyle is rough and fibrillated. On the upper part of the

internal condyle is a large nodular outgrowth of cartilage about an inch in length. On the most convex part of the same condyle is a small mass of fibrillated cartilage. With these exceptions the rest of the cartilage on this condyle is normal. The cartilage covering the patella is rough and fibrillated, whilst that crossing the upper extremity of the tibia is very slightly roughened. The ligaments of the joint are normal. 1886

Drawings are preserved in Series lvii., No. 29a.

- 315a. A Skull-Cap in which a large portion of the outer table of the Frontal Bone and of the whole thickness of the Parietal Bones has ulcerated. The bone is rough and tuberculated, presenting the features which are characteristic of advanced syphilitic disease. The sutures between the bones have disappeared. 1888

(In Case F.)

From a man, aged 25, who was probably congenitally affected with syphilis. He died of Bright's disease and œdema of the glottis. He does not appear to have been treated with mercury.

See *Male Surgical Register*, vol. i. (1886), No. 713.

- 322a. A Skull-Cap showing Syphilitic Ulceration of the same character as that seen in specimen No. 322. It affects the whole surface of the frontal bone, the posterior portion of the parietal bone, and extends along the sagittal suture. The disease commenced, apparently, by absorption around the minute blood-vessels, and affected the substance as well as the surface of the bone; the ulcerated surfaces were filled, in the recent state, with yellow gummatous material. The whole bone is thickened and heavy; and patches of vascularity, with slight ulceration upon the inner surface, correspond to the ulcerations on the external surface of the bone. 1881

(In Case F.)

From a man, aged 44 years, who died with syphilis. There were two ulcerated patches on the scalp, at the vertex, covered with scabs. The surface of the liver was puckered, and scarred by cicatrices.—See *Post-Mortem Book*, vol. viii., p. 241.

- 329a. A Tibia which has become thickened and bent as a result of Chronic Syphilitic Osteitis. The anterior portion of the shaft presents a rough oval node, which marks the situation of a long-standing ulcer. Below the node are several irregular thickenings of the bone. 1888

(In Case F.)

- 340a. A Calvaria showing a Node upon its Outer Surface. On the inner side of the right parietal bone is a bare patch, corresponding to which there was a dense local thickening of the dura mater, which appeared to be a partially degenerated gumma. 1885

(In Case F.)

From a woman, aged 46, the subject of visceral syphilis. See *Transactions of the Pathological Society*, vol. xxxv. (1884), p. 233. The intestines are preserved in Series xviii., No. 2007a.

- 340b. A Calvaria thickened and ulcerated as a result of long-standing Syphilis. 1885

(In Case F.)

- 347a. Radius and Ulna, with a deposit of newly-formed bone, resulting from Syphilitic Periostitis. 1884

- 350a. Part of the Skull of a child with Natiform Protuberances. 1884

(In Case F.)

For an account of the case, by Dr. Norman Moore, see the *Pathological Society's Transactions* for 1884, p. 282.

A photograph of the skull is preserved, Series lvii., No. 57a.

357a. A Calvaria which has undergone much ulceration. The outer table is ulcerated over its whole extent, and several pieces of dead bone have fallen away and lie at the bottom of the bottle. The inner table is also ulcerated, but not to so great an extent. The bone is so soft that it can easily be cut with a knife. 1885

M., æt. 42, who denied having had syphilis, and in whose body no evidence of the disease could be found after death. The scalp was entire, but for many months had felt puffy over an extensive area. When it was raised, a quantity of pus was found beneath it. The dura mater was entire, but there was a superficial abscess in the posterior part of the right cerebral hemisphere. The case was shown at the Pathological Society. See *Pathological Society's Transactions*, vol. xxxiv. (1883), p. 209.

360a. An Exostosis growing from the right cribriform plate of the ethmoid, close to the base of the crista galli. 1884

Presented by C. B. Lockwood, Esq.

370a. Section of an Osseous Tumour of an elongated shape; it was attached to the venter of the right ilium, and projected beneath Poupart's ligament, forming a rounded prominence in Scarpa's triangle. The tumour consists of a shell of osseous tissue, enclosing large spaces filled with soft, ill-developed connective tissue. It was removed by an operation from a man aged forty-six years, who had suffered from pain in the right knee and thigh for five months, and had noticed a swelling in the inner and upper part of the thigh for three months before his admission to the Hospital. He died of pyæmia. 1881

A cast of the groin is preserved, No. 6a.—See *Darker Ward Book*, vol. vii., p. 198.

370b. The other section of the same Tumour after maceration. 1881

375a. A flat Exostosis projecting from the inner surface of the Femur, near the Linea Aspera, at the junction of the lower and middle thirds. 1881

(In Case G.)

376a. A Large Exostosis removed from the shaft of the femur of a lad aged nineteen. It is composed of compact bone, surrounded by a thin layer of Cartilage, and had a very extensive base of attachment. 1883

385a. A Cancellous Exostosis, covered by a layer of cartilage, removed from the tarsal bones. 1882

400a. An Osteoma involving the entire right superior maxilla. A section of the growth is uniform throughout. 1881

The tumour showed under the microscope the ordinary structure of cancellous bone.

Removed from a boy, aged 11 years, who had observed a swelling of the right upper jaw for two years.—See *Darker Ward Book*, vol. vii., p. 292.

410a. A portion of a Scapula, showing a large Enchondroma growing from the central portion of the spine. The tumour measures four inches in length by two inches in height; it is pure white in colour and has a nodular glistening exterior, which appears to be definitely encapsuled. The upper portion of the tumour is undergoing degeneration, and has broken down in its centre into a cavity, which, in the fresh condition, was filled with a mucous fluid. Microscopically the tumour consists of cartilage which in parts contains bone. There are no sarcomatous elements. 1889

From a man, aged 31 years. Seven years previously he noticed a small growth on his shoulder, which two years later proved, upon removal, to be an osteo-chondroma. The present growth appeared a year before it was removed. It formed a hard inelastic mass of the size of an orange, situated in the infraspinous fossa. It was fixed to the subjacent tissues, but the skin over it was freely movable. The scapula was excised, the patient making a good recovery.

See *Male Surgical Register*, vol. iv. (1888), No. 802.

- 429a. Section of a large Enchondroma, four and a half inches long and three broad, removed from the anterior surface of the middle third of the femur of a lad. Externally the tumour is irregularly nodulated; the cut surface is of a bluish white colour, and scattered throughout the growth are small masses of calcareous material. 1884

ENCHONDROMA (CHONDRO-SARCOMA).

- 431a. One half of the lower end of a right Femur, to which there is attached a large lobulated Enchondroma. The tumour grows mainly from the inner side of the shaft, about two inches above the condyle, and appears to be periosteal in origin. The medullary cavity is not altered or encroached upon by the growth. The section of the tumour and its outer nodulated surface both present the usual pearly appearance of cartilage. The main artery runs in or among the lobules of the tumour. The sciatic nerve was entirely superficial to it. 1893

From a man, aged 31. Twelve years previous to the operation he struck his knee, since which time the tumour had slowly grown. He made a good recovery, but returned to the hospital two years subsequently with an extensive recurrence in the pelvic lymphatic glands. See *Male Surgical Register*, vol. ii. (1891), No. 366.

FATTY TUMOUR GROWING IN CONNECTION WITH BONE.

- 436a. A Large Irregular Fatty Tumour, weighing fifteen ounces, and measuring six inches by five. The growth is divided into several lobes, which are held together by a little areolar connective tissue, but it is only partially encapsuled. It is extremely firm, and consists of fat held together by trabeculae of dense fibrous tissue. Microscopical examination confirms the naked-eye appearances, for the sections show collections of fat-cells separated by thick bundles of connective tissue. There is no muscular fibre in the growth, nor does it appear to be undergoing any degenerative change. 1888

The tumour grew from the periosteum of the femur of a boy, aged nine years. It was attached by a firm broad base, which commenced just below the lesser trochanter, and extended downwards along the upper third of the left thigh on its outer aspect. Before removal the swelling was supposed to contain pus. It was probably congenital.

See *Male Surgical Register*, vol. ii. (1886), No. 3749*, and *Transactions of the Pathological Society*, vol. xxxix., p. 270.

- 437a. A Sarcomatous Growth involving the Skull and Dura Mater. 1885
F., æt. 60. Sarcoma of breast of two years' duration. See *Lucas Ward Book*, vol. ix., p. 48.

- 437b. A portion of the Calvaria of a child infiltrated with masses of a tough, reddish, Sarcomatous Growth. The masses are numerous, and give the exterior of the cranium a knobbed and pigmented appearance, whilst they project as large tumours into the cavity of the skull. 1886

From a boy, aged one and a half, who died in one of Dr. Gee's wards. The whole anterior part, and the greater portion of the base of the skull, was infiltrated with large masses of a tough, reddish, new growth, which was found, on microscopical examination, to be a round-celled sarcoma. Many other bones were infiltrated. The ten upper ribs on the left side, the nine lower ribs on the right, the whole pelvis, and both femora were infiltrated, and presented numerous sarcomatous bosses. All the lumbar and cervical glands, the right lobe of the liver, and the right suprarenal bodies contained masses of new growth. The case began with pain in the right hip in October. In December a swelling was noticed over the eye. This was rapidly succeeded by swellings on other parts of the skull. Both eyes were extremely depressed, and the corneae sloughed. The growth increased very fast, and the child died on March 3rd.

Cf. also Series xxviii., No. 2392b.

See *Transactions of the Pathological Society*, vol. xxxvi. (1885), pp. 393-395.

- 437c. Portion of the Middle Fossa of a Skull infiltrated with a Round-Celled Sarcoma, from the same patient as the preceding. A considerable mass of new growth is seen projecting upwards into the cranial cavity. 1886
- 437d. Two Ribs from the same case as the preceding, infiltrated with a Round-Celled Sarcoma. On both bones there are prominent bosses of new growth, which projected into the thoracic cavity. 1886
- 437e. The Fifth and Sixth Ribs of the left side, from a case of Sarcomatous Tumour following fracture. The ribs are invaded by a fungating mass, which extended into the thorax, depressing the diaphragm, encroaching upon the mediastinum, and pushing the heart bodily over to the right side. The ribs themselves are thickened, and show evident signs of a somewhat recent oblique fracture. Microscopical examination of the new growth shows that it is a round-celled sarcoma. 1887

From a boy, aged 13, who had been under treatment during the four months preceding his death for an injury to the left side of his chest, caused by a kick, followed, as was believed, by pleurisy with effusion. The boy's health had been perfect up to the date of his accident, and there was no family history of malignant disease.

See *St. Bartholomew's Hospital Reports*, vol. xxii. (1886), pp. 247-249.

Presented by J. E. Ranking, M.D.

- 438a. A portion of the Spinal Column, showing a mass of Sarcomatous Tissue. The growth arises from the laminae of the sixth, seventh, and eighth dorsal vertebrae, and extended outwards amongst the muscles of the back for about an inch and a half on the right side. It encroached upon the spinal canal to such an extent as to destroy the cord. Microscopically, the tumour was found to be a round-celled sarcoma. (Cf. 517a.) 1888

From a lighterman, aged 18, who was admitted to Victoria Park Hospital, for aortic valvular disease. Whilst he was in the Hospital he suddenly became paraplegic. He suffered some pain, which was at first localised to the chest, and the paralysis did not extend upwards. The paraplegia was diagnosed as being the effect of pressure upon the cord. An acute bed sore developed forty-eight hours after the attack of paraplegia. The total duration of the growth of the tumour appears to have been about six months. At the autopsy, the spinal cord, where it was invaded by the growth, was found to be very much softened. The membranes were unduly adherent to the bone and were a little thickened. On removing the thoracic organs, the growth was seen to have extended from the spine into the thorax.

See the *British Medical Journal*, vol. ii. (1887), p. 1380.

Presented by Vincent Harris, M.D.

- 441a. Sarcoma of Forearm, from a child, aged nine months. 1885

A drawing is preserved in Series lvii., No. 53a.

Presented by C. L. Lockwood, Esq.

- 441b. A section through the head and upper portion of a Humerus, to show an Endosteal Sarcoma growing in the surgical neck. The head, and to a less extent the upper portion of the shaft, are infiltrated by the growth, which extends outside the bone as an encapsuled tumour. The bone has been fractured, but the upper end of the medullary canal is closed. Microscopically, the new growth consists of cells, which are not larger than those of a lympho-sarcoma, and which are arranged in masses of irregular shape and size. The matrix is chiefly fibrous, though it is in parts hyaline. 1888

From a woman, aged 26, who was admitted to the Hospital with an obscure swelling of the shoulder, which she had noticed for two years.

See *Female Surgical Register*, vol. i. (1886), No. 899, and vol. i. (1887), No. 449.

- 441c. A portion of the right Os Innominatum, showing an extensive Sarcoma springing from the Iliac Fossa and also involving the outer surface of the bone. It

is periosteal in origin, and under the microscope is seen to be a round-celled sarcoma with much hyaline matrix. The growth involved the iliac veins and extended up in the lumen of the inferior vena cava for several inches. 1890

The vena cava is preserved in Series ix., No. 1606a, and a microscopical section in Series lv., No. 61.

See *Female Surgical Register*, vol. iii. (1888), No. 1900.

444a. A portion of the left Inferior Maxilla, extending from the symphysis to the angle, which was removed by operation on account of a large bony tumour occupying the greater part of the ramus. The tumour has been sawn through longitudinally, and the outer part is suspended above the inner and larger portion: the whole side of the jaw is expanded on the inner as well as on the outer side, and is hard to the touch: microscopical examination showed that it was a fibro-sarcoma. 1892

See *Male Surgical Register*, vol. v. (1890), No. 2740.

446a. A section of the Left Humerus, showing a Subperiosteal Sarcoma springing from the lower third of the shaft. The growth is well circumscribed and is very firm. It has caused considerable absorption of the posterior wall of the shaft, but as compensatory thickening of the bone has occurred, there is no weakening of the shaft. Microscopically, the growth is a mixed-celled sarcoma, in the substance of which much blood has been extravasated; some of the cells have degenerated into semi-caseous masses. 1888

From a man, aged 31 years, who had noticed the swelling for two years. A rapid increase in the size of the growth took place after a fall upon it, which occurred a year before the amputation was performed.

A microscopical section is preserved in Series lv., No. 37. The scapula from the same case is preserved in the next specimen.

See *Male Surgical Register*, vol. v. (1886), No. 696.

446b. Section through a Scapula, from which a large Sarcoma is growing. The tumour springs from the periosteum covering the infra-spinous fossa; it has infiltrated and destroyed almost the whole of the infra-spinatus muscle, and it surrounds the outer portion of the clavicle. 1888

From a man, aged 33, whose left humerus had been amputated at the shoulder twenty-seven months previously, on account of a sub-periosteal sarcoma growing in its lower third. There was no recurrence in the scar until three months before the scapula was removed. The patient made a good recovery.

See *Male Surgical Register*, vol. v. (1888), No. 1640. The humerus is preserved in Series i., No. 446a.

446c. A Section of a Humerus showing a Periosteal Sarcoma. The growth is pyriform in shape, and surrounds the upper two-thirds of the shaft. The whole diaphysis is infiltrated with the growth from the upper epiphysis to within an inch and a half of the lower epiphysis. The upper epiphysis forms a sharp line of demarcation, which limits the growth in its upward direction. 1888

446d. A Section through a Scapula infiltrated with a Sarcoma. The growth involves the subscapular and the upper part of the supra-spinous fossæ. It appears to have completely destroyed the bone as well as the neighbouring muscles. 1888

From a boy, aged 14, who had a periosteal sarcoma of the upper two-thirds of the left humerus, which he had noticed for three months. The arm was amputated at the shoulder-joint, but before the wound had healed the scapula became affected. The scapula and an inch of the clavicle were therefore removed, and the patient made a good recovery.

The humerus from the same patient is preserved in the preceding specimen, No. 446c. See *Male Surgical Register*, vol. v. (1888), No. 1019.

MYXO-SARCOMA OF THE HUMERUS.

446e. One Half of a Left Humerus which has been sawn through longitudinally in order to show the origin and extent of an Endosteal Sarcoma. The whole shaft, from immediately below the neck to within two inches of the lower extremity, is expanded by the malignant growth, and throughout the greater portion of the bone the compact tissue is thickened. At a point rather below the middle of the shaft, the growth has thinned and expanded the shell of the bone, causing two oval lobulated masses on the anterior surface. The tumour substance is of a jelly-like consistence, and now fills the interior of the bone: when fresh it was of a bright red colour with darker patches here and there. Microscopical examination showed it to be a myxo-sarcoma undergoing chondrification. 1893

The patient was a lady, about 40 years of age, who had noticed a swelling in her arm for rather more than six months. Amputation at the shoulder-joint was performed, from which she made a good recovery.

A drawing of the bone, when fresh, is preserved in Series lvii., No. 46, and Microscopical Sections in Series lv., No. 37b.

Presented by Howard Marsh, Esq.

SARCOMA OF THE HUMERUS.

447a. The Right Arm, consisting of the upper and lower ends of the Humerus, in which an extensive spindle-celled sarcoma has entirely replaced both the shaft of the bone and the greater part of the muscles. The arm was removed by amputation at the shoulder-joint for sarcoma, which had caused a spontaneous fracture. When the limb was examined it was found that the whole of the bone, with the exception of its two articular surfaces covered with cartilage, had disappeared, and that the soft fibrous mass now seen had replaced it. Under the microscope this is seen to be a spindle-celled sarcoma. 1891

The arm was removed from the same case as that from which the bones in Specimen 759a (to which refer) were subsequently obtained.

Microscopical sections are preserved in Series lv., No. 37a.

Presented by John Langton, Esq.

449a. Section of the Lower End of a Femur in which there is a Sub-Periosteal Sarcoma. The new growth has commenced over the internal condyle, and has spread into the cancellous tissue of the epiphysis. 1882

From a girl, aged 22, in whose knee a swelling had been noticed about a year. A microscopic examination showed that the tumour consisted of round and oval cells in a fibrillated matrix.

FIBRO-SARCOMA OF THE ULNA INVADING THE SKIN.

451a. A Section through the Right Elbow-Joint, showing a Fibro-Sarcoma springing from the Olecranon, which has invaded the skin and forms an extensive fungating mass at the elbow. This large outgrowth, which involved more than half of the circumference of the limb, has the appearance of a rapidly-growing epithelioma, and having occurred in an old scar caused by a burn many years previously, it was thought to be of that nature until it had been examined microscopically, when its true character was determined. From the fact that the tumour, though attached to and involving the ulna, has not caused any distension or enlargement of the bone, it is probably periosteal in origin. 1891

See *Male Surgical Register*, vol. v. (1890), No. 1931.

Microscopical sections showed the tumour to consist of spindle and oval cells.

453a. A large Sarcoma involving the Lower End of the left Femur. A longitudinal section has been made, and shows that the growth has involved the lower end of the bone so extensively that the condyles and the neighbouring parts can no longer be traced. The shaft of the femur ends abruptly in a dark-coloured mass, which consists largely of irregular cysts. When fresh, the material in these cysts was soft and deeply blood-stained. The mass has grown mostly towards the

popliteal space, but it also extends in front of the original outline of the bone, and into the medullary cavity itself. The articular cartilage can still be identified, and the knee-joint does not seem to be directly involved. Under the microscope sections showed the growth to be a typical myeloid sarcoma. 1892

From a middle-aged woman, who also suffered from a goitre. She died the evening of the day on which the amputation was performed.

The goitre is preserved in Series xxvi., No. 2314h, and a cast of the limb in Series lvi., No. 11a.

See also *Female Surgical Register*, vol. v. (1889), No. 958.

454a. A Section of the Right Foot, showing a Sarcoma springing from beneath the periosteum of the bones of the tarsus. The growth is large, and, as usual, not circumscribed; it extends through the deeper tissues of the foot, and has involved the skin of the sole, where it presents as a fungating mass. Microscopically it is a spindle and oval-celled sarcoma, with a hyaline matrix and many hæmorrhages. 1886

F., æt. 42. The swelling was first noticed seven months before amputation was performed.

See *Female Surgical Register*, vol. iv. (1866), No. 61.

470a. One Half of the Upper End of a Right Tibia, which has been sawn through longitudinally. Growing from the interior of the bone and expanding it externally is a large mass of new growth; in the deeper parts it has a fine spongy appearance, which was blood-stained when fresh, but is now only faintly mottled: more externally it is homogeneous in character. The outer layers of the bone are much thinned and expanded on the external surface, where it could be cut with a knife, and from which portions of the bone have been removed. On the cut surface of the interior there is a sharp line of demarcation between the growth and the bone. The articular cartilage, though much thinned over the outer facet, has not given way, and the joint was not affected. Under the microscope the tumour proved to be a myeloid sarcoma with some hyaloid degeneration of a few of the myeloid cells. 1892

The patient was a gentleman, aged 50, who two months before the operation had knocked his knee. A swelling shortly appeared, over which "egg-shell crackling" was detected; amputation was then performed; eighteen months after the operation he was in good health.

Microscopical sections are preserved in Series lv., No. 39.

Presented by Thomas Smith, Esq.

OSTEO-SARCOMA OF HUMERUS.

474a. The greater portion of a very large Osteo-Sarcoma which grew from the upper and inner part of the Right Humerus. The bone and tumour have been sawn through longitudinally, and the cut surface shows that the growth is of varying consistency; in places it is of bony hardness, but is soft and breaking down elsewhere. The greater part of the shaft is actually involved, though the outline of the anterior surface can be traced throughout; towards the upper and inner part is a well-defined hemispherical mass; this had existed for many years, and is excessively hard. Higher up and towards the axilla are a number of enlarged lymphatic glands, infected by and adherent to the primary growth. 1893

The patient was a man, aged 49. The tumour had existed for eight years, but had increased rapidly during the last year. It was removed by amputation at the shoulder-joint, and a good recovery followed. The limb, with the tumour, weighed thirty-three lbs.

A drawing of the patient is preserved in Series lvii., No. 44, and a photograph in No. 45. Microscopical sections of the tumour are preserved in Series lv., No. 60a.

See also *Male Surgical Register*, vol. iv. (1892), No. 1408.

475a. A portion of the shaft of a Femur excavated by the growth of an Endosteal Sarcoma. The femur is hollowed out into a conical cavity, filled by the firm tapering mass of new growth. At its upper part the bone has been sawn across

at a point immediately below the great trochanter, whilst the lower portion has sustained an irregular transverse fracture. The medullary canal is closed by a deposit of sclerosed bone, except at its centre, where the new growth has caused absorption. At one spot the shaft of the femur is thickened so as to form an oval swelling. Microscopically the new growth is a fibro-sarcoma, which is in places undergoing calcification. No myeloid cells were found. 1886

The patient, a gentleman, aged 28, had suffered pain in his right thigh for four months. On examination a tumour was discovered in the long axis of the femur. Shortly afterwards, whilst turning in bed, the femur broke. Amputation was performed, and the patient made a good recovery.

Sections of the growth are preserved in Series lv., No. 42.

Drawings of the tumour as it appeared before and after removal are preserved in Series lvii., No. 49.

See also *Transactions of the Pathological Society*, vol. xxxvii., p. 377, and plate xiv., figs. 2, 3, 4.

Presented by J. Langton, Esq.

475b. A Section of the Head and Upper Portion of the shaft of the Femur. The medullary cavity of the shaft and neck nearly up to the epiphysis is infiltrated by a new growth. At the lowest part of the femur the growth has extended beyond the bony wall, invading the surrounding muscle and connective tissue, and in parts has ulcerated, so as to leave an irregular cavity. Microscopically the growth is a spindle-celled sarcoma. 1887

From the same case as the preceding (No. 475a). Disarticulation of the head of the femur was performed seventeen months after the amputation in the middle third of the thigh. A microscopic specimen is preserved in Series lv., No. 43.

See also *Transactions of the Pathological Society*, vol. xxxviii., p. 288.

Presented by J. Langton, Esq.

477a. A Longitudinal Section of the lower two-thirds of the Femur, showing the changes which have resulted from the growth of a Spindle-Celled Sarcoma around its lower part. Immediately above the condyles is a considerable quantity of new bone, which has been deposited in the form of spiculæ, whilst in other parts the bone is eroded by the pressure of the tumour. The growth, which extended round the whole circumference of the femur, was of an elongated oval form, and was in parts pulsating. 1886

(In Case G.)

M., æt. 40. The patient had noticed a swelling on the inner side of his left knee-joint for seven years. It was painless during the first two years, but subsequently became painful, the pain increasing in severity until the limb was removed. The other half of the femur, with the tumour, is preserved in Series i., No. 477b.

See *Male Surgical Register*, vol. iv. (1886), No. 1368.

477b. A longitudinal section of the Lower Two-thirds of a Femur, to which a large Periosteal Sarcoma is attached. The sarcoma measures four and a half inches in breadth, and was supported by a mesh-work of bony spicules, as is seen in the opposite half of the femur, which has been macerated (No. 477a). The growth extended round the whole circumference of the femur, and was in parts pulsating. The popliteal vessels ran over the back of the tumour. Microscopical examination showed that the growth was a spindle-celled sarcoma. 1889

From a man, aged 40, who had noticed a swelling on the inner side of his left knee-joint for seven years. It was painless during the first two years, but subsequently became painful, the pain increasing in severity until the limb was removed. The opposite half of the femur has been macerated, and is preserved in the preceding specimen, Series i., No. 477a.

See *Male Surgical Register*, vol. iv. (1886), No. 1368.

480a. A Section through the lower half of the Femur, showing a large Ossifying Sarcoma. The tumour consists almost entirely of a solid, uniform, and very dense osseous substance, which completely surrounds the lower third of the shaft of the

bone. It appears to have commenced at the junction of the diaphysis with the lower epiphysis, and to be subperiosteal in origin. The medullary canal is completely obliterated. 1889

From a girl, aged 13 years, who was at the Bluecoat School, Hertford. Eleven months before her death she noticed a slight pain and stiffness in the left knee after a long walk. Three months later the knee became swollen, and shortly afterwards an enlarged and densely hard gland made its appearance in her groin. The thigh was amputated in its middle third, and a month later the enlarged gland was removed. A mass of new growth was shortly afterwards detected in the pelvis, and a month before her death there were symptoms of secondary deposit in the lungs.

See *Female Surgical Register*, vol. i. (1888), No. 978.

The lung is preserved in Series xi., No. 1728b, and a drawing of it in Series lvii., No. 273.

A microscopical section of the new growth in the knee is preserved in Series lv., No. 60, and a section of the secondary deposit in the lung in Series lv., No. 176.

See also *Transactions of the Pathological Society*, vol. xl., p. 293.

480b. A Section through the Left Os Innominatum and Femur, from the same case as the preceding. Amputation through the thigh had been performed three months and a half previously. A large mass of ossified sarcomatous tissue is seen to occupy the iliac fossa. The shaft of the femur is extremely thin, whilst the medulla is infiltrated with a caseous material. The bones of the pelvis were so much softened that they could be cut with a knife. 1889

480c. A Section of a Lymphatic Gland, removed from the Groin of the Patient from whom the two preceding specimens were obtained. It is infiltrated with an ossifying sarcoma to such an extent that it appears to be a mass of bone. It was so firmly attached to the femoral vessels that a portion of the femoral vein had to be removed with it, and is still seen on its posterior surface. 1889

480d. A Section through a Rib, showing an infiltration of Ossifying Sarcoma at the junction of the shaft with the costal cartilage. The bone is destroyed to a much greater extent than the cartilage, and the new growth has clearly developed from the periosteum. 1889

480e. Section through a Clavicle, showing an infiltration of the sternal end with an Ossifying Sarcoma. The growth springs from the periosteum, but it has also extended for some distance along the medulla. 1889

From the same patient as the five preceding specimens.

480f. Section of the Upper Portion of a Tibia, surrounded by an Ossifying Sarcoma which grew from the periosteum. The bone has been macerated to show the method in which the ossification has taken place. The bony particles form a number of laminae, set at right angles to the axis of the bone, and extending for a distance of three-quarters of an inch from the shaft. Microscopically the tumour is a round-celled sarcoma. 1889

From a boy, aged 11 years, who was admitted into the Chichester Infirmary complaining of deep-seated pain in his tibia, which had existed for a period of six months.

Presented by T. Valentine, Esq.

480g. A Section of the opposite Half of the preceding Tibia. It has not been macerated, and the bony laminae are therefore not so well seen. 1889

481a. A Section through the Lower Half of a Femur, to show the manner in which its condylar portion has been invaded by a new growth, which is apparently sarcomatous in character. The tumour extends over the outer and external portions of the femur for a distance of four inches from the condyles. It projects for two inches beyond the outer limit of the femur, and of this projection one inch nearest to the bone is calcified, whilst the inch immediately beneath the periosteum is a soft tissue, which readily breaks down. The growth infiltrates the cancellous

tissue in its whole extent, and it is just entering upon the lower epiphysis at the external condyle; it is subperiosteal in origin. Microscopically, it is a sarcoma, the fibrous stroma containing numerous small round and oval connective tissue cells. The anterior surface of the inferior portion of the shaft of the bone carries a large craggy exostosis, measuring three and a half inches in length by an inch in breadth at its broadest part. 1888

From a boy, aged 17, whose knee became hot and painful three months before amputation was performed. There was no history of injury. The leg presented an abruptly defined enlargement of the lower end of the femur, which was warmer than the surrounding tissues, and which gave a doubtful feeling of fluctuation at one spot on its outer side. After amputation of the limb the patient made an excellent recovery.

See *Male Surgical Register*, vol. iii. (1887), No. 1310.

482a. The Left Half of the Inferior Maxilla, greatly expanded by the growth of a calcifying Fibro-Sarcoma, which, originating from the endosteum, expanded the bone in all its diameters to a considerable extent. The surface of the section is fibrous, with a number of small granular points where the lime salts have been deposited. 1886

From a lady, aged 35, in whom the tumour had been growing for six years. Microscopic examination showed that it chiefly consisted of fibrous tissue, in the meshes of which were sarcomatous cells. The growth was in parts undergoing calcification.

Presented by Sir William Savory, Bart., F.R.S.

510a. A Section of the Left Humerus, removed after death from a woman, aged forty-eight. The humerus is the seat of a secondary deposit of scirrhus carcinoma, which involves its middle third. As a result of the scirrhus infiltration, a fracture occurred through the middle of the shaft about twelve months before death. Firm fibrous union, however, has taken place along the line marked out in the specimen by black bristles, and although the position is very bad, yet a fairly useful arm resulted. 1888

From a woman who had for eight years been the subject of a scirrhus cancer of the right breast. She had always declined operative interference, and the axillary glands became affected, so that at the time of her death the whole axilla and the breast formed a large ulcerating mass. The patient was bedridden during the last eighteen months of her life, and whilst in this condition a swelling commenced at the centre of the left humerus, and the bone broke spontaneously. The arm was never painful, however, and did not even give rise to any discomfort. Two months after the fracture firm union had taken place, and the patient was able to use the arm as well as her right. No other long bone was in any way bent or softened. During life she had symptoms of secondary deposits in the liver and brain, but no post-mortem examination of these organs was made.

Presented by E. G. Colville, Esq.

COLLOID CARCINOMA OF STERNUM.

510b. The Right Half of the Upper End of a Sternum from which there grows a semi-globular tumour, measuring nearly four inches in diameter; the cut surface shows that the whole thickness of the bone is uniformly involved; to the naked eye it consists of bands of fibrous tissue, interspersed with masses of colloid material. It projects mostly in an outward direction, but there is slight bulging of the inner surface of the bone; the skin is stretched and excoriated at one spot. It is probably secondary in origin, but the primary disease was not determined. 1893

Microscopical sections are preserved in Series lv., No. 69a.

517a. Vertebrae infiltrated with a small round-celled Sarcoma. 1884

A section is preserved, Series lv., No. 33.

For details of the case see *Mary Ward Book* for 1884, under the name M. A. Clark, and a paper by Dr. H. L. Jones, in the *St. Bartholomew's Hospital Reports* for 1884, vol. xx., p. 225.

MULTILOCULAR CYSTIC EPITHELIOMA OF THE LOWER JAW.

535a. A Portion of the Left Half of an Inferior Maxilla removed by operation. The whole of the body and the greater part of the ramus is occupied by a new growth, which appears to have originated in the substance of the bone itself. The two bicuspid teeth are firmly fixed in their normal position; the first and second molars are absent, but the wisdom-tooth is thrust upwards by the growth, so that it now occupies the base of the expanded coronoid process. The body of the jaw is distended by a tumour, which has thinned and destroyed the compact bone. The growth protrudes both externally and internally, and in the former position has infiltrated the masseter muscle. The section of the body of the jaw shows that the tumour extends as far forward as the canine tooth. The growth is soft and friable, in parts cystic, with its anterior portion definitely encapsuled. In the recent state these cysts contained a brownish blood-stained fluid. Microscopical examination shows that the tumour is a cystic epithelioma. The bone is infiltrated with masses of epithelial cells, which are breaking down in their centre so as to form cavities. The stroma consists of connective tissue. 1887

The patient, a married woman, aged 29, had been admitted five years previously on account of a tumour which had grown for seven and a half years on the site of a left lower molar tooth. The tumour was removed by cutting away an outer shell of bone and subsequently gouging out the growth. On re-admission to the Hospital, the left side of the inferior maxilla was found to be very much swollen immediately above the scar resulting from the previous operation. The swelling extended on to the alveolar border of the jaw in such a manner that when the jaws were closed the growth covered the outer aspect of the upper molar teeth, whilst it extended for more than an inch and a half on the inner side of the jaw towards the middle line. The growth was ulcerating at the time when the excision was performed. After the operation the patient made a good recovery.

Sections are preserved in Series lv., No. 70.

See *Transactions of the Pathological Society*, vol. xxxviii., p. 359, and *Female Surgical Register*, vol. iii. (1886), No. 423.

535b. The greater part of the Right Side of the Inferior Maxilla, removed by operation on account of a large tumour which occupies the posterior portion of the body, and extends upwards into the ramus as far as the sigmoid notch. The bone was sawn through just behind the mental foramen, and disarticulated from the temporal bone; its interior is greatly expanded by the growth, a thin shell of bone only remaining on the outer side, while on the inner side the bony covering has been broken away. The interior of the expanded bone was occupied by soft and pulpy material, which gave way during the operation. 1893

The patient was a man, aged 28, who had noticed a swelling in the jaw for two and a half years. He made a good recovery, and left the hospital eighteen days after the operation.

Microscopical examination showed that the growth consisted of masses of epithelium, infiltrating the bone and breaking down to form cysts; there were no "cell nests."

See *Male Surgical Register*, vol. iv. (1891), No. 1514.

539a. A Dentigerous Cyst. A part only of the cyst-wall has been preserved; but attached to its inner surface may be seen a permanent central incisor. A portion of the bone and of the cyst-wall attached to it is suspended in the upper part of the bottle. 1884

From a boy, aged eight years.

541a. The Left Lower Jaw of an Ox, showing extensive disease, caused by *Actinomyces Bovis*. The specimen has been macerated and presents a very reticulated appearance. The general outline of the bone is much enlarged, and considerable cavities exist where the bony matter has been eaten away. The greater part of the internal alveolus has been entirely destroyed. The diseased part is confined to the region of the molar teeth, the sockets of which, as well as the fangs

of the teeth themselves, are much eroded (see next specimen). During life the skin over the outer side of the growth had become involved, giving rise to a large fungating ulcer. 1890

541b. One of the Molar Teeth from the preceding specimen, showing the erosion of the fangs and thickening of the cement. The parts covered by enamel are not affected, but the dentine is much thickened in places. 1890

541c. The Left Lower Jaw of an Ox affected with Actinomycosis. The specimen has been partially macerated, so as to remove the muscles, and is preserved in spirit. A section has been made through a large swelling on the outer side, exposing the fangs of many of the teeth. Around these, and also infiltrating the neighbouring bone, is a new growth, which has a uniform finely granular and caseous appearance. Opening on the buccal mucous membrane on the inner side are two sinuses, the larger of which is ragged and fungating in character. In this, and in specimen No. 541a, the disease is limited to that part of the bone where the molar teeth are situated. 1890

This specimen, together with specimens 541 a and b, were obtained from one of the large slaughter-houses at Berlin, where oxen affected with this disease are not uncommon, especially during the summer months.

They were presented by A. A. Kanthack, M.D.

549a. A Calvaria showing partial Perforations of the Skull in a case of Cerebral Tumour. In the right frontal region is seen the upper part of a large opening, which is somewhat square in shape. The greater part of this opening was made in the course of a surgical operation, but there existed beforehand a complete though small perforation in this situation, which was caused by the growth of a cerebral tumour. In the rest of the skull-cap are many holes, about thirty in number, rounded in shape, and varying in size from that of a large pin-head to a quarter of an inch in diameter. The edges of the apertures are clean-cut and are not thickened; in many cases they extend through the inner table, and sometimes almost through the outer table, so that their base is only covered by an extremely thin layer of bone. The holes are scattered over the frontal and parietal bones, the largest being on the left side. There is some general thickening of the skull at the upper part of the parietal bones and in the neighbourhood of the large perforation. The bone between the holes is remarkably roughened, the inner table being studded with little eminences, which have sharp and almost thorny apices. 1888

From a police-constable, aged 30, who had suffered from severe frontal headache, chiefly on the right side, for six months, with vomiting and loss of memory. He had bladder trouble for six weeks, and some paresis of the legs for twelve months. On admission he had double optic neuritis, and was drowsy. The sleepiness increased from 25th September, 1886, until April, 1887, when he was quite comatose, a condition which continued until his death in November of the same year. At the autopsy it was found that the perforations in the skull corresponded to small outgrowths from the brain, which had sprouted through the dura mater. Microscopically, these growths were sarcomata.

The dura mater is preserved in Series xxx., 2468b.

See *Mark Ward Book* for 1887, and *Transactions of the Pathological Society*, vol. xxxix., p. 1.

554a. Lower Jaw of a Man, presenting an Osseous Tumour on its right half. The tumour has grown from the interior of the ramus, immediately above the mental foramen. Its upper surface is indented apparently by the action of the teeth in the upper jaw. 1885

(In Case G.)

Presented by G. F. Aldous, Esq.

SERIES II.

DISEASES OF JOINTS.

- 564a. A Section of the Head and Neck of the Right Femur, from a case of Hip-Joint Disease in an early stage. The cartilage of the head of the femur and of the acetabulum has been in great part removed. The head of the bone is softened, but is not at all destroyed or altered in shape. 1888

From a boy, aged 11, who had symptoms of hip-joint disease for eleven months before his death. The disease appeared to have commenced in the synovial membrane.

See *Male Surgical Register*, vol. ii. (1886), No. 3613*.

- 567a. Syphilitic Disease of the Knee-Joint. A gummatous deposit has taken place all round the lower portion of the femur beneath the muscles. These deposits have involved the upper and outer part of the synovial membrane, and have projected into the joint in the form of ragged ulcerated lumps and fringes. The lower portion of the femur is denuded of its periosteum. A glass rod has been passed behind the gummatous growth into the joint. The joint when it was first opened contained several masses of dark grumous material. 1886

From a man, aged 24, who contracted syphilis three years before his death. Gummata were found in the brain and on the face.

See *Male Surgical Register*, vol. i. (1884), No. 2001, and *Surgical Post-Mortem Book for 1884*, p. 76.

ACUTE SUPPURATIVE ARTHRITIS.

- 567b. The Right Knee-Joint in a condition of Acute Suppurative Arthritis. The ligaments of the joint are almost entirely destroyed. The cartilage covering the inner facet on the head of the tibia is eroded, and that covering the outer facet is inflamed but not eroded. There is roughening of the edge of the outer condyle of the femur both anteriorly and posteriorly. The whole of the synovial membrane is thickened and vascular. 1888

From a patient, aged 36, who had a miscarriage ten weeks before amputation of the limb. A week after the abortion, swelling of the right knee-joint, and subsequently septicæmia, set in, with thrombosis of the iliac vein. The patient died a week after the amputation had been performed.

See *Female Surgical Register*, vol. iii. (1884), No. 2226.

- 569a. A Portion of the Forearm and Hand, prepared to show the great destruction of synovial membrane which has taken place as a result of Necrosis of the Carpus. The synovial membrane of the carpal articulation has everywhere undergone pulpy degeneration. The bones of both the proximal and distal rows of the carpus are as bare and denuded of cartilage as if they had undergone maceration. 1886

From a man, aged 58, who had injured his index-finger two months previously.

See *Male Surgical Register*, vol. ii. (1885), No. 376.

- 569b. A Knee-Joint exhibiting well-marked Pulpy Degeneration of the synovial membrane. The cartilages of both the femur and patella are ulcerated. Microscopically the thickened synovial membrane contained abundant deposits of miliary tubercle, though no tubercle bacilli could be detected. 1887

From a lady, aged 67, who experienced, on October 10th, a sudden attack of pain in the knee, followed by an effusion which, on account of the subsequent ecchymosis over the joint, was supposed to have been of blood. The symptoms of chronic arthritis subsequently set in, and the limb was removed on March 10th in the following year. Two months before amputation the joint was tapped, and clear synovial fluid was removed. During the whole period of the joint-disease the patient got up daily, and absolutely refused to wear any splint.

A drawing of the joint as it appeared immediately after removal is preserved in Series lvii., No. 75.

See *Transactions of the Pathological Society*, vol. xxxviii., p. 314.

Presented by Thomas Smith, Esq.

569c. A Knee-Joint exhibiting typical Tubercular Synovitis (Pulpy Degeneration). Nearly the whole of the articular surfaces are overgrown by the thickened synovial membrane. The articular cartilages everywhere appear healthy, and no morbid change is visible in the bones. 1888

From a man, aged 34, whose left knee became swollen and painful two years before the amputation was performed.

See *Male Surgical Register*, vol. iii. (1887), No. 631.

570a. The Left Hip-Joint, showing the changes which occur at an early period of Tubercular Arthritis. The cartilage covering the head of the femur is eroded on its anterior surface close to the neck. The ligaments are softened and the synovial membrane is slightly thickened, but it was not hyperæmic. 1888

From a woman, aged 33, who died of exhaustion consequent upon necrosis of the sacrum. At the time of her admission to the Hospital there was considerable thickening of the tissues about the great trochanter. The movements of the hip-joint were good, except that external and internal rotation were limited.

See *Female Surgical Register*, vol. iv. (1885), No. 1762.

570b. The Right Haunch-Bone with a portion of the Femur, from a case of Hip-Joint Disease. The capsule has been divided, and the cartilage is undergoing ulceration, and can readily be separated from the subjacent inflamed bone. The ligamentum teres has entirely disappeared and the synovial membrane is pulpy. The head of the femur is greatly altered in shape, but it is not necrosed, and was not dislocated during life. 1889

Presented by James Berry, Esq.

SENILE TUBERCULOSIS.

570c. The Left Hip-Joint, laid open from the front, and showing, as the result of prolonged suppuration, complete destruction of the Head and of a considerable portion of the Neck of the Femur. The cartilage round the margin of the acetabulum is eroded, and there is a perforation at the deepest part of the socket, through which pus had tracked into the pelvis. 1892

The patient was a woman, aged 53, who had suffered from pain in the left hip for nine months previous to her admission into the Hospital. She then had all the signs of acute hip-disease. The joint was incised and pus evacuated. Her general health rapidly became worse, and she died three months later from exhaustion. The post-mortem examination showed that both lungs, both adrenals, the right kidney, and several abdominal lymphatic glands were the seat of advanced tuberculosis.

The lymphatic glands are preserved in Series xxiv., No. 2284a.

See *Female Surgical Register*, vol. iv. (1890), No. 143.

576a. A portion of the Left Tibia from a case of acute inflammation occurring after the removal of a Myeloid Sarcoma. The synovial membrane is thickened and pulpy, being covered with shreds of flaky coagulated lymph. In the head of the tibia is a large cavity communicating with the exterior by an extensive aperture. The roof of this cavity is formed by the internal semilunar cartilage covered by a thin shell of necrosed bone. In the cartilage is an opening as large as a sixpence, which brings the cavity into direct connection with the knee-joint. 1886

From a man, aged 25, who was kicked on the knee by a horse five years previously; three years after the injury a tumour as large as an orange was noticed in the head of the tibia; four years after the injury the tibia was fractured just below the tumour. The tumour on examination was found to be a myeloid sarcoma expanding the head of the tibia over it. The thigh was amputated three weeks after the removal of the sarcoma. The cartilage of the internal femoral condyle was then found to be ulcerating, the bone being eroded. A hole as large as a shilling existed in the upper reflexion of the synovial membrane, forming the communication between the knee-joint and an abscess on the outer side and lower part of the thigh.

See *Male Surgical Register*, vol. iv. (1884), No. 1788.

STRUMOUS DISEASE.

- 579a. Section of a Knee-Joint, injected, affected with Strumous Disease. The synovial membrane is unnaturally vascular, its inner surface was covered with shreds of lymph, and its cavity was distended with fluid. The cartilage covering the condyles of the femur is easily separated from the bone, and traces of erosion are observable, both superficial, and extending from the deeper surface of the cartilage externally. The bones are injected. 1881

From a child, whose limb was amputated at the hip, for disease of that joint.

- 591a. An Astragalus. The cartilage upon the superior articular surface is penetrated by several apertures produced by ulceration. From some of these apertures, fistulous passages pass into the bone, which is carious around them. Portions of glass rod are inserted into the carious channels. 1881

From a patient whose foot was amputated for disease of the ankle-joint.

- 596a. The Head of the Right Humerus, removed by the operation of Excision. The cartilage over the whole articular surface is ulcerated, and at one spot there is a deep carious hole in the bone. The ligaments were completely softened. 1888

From an unmarried woman, aged 30, who had observed some stiffness of the right shoulder-joint for ten years. For two years she had a sinus on the outer side of her right arm.

See *Female Surgical Register*, vol. i. (1887), No. 2315.

- 621a. The Upper Third of the Right Femur from a case of Hip-Joint Disease, apparently commencing as an inflammation of the epiphysis. The shaft is atrophied, and measures less than half an inch in diameter. The cartilage covering the head of the bone is almost entirely worn away, the bone itself being carious upon its upper and anterior surfaces. There is a small cavity in the head, situated upon its anterior surface at the line of junction with the epiphysis. 1887

Removed by Furneaux Jordan's amputation from a boy, aged eight years, who had hip-joint disease with diffuse suppuration of the thigh. The duration of the disease was eighteen months.

See *Male Surgical Register*, vol. i. (1886), No. 3410*.

- 621b. The Left Femur from a case of Hip-Disease. The head of the bone is ulcerated in parts, and the cartilage covering it has been completely destroyed. The epiphysis is almost separated and has undergone a process of rarefying osteitis. A series of abscesses have eroded the posterior aspect of the upper half of the bone. 1888

From a girl, aged three years, who died of broncho-pneumonia the day after her admission to the Hospital, and before any notes of her case had been taken. At the autopsy the cartilage of the acetabulum was found to be slightly ulcerated.

See *Surgical Post-Mortem Book* for 1887, p. 156.

ACUTE EPIPHYSITIS.

- 621c. The Upper Two-thirds of the Right Tibia and Fibula, from a case of Acute Epiphysitis. The upper epiphysis of the tibia is completely separated from the shaft of the bone. The shaft is dead, and is undergoing a process of rarefying osteitis for a distance of two inches below the epiphysial line. The epiphysis is also dying, but the necrosis has not as yet extended to the articular cartilage. In

the recent state a quantity of thick greenish lymph occupied the intermuscular planes in the neighbourhood of the diseased bone. In one place, situated immediately behind the attachment of the internal crucial ligament, a probe has been passed along a sinus by which the suppurating track communicates with the knee-joint. The joint is unaffected, but a thin layer of coagulated lymph covered the whole of the edges of the articular surfaces. The posterior tibial artery lay in an abscess cavity, and its walls were almost completely ulcerated through for nearly an inch and a half. 1889

From a boy, aged 13, who stated that he had been struck on the back of his right leg six days before his admission to the Hospital. On the day after the injury he had severe pain in the knee. On admission to the Hospital, he was found to have a swollen and red knee-joint, which was very tender. The leg was amputated twenty-three days after the admission of the patient, on account of recurrent hæmorrhage from an incision which had been made into it.

Drawings of the specimen as it appeared when fresh are preserved in Series lvii., No. 64.

See *Male Surgical Register*, vol. i. (1888), No. 3180.

- 624a. A number of small Pieces of Necrosed Bone discharged per Urethram by a patient who had disease of his Hip-Joint. The greater number of the fragments are rough and nodulated on one side, smooth on the other. In some cases the smooth surface is spherical, as if it might have formed a portion of the head of the femur. 1886

From a young gentleman, aged 10, who, after an injury at football, was confined to his bed for ten months with symptoms of acute disease of the right hip-joint. During this period a number of pieces of bone ulcerated through the skin over the joint, and the pieces here preserved were discharged by the urethra. Eight years subsequently he became a patient in Pitcairn Ward.

See *Male Surgical Register*, vol. iii. (1886), No. 387.

Presented by Dr. H. N. Evans.

- 624b. Fourteen small Fragments of Bone, which were removed on three separate occasions from the Bladder. The total weight of the fragments is 0.28 grammes. 1888

From a man, aged 27, who had a phosphatic stone in his bladder, which had formed round fragments of bone. The bone had obtained access to the bladder from the hip-joint by a fistulous passage, the result of long-standing hip-disease, connecting the acetabulum with the bladder. The fragments of bone were removed by lithotripsy.

The bladder is preserved in the following specimen.

See *Male Surgical Register*, vol. v. (1887), Nos. 1481 and 3674.

- 624c. The Right Hip-Joint, with the Bladder and Right Kidney, from a patient who had a sinus extending from the acetabulum into the bladder. The head and neck of the femur have completely disappeared, as the result of long-standing disease of the hip. A fistulous track (through which a piece of catheter has been passed) traverses the base of the acetabulum, and communicates by a large aperture with the right side of the thickened and inflamed bladder. The right ureter is greatly dilated and thickened at its upper part; it opens into the bladder after passing for some distance through the dense fibrous tissue which renders the side of the bladder adherent to the inner wall of the pelvis. The kidney is in an advanced condition of pyonephrosis, but has retained its normal size. During life fragments of bone passed through the fistula into the bladder, where they became encrusted with phosphates, giving rise to calculi, which were removed by the operation of lithotripsy. 1889

From a man, aged 27, who had a phosphatic stone in his bladder, which had formed round fragments of bone. The bone had obtained access to the bladder from the hip-joint by a fistulous passage, the result of long-standing hip disease, connecting the acetabulum with the bladder. The fragments of the bone were removed by lithotripsy.

The fragments of bone and calculous substance are preserved in Series ii., No. 624b.

See *Male Surgical Register*, vol. v. (1887), Nos. 1481 and 3674.

625a. The Right Half of the Pelvis, Hip Joint and Pelvic Organs from a case of long-standing Hip Disease. The specimen has been partially macerated and the muscles removed from the bones. As a result of inflammation, the periosteum of the femur and ilium separated with great readiness. To a large extent the neck of the femur has disappeared. The femur itself has been partially dislocated on to the dorsum ilii, and has become ankylosed in that position. Suppuration extended round the joint in various directions, both inside and outside the pelvis, as shown by several smooth-lined abscess cavities. One sinus led through the great sciatic notch into the rectum, through which a black india-rubber tube has been passed. 1890

From a child, aged 11, who had suffered from disease of the hip for a lengthened period. Four months before death a pelvic abscess formed, and three months later two large sequestra were removed by operation from the region of the acetabulum. She partially recovered from this, but at length died, two and a half years after the commencement of the disease, from exhaustion caused by prolonged suppuration.

Presented by James Berry, Esq.

627a. A Section through the Left Hip-Joint, from a case of Morbus Coxæ. The head of the femur and the acetabulum are denuded of cartilage and the bone is superficially eroded. Dense fibrous adhesions everywhere unite the two surfaces of the bones, so that there is only very slight movement between them. The remainder of the bones presents no evidence of disease, nor is there any abscess. 1889

From a child, aged eight years. The disease of the hip had existed for a period of four and a half years, and it was considered to be nearly cured. Death resulted from general tuberculosis. No suppuration had at any time existed in connection with the hip-disease.

A section of the spine showing angular curvature is preserved in Series v., No. 1103a.

Obtained in exchange from the Museum of the Royal Free Hospital.

639a. A Portion of the Right Femur, with the Patella, Tibia, and Fibula. The bones are united by firm ligamentous union, as a result of long-standing disease of the knee-joint. The tibia is flexed upon the femur and is drawn outwards, but it is neither rotated outwards nor dislocated backwards. The external tuberosity of the tibia is converted by the carious process into a mere shell of bone. 1889

(In Case G.)

From a girl, aged 12 years, who sustained an injury to her knee fifteen months before the amputation was performed. Tubercular disease of the joint was set up.

See *Female Surgical Register*, vol. i. (1888), No. 1298.

645a. The Right Hand of a woman which during life exhibited a marked instance of "Heberden's nodes." The terminal phalanges are united by bony ankylosis. The two distal phalanges of the fourth finger have been divided longitudinally to show how complete has been the synostosis. In the neighbourhood of the joints deposits of urates can still be seen; these deposits were much more abundant before the maceration. 1887

From a woman, aged 63, who died of cancer of the gall-bladder. During life it was recorded that "the joints of the fingers, and especially those of the right thumb, have well-marked Heberden's nodes. These nodes appear to be simply exaggerations of the normal prominences of the phalanges. The joints between the two last phalanges of the index and middle fingers of the right hand, and the same joint in the left hand, are ankylosed. The joints of the metatarso-phalangeal joints of both great-toes were somewhat enlarged and glazed. There were no tophi, nor was there any rheumatic or gouty history in the family of the patient."

Sir Dyce Duckworth, showing the hand before the British Medical Association at Belfast, stated that it was taken from the body of a woman who presented marked examples of Heberden's nodes, believed to be rheumatic during life, but shown to be, as he believed, solely due to a gouty and uratic diathesis. See *British Medical Journal*, 1884, vol. ii., p. 270.

See *Mary Ward Book* for 1884, No. 798, and *Medical Post-Mortem Register*, vol. xi., p. 83. Casts of both hands are preserved in Series lvi., No. 23b.

- 650a.** Synarthrosis of the Hip-Joint. 1885
 (In Case G.)
 From a case of morbus coxæ of twenty-eight years' duration. See *Medical Post-Mortem Book*, vol. xi., p. 174, and *Male Surgical Register*, vol. iv. (1885), No. 535.
- 650b.** Synostosis of Hip-Joint. 1885
 (In Case G.)
 See *Male Surgical Register*, vol. iv. (1885), No. 535.
- 650c.** A Section of the Right Hip-Joint, from a case in which bony ankylosis of all the large joints of the lower extremity followed an attack of rheumatic fever. The femur is fixed to the os innominatum by bone, the ankylosis being firm and smooth. The union between the ilium and the head of the femur is only complete at those points where they were in contact; at the bottom of the acetabulum, where the two bones did not touch, there is a space. The cartilage covering the head of the femur has entirely disappeared, whilst the bottom of the acetabulum is so thinned that only a transparent membrane remains. The great trochanter also has undergone so much atrophy that its free margins present sharp edges.
 The femur has been divided below the lesser trochanter. The upper portion of the bone is fixed in a position of flexion and adduction, whilst the lower portion is displaced behind and to the outer side, so that it lies upon the lower portion of the great trochanter. The two fragments are firmly united by bone. The projecting extremity of the upper fragment is covered by dense fibrous tissue, in the centre of which is a small abscess cavity. 1888
 From a man, aged 22, who had bony ankylosis of the right hip, knee, and ankle, after an attack of rheumatic fever five and a half years before his death. Excision of the right ankle was performed on January 14th, excision of the right knee on February 19th, and division of the right femur in its upper third on July 16th. The patient died of amyloid disease on October 23rd in the same year. On admission to the Hospital he had a mitral murmur, but the heart was found to be normal at the autopsy.
 See *Male Surgical Register*, vol. i. (1887), No. 1480.
- 656a.** A portion of the Femur and Tibia with the Patella. The bones are fused together by the process of bony ankylosis. The Tibia is dislocated outwards and backwards as the result of long-standing joint disease. The specimen, therefore, illustrates the form of "triple displacement" which so often succeeds chronic inflammation of the knee-joint, for the articulation is flexed, dislocated backwards, and rotated outwards. 1886
 (In Case G.)
- 657a.** A Section through the Right Knee-Joint, from the same case as No. 650c. Excision had been performed eight months previously. There is complete bony union of the tibia and femur. The ivory pegs which were used at the time of the operation to fix the two bones together are seen to be vascularised from the neighbouring cancellous tissue; in the one which has been divided longitudinally, some amount of absorption has taken place, and it is so completely continuous with the bones as to form an integral portion of them. 1888
- 657b.** A Section through the Left Knee-Joint of the patient from whom the preceding specimen and No. 650c were taken. The femur is firmly united by bone with the tibia, the joint being in a condition of flexion. The patella is so completely ankylosed with the femur, that the cancellous tissue of the two bones appears to be continuous. (Cf. 659a.) 1888
- 659a.** A Section through the Right Tibia and Ankle-Joint, also taken from the same patient. There is complete bony ankylosis between the tibia and astragalus and between the astragalus and os calcis. All the bones are much atrophied from disuse. 1888
 Other specimens from the same case are preserved in Series ii., Nos. 650c and 657 a and b.

669a. A Humerus and Scapula, showing to an extreme extent the changes which take place as a result of Rheumatoid Arthritis. The glenoid cavity of the scapula is convex at its lower part, whilst the upper portion is deeply grooved and its margin is "lipped." There is a considerable deposit of fresh material around the coracoid and acromion processes. The surface of the bone is polished and devoid of cartilage. The head of the humerus is enormously increased in size by a deposit of new bone, but is hollowed out so as to articulate with the convex glenoid surface. Like the scapula, the articulating surface is burnished and devoid of cartilage. In both bones the new deposit appears in the form of small gravel-like bodies. The capsule was much thickened and contained numerous stalactites, which were also present to a very considerable extent in the neighbouring muscles.

1884

(In Case G.)

The specimen was obtained from a body brought for dissection. The opposite shoulder was affected, but to a less extent.

Presented by W. S. A. Griffith, M.D.

669b. Scapula and Humerus from a less advanced case of the same disease. 1884

(In Case G.)

669c. The Shoulder-Joint from a case of Suppurating Osteo-Arthritis. The articular extremities of the bones are devoid of cartilage and present the appearances characteristic of osteo-arthritis in an advanced stage. 1886

(In Case G.)

From a man, aged 25, who had an abscess round the shoulder-joint which had been repeatedly opened. His wrist was excised three and a half years before death for strumous disease.

See *Male Surgical Register*, vol. i. (1885), No. 3634.

670a. A Humerus, the Head of which shows changes characteristic of an early stage of Rheumatoid Arthritis. 1882

(In Case G.)

Presented by F. Swinford Edwards, Esq.

673a. The Articular Ends of the Humerus and Ulna which enter into the formation of the Elbow-Joint. The cartilage over the capitellum is entirely removed, and the subjacent bone is smooth and polished. Around the edges of the articular surfaces of the humerus are nodular outgrowths, partly composed of cartilage, partly of bone. The upper end of the ulna exhibits similar outgrowths of the articular cartilage, more especially over the coronoid process, which is thereby considerably hypertrophied. These pedunculated growths project into the joint cavity. 1883

673b. The Upper End of an Ulna, showing changes of a character similar to those seen in the preceding specimen. The overgrowth of the coronoid process is, however, much more marked, this portion of bone being about three times its usual size. 1883

673c. Head of a Radius apparently affected with Chronic Osteo-Arthritis. The papillated condition of the synovial fringes is well seen. 1885

From a man, aged 26.

Presented by W. Bruce Clarke, Esq.

690a. A Patella showing the changes which take place in the cartilage at an early period of Chronic Osteo-Arthritis. 1885

The cartilage has become in part eroded and is fibrillated.

690b. A Patella from a case of commencing Osteo-Arthritis occurring in a woman, aged fifty-two. The cartilage covering the upper two-thirds of the articular surface is fibrillated in such a manner as to form a series of tuft-like projections. At the upper portion of the external facet this process is so advanced as to have led to the entire disappearance of the cartilage, while along the inner border of the internal facet is a distinct "lip" of new bone. 1887

See *Female Surgical Register*, vol. v. (1887), No. 380.

691a. A Right Knee-Joint, exhibiting the changes typical of Rheumatoid Arthritis. The synovial membrane is thickened and pulpy, the cartilages are fibrous and eroded, and present an uneven irregular surface. The crucial ligaments are partly destroyed, and the other ligaments around the joint are thickened and softened. The bones are eroded and roughened over various parts of the articular surface. 1883

From a man, aged 49, who had sustained an injury in the knee three years before coming to the Hospital. This had resulted in stiffness of the articulation. Three months before the limb was amputated the ankylosis gave way, and the knee yielded so that the bones bulged backwards into the popliteal space, and the front of the leg became concave. A cast of this joint is preserved, No. 33a.—See *Pitcairn Ward Book*, vol. vii., p. 425.

CHANGES DUE TO OSTEO-ARTHRITIS.

691b. A Right Knee-Joint affected with Osteo-Arthritis, from a patient who had Locomotor Ataxy. 1885

The joint is very much enlarged. The enlargement is due to a thickening and development of the various folds and processes of the synovial membrane, and to an alteration in the shape of the bones. When first opened, the joint contained a considerable quantity of thin pus.

The lower end of the femur and the head of the tibia have undergone remarkable alterations in shape. The external condyle of the femur has almost disappeared, its place being apparently taken by two irregular nodules of bone, together about the size of a horse-chestnut, lying in the thickened synovial membrane. The internal condyle is remarkably enlarged, being much flattened from side to side. Near its inner and upper surface is a marked projection caused by the growing out of the bone, and immediately beneath it is a groove formed by the friction of the opposed surface of the head of the tibia. The shape of the lower end of the femur resembles an enormously enlarged external malleolus. At the posterior surface of the internal condyle is a large nodular outgrowth of bone. This latter outgrowth fits into a corresponding cup-shaped surface, formed by an outgrowth from the posterior surface of the tibia.

The tibia has undergone a compensatory alteration. The inner part of the head seems to have been rubbed away by the inner surface of the condyle, whilst the outer side of the head takes the place of the wasted external condyle of the femur. To such an extent has this occurred, that the plane of the tibio-femoral articulation, instead of being horizontal, is almost vertical; whilst the only part of the bones which would serve as a support in standing is the ridge on the femur and the surface on the tibia which corresponded with it.

The patella has undergone less alteration than the other bones, but is irregular in outline. Its articular surface is covered with cartilage in an advanced stage of degeneration, whilst the bone on this aspect is irregular and pitted.

The cartilage has almost completely disappeared from the articular surfaces of the tibia and femur, though patches remain on both bones. The portions of cartilage thus left have undergone fibrous degeneration.

The bone covering the articular surfaces of the tibia and femur is smooth and hard: it forms a continuous layer, but it has disappeared in other parts, and the bone is also pitted and irregular, the cancellous tissue being exposed as in caries.

The development of osteophytes in the soft tissues surrounding the joint has taken place to a remarkable extent.

The osteophytes are infiltrated in the tissues around the ligamentum patellæ and in various parts of the synovial membrane; they are especially well marked in the portion which covers in and protects the lower edge of the elongated condyle. The edge of the head of the tibia is covered by the overhanging and irregular ridges of bone which are so common in museum specimens of osteo-arthritis.

The inner surface of the synovial membrane has developed villous outgrowths, some of which are calcareous, whilst others are still soft, of the kind ordinarily found in cases of "rheumatoid arthritis."

The shaft of the femur four inches above the condyles, and the tibia at about the same

distance below its head, appear to be in all respects normal. See *Male Surgical Register*, vol. v. (1884), No. 2319. See *Transactions of the Clinical Society*, vol. xviii. (1885), p. 50, and plates iv. and v.

Casts of the knee are preserved in Series lvi., No. 20c, and drawings in Series lvii., No. 92. A section of the cartilage is preserved in Series lv., No. 81.

691c. The Right Knee-Joint affected with Osteo-Arthritis, from a Patient who had Locomotor Ataxy. 1886

The synovial membrane is everywhere thickened and pulpy, and is in some parts papillated. The cartilage of the condyles is ulcerated, the ulceration being most marked upon the inner side. On the bones are small pearly concretions like sago grains. The articular surface of the patella is completely covered by thickened synovial membrane.

The whole of the posterior surface of the upper end of the tibia for a depth of three inches is worn away in such a manner as to allow of the dislocation of the bone forwards upon the femur, and a new articulating surface has been formed upon the eroded portion, partly by a moulding of this surface, and partly by the growth of osteophytic processes. A portion of the lower surface of this new articulating cavity is formed by the posterior part of the original articular surface of the head of the tibia, which having been apparently undermined, appears to have slipped down bodily, letting the femur fall, so to speak, and carrying with it a part of the external semilunar cartilage. This part of the original joint surface has, therefore, taken up a vertical, instead of a horizontal position.

The posterior crucial ligament, with a portion of the external semilunar cartilage, remains attached to the femur.

The anterior crucial ligament retains its normal connection with the tibia, but it has lost its attachment to the femur, and is connected above with the thickened tissue surrounding the patella.

The margins of the articulating surfaces of the femur and tibia are "lipped" by slightly projecting outgrowths.

A drawing of this joint is preserved in Series lvii., No. 93.

691d. The Left Knee-Joint from the same Patient as the preceding. 1886

The synovial membrane is vascular and papillated, the portion below the patella being pulpy. The cartilage covering the internal condyle is ulcerated at one spot. It is thickened, and is clearly undergoing fibrous degeneration over its whole extent, although it still retains its polished surface.

The cartilage covering the external condyle is thickened, except at one part, where it is worn away, leaving dense eburnated bone.

The edges of the articulating surfaces of the condyles are "lipped."

The semilunar cartilages are intact.

The anterior crucial ligament is pulpy and in part eroded; the posterior is also softened. The patella is "lipped;" it is covered by cartilage undergoing pulpy degeneration. It is not overgrown by thickened synovial membrane. The articular surfaces of the head of the tibia are bare of cartilage. The external surface is undergoing erosion at the point at which it is opposed by the eroded surface of the external condyle of the femur. All the soft tissues are more or less thickened, pulpy, and degenerated.

A drawing of this joint is preserved in Series lvii., No. 94. For further details and a history of the case, see Case iii., in a paper by Mr. Marrant Baker "Upon Cases of Joint-Disease in Connection with Locomotor Ataxy" in the *Transactions of the Clinical Society*, vol. xvii. (1885), where a reproduction of the drawings will be found.

692a. A Right Knee-Joint, showing the changes which result from Osteo-Arthritis. The cartilages are eroded over a large portion of the articular surfaces, whilst the bones are dense and lipped. The synovial membrane is slightly swollen. In the joint was a single loose piece of cartilage, which is suspended above the specimen. 1887

From a waterside labourer, aged 49, who died from the results of a long-standing stricture of the urethra.

See *Male Surgical Register*, vol. i. (1885), No. 3230.

692b. The Lower Portion of the Femur with the Patella, showing the changes which result from Osteo-Arthritis. There is considerable lipping of the bones, and the articular cartilage has almost disappeared from the patella and the internal condyle of the femur. In the intercondylar notch is a pendulous ecchondrosis, which has a smaller nodule lying by its side. 1888

693a. The Left Knee, showing in an almost typical manner the results of Osteo-Arthritis. There is a great overgrowth of cartilage around the articular surface of the femur, especially at the upper and anterior margin of the external condyle. This cartilage is ossified in such a way as to form nodular osteophytes. The patella and tibia show similar osteophytes or ecchondroses. The cartilage covering each of the articular surfaces of the joint is fibrillated and worn down, but the subjacent bone is nowhere exposed. The synovial membrane is thickly covered with fringes, giving it a shaggy appearance. 1886

The patient, a man, aged 25, died of Bright's disease and œdema of the glottis; it was doubtful whether he had congenital syphilis.

A drawing is preserved in Series lvii., No. 97.

See *Male Surgical Register*, vol. i. (1886), No. 713.

696a. A Patella and Knee (right) affected with Rheumatoid Arthritis. The patella is small; it has been thinned by rubbing to about one-third of its normal thickness, and it is eburnated. Around it, especially beneath the vastus externus muscle, are osteophytes of all sizes; one is as large as the patella; some of the smaller outgrowths are pedunculated. On the external condyle of the femur is an eburnated surface corresponding to that on the patella. An osteophyte is growing in a fringe of the synovial membrane on the head of the tibia. 1885

The specimen came from the dissecting-room. It was prepared and presented by John Gay, Esq.

701a. The Tarsus of a Dog, showing changes caused by Rheumatoid Arthritis. 1882

See *Transactions of the Pathological Society*, vol. xxxiii., p. 432.

709a. A Great Toe and Finger Joints, together with the Astragalus and lower end of the Tibia, showing deposits of urate of soda in the articular cartilages. 1882

See *Transactions of the Pathological Society*, vol. xxxiii., p. 271.

709b. An Astragalus, with the External and Internal Malleoli of the Fibula and Tibia. The articular surfaces of the bones are coated with an unusually extensive deposit of urate of soda. 1884

The specimen was obtained from a subject brought in for dissection. Many of the other joints were equally affected.

711a. A Series of Great-Toe Joints affected with Gout in varying degrees. In some of the specimens, the ligaments and other tissues around the articulations have considerable deposits of urate of soda. 1882

ACUTE SUPPURATION OCCURRING IN GOUT.

711b. Section through a Knee-Joint, from a Gouty Patient in whom acute suppuration had taken place. The bones are bare of cartilage, rarefied, and superficially ulcerated, without any marked eburnation or lipping. The crucial ligaments are gone, the synovial membrane is thick, soft, and in parts destroyed by the suppuration. 1888

From a man, aged 49, who had suffered for seventeen years from gout.

See *Transactions of the Clinical Society*, vol. xx., p. 232.

Presented by Stephen Paget, Esq.

711c. The Distal End of the Metatarsal Bone and the Proximal End of the First Phalanx of a Great Toe. The whole of the articular cartilage is encrusted with a deposit of urate of soda. 1890

From a man, aged 40, who died from cerebral hæmorrhage.

See *Medical Post-Mortem Book*, vol. xiv., p. 289.

712a. Pedunculated Growth from a Synovial Fringe of the Knee-Joint. 1882

From a girl, aged 18, who suffered from the ordinary symptoms of "loose cartilage." A small body could be felt on the outer side of the joint; on exposing it the above specimen was discovered and removed by cutting through the peduncle.

A microscopic examination showed that the growth consisted of condensed synovial membrane, not containing any cartilage cells. Sections are preserved in Series lv., No. 88.

712b. A Pedunculated Growth removed from the Knee-Joint. It is composed of thickened synovial membrane. 1883

712c. Loose Bodies removed from the Knee-Joint. The bodies are synovial fringes thickened with caseating inflammatory material. 1885

See *Male Surgical Register*, vol. iii. (1885), No. 3544.

712d. Five Loose Bodies from a Knee-Joint, together with part of the Condyles of the Femur, to which two similar Bodies are still attached. When the incision was made into the joint for its excision on account of long-standing tubercular disease, these five bodies were found loose in its cavity. While fresh they looked like and had the consistence of fat: after hardening in spirit one of them was incised, and is now seen to consist of an outer layer or shell enclosing a nucleus of different appearance. The microscope showed the nucleus to consist of partly-degenerated hypertrophied synovial fringes containing tubercular "giant cells," the outer layer being granular, and doubtless formed of coagulated lymph. In support of this view is the fact that two similar bodies are still attached to the femur. 1891

The patient was a girl, aged 10, who had suffered from tubercular disease of the left knee-joint for three years, for the cure of which excision was performed.

See *Female Surgical Register*, vol. i. (1890), No. 2104.

713a. A Loose Cartilage from the Knee-Joint. It is composed of fibrous tissue and cartilage, the latter being in some places calcified. It was attached to the synovial membrane by a slender pedicle. 1883

Microscopic sections are preserved in Series lv., No. 76.

714a. A Loose Body removed from the Knee-Joint. It is composed of a loose fibrous tissue, and was attached to the synovial membrane. 1883

714b. A Small Loose Body, composed of hard bone covered by a layer of Cartilage, removed from the Elbow-Joint of a young man. It was attached to the synovial membrane. 1883

716a. A flattened, soft, pedunculated mass of Synovial Membrane, removed by operation from the Knee-Joint of a patient who had suffered from symptoms of "Loose Cartilage" for several years. 1883

A microscopic examination showed that the synovial membrane had previously been inflamed, and that the inflammatory products had in some parts undergone a caseous degeneration and in others become organised into a loose fibrous tissue.

Microscopical sections are preserved in Series lv., No. 82.

716b. Foreign Body removed from the Knee-Joint of Mr. C. O'B. Harding. It was attached by a very slight pedicle to the synovial membrane. It is about the size of an almond, and consists of organised blood-clot enclosed in a synovial tuft. 1884

Presented by C. O'B. Harding, Esq.

717a. A small Cartilaginous Body which lay free in the Elbow-Joint. It is oval in shape, measuring three-quarters of an inch in length, and half an inch in diameter. It is gritty in parts, owing to the deposition of lime-salts. 1888

From a boy, aged 15, who had symptoms of a loose body in his elbow-joint for eleven months. See *Male Surgical Register*, vol. iii. (1887), No. 3621.

720a. Four hundred and fifteen Loose Cartilages removed by operation from the Knee-Joint. They are all of irregular shape, with nodulated, uneven surfaces, and vary in size from a swan-shot to an almond, by far the larger number being midway between these two sizes; the largest and the smallest are suspended at the top of the bottle. They are none of them pedunculated, and were not attached to the synovial membrane. Three of them may be seen to be very nearly divided into two separate portions, which yet remain united by a thin band; none of the others presented a similar appearance. A cut section is smooth and homogeneous, and a microscopical examination showed that they consisted of hyaline cartilage. 1884

From a man, aged 31, who had had four attacks of rheumatic fever, while for six years past the knee-joint had been painful and swollen. At the time of the operation the synovial membrane was seen to be rough and vascular-like granulation tissue, but there were no appearances of pedunculated growths. An amputation through the thigh was subsequently performed.

For details of the case see *Henry Ward Book*, vol. ix., p. 35.

721a. A Portion of Fibro-Cartilage which was removed from the Knee-Joint by an incision carried along the inner side of the knee. The piece of cartilage measures five-eighths of an inch in length, and one-eighth in thickness. It was firmly attached by one of its ends, and probably formed a portion of the internal semilunar cartilage. 1888

From a man, aged 25, who had felt occasional pain and weakness in his left knee for about a year. A month before admission to the Hospital he first noticed a loose body on the inner side of the joint. He had more than once wrenched it severely at football and at cricket.

See *Male Surgical Register*, vol. iv. (1888), No. 957; see also *Transactions of the Pathological Society*, vol. xxxix., p. 282.

721b. Two Loose Cartilages removed from the Left Knee-Joint. An interval of four weeks elapsed between the removal of the upper and lower cartilage. They are covered with smooth articular (?) cartilage on one surface, but are rough and calcareous, if not bony, on the other. They are flat in shape, and the smoother surface is slightly convex. They fit together more or less accurately, and have the appearance of the articular surface of the outer condyle of a femur which has become detached. 1891

The patient was a healthy young man, aged 21. His knee had been rather stiff as long as he could remember. Three days before admission, while running at cricket, he "felt something in his knee give way," and then noticed two lumps in the joint. He was admitted, and the two loose bodies were removed, as stated above. He made an excellent recovery.

See *Male Surgical Register*, vol. iv. (1890), No. 2331.

722a. A loose Cartilage from a Knee-Joint. It is a precisely similar specimen to 722, which it also resembles in the histological characters of the cartilage. 1881

723a. A Loose Body removed from the Knee-Joint. It is irregular in shape, and closely resembles the echondroses which occur in the course of osteo-arthritis. The body is roughly pitted on one side, but is smoother and nodulated upon the opposite surface. 1887

725a. A Section through the Left Elbow, from a case in which excision of the Joint had been performed four years previously. The ends of the bones are connected by bands of dense fibrous tissue. The radius and ulna are dislocated forwards upon the humerus. 1888

From a man, aged 41, who had a freely movable joint.

See *Male Surgical Register*, vol. iii. (1887), No. 2024.

729a. The Left Hip-Joint from a Child six years of age, on whom the operation of Excision (removal of the head of the femur) had been performed two years previously. There is a slight rounded eminence at the extremity of the neck, and this

is firmly connected with the bottom of the acetabulum by fibrous bands. The muscles round the joint are somewhat wasted and matted to each other and to the capsule of the joint. 1892

The head of the bone was removed by the anterior incision and the wound closed without drainage: primary union resulted. She died two years subsequently from general tuberculosis following influenza. For details of the case see *Clinical Society's Transactions*, vol. xxiii. (1890), p. 98.

Presented by C. B. Lockwood, Esq.

732a. A Section of the Bones forming the Knee-Joint, after excision. The bones are united in good position, except that the tibia is slightly displaced backwards. The intermediary cartilages are uninjured. 1881

Presented by the Museum of the Royal College of Surgeons.

734a. Portions of the Tibia and Femur from a limb in which the Knee-Joint had been excised some years previously. Complete bony ankylosis has taken place between the two bones, but the tibia is bent backwards so as to be placed almost at right angles with the femur. 1882

Amputation was performed at the patient's request on account of the uselessness of the limb.

ERASION OF KNEE-JOINT (ARTHRECTOMY.)

736a. One Half of the structures composing a Left Knee-Joint on which Arthrectomy had been performed eighteen months previously to the amputation. The specimen has been sawn through longitudinally. The cavity of the joint is obliterated, and the tibia is displaced backwards. The epiphyses have not been resected in any way, and are, with the exception of the tibial, still covered with a layer of cartilage. The patella is fixed to the front of the femoral epiphysis. The section also shows that all the bony structures still contain tubercular material in the cancellous tissue. Portions of small abscess cavities remain, one in front of the femur, about two inches above the patella, another below the condyle of the femur. On the cutaneous surface there is seen the scar of the incision by which the joint was opened. At two points are the openings of small sinuses, which still discharged at the time the amputation was performed. 1893

From a little girl, aged eight, who had suffered from pain in the knee after an injury for three and a half years. Two years later the joint was opened, but as sinuses formed, and the child's health was failing, the limb was removed.

Presented by H. G. Cook, Esq.

739a. A Section taken through the neighbourhood of a Knee-Joint which had been excised some time previously. Owing to the uselessness of the limb, amputation through the thigh was performed. At the time of the excision an ivory peg was driven through the tibia and femur to retain the bones in position. A portion of the peg can be seen in the centre of the section. It is firmly imbedded in the bone, and has caused no irritation or thickening. 1891

HÆMOPHILIA.

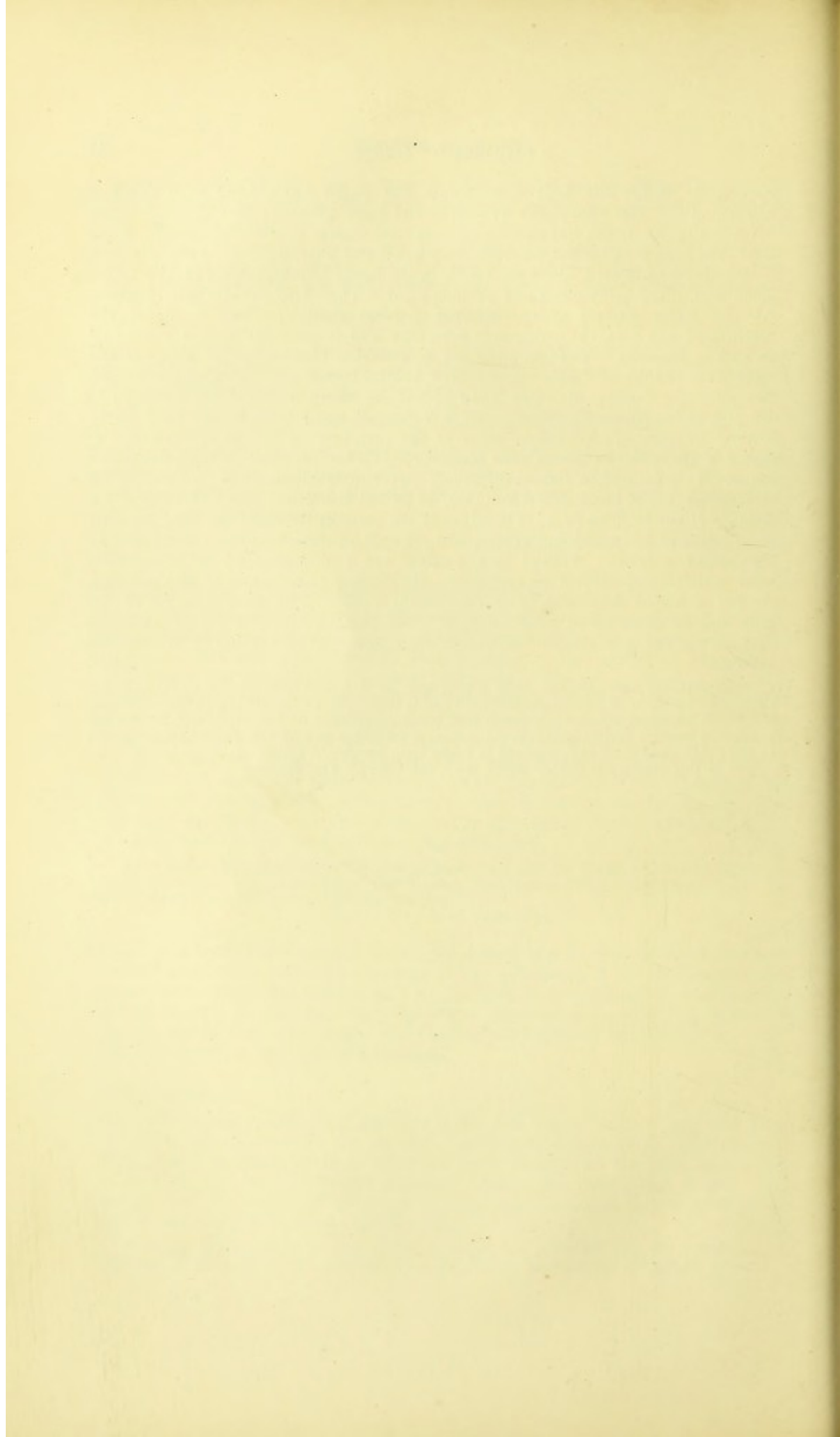
740a. The Knee and Ankle Joints from a Boy who was a "bleeder," and who died, as the result of a cut in the lip, from continuous hæmorrhage. The synovial membrane is coloured by blood which has been effused into the joint cavity, and in the knee there has been fibrous ankylosis between the patella and femur. The patient had frequently had swellings of the joints, sometimes as the result of an injury, sometimes without any definite cause. 1882

Drawings of the joints in their recent condition are preserved, No. 82. The case is described by Dr. Legg in the *Transactions of the Pathological Society*, vol. xxxiii., p. 412.

740b, c, d. Right and Left Knee-Joints and Right Ankle-Joint from a case of Hæmophilia. The ankle-joint (740d) is the least affected; the synovial membrane is slightly tinged, but there is no structural change in the articulation. When fresh, the joint contained some fresh dark blood and a small clot. In the left knee (740c) traces of effused blood are visible in the russet-brown staining of the lining membrane. The joint contained no blood-clot. The cartilages are pearly white. At the under surface of the external femoral condyle, where it meets the pressure of the tibia, the cartilage is worn thin and is granular over a space half an inch in diameter. The ligaments are unaltered. The connective tissue of the right knee (740b) is deeply stained of a brown colour, and the changes in the cartilages are farther advanced than in the preceding joints. The cartilage is deficient at the points where the pressure is greatest, and a formation of bone thinly covered by cartilage has taken place at the periphery of the joint. About the centre of the under surface of each femoral condyle the cartilage is thin, worn, and rough. It is fissured in various directions and laminated, and has so far lost its attachment to the bone, that a knife can be passed beneath it here and there for a distance of two to three lines. The edges of the partially detached cartilage are seen when raised to be ragged and fibrous, and are split into layers, as in a case of chronic rheumatoid arthritis. Around each condyle was a prominent lip of bone, somewhat nodular, and covered by cartilage. Microscopic examination of the cartilage showed a fibroid degeneration of the hyaline matrix, with multiplication of the cells and breaking-up of their capsules. The minute, like the grosser changes, bore a marked resemblance to the alterations which take place in rheumatoid arthritis. 1884

The specimens were obtained from a boy, aged 13, who died from epistaxis. He had bled twice previously—once from a small wound on his tongue, and a second time after extraction of a tooth. He had frequently suffered from painful swellings of his joints, and he bruised easily. A brother died of epistaxis. A section is preserved in Series lv., No. 86, and drawings of the joints when fresh are preserved in Series lvii., No. 83a, b, and c.

For further details see *Darker Ward Book*, vol. viii., pp. 416, 420, 486.



SERIES III.

INJURIES OF BONES (Fractures).

- 747a. The Patella and Lower End of the Femur. The patella has sustained a comminuted fracture, whilst the femur has been fractured transversely and longitudinally in such a manner as to give rise to a T-shaped fracture extending into the knee-joint. 1886

From a woman, aged 61, who was admitted with such numerous and severe injuries as the result of a fall from a third-floor window that she died on the following day.
See *Female Surgical Register*, vol. i. (1886), No. 813.

- 747b. The Patella and Lower End of the Femur of the Right Side. The patella has sustained a compound comminuted fracture, while the femur is also comminuted near its lower extremity. The patella appears to have been crushed against the outer condyle of the femur. The limb was amputated at the seat of fracture. 1890

From a man who attempted suicide by jumping out of a window.
See *Male Surgical Register*, vol. iii. (1889), No. 2930.

- 747c. The Patella and Lower End of the Femur of the Left Side, from the same case as the preceding specimen. In this case the patella is but slightly injured on its outer side, while the femur has sustained a T-shaped fracture into the knee-joint. The patella appears to have been driven like a wedge between the condyles, but to have escaped fracture itself. 1890

- 755a. Portions of the Bones of the Leg of a woman, aged forty, showing the results of a compound fracture of the lower end of the Femur implicating the Knee-Joint. The fracture has been oblique, and the lower end of the upper fragment has perforated the skin over the front of the articulation. The bone in this situation is sclerosed, and the medullary canal sealed by compact osseous tissue. The lower end of the femur is somewhat tilted backwards, and no union has taken place between the fractured extremities. A considerable amount of the cartilage has been removed from the bones entering into the articulations, the joint itself being partially ankylosed. 1882

The patient was admitted into Stanley Ward on October 2nd, 1880, suffering from a compound fracture of the femur into the knee-joint. An attempt was made to save the limb, but the femur subsequently protruded, and a portion of the upper fragment was sawn off on February 23rd, 1881. The wound healed, and the patient was discharged. In the following October she fell, and the bone again protruded. Amputation was performed October 26th, 1881.

See *Stanley Ward Book*, vol. viii., p. 216.

INCOMPLETE SEPARATION OF THE LOWER RADIAL EPIPHYSIS.

- 758a. A Section of the Lower End of the Radius of a child. As a result of injury, the epiphysis has been incompletely separated from the bone. This separation is complete along the radial border, where a bristle has been passed between the bone and the cartilage, but towards the ulnar border the line of injury has run obliquely, and consequently the bone has been fractured above the epiphysis. 1887

From a girl, aged three years, who fell from a height of thirty feet on to the pavement. She died two days after the injury.

See *Female Surgical Register*, vol. v. (1885), No. 1167.

SEPARATION OF EPIPHYSIS.

- 758b. One Half of the Lower End of a Radius and Ulna which have been sawn through longitudinally, showing, as the result of an accident, the separation of the lower epiphysis of the radius from the shaft. 1892

From a boy, aged 16, who was brought dead to the Hospital.
See *Surgical Post-Mortem Register*, 1889, p. 86.

MULTIPLE SPONTANEOUS FRACTURES.

- 759a. Portions of the Right Femur, of the Lower Half of the Left Femur, and of the Left Humerus. The bones have been sawn through longitudinally, and all of them show old fractures. In neither of the femora are the bones united except by fibrous tissue. In the left femur the fracture took place at about the junction of the lower with the middle third of the bone; the fragments are in bad apposition, the posterior surface of the upper fragment being in a line with the anterior surface of the lower; they are, however, firmly held together. In the right femur the fracture took place in the middle third, and the fragments are in a similar, but rather worse, position than in the left leg, *i.e.*, the upper is in front of, and overlaps, the lower fragment. In the left humerus the fracture took place at the junction of the upper and middle thirds, and the bone united in fairly good position; the cavity of the medullary canal has been restored. 1891

The patient was a gentleman, who, at the time of his death, in June, 1890, was thirty years of age. The following is his remarkable history:—

In 1872, when eleven years of age, he fractured the upper part of his right humerus while throwing a cricket-ball: the bone united.

In 1874 he slipped and fell, and fractured the left humerus: the bone united.

In November, 1878, whilst playing football, he fell and again fractured his right humerus, this time just above the condyles: the bone united.

In October, 1879, he severely sprained his right wrist, but broke no bones.

In June, 1880, he broke his right femur by a twist owing to his left leg slipping under him: the bone was broken as he stood: he was treated for two months on a long splint which went up to his waist, but not up to the axilla, and subsequently for two months by a gutta-percha splint: the bone united partially but not firmly, and there was much eversion.

In January, 1881, he consulted a "bone-setter," who said "the knee was out," although the eversion was from the seat of fracture, and not from the knee: the limb was "manipulated" and the eversion corrected, but the patient was much worse afterwards. Shortly after this slight movement was noticed at the seat of fracture, where there was much callus: the mobility increased, and with it the shortening increased also.

In June, 1883, he was treated by a surgeon: at that time there was extreme mobility between the fragments when the limb was at rest, but when the muscles were put into action the un-united fracture became fixed, and the patient stated that he could walk sixteen miles in a day at the rate of three and a half miles an hour: at this time there were three inches of shortening.

In February, 1884, while coming down-stairs, his right heel slipped: he swung himself round, and grasping the banisters with both hands, the left femur broke above the condyles as he was standing: he did not fall. This united satisfactorily. Bending at the seat of this fracture was first noticed two years afterwards, and movement began three and a half years after the fracture.

In September, 1888, he noticed mobility at the seats of fracture of the right humerus, owing, he said, to excessive use. In April, 1889, enlargement in this region was first noticed, and gradually increased until November, 1889, when the right arm was removed at the shoulder-joint (see Specimen, No. 447a): he recovered well from the operation, and was up in three weeks.

In February, 1890, an operation was performed for removal of some recurrent growth from the scar. He died in June, 1890, from secondary deposits in the internal organs.

Microscopical examination of the material uniting the ends of the left femur showed it to be fibrous tissue only, and that it contained no sarcomatous elements. Sections are preserved in Series lv., No. 92.

Presented by John Langton, Esq.

761a. A Calvaria of a man who shot himself with a revolver. The piece of bone attached to the lower part of the specimen was driven in before the bullet, and lay with it in the third ventricle of the left side. The skin of the scalp is preserved in Series xxxv., No. 2734a. 1884

(In Case H.)

761b. A Calvaria showing a gunshot wound. 1885

(In Case H.)

Patient survived ten days after injury: a hernia cerebri formed.

See *Male Surgical Register*, vol. iii. (1885), No. 1163.

761c. A Calvaria, showing the apertures of ingress and egress of a bullet which passed through it transversely. The aperture of ingress, situated at the end of the coronal suture, is small and round; that of egress, in the left parietal bone, is larger and irregular, the bone being broken away externally. 1888

(In Case H.)

From a man, aged 39, a compositor by trade, who thought that he had a mission "to set the Book of Life." The wound was self-inflicted, and the patient died six hours after the injury.

See *Male Surgical Register*, vol. iv. (1888), s.v. H. G. Agnew.

763a. Portions of Three Right Ribs, with the corresponding Vertebrae. There is a comminuted fracture of the ninth rib between the angle and the articular end, produced by a conical pistol bullet, which is seen *in situ*. It had not penetrated the muscles of the back. Above, portions of the skin and muscles, from the anterior wall of the thorax, are suspended; a glass rod is inserted into an oblique channel through which the bullet entered the chest, between the fifth and sixth ribs. The right lung, which was penetrated by the ball, is preserved in Series xi., No. 1759a. 1881

The patient was about fifteen yards from the man who shot him. On admission to the Hospital he was collapsed; blood and air entered and welled out from the bullet wound during inspiration and expiration; there was only slight hæmoptysis, but great dyspnoea. He survived the injury three days.

See *Henry Ward Book*, vol. viii., p. 82.

783a. One Half of a Child's Femur, which was fractured one month before the child died. The periosteum is greatly thickened in the neighbourhood of the fracture, and beneath it, on the posterior surface of the bone, there is a very considerable deposit of provisional callus, extending along the shaft in both directions for nearly two inches. Black bristles have been inserted between the fragments, and show that there has been some displacement of the lower fragment backwards. 1890

796a. Portion of a Tibia which has undergone a Comminuted Fracture. The fracture has been partially repaired, and during the process the posterior tibial vessels and nerve have become involved. 1885

From the dissecting-rooms.

Presented by F. Swinford Edwards, Esq.

807a. The Left Knee-Joint seventeen months after the performance of Ogston's operation of chiselling through the Internal Condyle of the Femur for the relief of Genu Valgum. 1885

The scar of the operation was visible in the skin and muscles at a point about two and a half inches above the articular border of the internal condyle. The tibio-femoral articulation is more posterior than in a normal limb. The patella has only a single facet upon its under surface; it lies wholly upon the external condyle of the femur, and is loosely connected by a few inflammatory adhesions with the upper part of the external condyle. The adhesions do not interfere with the movements of the joint.

The superior articular surface of the tibia lies in a horizontal line, whilst its shaft is curved to such an extent as to render its convex surface internal. There are two well-marked ridges

of bone along its inner border. On raising the patella, the external condyle is alone seen so long as the leg remains extended. The outer margin of the external condyle is lipped as in chronic osteo-arthritis, and the cartilage covering it is pitted in such a manner as to resemble the pearly concretions seen in oyster-shells.

On flexing the leg and raising the patella, the joint moves through an angle of 45°. Its further flexion is restrained by fibrous material in the neighbourhood of the crucial ligaments, resulting from the matting together of the ligamenta mucosa et alaria. The internal condyle then comes into view. Its articular surface is very much smaller than that of the external condyle, since the latter measures three and a half inches in length, whilst the articular surface of the internal condyle is only one and a half inches. In no part does the internal condyle articulate with the patella; it is covered with smooth articular cartilage. Although the articular surface is small, the condyle is itself hypertrophied. It is united to the shaft of the femur by callus, and at its point of union with this bone there is an abrupt raised line, as if its base had been pushed upwards on to the femur.

The condyles lie almost on the same plane, the external being, if anything, rather the lower of the two. The inter-condyloid notch is very wide, the increased width being apparently due to a new formation of bone, which has filled up a gap formed by a forcible separation of the condyles as a result of the operation. The inter-condyloid notch is occupied by synovial membrane.

After reflecting the quadriceps extensor tendon the subcrureus muscle is seen to be inserted upon the external surface of the femur in correspondence with the lateral deviation of the patella. The shaft of the femur is bent antero-posteriorly with such a twist that its axis is almost spiral.

The femur of the other leg exhibited the well-marked and typical antero-posterior curve of rickets. The lower extremity appears to have undergone the same changes as in the preceding specimen. The inner condyle is very small, and there is a well-marked line of union showing where it was separated at the operation. The inter-condyloid notch is unusually large, and the external condyle appears by comparison to be of a large size. The patella articulated solely with the outer condyle.

The patient, a girl of 21, died of puerperal mania in December, 1884. In June, 1883, she was admitted to the Hospital under the care of Mr. Willett. At this time, the knees being placed together, there was an interval of nineteen and a half inches between the two internal malleoli. On July 12th, 1883, the left inner condyle was separated from the bone with a chisel; during the following month the same operation was performed upon the right leg. On September 7th the malleoli were only separated, with the knees now together, by a space of three to four inches, and a few weeks before death, eighteen months afterwards, the limbs were practically parallel.

For further details see a paper by Mr. Willett in the *St. Bartholomew's Hospital Reports*, vol. xx. (1884), p. 69; and an account of the joint by Mr. D'Arcy Power in the *Transactions of the Pathological Society*, vol. xxxvi. (1885), p. 345.

Presented by C. Gross, Esq.

807b. A Portion of the Right Femur and Tibia, showing the condition of parts in an unsuccessful case of Macewen's operation of Osteotomy for the relief of Genu Valgum. 1887

An open osteotomy wound was visible in the inner side of the thigh, whilst on the outer side was a wound with a protruding piece of bone. There was no retained pus. On cutting into the limb, the conditions seen in the specimen were observed. There is no attempt at repair going on in the femur at the seat of fracture. The upper end of the lower fragment is drawn upwards and outwards; it protruded through the skin on the outer side of the thigh. The lower part of the upper fragment has slipped along the inner surface of the internal condyle until it rests upon its lower surface near the adductor tubercle. A small portion of the extremity of the upper fragment has necrosed, but it has not separated. The section of the femur shows that the epiphysial line is rather more sinuous than usual, but that it is otherwise normal. There is hypertrophy of the inner condyle. The outer tuberosity of the tibia is on a lower level than the inner tuberosity, and it slopes backwards in an unusual manner. The section of the tibia shows that the line of the epiphysial cartilage slopes downwards beneath the external tuberosity. The shaft of the tibia appears to be normal.

807c. A Portion of the Left Femur and Tibia, from the same case as the preceding, exhibits the repair which has taken place after the performance of Macewen's operation of Osteotomy for the relief of Genu Valgum. 1887

The femur has been divided transversely at a point three and a quarter inches above the knee-joint, and has again united without the intervention of provisional callus. The axis of the lower fragment is not, however, in the same axis as that of the upper portion or shaft of the bone.

In the head of the tibia the external articular surface is on a lower level than the internal surface, and it slopes backwards in an unusual manner. The section of the tibia shows that the line of the epiphysal cartilage slopes downwards beneath the external articular surface. The shaft of the tibia appears to be normal. Microscopical examination of the line of fracture shows that the union is chiefly due to fibrous tissue, which in some parts is still cellular, whilst in others it is firm and dense. Calcification is taking place throughout the line of fracture and beneath the periosteum. There is no appearance of any cartilage.

From a man, aged 18. Macewen's operation had been performed upon both femora three months before death. The operation was followed by suppuration and necrosis of the right femur, the left leg healing in the ordinary manner.

See *Male Surgical Register*, vol. iii. (1886), No. 3764*.

807d. A Portion of the Right Femur and Tibia, showing the condition of parts two years after Macewen's operation of Osteotomy for the relief of Genu Valgum. The result of the operation was unsuccessful, owing to the bad position in which the fragments of the femur united.

The femur has been divided somewhat obliquely at a point two and a half inches above the line of the epiphysis, or three and a half inches above the knee-joint, and has united again without the formation of any provisional callus. The lower fragment has slipped up behind the upper fragment in such a manner that a distinct elbow is formed at the point of union between the two. The lower extremity of the upper fragment has become rounded off, so that a great prominence is situated upon the outer side of the femur, marking the point where the bone has been divided. All the articular surfaces at the lower joint are covered by fibrous tissue, resulting from long-standing inflammation, so that the joint is useless. The articular cartilage has everywhere disappeared except over a small portion of the internal condyle of the femur. 1888

From a man, aged 19, who died of pulmonary phthisis. Osteotomy was performed nearly two years before death. When the patient was admitted to the Hospital, the right femur was in a position of adduction and rotation outwards. There was complete union, but the distal end of the upper fragment was closely adherent to a large scar on the outer side of the leg, just above the level of the patella. The proximal end of the lower fragment lay to the outer side of the upper fragment.

See *Male Surgical Register*, vol. iii. (1886), No. 2237; *Luke Ward Book* for 1886, No. 310; *Medical Post-Mortem Book*, vol. xiii., p. 57.

807e. The Bones of the Right Lower Limb of a man who had suffered from Rickets and Genu Valgum. The internal condyle of the femur, measured at the point where the tibia rests upon it, is one-third of an inch longer than the external condyle whilst the inner articular facet of the tibia is raised a little above its fellow. The antero-posterior curvature of the shaft of the femur is exaggerated, the bending being more marked in the lower than in the upper part of the bone. The axis of the femur is bent outwards in its lower third, and is at the same time rotated upon itself, so that the linea aspera is easily seen externally. The neck of the femur forms almost a right angle with the shaft. The external articular facet of the patella is a little larger than usual in proportion to the size of the bone.

The upper two-thirds of the tibia seem to be normal, except that at the point where the internal lateral ligament joins the diaphysis there is an irregular bony prominence, with a pair of nipple-like processes which pierce the insertion of the ligament. These projections are below the epiphysal line.

The lower third of the tibia is bent strongly inwards, so that the plane of its articular facet is placed obliquely, being largest near the external malleolus. The axis of this portion of the tibia is rotated outwards in such a way that the external malleolus is farther behind the internal than is usual.

The convexity of the tibial bend is united to the fibula by bone. The fibula has an inward bend in its lower third, which corresponds to that in the tibia, and the bone itself is in this situation massive and rough. The middle third of its

shaft presents no peculiarity, but its upper third is more bulky than natural, and there are a number of osteophytes along the whole length of its hinder part, as well as at the junction of its epiphysis with the shaft.

The ligaments of the hip were natural. The internal lateral ligament of the knee was especially well developed, but it presented no evidence of having been stretched; the other ligaments were normal. The ligaments of the ankle were natural; there was no talipes valgus. 1889

(In Case D.)

From a muscular man, aged 46 years. When the body lay upon its back with the legs extended and the internal condyles of the femur in contact, there was an interval of five inches between the inner malleoli. The right leg was the more deformed, and from the condition of the skin over the inner side of the left knee, it seemed probable that it had overlapped and rubbed against its fellow during progression. The soft parts of the limb were well developed, and, with the exception of some of the ligaments, presented no peculiarity.

807f. A Section through the Head of the Left Femur, from the same patient as the preceding. The neck forms a complete right angle with the shaft. 1889

(In Case H.)

The rest of the femur with the knee-joint was sent to the Anatomical Museum at Cambridge.

The two preceding specimens were presented by C. B. Lockwood, Esq.

807g. The Left Femur of a Child, aged seven, on whom double Osteotomy (MacEwen's Operation) for Genu Valgum was performed three years previously.

The bone has been sawn through longitudinally. It is markedly rickety with an antero-posterior curve at about the middle of the shaft. There is a thick deposit of compact bone along the lesser curve; before the section was made, the exact seat of the fracture could not be determined. At a spot indicated by a small red cross, situated two inches and a quarter from the lower epiphysial line, faint traces of the fracture are still visible, viz., slight thickening of the cancellous tissue, especially towards the posterior aspect of the bone. It may seem at first sight that the spot indicated is farther from the knee-joint than that usually selected. It should be remembered that three years elapsed between the operation and the child's death, and that the growth of the bone takes place towards the epiphysis. 1890

(In Case H.)

From a child who died in the Royal Free Hospital, Gray's Inn Road, of cerebellar abscess, on September 23rd, 1889. The osteotomy was performed in St. Bartholomew's Hospital on September 27th, 1886.

See *Male Surgical Register*, vol. i. (1886), No. 2780.

Presented by James Berry, Esq.

813a. The Left Femur of a Pheasant, which has undergone an extremely oblique fracture in its upper third. The displacement is antero-posterior, the upper portion being in front. Good union has taken place without the formation of ensheathing callus. 1889

Presented by E. W. Willett, Esq.

817a. Portion of a Fibula which has been fractured at the junction of its lower and middle third long before death. The two portions of the bone overlap; they have been firmly united by bony substance deposited between their two surfaces. 1884

(In Case H.)

Presented by G. W. Cookson, Esq.

FRACTURES UNITED WITH DEFORMITY.

825a. A Right Tibia and Fibula which have been fractured, and have united with considerable deformity. The tibia, which was broken at about the junction of the middle and lowest third, is united, but the lower end is displaced outwards and

upwards : a chronic ulcer formed over the seat of fracture, as a result of which considerable loss of substance has occurred : there is a slight bulging of the upper two-thirds of the bone towards the middle line of the body.

The fibula was broken near its upper end : here also the lower fragment is displaced outwards and upwards, but to a less extent than the tibia ; this gives rise to an unusual length and prominence of the internal malleolus. 1891

(In Case H.)

From a man, aged 49 years, who broke his leg while at sea, and who did not come under medical treatment until ten years after the accident. In addition to the large chronic ulcer referred to, which showed no signs of healing under treatment by rest in the Hospital, the patella (see Specimen No. 987a) had been fractured at the time of the accident: the fragments were now separated by about an inch of fibrous tissue, rendering the limb still further useless. Amputation just above the knee was therefore performed.

See *Male Surgical Register*, vol. iii. (1890), No. 545.

846a. A very Oblique Fracture through the Shaft of the Humerus, which had remained long un-united ; the fractured surfaces are rounded and connected only by some ligamentous and atrophied muscular tissues. 1881

846b. A Humerus with an Un-united Fracture at the junction of the middle and lower thirds. The broken ends are rounded, the lower fragment being drawn up behind the upper, and separated from it by a small mass of tough degenerate muscle. The fragments are enclosed in a firm, fibrous capsule, which cannot be separated from the surrounding muscle. 1884

From a man whose arm had been broken about ten years previously. Notwithstanding the un-united fracture, the limb was a useful one.

854a. A Section of a Tibia in which there is an Un-united Fracture of the bone at the junction of the upper with the middle third. The situation of the fracture is marked by a row of black bristles. A periosteal sarcoma springs from the bone at the point of fracture, and extends outwards into the surrounding tissue, and inwards along the medullary canal, absorbing in its growth one side of the wall of the bone. The lower fragment of the tibia is displaced inwards and slightly forwards. 1889

From a man, aged 37 years, whose tibia was fractured in the upper third by a kick eight months before amputation through the thigh was performed. The new growth was observed four months after the injury in the form of three small lumps, situated one below the other on the outer side of the tibia, at the level of the fracture. One uncle died of cancer of the lip, which was said to have followed on a blow.

See *Male Surgical Register*, vol. ii. (1889), No. 521.

UN-UNITED FRACTURE OF TIBIA.

858a. The Left Foot and Lower Part of the Leg of a child, showing an Un-united Fracture of the Tibia at about the middle of the bone. The upper fragment is well grown, and its broken end is enlarged and thickened by a fair amount of callus. The lower end is tapering and atrophied to half its proper size. The fibula has also been broken, but has united firmly ; its broken ends have become displaced inwards behind the tibia, and project half an inch behind its inner margin ; in consequence, the fibula has lifted the posterior tibial artery and nerve away from the tibia. This disturbance in the blood-supply is possibly one of the causes of the non-union. 1892

The patient was a little girl, aged two and a half years. Three wiring operations had been done without effect. Amputation was then performed.

Presented by C. B. Lockwood, Esq.

874a. The Lower end of the Tibia, including nearly the whole of its Articular Surface, which separated by exfoliation in a case of Compound Fracture.

(In Case H.)

A. 113. 1888

Presented by R. S. Eyles, Esq.

- 879a.** A Left Parietal Bone showing a Comminuted Depressed Fracture through both tables. A clot of blood was found between the dura mater and the bone. 1885
From a man who was found unconscious on a railway.
Presented by C. J. Heath, Esq.
- 881a.** The Skull of a child showing a large gap in the bones forming the vault. The bones of the skull are much thinned. 1885
From a child, aged eight months, who fell from a window and fractured its skull. During life there was an oval swelling with fluid contents occupying the site of the gap in the skull. It appears probable that the cavity of the tumour communicated with the sac of the arachnoid.
For further details of this case see a paper by Mr. Thomas Smith upon "Traumatic Cephalhydrocele" in the *St. Bartholomew's Hospital Reports* for 1884, vol. xx., p. 233, Case I.
A drawing of the skull is preserved in Series lvii., No. 58.
- 886a.** The Vertex of a Skull, which has been extensively fractured by a fall on the head. 1882
(In Case H.)
- 890a.** The Left Temporal Bone, showing an oblique Fracture extending through the external auditory meatus into the tympanum, and involving the petrous and mastoid portions of the bone. 1888
The left facial nerve was exposed as it lay in its canal.
From a man, aged 43, who was thrown from a mail-cart. The patient was conscious on admission to the Hospital; he had hæmorrhage from the left ear and left nostril, with paralysis of the left side of his face. The pupils were equal. The patient died a fortnight after the accident, and at the autopsy he was found to have an abscess in the left lobe of the cerebellum.
See *Male Surgical Register*, vol. ii. (1886), No. 3410.
- 892a.** Portion of the Orbit of a child showing a small Punctured Fracture of the orbital plate of the frontal bone. 1885
(In Case H.)
M., æt. three. Is said to have fallen on the pavement and injured his eye about a month before death. He was admitted with symptoms of paralysis, and died with a cerebral abscess.
See *Male Surgical Register*, vol. v. (1884), No. 1844.
- 895a.** Portions of the Frontal, Nasal, and contiguous bones from a case of "Broken Nose." The bridge of the nose is broadened and flattened; the nasal bones are deflected to the left, and the nasal septum, as seen from behind, bulges so much to the right as almost to occlude the nostril on that side. 1884
From a male subject in the dissecting-room.
- 897a.** A Fracture of the Inferior Maxilla. The jaw is broken between the canine and the first bicuspid teeth on either side. This is the common seat of fracture. It was wired during life. 1886
From a boy, aged 14, who was caught between the rollers of a printing-machine, sustaining such injuries that he died within a week.
See *Male Surgical Register*, vol. v. (1885), No. 664.
- 897b.** A Lower Jaw with the tongue and muscles attached to it. The bone has been fractured immediately to the right of the symphysis, between the central and lateral incisor teeth, and the condyloid process has been separated by a fracture passing obliquely through its base. 1888
From a man, aged 35, who had sustained many other serious fractures of the skull.
See *Male Surgical Register*, vol. iii. (1886), No. 1132.
- 898a.** An Incomplete Transverse Fracture of the Sternum, through the gladiolus, immediately below its junction with the second costal cartilages. 1885
Patient fell from a second-floor window. See *Surgical Register*, vol. v. (1884), No. 1849.

898b. A Complete Transverse Fracture extending through the lower portion of the manubrium sterni. 1888

900a. A longitudinal section of a fractured Rib nineteen days after the injury. The fracture is oblique and the ends slightly overlap. External callus is formed along the rib for some distance from the seat of fracture; there is scarcely any intermediate callus. 1882

900b. The Lung and a portion of the Chest Wall of a child. The heads of the third, fourth, fifth, and sixth ribs have been separated from their tubercles. The lung shows two large rents in its posterior lobe. 1885

900c. Ribs from a Mummy found in a tomb at the ancient Memphis. They had been fractured and are reunited with superabundant formation of bone. c. 42. 1887

(In Case H.)

903a. Apparent fracture through the Acromion Process. The fracture is united by bone. 1885

(In Case H.)

Presented by J. C. Hoyle, Esq.

904a. A Clavicle, showing an Un-united Fracture of the acromial end, of ten years standing. The extremities of the fragments have become rounded off so as to form an imperfect joint, which in the recent state was enclosed in a capsule. From a woman, aged fifty-two. 1886

(In Case H.)

See *Female Surgical Register*, vol. i. (1886), No. 2772*.

908a. An Extra-Capsular Fracture of the neck of the Right Humerus. The greater tuberosity has been entirely separated, whilst the shaft of the bone is fractured spirally. 1888

From a man, aged 72, who was knocked down and run over by a van a week before his death.

See *Male Surgical Register*, vol. v. (1886), No. 3337.

912a. A Compound T-shaped Fracture of the lower end of the Humerus, immediately above the Condyles. The two condyles are separated by the shaft of the humerus, which has been forced down between them. 1889

From a man, aged 21, who fell a distance of eighteen feet on to his elbow. He sustained, in addition, a dislocation of the shoulder without rupture of the capsule.

The shoulder-joint is preserved in Series ii., No. 1019b.

918a. A Portion of the upper extremity of the Right Ulna. The olecranon had been fractured probably many years previously. When fresh, the olecranon was united to the shaft of the ulna by tolerably firm fibrous bands. 1886

(In Case H.)

From a subject brought to the Hospital for dissection.

925a. The Lower End of the Radius, showing a comminuted fracture extending into the Wrist-Joint. The upper end of the fractured bone is slightly impacted into the lower fragment, which has undergone much comminution. The fracture has extended horizontally across the centre of the carpal articular surface, and the dorsal portion has been again divided transversely near its ulnar margin. The ulnar facet is also transversely divided, but not through its whole extent. The main line of fracture is irregular, and several pieces of bone were completely detached. 1887

The injury occurred to a man who fell from a window, a height of about eight feet. He died from the effects of a laceration of the liver and other injuries which he then received.

See *Kenton Ward Book*, vol. ix., p. 209.

925b. The Lower Portion of the Radius, which has sustained a fracture extending into the Wrist-Joint. The upper fragment is well impacted into the lower. As a result of the impaction, the lower fragment is cleanly divided by a horizontal and two longitudinal fractures into four pieces, which are only held together by ligament. The articular surface which corresponds to the semilunar bone has entirely disappeared. The styloid process of the ulna has been torn off. 1887

From a man, aged 43, who fell from a first-floor window. He died, without regaining consciousness, upon the sixth day.

See *Male Surgical Register*, vol. v. (1884), No. 1038.

925c. The Lower Portion of the Radius, which has been fractured immediately above the Wrist-Joint. The lower fragment is again divided into several pieces, as in the preceding specimens. Some of the fissures extend into the carpal articulation. 1887

925d. A Portion of the Lower End of the Right Radius, which has sustained a fracture. The fracture runs obliquely upwards and downwards. It extends into the wrist-joint by a wide fissure situated at the junction of the quadrilateral with the triangular articulating surface. 1887

From a woman, aged 65, who was knocked down by a heavy van, the wheel passing over the chest and arm; she sustained such injuries that she died two days later.

See *Female Surgical Register*, vol. v. (1885), No. 641.

This, with the three preceding specimens, was exhibited before the Pathological Society. See *Transactions of the Pathological Society*, vol. xxxviii., pp. 253-257.

928a. A Dissection of left Forearm and Hand, exhibiting the deformity characteristic of a recent Colles' Fracture. The lower articular end of the radius is separated from the shaft by a fracture, and displaced backwards with the carpus upon the posterior surface of the radius and ulna. A prominence upon the palmar surface of the wrist is occasioned by the projection of the extremities of the radius and ulna; and another a little lower, upon the dorsal surface by the displacement backwards of the carpus. The cuneiform is dislocated from the ulna, and the internal lateral ligament is ruptured. 1881

930a. Hand and part of the bones of the Forearm, showing the condition of parts many years after a Colles' Fracture. The upper end of the radius has been impacted into the lower fragment. The impaction, however, has not been quite even, since the outer edge of the radius has been driven farther upwards than the inner, *i.e.*, that next to the ulna. This obliquity of the radius has rendered the ulna unusually prominent. The cuneiform and pisiform bones are situated below the articular surface of the radius. 1885

For a further account of this specimen see *Pathological Society's Transactions*, vol. xxxv., p. 272.

Presented by C. B. Lockwood, Esq.

FRACTURED PELVIS.

934a. A Comminuted Fracture of the Pelvis. The right os innominatum is more completely broken than the left. The right acetabulum is broken into several pieces, and the right femur has sustained an extracapsular fracture of the neck, involving the great trochanter. The right lateral mass of the sacrum is completely separated, whilst on the left side the horizontal ramus of the pubes and the ascending ramus of the ischium are fractured. 1887

(In Case H.)

From a man, aged 58, whose diaphragm and peritoneum were ruptured, and who had in addition five fractured ribs. He threw himself from a window on to the pavement, a distance of about twenty feet.

See *Male Surgical Register*, vol. iv. (1887), No. 1203.

- 949a. Section through the Shaft of a Femur, from a case of Intra-Capsular Fracture of the neck with some impaction. The posterior and lateral portions of the capsule were torn, but the anterior part is entire. There is no bony union, and the fractured surfaces are only held together by a few filaments of fibrous tissue. 1888

From a woman, aged 64, who, a month before her death, fell from some steps a distance of about two feet on to her hip. On admission, the hip and thigh were bruised, the foot and leg were everted, and the limb was powerless. There was no shortening or crepitus. The fracture was treated by keeping the limb at rest with sand-bags.

See *Female Surgical Register*, vol. ii. (1886), No. 1768.

- 954a. A Fracture of the Neck of the Femur, with comminution of the Great Trochanter and impaction of the neck of the bone between the fragments. A considerable amount of repair has taken place, though with great displacement of the parts. 1889

(In Case H.)

From a man, aged 66 years, who fell upon his hip three weeks before he died. There was well-marked eversion of the limb.

Presented by Stephen Paget, Esq.

- 956a. A Comminuted Fracture of the Neck and Great Trochanter of the left Femur. There has been very considerable displacement of the fragments, but good bony union has resulted. 1886

(In Case H.)

From a woman, aged 75, a lunatic, who fell while crossing the room; she died two months later from causes unconnected with this injury.

Presented by G. Mickley, M.D.

- 959a. The Head and Neck of the Right Femur, showing an Impacted Extra-Capsular Fracture. The neck of the femur has been driven into the great trochanter to such a depth that it is almost completely buried. In the recent specimen the head appeared as if it was directly attached to the great trochanter, and was so driven downwards that only the tip of the finger could be placed between its lower surface and the lesser trochanter. The anterior portion of the great trochanter is split off from the shaft of the femur, and is only united to it by the periosteum. It has been raised to show the impaction of the neck. 1887

From a man, aged 76, who was knocked down in the street by a van. There was some ecchymosis about the right hip; the limb was everted, and was two inches shorter than its fellow.

See *Male Surgical Register*, vol. ii. (1885), No. 3872.

981. A Portion of a Femur, exhibiting a separation of its shaft from the lower epiphysis, and a fracture extending between the condyles into the knee-joint. The violence of the injury also occasioned the stripping up of the periosteum from the shaft of the femur to the extent of many inches; the shaft protruded through the muscles on the inner side of the thigh. Parts of the periosteum which were stripped from the shaft remained attached to the condyles. A line of new bone is formed on the anterior part of the shaft, along the torn edge of that part of the periosteum which remained attached to the shaft. 1889

From a boy, aged 18, who was going along with a laden truck, when one of the wheels came off. The truck rolled over, and one of the handles struck his thigh. The resulting injury was diagnosed as a simple oblique fracture of the left femur in its lower third. There was considerable bruising of the knee, with synovitis and effusion into the joint. The leg was put up in a Liston's long splint, with extension by means of a weight. During the night following the injury the leg swelled, and on the next day bullæ had formed, and the limb was becoming gangrenous. Nine days after the accident amputation through the thigh was performed. On making an examination of the leg, it was found that the lower epiphysis of the femur was separated, whilst the lower end of the shaft was driven outwards and backwards in such a manner as to press upon the artery, vein, and nerve in the popliteal space. The pressure on the vessels was sufficient to prevent the flow of blood in any direction, though it was not sufficient to cause any injury to their coats. The patient made a good recovery.

See *Kenton Ward Book*, vol. ii., pp. 246 and 267.

- 987a. The Two Halves of a Right Patella, which, after fracture, became united by fibrous tissue only, there being, as now shown, about an inch separation between the fragments. There is a considerable amount of bony outgrowth at the outer corners of the upper margin of the lower fragment. 1891

(In Case H.)

From the same case as No. 825a, to which refer.

- 988a. A Section of a Patella in which there has been a Transverse Fracture. The fractured surfaces of the bone are united by a band of ligament, which measures nearly half an inch in thickness. The fragments of bone are in excellent apposition, and they appear to be normal in texture. 1888

From a patient who died shortly after he had been run over. No history of the injury was obtained.

The other section of the bone, which shows the changes occurring in osteo-arthritis, is preserved in Series ii., No. 690a.

See *Male Surgical Register*, vol. ii. (1885), No. 3466.

- 990a. The Head of the Right Tibia, which has sustained a Comminuted Fracture with impaction. The lower fragment or shaft of the tibia has been driven upwards and forwards into the head of the bone, whilst a longitudinal fracture runs across the articular surface of the internal tuberosity. This fracture is longitudinal and simple until it reaches the posterior border of the tibia, when it divides into two branches, one running directly backwards, and the other running outwards splits off a small portion of the articular surface of the external tuberosity. The head of the fibula is broken into several pieces. 1888

From a woman, aged 76, who fell downstairs with her leg doubled under her. She died a fortnight after the accident.

See *Female Surgical Register*, vol. v. (1886), No. 2184.

- 999a. The Lower Portion of the Tibia and Fibula with a part of the Astragalus, showing the results of a badly set Pott's fracture which had occurred many years before death. The articular surface of the astragalus is firmly cemented by bone to the tibia. 1885

(In Case H.)

From the dissecting-rooms. Presented by J. Berry, Esq.

ASTRAGALUS.

- 1009a. An Astragalus, removed by operation, with a fracture extending transversely across the bone near its posterior margin. The extremity of the external malleolus, separated by a fracture, is attached to the astragalus. 1881

From a man who fell from a scaffold near the top of a house. The astragalus was dislocated forwards and outwards, and projected from a vertical slit in the skin on the outer side of the ankle. After an unsuccessful attempt at reduction, the bone was removed. The patient recovered with a useful limb.—See *Rahere Ward Book*, vol. vii., p. 345.

- 1012a. Portion of the Right Foot, showing a comminuted fracture of the Os Calcis. The fracture is more extensive on the inner than on the outer side of the bone; the injury has not extended to any of the other bones. 1889

(In Case H.)

From a man, aged 58, who was knocked down by a horse, and sustained a compound fracture of the right leg in addition to the fracture of the os calcis.

See *Male Surgical Register*, vol. ii. (1888), No. 2581a.

- 1016a. Fracture of a Rib Cartilage with considerable displacement of the sternal end. 1882

SERIES IV.

INJURIES TO JOINTS (Dislocations, &c.).

- 1017a. Portion of a Clavicle with the upper piece of the Sternum and the First Rib. The sternal end of the clavicle is dislocated downwards and forwards, the rhomboid ligament is torn through, and the head of the bone protrudes between the sternal and clavicular attachments of the sterno-mastoid muscle. 1883

DISLOCATION OF THE STERNUM.

- 1018a. The Upper Part of the Sternum, showing a dislocation of the Manubrium upon the Gladiolus. 1887

From a man, aged 40, who was run over by a hansom cab. His ribs on the right side had been fractured from the third to the tenth inclusive, and on the left side from the third to the sixth. In connection with the fracture of the third left rib an abscess had formed, which ruptured into the pleura and set up pleurisy and broncho-pneumonia, of which the patient died.

See *Male Surgical Register*, vol. iv. (1887), No. 288.

- 1019a. The Left Shoulder-Joint of a man, aged forty-one, who was killed by falling from a scaffold. The humerus at the time of the accident was dislocated, so that it lay beneath the coracoid process, whilst at the same time the great tuberosity was torn off. The biceps tendon is seen to be displaced from its groove and to be constricted at one point, owing to the pressure to which it has been subjected between the head and the margin of the glenoid cavity. None of the muscles around the joint appear to have been much torn. 1887

- 1019b. A Dissection of a recently-dislocated Shoulder-Joint, which was reduced during life. The dislocation did not answer exactly to the description of either the subcoracoid or subclavicular varieties, the head of the bone being more prominent than is usually the case with the one, and less so than is usually the case with the other. Reduction was effected with ease. The patient died twelve days later from broncho-pneumonia. At the autopsy the head of the humerus was found to be in its proper position and the capsule was quite intact. It was rather lax, and its attachment to the anterior border of the glenoid cavity was slightly raised, though it was continuous with the periosteum. The coracoid process is torn off the scapula. The muscles surrounding the joint were intact with the exception of the subscapularis, which was lacerated. On the posterior part of the articular surface is a groove, which on redislocation of the joint fitted the lower part of the anterior margin of the anatomical neck of the humerus. The capsular ligament showed

signs of injury where the head of the bone had impinged against it at the moment of dislocation, and there was a small piece of the articular cartilage lying loose in the joint. 1889

See *St. Bartholomew's Hospital Reports*, vol. xxiv., p. 163.

Transactions of the Pathological Society, vol. xl., p. 235.

CONGENITAL DISPLACEMENT (SO-CALLED DISLOCATION) OF THE HIP.

1050a. A Portion of the Right Innominate Bone with the Head and Neck of the Femur, from a case of congenital dislocation of the Hip.

The ilium has been separated from the pelvis by a section carried obliquely through the obturator foramen at a point corresponding with the lower part of the acetabulum. A triangular space occupies the position of the normal acetabular cavity, but unfortunately only the apical portion is preserved. This space is partially covered with a thin layer of cartilage, the bone being in part bare. Upon the dorsum of the ilium, immediately above the apex of the triangle, is an irregularly depressed surface, which, in the recent specimen, was covered by fibrous tissue, and upon which the head of the femur rested during life. No attempt at the formation of a socket, however, has been made, nor has any new bone been thrown out in this situation. The iliac segment of the acetabulum, which extends from a point below the anterior inferior spinous process of the ilium obliquely backwards to the ischium, is entirely absent, and to this is to be attributed the triangular depression representing the acetabulum. The curvature of the sciatic notch is remarkably altered owing to the extreme elongation of the lower and posterior portions of the innominate bone. As a result of this elongation, the antero-posterior diameter of the bone extending from the spine of the ischium to the ilio-pectineal line is much shortened. There is a great smoothness and absence of muscular ridges on the ilium. The head of the femur is diminished in size, and is much altered in shape. It is ovoid and is flattened posteriorly, but it is everywhere covered by a layer of healthy articular cartilage, which shows no signs of ulceration. The ligamentum teres is completely absent, and there is nothing which would lead to the supposition that it had ever existed. The neck of the bone is shortened, and appears to be twisted slightly backwards upon its axis. Before maceration the head of the bone lay in a well-defined capsular ligament. 1887

From a girl, Caroline Gibbs, æt. 13 years, who died in St. Bartholomew's Hospital on the 7th April, 1884, of a cancer of the stomach, which was exhibited at the Pathological Society. (See *Transactions of the Pathological Society*, vol. xxxvi., p. 195.) The lameness was observed on admission, and in answer to inquiries after death, when the condition of the hip-joint had been ascertained, the father stated that this was the first child. The labour was easy and natural, no interference being required. Nothing wrong with the leg or hip-joint was noticed before the walking period. The lameness was not very noticeable until she was about three years of age. There had been no accident nor any symptoms or suspicion of hip-joint disease; no pain on motion at any time. No other member of the family had been similarly affected.

See *Medical Post-Mortem Book*, vol. xi., p. 21. A drawing of the specimen will be found in Mr. W. Adams' work "On Congenital Displacement of the Hip-Joint," Churchill & Co., London, 1887.

See also *Transactions of the Pathological Society*, vol. xxxviii., p. 295, and plate xv.

DISLOCATION OF THE KNEE.

1051a. The Left Knee-Joint, in which the Tibia and Fibula have been dislocated backwards and outwards, whilst the Patella was dislocated upwards and outwards. There is a large rent in the capsule of the joint on its inner side, whilst the internal lateral ligament is torn completely across. The vastus internus has been lacerated and some of the fibres of the sartorius are torn. The whole of the

lower end of the femur readily passes through the rent in the capsule. There is much extravasated blood in the tissues. 1888

From a man, aged 36, who falling a distance of fifty feet, sustained such severe injuries that he died five days later.

See *Male Surgical Register*, vol. i. (1886), No. 3725.

CONGENITAL DISLOCATION OF THE KNEE.

1051b. The Femur and Tibia from a still-born child who had "back knee," and in whom hyper-extension of the joint was possible. 1889

Presented by A. G. Francis, Esq.

COMPOUND DISLOCATION OF THE ASTRAGALUS.

1052a. The Bones of the Right Tarsus, where, as the result of a severe injury, the Astragalus has been fractured at the neck, and the upper fragment has become dislocated on the inner side. Its upper articular surface protruded through the skin, and the cartilage has ulcerated away along its inner and outer margins. 1893

From a man, aged 34. At the time of the accident the spine was also fractured, from which he died at the end of two months.

See *Male Surgical Register*, vol. ii. (1890), No. 3234.

SUBASTRAGALOID DISLOCATION.

1053a. The Lower Ends of the Tibia and Fibula, with some of the bones of the tarsus. Nearly the whole of the ligaments uniting the astragalus to the rest of the bones of the foot have been torn through, and their remains hang in shreds from the bones they united. The astragalus itself is slightly broken at the attachment of the anterior portion of the external lateral ligament, and a small piece of the scaphoid is torn off. The anterior ligament of the ankle-joint is also partially rent, and the ankle-joint opened. The astragalus maintains its position relative to the tibia and fibula. 1883

From a woman who fell out of a second-floor window, and died from other injuries. The whole foot was very loose, and could be displaced in almost any direction.

COMPOUND DISLOCATION OF THE ANKLE-JOINT.

1053b. The Lower Part of the Right Leg, with a portion of the Foot. As the result of a severe accident there has been a compound dislocation of the ankle-joint, and the lower end of the tibia now projects from a ragged wound on the inner side; the foot is displaced outwards nearly to a right angle. 1893

From a man, aged 32. Unsuccessful attempts were made to reduce the dislocation, and amputation was performed one week after the accident.

See *Male Surgical Register*, vol. v. (1889), No. 1784.

1055a. A Dislocation of the Proximal Interphalangeal Joint of the Ring-Finger. There was shortening of the finger, and the flexor aspect of the proximal phalangeal joint was convex towards its palmar surface. The longitudinal section shows that there is a dislocation of the middle phalanx on to the dorsum of the proximal. Accompanying this deformity are changes in the joint and an abundant deposit of urate of soda in the dorsal aponeurosis and fascia covering the proximal phalanx. The interphalangeal joint contained a little turbid fluid, and its cartilages have almost disappeared; but where they are present they contain a quantity of urate of soda. The articular ends of the bones are slightly eburnated, and small osteophytes surround their articular margins. The anterior ligament is entirely destroyed, and the capsular and lateral are elongated. The dorsal aponeurosis

is much thicker than natural, and impregnated with urate of soda crystals, and it permits the reduction of the dislocation. 1886

This specimen was obtained from a male, aged about 48. All his articulations showed similar changes in the cartilages, bones and ligaments. See *Transactions of the Pathological Society*, vol. xxxvii., p. 560.

Presented by C. B. Lockwood, Esq.

1075a. Portion of an Occipital Bone with the three Upper Cervical Vertebrae, showing a lateral dislocation of long standing with subsequent ankylosis of the occipito-atlantoid articulation. There has been recent caries of the left atlanto-axoid joint and odontoid process. Death resulted from dislocation of the odontoid process. The firmness of the ankylosis leads to the conclusion that the patient had in early life suffered from caries of the upper cervical spine which terminated in a natural cure. 1889

From a labourer, aged 37, who fell headlong down a flight of steps whilst he was being ejected from a public-house. He subsequently experienced some pain with slight stiffness about the neck, but was able to continue his work for eight weeks, when he was admitted into St. Bartholomew's Hospital, Chatham. He died quite suddenly on the following day. At the time of his admission to the Hospital he was suffering from complete paralysis of both arms and legs; he spoke in a whisper, and deglutition was performed with difficulty.

See *British Medical Journal*, vol. ii. (1871), p. 437.

Presented by A. G. R. Foulerton, Esq.

SERIES V.

DISEASES AND DEFORMITIES OF THE SPINE.

1089a. Vertebrae from a case of Chronic Osteo-Arthritis. The two vertebrae are united by processes of new bone which have interlocked upon their left lateral aspect. 1885

(In Case H.)

See *Female Surgical Register*, vol. iv. (1884), No. 2319.

1089b. A Spinal Column exhibiting a slight amount of lateral curvature, with some rarefying osteitis and lipping of the lower dorsal and lumbar vertebrae. The left transverse process of the third lumbar vertebra is prolonged downwards, and articulates by a broad plate of bone with the transverse process of the fourth vertebra. The left transverse process of the fourth lumbar vertebra is enlarged and roughened. 1888

(In Case C.)

From a skeleton which was purchased.

SACRO-ILIAC DISEASE.

1090a. A Pelvis with the last two Lumbar Vertebrae, from a case of advanced sacro-iliac disease. The right iliac bone is lighter and more porous than the left, and its muscular ridges are less well marked. The auricular surface is completely devoid of cartilage, and is honey-combed by a process of carious inflammation to such an extent that a large circular aperture has been formed through its centre. The rough surface for the sacro-iliac ligaments has undergone a similar absorption, though to a less extent. The caries extends forwards along the inner and middle lips of the crest of the ilium for nearly two-thirds of its extent, and downwards as far as the brim of the true pelvis.

In the sacrum the whole of the right ala and lateral mass has undergone absorption, and the caries has extended across the anterior surfaces of the first and second sacral vertebrae as far as the sacral foramina of the left side. As a result of the inflammatory changes, spicules of new bone connect the fifth lumbar vertebra with the first piece of the sacrum on the right side, and the terminal piece of the sacrum with the coccyx. Posteriorly the caries has caused destruction of the spine of the first sacral vertebra.

The left sacro-iliac sychondrosis appears to be normal, and the symphysis pubis is healthy. 1887

(In Case H.)

From a man, aged 19, a bricklayer. Nineteen months before his death he had an attack of "rheumatism" in his right hip, and a month later he first felt pain in his sacrum. On admission to the Hospital a year later, an abscess had formed over the right buttock, and great pain was experienced on pressing the ilia together. After opening the abscess, bare bone could be felt over the posterior part of the ilium, and it was subsequently ascertained that the whole of the right side of the sacrum was carious. About two months before the death of the patient symptoms of amyloid degeneration were observed in various organs.

See *Male Surgical Register*, vol., iii. (1886), No. 2433.

- 1094a. An Atlas and Axis. The odontoid process has been dislocated in such a manner as to leave only a very narrow space for the spinal cord, and the bones have subsequently become ankylosed. 1887

They were found in a graveyard at Aberdeen, and are described by Sir James Paget in the *Medico-Chirurgical Transactions*, vol. xxxi. (1848).

The specimen was formerly catalogued as No. 1152.

Presented by George Banks, Esq.

- 1103a. A Portion of the Cervico-Dorsal Spine, in which the bodies of the vertebræ, from the second to the fifth dorsal inclusive, are extensively affected by tubercular disease, and have fallen together in such a way as to form a single mass. A well-marked angular curvature of the spine has been a result of this fusion of the bodies. There is a large collection of thick cheesy pus at the front and sides of the diseased vertebræ, and a similar collection of pus projects backwards into the vertebral canal, though the cord, as is seen in the opposite half of the specimen, is not actually compressed by it. The vertebræ above the seat of injury appear to be healthy. 1889

From a child, aged eight years, who was suffering from hip-joint disease, and who died of tubercular caries, tubercular peritonitis, and tuberculosis of the kidney. There were no symptoms of compression of the spinal cord during life.

The other half of the specimen is in the Museum of the Royal Free Hospital.

The hip-joint is preserved in Series ii., No. 627a.

Obtained in exchange from the Museum of the Royal Free Hospital.

- 1118a. Skeleton of a young Cock Fowl, *var.* Plymouth Rock, which was hatched in an incubator, and was subsequently brought up in an artificial "foster-mother." The sacrum presents a well-marked lateral curvature to the left, but otherwise the bird appears to be well-formed. The brood to which it belonged first limped and then lost the power of walking. 1888

(In Case C.)

Presented by Clement Godson, M.D., per Alfred Willett, Esq.

- 1131a. Portions of the sixth, seventh, eighth, and ninth Dorsal Vertebræ, to which are attached the Heads of the corresponding Ribs. A longitudinal section has been made through the bones, showing considerable softening and compression of the body of the seventh vertebra, due to a secondary deposit of scirrhus carcinoma; there is narrowing of the neural canal. In the upper part of the body of the eighth vertebra is a similar deposit, but the shape of the bone is not altered. There is also a large mass in the head and neck of the eighth rib. The primary disease was in the mammary gland. 1891

The patient was a woman, aged 43, whose right breast had been removed one year before her death for scirrhus carcinoma. There was a return in the scar of the operation wound, and numerous other deposits in the lungs, pleura, and liver. Some months before death paraplegia occurred. She died from pleurisy.

Microscopical sections of portions of the decalcified bones are preserved in Series iv., No. 99.

See also *Medical Post-Mortem Register*, vol. xviii., p. 30.

- 1131b. The Right Half of the second, third, fourth and fifth Cervical Vertebræ, from a case of primary Carcinoma of the Thyroid Gland. The bodies of the vertebræ have been sawn through longitudinally, and show a secondary deposit of carcinoma, which has almost completely replaced the body of the fifth vertebra, and has caused absorption of the disc between it and the body of the fourth. It also encroached on the canal, and gave rise to symptoms of pressure on the spinal cord. 1891

From the same case as Specimen No. 2318b. in Series xxvi., to which refer for details of the case.

Microscopical sections of the vertebræ are preserved in Series iv., No. 100.

SARCOMA INVOLVING DORSAL VERTEBRÆ.

- 1132a. Portions of the Last Cervical and Four Upper Dorsal Vertebræ. The bones have been sawn through longitudinally, and on the cut surface it is seen that there is a flat oval swelling, measuring two inches in diameter, attached to the front of the three upper dorsal vertebræ. The body of the second dorsal vertebra is the part most affected, and as a result of the disease it has diminished to less than one-half of its thickness. The tumour is homogeneous in section; a portion of it is also seen in the neural canal, where it has pressed upon and displaced the spinal cord. Microscopical examination showed that it was a sarcoma. 1893

From a man, aged 46. Three months before death he first had pain in his back and loins; this increased rapidly, so that a month later he could not stand. He also suffered later on from difficulty in micturition and defæcation, and died from pneumonia. At the autopsy there was found a large mass in the posterior mediastinum, as well as the mass involving the vertebræ, to which the dura mater of the cord was adherent.

Received in exchange from the Royal Free Hospital.

- 1136a. Fracture of the Odontoid Process of the Axis. 1885

From a groom, aged 35, who had been exercising a horse, and was found dead in the road without any visible injury except a slight extravasation on the back of the head. Post-mortem examination showed that the odontoid process had been fractured. The lower part of the medulla was destroyed by the pressure, and there was an extravasation of blood into the cord.

Presented by H. Holdrich Fisher, Esq.

- 1140a. Section of Five Vertebræ which have been fractured by indirect violence. The body of the sixth cervical vertebra is displaced forwards, so that it overlaps the seventh by about a quarter of an inch. The laminæ and spinous processes of the sixth are fractured. The dura mater is torn, and the cord is crushed inside the meninges. 1889

From a man, aged 42, who was run over by a hansom cab. On admission to the Hospital he had retention of urine and incontinence of fæces, with semipriapism. The reflexes were absent. He died five weeks after the accident, suffering from cystitis and suppurative nephritis.

See *Male Surgical Register*, vol. iv. (1887), No. 3221.

FRACTURE OF SACRUM.

- 1151a. The Right Half of the Lower Four Segments of a Sacrum. The bone has been sawn through longitudinally to lay open the spinal canal. The last segment of the sacrum and the coccyx have been comminuted; the fracture extended up through the right sacro-iliac synchondrosis and laid open the dura-mater sheath of the cord, at the same time lacerating branches of the internal iliac artery.— (See below.) 1893

From a man, aged 52, who died with symptoms of compression of the brain. He came to the Hospital, and was admitted at 2.30 P.M., after having fallen from a ladder. He was somewhat collapsed but quite conscious, complaining of pain across the sacrum. He remained without definite symptoms until midnight, when convulsions set in accompanied by retraction of the head and clonic spasms of the arms. He became unconscious, and died in about ten minutes. At the autopsy no evidence was found of any injury to the skull. On opening the skull a great deal of blood was found in the subarachnoid space, so that the medulla and pons were surrounded by blood-clot; the brain itself was nowhere torn or contused. The source of the hæmorrhage was traced into the spinal meninges. There was a good deal of ecchymosis over the sacrum, and on incision much blood was found in the muscles. There was no fracture of the cervical, dorsal, or lumbar vertebræ, but the lowest segment of the sacrum and the upper portion of the coccyx were comminuted, and the fracture extended obliquely through the right sacro-iliac synchondrosis, and the right innominate bone. It was found that the spinal canal had been opened, and the dura mater of the cord had been torn at the seat of fracture. The spinal canal was filled with blood, which extended beneath the dura mater from the sacrum to the occiput. It had escaped from branches of the internal iliac artery, which had been torn across.

See *Male Surgical Register*, vol. ii. (1891), No. 143, and *Surgical Post-Mortem Register* for 1891, p. 5.

FRACTURE-DISLOCATION OF THE SPINAL COLUMN.

1164a. The Sixth and Seventh Cervical and Five Upper Dorsal Vertebrae, in which, as the result of a severe accident, there has occurred a fracture-dislocation at the junction of the cervical and dorsal regions, with a comminuted fracture of the body of the fourth dorsal vertebra and fracture of the third and fourth dorsal spines. The specimen has been sawn through longitudinally a little to the right of the middle line, exposing the membranes without encroaching on the spinal cord. It is seen that the cord has been completely severed opposite the upper injury, and that it is also crushed and compressed opposite the lower. 1892

From a man, aged 44, who was brought dead to the Hospital.

See *Surgical Post-Mortem Register*, 1887, p. 177.

1166a. The Right Half of the lower Six Cervical and all the Dorsal Vertebrae. A severe injury, followed by caries, had occurred at the junction of the cervical and dorsal regions, and the laminae and spines of the first three dorsal vertebrae were subsequently removed by operation for the relief of paraplegia caused by compression. The cervical and dorsal vertebrae are firmly ankylosed at the junction of these regions, and there is a considerable angular curvature with loss of substance resulting. A small round cavity, the size of a pea, which contained inspissated pus, is seen in the posterior part of the body of one of the vertebrae, which, on counting up from below, is found to be the fourth dorsal; on counting down from above, the remains of the bodies of the sixth and seventh cervical, and of the first, second, third, and fourth dorsal vertebrae are all united into one piece after the absorption of a considerable amount of bony substance. The intervening intervertebral discs have disappeared; the fourth cervical disc is unusually thick. The specimen is suspended partly from one of the tubercles on the bifid spine of the seventh cervical vertebra (vertebra prominens): in the space from which the laminae have been removed the spinal cord is much flattened antero-posteriorly. 1890

From a boy who, at the time of his death in October, 1889, was 13 years of age, and had the following history:—In 1883 part of an old wall fell on him, and he was then admitted as an inmate into the Hull Infirmary for three weeks, suffering from paraplegia following the injury; the paraplegia lasted thirteen months, and then completely disappeared, leaving an angular curvature at the junction of the cervical and dorsal regions. During these thirteen months an abscess formed in the neck and discharged for six months. The boy completely recovered, and could run and jump like other boys, though some difficulty in micturition, which had come on with the paraplegia, remained. In the early part of January, 1889, pain returned, followed shortly by paraplegia, and on January 28th, he was again admitted into the Hull Infirmary under Mr. Henry Thompson; he rapidly got worse and on February 13th, under chloroform, the laminae and spinous processes of the two upper dorsal vertebrae were removed. He made a good recovery, and left the Infirmary on July 24th; he remained quite well, and recovered so completely that he was able to stand on his head; on September 25th, he went for a bathe, and was re-admitted on September 28th, suffering from croupous pneumonia, of which he died on October 6th, 1889.

For a further description of the case see *Lancet*, 1889, vol. ii., pp. 315 and 727.

Presented by Henry Thompson, Esq.

SERIES VI.

DISEASES AND INJURIES OF MUSCLES, TENDONS AND BURSAE.

- 1168a. A Portion of the Gastrocnemius Muscle which has undergone complete fatty metamorphosis. No muscular fibres are anywhere visible, but the inferior surface is covered by the lustrous tendon. 1887

From the leg of a girl, aged 26, who for many years had suffered from anterior poliomyelitis. *Female Surgical Register*, vol. i. (1887), No. 189.

From the same case as Series vi., No. 1198a.

- 1171a. A Portion of a Right Psoas Muscle. Extensive suppuration, the result of disease of the spine, occurred; the ulceration spread from the walls of the abscess cavity into the external iliac artery, causing death from hæmorrhage. 1891

See *Female Surgical Register*, vol. v. (1889), No. 2259*.

- 1174a. A Portion of a Tumour removed from the Sartorius Muscle. It appears to have grown from the connective tissue between the muscle-fibres. The section of the new growth appears in part to be of a firm fibrous nature, whilst in part it is soft, and has broken down in such a manner as to leave a cavity. The tumour is enclosed in an incomplete capsule, which has allowed of the extension of the softer portion of the growth. The capsule appears to be formed by the condensation of the surrounding connective tissue. 1887

From a woman, aged 62. The tumour was of nine months' duration. It was pyriform and obtuse in shape, situated subcutaneously, and growing rapidly. It was slightly lobulated, and before removal it was semi-fluctuating. Microscopically it was found to be a sarcoma undergoing fibroid change. The growth recurred in the neighbourhood of the scar, and extended upwards into the groin. It ulcerated through the skin, bled severely at times, and death by exhaustion ensued a few months after its removal.

Presented by George Wilks, M.B.

- 1174b. A Tumour of the Biceps muscle. 1885

- 1174c. A Tumour of the Buttock, which was removed from the substance of the gluteus maximus. The section shows that it consists of a solid mass, which is penetrated in all directions by bundles of connective tissue. Microscopically the tumour is a fibro-sarcoma. 1889

From a lady, aged 68, from whom a tumour had been removed twice previously, thirteen years and nine years ago. The two previous growths were, after microscopical examination, pronounced to be sarcomatous. The tumour was attached to the tendon of the gluteus maximus close to the great trochanter. She had a mammary tumour of many years standing, which, after removal, was found to be a pure fibroma.

Presented by Alfred Willett, Esq.

- 1174d. A Small Tumour removed from the thigh of a woman, aged twenty-six years. It had been growing for two years, and was situated in the substance of the right sartorius muscle, where it formed the boundary of Scarpa's triangle. Before removal it had been tapped and some clear fluid was drawn off, but it soon

refilled with blood. On section, it is seen to consist of a white mass, in which is a cyst with a curiously reticular wall like that of an hypertrophied and fasciculated bladder. The wall is stained with blood. On microscopical examination the growth was found to be a mixed-celled sarcoma with a hyaline matrix. In some parts both cells and matrix have been replaced by a structureless material which does not stain, and is probably the result of mucoid degeneration. 1889

Presented by A. A. Bowlby, Esq.

1176b. Muscles infested with *Trichina Spiralis*. 1884

The specimens were obtained from a man who had recently returned from America. All the muscles of the body contained an abundance of trichinæ, but none were noticed in the connective tissues. Sections of the muscles are preserved in Series lv., No. 106.

The details of the case are to be found in the *Coborn Ward Book*, Alexander Birch, vol. i., p. 889.

1178a. A Finger on whose deep flexor tendon are two small gelatinous cysts the size of split peas, apparently connected with the synovial sheath, but not separable from the tendon itself. 1884

Presented by Stephen Paget, Esq.

1181a. A piece of the Distal Phalanx of the Index Finger to which the Flexor Tendon is attached. At the end of the tendon are a few muscular fibres. 1888

From a boy who was cleaning a ginger-beer bottle placed in a rotating machine. The loop of string which is seen in the specimen caught the end of his finger, leading to the evulsion of the tendon. The patient made a good recovery.

Presented by A. Matthey, Esq.

1185a. A Ring-Finger which was torn off through being caught in the cog-wheels of a printing machine. The flexor tendons are torn out at their muscular attachments. 1883

1198a. Longitudinal section of a Tendo Achillis. The specimen was taken from the leg of a girl in whom a portion of the tendon had been resected more than two years previously on account of Talipes Calcaneus complicating infantile paralysis. The seat of this operation is marked by a considerable scar on the cutaneous surface, but the tendon itself has been entirely repaired. 1883

The operation did not materially benefit the patient, and the foot was amputated on account of its uselessness.

Microscopical sections of the repaired tendon are preserved in Series lv., No. 107.

1203a. Contraction of the Palmar Fascia, or Dupuytren's contraction. The central palmar fascia is greatly thickened opposite the cleft between the ring and little finger. The skin and thickened fascia are closely united, especially opposite the line which marks the front aspect of the metacarpo-phalangeal joint. A red rod has been placed beneath the cicatrised band, which goes to the radial side of the little finger. This band is most intimately connected with the digital nerve and artery. A blue rod has been placed beneath the digital vessels and nerves of the ulnar side of the ring-finger, and shows that they are separated by a considerable interval from the very prominent cicatrised band. 1886

See *Transactions of the Pathological Society*, vol. xxxvii., p. 556.

1203b. Contraction of Fascia of the Little Finger of the Left Hand; a red rod has been placed beneath a band of thickened fascia, which caused a contraction of the finger. 1886

The specimen was obtained from a female, æt. 19. The deformity of the finger had appeared without any ostensible cause, and had gradually progressed. There was no evidence to show that it was congenital. Casts of both hands are preserved in Series lvi., No. 68b.

See *Transactions of the Pathological Society*, vol. xxxvii., p. 556.

This and the preceding specimen were presented by C. B. Lockwood, Esq.

- 1203c. Contraction of the Palmar Fascia, or Dupuytren's Contraction. The palmar fascia is greatly thickened in the middle line, where it was closely adherent to the skin. As a result of its contraction, the ring and little fingers are partially flexed at their metacarpo-phalangeal joints. 1888

From the body of an old man brought for dissection.

INTERMUSCULAR SYNOVIAL CYSTS.

- 1205a. The Left Knee-Joint and Calf, showing an Intermuscular Cyst connected with the Joint. The knee-joint has been recently inflamed. On the outer side of the spine of the tibia is a passage along which a rod has been passed through the ligamentum posticum into a cyst. The cyst lies beneath the outer head of the gastrocnemius; it is pyriform in shape, and is possessed of a distinct cyst-wall. Its upper border is fused with the tendon of origin of the outer head of the gastrocnemius. The plantaris blends with the inner wall of the cyst. Some fibres of the gastrocnemius are spread out over its superficial surface. The cyst is bounded below by the tendinous arch of the soleus. On the outer side of the leg the cyst has burrowed for some distance, dissecting out the peroneal nerve at the point where it turns round the head of the fibula. At this point the skin had sloughed, and the cyst communicated by a sinus with the exterior. Near the plantaris, at the back of the joint, is a well-marked hernia or pouch of the synovial membrane of the knee. 1885

From a man, aged 44, a hawker, who had suffered from pain in his joint for two years before his leg was amputated.

See *Male Surgical Register*, vol. ii. (1885), No. 460, and (1884) No. 3643.

- 1205b. The Left Knee-Joint and Calf, showing an Intermuscular Synovial Cyst. The joint is completely disorganised, the synovial membrane is thickened and pulpy, and has grown over the articular surfaces of the bones. The cartilages are eroded, and their bones are bare in places. At the posterior surface of the joint two openings are seen. The one situated at the back of the internal condyle of the femur immediately above the inner head of the gastrocnemius has received a piece of brown catheter, which passes directly into the cavity of the cyst. It is part of a channel which led from the cyst into the connective tissue surrounding the muscles at the back of the thigh, and it was cut across during amputation. The second aperture is situated in the tendinous inner head of the gastrocnemius, and a black catheter is passed through it; it puts the cyst into communication with the posterior aspect of the knee-joint. The cyst itself measures four inches by three inches. It appears to have taken the place of the popliteus muscle. 1885

From a female, aged 22, who had suffered four years from trouble with her knee.

For further history and remarks on the two preceding cases see *Transactions of the Pathological Society*, vol. xxxvi. (1885), p. 337, where No. 1205a is figured in plate xii. (a).

Presented by J. Langton Hewer, Esq.

- 1205c. The head of a Humerus which is inflamed owing to the suppuration of an intermuscular cyst which was situated beneath the teres minor. The remains of the inflamed cyst are seen as a mass of tissue upon the left side of the specimen. 1885

From a male, aged 55. The specimen is described and figured in *Transactions of the Pathological Society*, vol. xxxvi. (1885), p. 337, and plate xii., fig. b. Drawings are preserved in Series lvii., Nos. 86b, c, d.

Presented by William Marrant Baker, Esq.

- 1205d. Synovial Fluid from an Intermuscular Cyst in the calf. 1886

From a woman of 40, who had chronic synovitis of the right knee-joint for seven years. Three weeks before the fluid was removed she had swelling of the leg, and then noticed the cyst. It lay to the inner side of the calf, and seemed to be beneath the inner belly of the gastrocnemius. It was ill-defined, oval, measuring about three inches in its vertical diameter

by two in its transverse. Its upper edge was about three inches below the knee. Puncture with a grooved needle let out four or five ounces of synovial fluid mixed with flakes of fibrin or lymph.

The synovial membrane of the knee was much thickened; the joint had fluid in it, and moved with some friction. By gentle continued pressure the cyst could be emptied of its contents more or less completely into the joint, but the fluid passed back again when the pressure was removed.

Measurements—R. knee, fifteen inches; L. knee, fourteen and a half inches; R. calf at level of cyst, fifteen and a quarter inches; L. calf at same level, fourteen inches.

Presented by Stephen Paget, Esq.

1205e. The Left Knee-Joint from a case of acute arthritis following the formation of an Intermuscular Synovial Cyst. The under surface of the patella is carious, the cartilage upon it is ulcerating, and for the most part has disappeared. The condyles of the femur and the head of the tibia are in a similar condition. The large cyst at the back of the joint contained a considerable quantity of blood-stained fluid. It communicated with the bursa between the inner head of the gastrocnemius and the semi-membranosus muscles, and so with the knee-joint. The shrivelled remains of an old cyst is seen running along the inner border of the gastrocnemius muscle for about an inch and a half. It communicates by a very narrow passage with the cyst at the back of the knee. The ligaments are all loosened, but they are not destroyed. The cartilages have almost entirely disappeared, and the synovial membrane is pulpy. There was no pus in the joint. 1887

From a man, aged 45, in whom the main symptom of the extensive joint-disease was intense pain on the slightest movement of, or jar to, the limb. Sixteen months before admission, the synovial cyst, whose shrivelled remains are seen in the specimen, was opened in the calf of the leg. The wound made, with antiseptic precautions, healed by first intention. The knee-joint first became painful six months after the cyst had been tapped. After the amputation the patient made a good recovery.

See *Male Surgical Register*, vol. ii. (1886), No. 2279, and the *Lancet*, vol. ii. (1886), p. 970.

A drawing of the limb is preserved in Series lvii., No. 100.

1205f. The Lower Third of the Right Thigh and the upper portion of the Right Leg exhibiting a general enlargement of the bursæ in the neighbourhood of the knee. An irregular cystic swelling, which contained serous fluid, in which floated a large number of melon-seed bodies, lies upon the inner side of the joint, occupying in part the position of the bursa, between the semi-membranosus and semi-tendinosus tendons. The cyst is lined throughout by a thin membrane, which forms its wall. It is irregularly hour-glass in shape, the two swellings lying opposite the inner condyle of the femur, and the upper and inner part of the calf respectively, the constriction between the two parts being apparently due to the passage across the cyst of the sartorius and gracilis tendons. Immediately beneath the inner hamstring tendons, the constricted portion of the cyst opens by a tortuous passage into a second dilatation, situated immediately beneath the popliteal vessels and nerve, in close contact with, but not opening into, the bursa, which lies under the inner head of the gastrocnemius. From this point the cyst can be traced beneath the gastrocnemius muscle, where it dilates into a terminal sac. The popliteus muscle is greatly stretched and thinned owing to the dilatation of the bursa beneath it. This dilated bursa is separated from the one previously described by the popliteus muscle, and it does not appear that the two in any way communicate. Neither of the cysts communicate with the knee-joint.

The knee is almost typically affected with tubercular synovitis. The cartilages everywhere appear to be healthy, except for some slight roughening over the external condyle and the corresponding articular surface of the patella. There are neither osteophytes nor ecchondroses. The ligaments, however, are much frayed and

softened, so that they are easily torn. The semilunar cartilages are in part worn away. The synovial membrane is remarkably affected, for from the neighbourhood of the mucosum et ligamenta alaria protrude large, soft, flattened, and leaflike synovial fringes. Some of the processes measure as much as one inch or one and a half inches in diameter. Microscopic examination shows that these fringes are the results of tubercular inflammation, and that they contain masses of tubercle, and in some cases even the tubercle bacilli. 1887

From a man, aged 41, a valet by occupation, who died of general tuberculosis. Ten months before his death he observed a swelling on the inner side of his right knee. The swelling was said to have attained its maximum size in two or three days, and the patient was certain that it was not the result of an injury. The cyst was aspirated on two occasions, and synovial fluid with flakes of mucus in it was removed.

See *Male Surgical Register*, vol. ii. (1886), Nos. 449, 1353, 2021, and 2868.

Drawings of the joint are preserved in Series lvii., Nos. 99a and b.

1205g. The Left Elbow-Joint from a man whose arm was amputated for joint-disease in connection with an Intermuscular Synovial Cyst. The capsule of the joint is distended on both its anterior and posterior surfaces, and it is much thickened as a result of chronic inflammation. The synovial cavity is in communication with the exterior by means of two sinuses, along which glass rods have been passed into the joint. The articular surfaces of the bones are almost entirely denuded of cartilage. 1887

From a man, aged 34, a post-office porter, who was admitted on account of a painless swelling in the neighbourhood of the left elbow-joint. It was oval in outline, and was situated immediately above the internal condyle. The swelling was first noticed two and a half years previously. It was tapped, and some brownish viscid synovial fluid containing granular matter escaped, but the cyst rapidly refilled. For nearly twenty months subsequently the swelling underwent but little alteration, but the patient was then readmitted with a large abscess below and to the inner side of the elbow. The abscess was allowed to burst, and it was then washed out and drained, but the patient lost ground, and amputation through the arm was performed, after which he made a good recovery.

See *Male Surgical Register*, vol. v. (1884), No. 2637, and vol. v. (1886), Nos. 1638, 1835, and 2289, and also *St. Bartholomew's Hospital Reports*, vol. xxi. (1885), p. 184, Case No. III.

The three preceding joints were exhibited before the Pathological Society. See *Transactions of the Pathological Society*, vol. xxxviii., p. 381, and plate xxiii., fig. 2.

1205h. The Right Knee-Joint dissected to show an enlargement of the semi-membranosus bursa. The bursa, which is pyriform in shape, measuring two and a quarter inches in length, is situated between the tendon of the semi-membranosus and the inner head of the gastrocnemius. 1888

From a subject brought in for dissection.

Presented by E. Fincham, Esq.

1207a. A greatly enlarged Bursa Patellæ which was removed by operation. It has been laid open from behind. On the front wall there is a deposit of blood-stained fibrin. Considerable hæmorrhage had taken place into the cavity of the cyst a short time before the operation. 1892

See *Female Surgical Register*, vol. iv. (1891), No. 1033.

1209a. A Bursa Patellæ, which is somewhat enlarged, and is traversed by a broad circular bar of fibrous tissue. 1887

From a woman, aged 25, who had observed the swelling for nine months. She had fibrous tumours below the right olecranon process and on the right shin; the opposite bursa patellæ was also enlarged.

See *Female Surgical Register*, vol. iii. (1887), No. 1434.

1214a. An enlarged and greatly thickened Bursa Patellæ removed by operation. Its cavity is occupied and nearly filled by nodular masses of coagulated fibrin with a rough shaggy surface. A portion of skin is still adherent to the lower end of the specimen. 1892

1216a. A Section through the Bursa overlying the Tuber Ischii, showing the condition which occurs in the so-called "weaver's bottom." The bursa has become entirely converted into fibrous tissue, so that it appears like an ordinary fibrous tumour. 1889

From a dustman, aged 53 years. Twenty-four years ago he had a fall on the nates, a week after which he noticed a lump. This lump slowly increased until three years before its removal, when it was said to have rapidly become larger.

See *Male Surgical Register*, vol. ii. (1888), No. 3908*.

SERIES VII.

DISEASES AND INJURIES OF THE PERI- CARDIUM AND OF THE HEART.

1219a. Heart and Lungs with part of the Chest Wall, from a case of pericarditis following upon pyæmia. The parietal pericardium is much thickened in part, and is adherent to the left pleura. The heart is covered with flakes of recent lymph. The left lung is collapsed, and is separated from the lower part of the pleural cavity by firm bands of adhesion. 1885

From a boy, aged nine, who fell from a swing and sustained an injury to his shoulder. For further history and notes of the case see *St. Bartholomew's Hospital Reports*, vol. xix., p. 271, "Notes on a Case of Pyæmia with Suppurative Pericarditis," by Dr. R. D. Brinton and R. J. Collins, Esq., and by Dr. Samuel West in the *Transactions of the Pathological Society*, vol. xxxv., p. 104.

TUBERCULAR PERICARDITIS.

1231a. A Heart to which the Pericardium is universally adherent. The heart is enlarged, and weighs seventeen ounces with its covering. In front, the pericardium has been incised and partially detached; on its inner surface and on the surface of the heart numerous tubercles can still be seen imbedded in the coagulated fibrin. They are now much less distinct than when the specimen was fresh. Examination of the interior of the heart showed that the valves were normal and unaffected. 1892

The patient was a sailor boy, aged 16. He was admitted into Hospital only three weeks before his death. During his illness he never complained of any pain, and, with the exception of a markedly hectic temperature, did not seem ill. Coma, probably due to tubercular meningitis, set in the day before his death. At the post-mortem examination his lungs, liver, and spleen were all the seat of recent tubercular inflammation.

Presented by Surgeon Gipps, R.N.

1233a. A Heart with a partially adherent Pericardium. With the exception of the front surface of the left ventricle, where adhesion has occurred, the surface of the heart is covered with a fine flaky deposit, derived from the thick curdy pus which the pericardium contained. 1890

From a child, aged two years and four months, who died of meningitis and catarrhal pneumonia (at upper lobe). No tubercles were seen on the meninges.

See *Medical Post-Mortem Book*, vol. xv., p. 66.

1233b. A Heart with a greatly distended Pericardium. The surface of the heart is uniformly covered with a thick layer of coagulated lymph. The pericardium, which contained thirty-two ounces of pus, is thickened, and has a similar layer of lymph on its inner surface. 1890

From a case of acute periostitis of the femur.

See *Female Surgical Register*, vol. i. (1888), No. 1178.

INJURIES OF THE PERICARDIUM.

- 1234a. A Portion of the Pericardium, showing a large oval aperture with rounded edges. The aperture, measuring about one inch and a quarter by one inch, was situated near the apex of the heart, at the posterior surface and on its left side.

1887

From a man, aged 58, who fractured several of his ribs, and sustained other injuries by falling a distance of twenty feet three weeks before his death. The patient had pericarditis, but the injury which caused the perforation in the pericardium appears to be of older date than that which caused death.

See *Male Surgical Register*, vol. i. (1885), No. 3807.

- 1241a. A Heart with enormous Hypertrophy of the left Ventricle. The valves are healthy.

1883

From a man who suffered from chronic nephritis. One of the kidneys, which were granular and contracted, is preserved in Series xxviii., No. 2335a.

COR ELEPHANTINUM.

- 1241b. An enormously Hypertrophied Heart, weighing in its present condition twenty-three ounces. Both sides of the heart are very much enlarged, the enlargement being nearly symmetrical; the pericardium contained about half a pint of fluid. The mitral valves were competent, but the aortic valves were thickened, and allowed water to trickle slowly through them.

1890

From a man, aged 38, who had chronic interstitial nephritis.

One of the kidneys is preserved in Series xxviii., No. 2335d.

See *Medical Post-Mortem Register*, vol. xv., p. 63.

SPONTANEOUS RUPTURE.

- 1247a. A Heart showing a Rupture of the Left Ventricle. The rupture is a small circular orifice, just capable of receiving a No. 2 catheter. It is situated in the wall of the left ventricle, one inch and one-eighth below the auriculo-ventricular septum, and five-eighths of an inch to the left of the interventricular septum. A director passed through the aperture runs upwards and to the right along a narrow canal in the muscular wall of the ventricle, until it opens into the right ventricle immediately below the pulmonary valves. The cardiac muscle in this situation is extremely degenerate and soft. There is a large unilocular aneurysm of the first part of the arch of the aorta, which has been partially cured by a deposit of laminated fibrin. The aorta itself is extremely atheromatous, and the pericardium is attached by dense adhesions to the outer surface of the aneurysm.

1889

From a man who died suddenly, after going upstairs, with all the signs of internal hæmorrhage. He had been treated for cardiac aneurysm.

See *Transactions of the Pathological Society*, vol. xl., p. 58.

Presented by W. H. White, M.D., and W. T. Strugnell, M.B.

- 1248a. A Heart which has ruptured. The left ventricle is greatly dilated, and its muscular tissue is easily torn. At the upper part of the right ventricle, near the lower portion of the conus arteriosus, is a rent extending completely through the substance of the heart. In the recent state the laceration, through which a glass rod has been passed, was occupied by a clot of blood. To the left of the rent is a rupture through the fat and muscular tissue, about one inch and a quarter in length. It is situated just over the anterior part of the ventricular septum, but it does not penetrate any cavity. This laceration extended upwards under the visceral layer of the pericardium, and appears to open into a branch of the anterior coronary artery. A red rod has been passed along it for some distance.

1886

M., æt. 54; was admitted in a comatose condition; no further history was obtainable.

At the autopsy the pericardium was found to be filled with blood. The internal coat of the aorta was swollen and atheromatous, and there was a large hæmorrhage into the right side of the brain.

See *Matthew Ward Book* for 1885, p. 865.

- 1248b. The Heart from a case in which the right ventricle ruptured spontaneously. About half-way down the anterior surface of the right ventricle is a discoloured patch of muscular tissue perforated by two small apertures. In the recent condition one of these apertures was filled with a small piece of soft blood-clot. 1887

From a woman, aged 71, who was admitted into the Hospital with diabetes. At the autopsy the pericardium was entire, but was filled with fluid blood. The aorta was highly atheromatous. The skull-cap was greatly thickened.

The calvaria is preserved in Series i., No. 296a.

See *Medical Post-Mortem Book*, vol. xi., p. 173.

- 1259a. A Heart, showing extreme dilatation of both auricles. The mitral valve is thickened and indurated, and the auriculo-ventricular orifice will scarcely admit the tip of the little finger. A similar condition exists on the right side, but the contraction is not so great, and the tricuspid orifice will admit the index finger. 1882

The margins of the orifices on both sides are extremely rigid and undilatable.

ANEURYSM OF LEFT VENTRICLE.

- 1261a. A Heart in which a large Sacculated Aneurysm has formed in connection with the outer side of the Left Ventricle. The sac has been laid open from behind; it lies directly to the outer side of the posterior musculus papillaris. At first sight the walls of the sac appear of about the normal thickness of the left ventricular wall. Careful inspection, however, shows that they are largely composed of layers of fibrin. The outer surface of the heart, particularly in the neighbourhood of the aneurysm, is covered by a shaggy coat of coagulated fibrin, due to pericarditis.

From a man, aged 35, who was brought to the Hospital dead. 1893

See *Medical Post-Mortem Register*, vol. xvii., p. 308.

- 1263a. An Adult Heart with Multiple Aneurysms. The heart weighs sixteen ounces. The pericardium is adherent to the base; the foramen ovale is patent; the mitral valve is diseased; two small aneurysms spring from the left ventricle, and one opens into the left auricle. 1886

From a woman, aged 44, who died with anasarca and ascites. She had rheumatic fever sixteen years previously.

See *Transactions of the Pathological Society*, vol. xxxvii., p. 147.

- 1266a. Portion of the Apex of a Heart, showing an aneurysmal dilatation at the apex of the right ventricle. 1881

- 1268a. Portions of a Heart, showing an aneurysm of the sinus of Valsalva. The orifice of the aneurysm is behind the middle aortic valve, at the lowest part of the sinus of Valsalva, and is one-third of an inch in diameter. The edge of the orifice is thick and rounded, with outgrowths upon it. The aortic valves are all fringed with soft ragged growths, and are partly destroyed. The aneurysm projects as a bilobed tumour, about a quarter of an inch broad, into the right auricle on the upper surface of the tricuspid valve. Between its orifice in the sinus of Valsalva and the tricuspid valve, the aneurysm extends downwards between the layers of the upper part of the undefended space, and into the substance of the tricuspid valve. The interior of the aneurysmal sac is roughened and partly filled with fibrin. 1888

From a man, aged 21, who died after six attacks of rheumatic fever. In addition to the aneurysm there was well-marked mitral stenosis and a slight degree of tricuspid stenosis. The left ventricle was much dilated, and is slightly hypertrophied. The heart weighed fifteen and a half ounces.

See *Transactions of the Pathological Society*, vol. xxxviii., p. 100.

- 1271a. Heart from a woman who died of pyæmia, with plugging of the iliac veins, four weeks after parturition. In the right ventricle are several large blood-clots adherent to the cardiac walls, and partially decolourised. 1884

The uterus is preserved in Series xlvi., No. 3094a, and one of the iliac veins in Series ix., No. 1578a.

- 1271b. A Heart showing an ante-mortem clot firmly adherent to the pulmonary valves. There are several smaller clots, which also appear to have been formed before death, entangled in the columnæ carneæ of the right ventricle. 1888

From a girl, aged 19 years, who died of phthisis. She was *in articulo mortis* for two days. See *Medical Post-Mortem Register*, vol. xii., p. 320.

- 1280a. A new Growth, having the appearance and histological characters of a Syphilitic Gumma; it springs from the inner surfaces of the posterior wall of the left auricle, and extends into the muscular substance of the wall. It is of softish consistence, and of a light yellow colour. The right ventricle is dilated. 1881

From an old man who died shortly after admission to the Hospital for gangrene of the penis. There were similar growths in the liver, but no other evidences of syphilis.

Histologically, the growth consists of degenerating fibrillar tissue, in which a reticulum is distinguishable in places; but no giant cells are found.

- 1285b. A Heart, the substance of which is studded with a number of small white Sarcomatous Tumours. 1881

From a woman, aged 41 years, who died with generally disseminated sarcomatous tumours, secondary to a small melanotic, slightly raised, warty growth, which was removed from the sole of the foot seven months previously.

See *Sitwell Ward Book*, vol. vi., p. 262.

- 1295a. A Heart showing a large Hydatid Cyst in the outer wall of the left ventricle. The cyst has been laid open, and is situated in the muscular wall of the heart; it is lined by a thick white membrane. The whole heart is enlarged. 1890

From a brewer's drayman, aged 50, who was at work until five minutes before he died, when he was seized with sudden syncope, from which he did not recover. The cyst had not burst, but was found to contain a number of small acephalous hydatids.

Presented by John Adams, Esq.

- 1299a. The Heart of a child, aged seven. The left ventricle is much hypertrophied, and the auricle on the same side somewhat dilated. On the ventricular surface of the mitral valve are several small growths, and the aortic orifice is greatly obstructed by growths of a similar nature, though much larger, one of which is partially calcified; the aortic valves are incompetent. 1882

Some years previously the patient had suffered from an attack of acute rheumatism. The external iliac artery, which is plugged and aneurysmal, is preserved.—See No. 1460a.

- 1299b. The Heart removed from a girl, aged twenty, who had multiple aneurysms of the arteries of the extremities following the formation of emboli. The organ is the seat of ulcerative endocarditis, and it appears to have been diseased for a considerable period before death. The aortic valves are covered with vegetations and calcareous matter. The sinuses of Valsalva are dilated so as to form aneurysmal pouches. 1887

For further details and a history of the case, see Series viii., Nos. 1460 b, c, d.

- 1299c. A Heart affected with Ulcerative Endocarditis. The aortic valves are extensively ulcerated, the cusps being ragged and in great part destroyed. Shreds of decolourised and recent blood-clot adhere to the ulcerated surfaces. An ulcer has penetrated the mitral valve, and a clot is adherent to the diseased tissue in the left auricle. 1887

From a man, aged 32, who caught a cold three weeks before admission to the Hospital. The cold commenced with a severe rigor and diarrhoea. He subsequently developed symptoms of septicæmia, and died a month after the first onset of the disease.

See *Male Surgical Register*, vol. i. (1885), No. 2789.

- 1299d. The Heart of a Young Woman, aged twenty-five, who died of Ulcerative Endocarditis. The left ventricle has been laid open to show the condition of the aortic orifice. The valves themselves are thinned and torn, and the sinuses of Valsalva

are occupied by large masses of fibrinous material, containing a quantity of calcareous matter. The endocardium immediately below the valves is ulcerated in places. The patient had an aneurysm of the gluteal artery, probably of embolic origin. 1890

The aneurysm is preserved in Series viii., No. 1538b; the spleen in Series xxv., No. 2295b; and one of the kidneys in Series xxviii., No. 2331e.

See *Female Surgical Register*, vol. i. (1889), No. 939.

1299e. A Heart affected with Ulcerative Endocarditis, in which there is also a communication between the left ventricle and the right auricle, though whether this opening is congenital or the result of ulceration is uncertain. At the base of the posterior aortic valve is a ragged ulcer, surrounded by irregular fibrinous deposits. There are also two other small ulcers of the endocardium near this region. Immediately above the valves are several patches of calcareous degeneration. 1890

From a man, aged 48, who was admitted into the infirmary of St. George's-in-the-East, complaining of general malaise and pains in the body and limbs. This was accompanied by high temperature (101°-102° F.) at night. He died a fortnight after admission.

Presented by H. E. Harris, M.B.

1299f. A Heart which has been laid open so as to expose fully the Left Auricle and Ventricle. The auricular surface of both mitral valves is covered with a mass of thick vegetations, of almost fleshy consistency when fresh, and which nearly blocked the auriculo-ventricular orifice. Another large mass is attached to the ventricular aspect of one of the aortic cusps. The cavities on the left side are slightly dilated, but the walls are not hypertrophied. The right side is unaffected. 1892

See *Medical Post-Mortem Register*, vol. xviii., p. 51.

1300a. A Heart from a case of tetanus. A fringe of small, semi-transparent pinkish growths lines the free edge of the mitral valve. Many of the growths are very small, though two are slightly larger than the rest. None of the cords are thickened. Two of the aortic valves are adherent, but not to so great an extent as to permit regurgitation to take place. The posterior valve is fenestrated. The pulmonary and tricuspid valves are normal. 1888

From a man, aged 33, who was only ill a fortnight before his death. His illness began suddenly after exposure to cold.

See *Matthew Ward Book* for 1887, No. 19.

1302a. A Heart showing the effects of Ulcerative Endocarditis. The heart is hypertrophied, weighing twelve ounces. There are large soft fibrous growths on all the aortic valves, and on the posterior valve is a shallow ulcerated spot as large as a silver penny. Upon the aortic surface of the mitral valve there is a small growth, and in the substance of the valve is a nodular swelling. 1886

See *Medical Post-Mortem Book*, vol. xi., p. 246.

1303a. Portions of the Left Auricle and Ventricle of an Adult Heart. The mitral valve is thickened, and its cusps are fused into a single circular membrane, which projects into the auriculo-ventricular opening in the form of a tense ring. 1886

1304a. A Heart from a case of Chronic Endocarditis. As a result of the long-continued inflammation, there has been a fusion of the cusps of both the mitral and tricuspid valves, to such an extent as to produce well-marked stenosis of both auriculo-ventricular orifices. The heart weighs eighteen ounces. The right auricle was much dilated, and its walls were very thin. The right ventricle was dilated, and its walls were thinner than normal. The left auricle was much dilated, but the left ventricle was of normal size and thickness. 1888

From a girl, aged 17, who had an adherent pericardium and cirrhosis of the liver. During life the patient had a well-marked double mitral murmur. There was no history of rheumatism.

See *Faith Ward Book* for 1887, No. 166.

HEART FROM ANGINA PECTORIS.

- 1306a. The Heart from a man, aged fifty-six, who had suffered from repeated attacks of angina pectoris. The organ weighs twenty-one and a half ounces. All its cavities are dilated and hypertrophied. The aortic valves are shortened and thickened, and they had upon them two soft growths which could readily be detached. The orifices of the coronary arteries are extremely small, a glass rod has been passed into them, and they have been dissected out for a part of their course. The aorta is very atheromatous. The chordæ tendineæ of the mitral valve are shortened and thickened, but there are no adhesions and no growths. The cords therefore appear as if the shortening were due to some malformation and not to morbid change.

See *Medical Post-Mortem Book*, vol. xi., p. 181.

1887

- 1316a. A Heart in which all the cavities are greatly dilated. It weighs twenty-four ounces. The right ventricle is dilated, but is not greatly hypertrophied. The tricuspid valve is stenosed, so that it barely admits two fingers, and its edge is thickened. The calibre of the pulmonary artery is much larger than usual, as it measures one inch more in diameter than the aorta. One of the pulmonary valves is absent, a commencing aneurysm occupying its situation. The aortic valves are normal, whilst the mitral orifice is somewhat dilated. The pericardium was natural.

1888

From a nulliparous married woman, aged 23, who was admitted with general dropsy and dyspnoea. She had passed through an attack of scarlet fever in early life: there was no history of rheumatism. She had suffered from dyspnoea from the age of fourteen. On admission to the Hospital, the cardiac impulse was diffused, and the apex-beat was outside the left nipple-line. A presystolic murmur, followed by a systolic one, was heard at the apex. A systolic murmur with accentuation of the second pulmonary sound was audible in the right ventricle.

See *Elizabeth Ward Book* for 1887, No. 195, and *Transactions of the Clinical Society*, vol. xxi., p. 114.

A drawing of the heart is preserved in Series lvii., No. 176.

ULCERATIVE ENDOCARDITIS.

- 1324a. The Heart of a child, aged four years. The left ventricle has been laid open, disclosing a large deposit of vegetations on the auricular surface of the large flap of the mitral valve. Microscopical examination of this mass showed that it contained a very large number of micro-organisms.

1893

See *Medical Post-Mortem Register*, vol. xix., p. 305.

- 1330a. A Heart from a fatal case of Chorea. On the auricular surface of the edges of both cusps of the mitral valve there is a row of small granulations completely surrounding the orifice. When fresh, some of these felt soft to the touch, others were rather firm. In other respects the heart is normal.

1892

From a girl, aged 16.

See *Medical Post-Mortem Register*, vol. xvii., p. 353.

- 1348a. A portion of the Left Ventricle of the Heart, with the commencement of the Aorta. The aortic orifice is greatly narrowed, whilst the aortic valves, as a result of inflammation, are dilated and perfectly rigid from calcification. There are only two cusps to the valves, but this appears to be due to the inflammatory process having caused ulceration of the adjacent margins of the valves, which subsequently became fused. The arterial surfaces of the valves present knobs of earthy material surmounted by small masses of fibrin.

1886

From a man, aged 82, who died from pneumonia, and who had a serous effusion into the brain.

Presented by H. Parker, Esq.

- 1359a. A Heart with commencing aneurysm of the aortic valves. The left ventricle is much hypertrophied and dilated. There is a circular eroded patch about two lines in diameter upon the anterior cusp of the left auriculo-ventricular valve. This

patch is surrounded by granulations. There is a commencing aneurysm of this valve. The aortic valves are quite incompetent; they are thickened and adherent at their edges and bases. The edges are jagged. 1885

For further details see *Post-Mortem Book*, vol. x., p. 97.

1359b. First part of the Arch of the Aorta, showing a commencing aneurysm in the sinus of Valsalva. The arterial wall has undergone atheromatous changes at some distance above the sigmoid valves. 1885

1359c. A Portion of the Left Ventricle of the Heart with the commencement of the Aorta. The aortic valves are thickened and stretched, and immediately above them is an aneurysm of the size of a Tangerine orange. The aneurysm rested upon the right auricle, but was not situated wholly within the pericardium. Its wall is lined with numerous calcareous plates, but it contained no clot. The opening of the coronary artery is situated at some distance back in the aneurysm. 1887

From a woman, aged 46, who was never known to have had rheumatic fever. She was reported to have suffered for four years from a "bad heart."

See *Faith Ward Book*, 1886, p. 174.

1365a. Heart of a child showing a lacerated opening on the anterior wall of the right ventricle, immediately below the origin of the pulmonary artery. 1884

Two ribs were broken on the right side close to the spine, but the thoracic walls on the left side were intact. The child had been run over by a cart; death was instantaneous.

1367a. A Heart showing a laceration of the septum ventriculorum, extending to the pericardial surface of the left ventricle. 1884

From a man who was dead when brought to the Hospital, having been knocked down by a cart.

1367b. A Heart in which there is a small irregular rupture of the left auricle. At the post-mortem examination neither the sternum nor any of the ribs were fractured. 1891

RUPTURE OF THE LEFT VENTRICLE.

1367c. A Heart, showing near the apex a rupture into the left ventricle. A green glass rod has been passed through the laceration, which measures rather over one inch in extent. 1893

From a young Hindu, aged eight, who met with a violent death by strangulation and drowning; no fracture of the ribs had occurred. Microscopical examination showed that the muscular tissue of the heart had undergone no fatty degeneration.

Presented by Surgeon-Major T. A. Dixon, A.M.S.

1370a. A Heart and Pericardium from a boy, aged thirteen years, who died on the twenty-fourth day after a stab in the chest with a penknife. On the inner side of the pericardium, on that portion which, during life, corresponded to the apex of the left ventricle, is a small depressed scar. The surrounding serous membrane is roughened by a deposit of a thick layer of lymph which extends over the surface of the heart. Attached to the pulmonary artery, by a string of fibrin five inches long, is a semi-organized blood-clot, rather larger than a walnut, which, at the post-mortem examination, was found lying against the left ventricle. 1882

The patient was admitted in a very collapsed state, from which he speedily rallied. He subsequently suffered from pericarditis and double pleurisy, for the latter of which tapping was twice performed.

See *Colston Ward Book*, vol. vii., p. 143.

1372a. A Heart wounded by two bullets. One appears to have taken the course indicated by the glass arrow, entering the anterior surface of the left ventricle about midway between the apex and base, and passing out through the upper part of the posterior wall. The other bullet has lacerated the left side of the surface of the ventricle without penetrating its wall. 1881

Presented by T. Wickham, Esq.

SERIES VIII.

DISEASES AND INJURIES OF ARTERIES.

- 1377a. A portion of an internal Carotid Artery, at the lower end of which is a ragged wound extending through half the circumference of the vessel. 1881

It was taken from an insane woman who thrust a clasp-knife through the posterior wall of the pharynx. One blade of the knife had previously been prevented from completely closing, by wrapping a piece of cashmere round it; the point was thus left free, and when the blade was closed, as far as the cashmere permitted, it projected like a barb. The wound in the artery appeared to have been made by the projecting point. Immediately after having committed the act, the woman stated what she had done, but the knife could not be felt even on examination under chloroform. Death took place from hæmorrhage seven months later. The knife is preserved in Series li., No. 3383.

Presented by Thomas Smith, Esq.

- 1377b. Part of an Aorta, showing a transverse rent one inch in length immediately below the origin of the innominate artery, just below the reflexion of the pericardium. The vessel is atheromatous and the surrounding tissues blood-stained. The pericardium and sheath have been stripped up by the blood along several inches of the vessel. 1884

From an old man who was dead when brought to the Hospital. He had been run over by a heavy cart.

- 1377c. Portion of an Aorta, the whole of whose coats have been cleanly divided by a transverse wound about one inch in length just below the origin of the left carotid artery. The artery is atheromatous, and the surrounding cellular tissue blood-stained. 1884

GUNSHOT WOUND OF THE AORTA.

- 1380a. The Heart with its Great Vessels, and the Right Lung, from a man, aged thirty-four years, who was shot with a revolver. The bullet entered the chest about the third left rib, passed through the pericardium immediately below the point where it is reflected upon the aorta, pierced the aorta at the junction of the ascending with the transverse part of the arch, transfixing the superior vena cava, and after penetrating the whole thickness of the middle lobe of the lung, shattered the ninth right rib, and then fell back into the pleura. The track of the bullet through the aorta, superior vena cava, and lung is marked by a piece of catheter. The bullet itself is slung by the side of the lung; its apex is flattened. 1889

From a man whose femoral artery was also lacerated by another shot. The assailant was not many feet off. Death ensued almost instantaneously.

Presented by John Adams, Esq.

RUPTURE OF THE AORTA.

- 1381a. Part of the Arch and of the Thoracic Portion of the Aorta, showing two nearly complete transverse ruptures of the vessel. With the exception of a small amount of superficial connective tissue, all the coats have been completely severed. 1891

The patient was a man, aged 48, who was accidentally run over in the street. See *Surgical Post-Mortem Register* for 1890, p. 138.

RUPTURE OF ARTERIES.

- 1384a. Portion of a Brachial Artery. The internal and middle coats have been torn away from the external, and lie contracted, occluding the lumen of the vessel. The external coat is intact. 1882

From a man who sustained a compound fracture of the left humerus, about three inches below the shoulder. There was no arterial hæmorrhage, or swelling of the arm, but the forearm and hand rapidly became cold and livid. No pulse could be felt in the brachial artery below the seat of fracture, and on amputation being performed a few hours after the accident, the vessel was found occluded, as seen in the specimen, and the blood in it had already commenced to clot.

See *Pitcairn Ward Book*, vol. vii., p. 286.

- 1384b. A Popliteal Artery and Vein. The lower parts of the vessels are bruised and discoloured, as is also the surrounding cellular tissue. A small lacerated wound is seen in the artery about an inch from its inferior extremity, extending through the inner and middle coats. 1882

From a man, aged 22, who received a compound fracture of the femur; the lower fragment was found compressing the artery, and, during life, stopped its pulsation.

Presented by W. Bruce-Clarke, Esq.

- 1384c. A Subclavian Artery, the inner and middle coats of which have been ruptured. The patient, a woman aged seventy, received a severe injury to her right shoulder, causing a fracture of the clavicle and first rib. On admission into the hospital, no pulse could be felt in the vessels of the arm. She died the next day, when it was found that the middle and inner coats of the vessel had been ruptured, and that, on the distal side of the injury, they had been stripped off the outer coat and invaginated forwards by the current of the blood, thus causing complete blocking of the lumen of the vessel: on the proximal side, the middle and inner coats are undisturbed. 1890

See *Female Surgical Register*, vol. v. (1890), No. 847.

A drawing of the artery in the recent state is preserved in Series lvii., No. 201.

THROMBOSIS.

- 1393a. The Transverse part of the Arch of the Aorta, with the Subclavian and Axillary Arteries, from a man in whom the subclavian had been ligatured for axillary aneurysm eighteen months previously. The operation was followed by secondary hæmorrhage, and amputation was performed at the shoulder-joint. The subclavian is completely occluded just outside the origin of the thyroid axis, the branches of which are patent; a small blood-clot adheres to the wall of the vessel between the seat of ligature and this trunk. On the distal side of the ligature the superior intercostal arises, and was found patent throughout its course. From the remainder of the artery, between the seat of ligature and the stump, several other branches are given off, all of them being patent. The clot formed in the artery where it is tied on the face of the stump is continuous with that formed at the original seat of ligature, the two being connected by a long thin band of decolorised fibrin, floating free in the artery to a great extent, but adherent by its extremities. This clot appears to be of old formation. About two inches above the stump the artery is the seat of an aneurysmal dilatation. 1883

- 1430a. The Heart and part of the Aorta of a child, aged five years. The mitral and aortic valves are thickened, and the latter are, in addition, partly destroyed by ulceration and covered by small masses of fibrin. Immediately beyond the valves the aorta presents two patches of ulceration, the largest being about the size of a sixpence, the smaller as big as a split pea. The floor of the former is irregular, and is mainly formed by the middle coat, the subjacent pericardium being thickened and closely adherent. The smaller ulcer has penetrated through more than half the

thickness of the aorta, and at both diseased spots the wall of the artery shows a distinct aneurysmal bulging. A very slight deposit of fibrin may be seen on the endothelium higher up the aorta, which elsewhere was perfectly healthy. 1883

See *Post-Mortem Book*, vol ix., p. 238; and account of case, by Dr. Moore, in the *Transactions of the Pathological Society*, vol. xxxiv., p. 71.

ABSCESS OPENING INTO AORTA.

- 1439a. The Heart, Arch of the Aorta, and neighbouring parts of a Child, aged four years. At the commencement of the descending aorta there is a small ragged opening on the posterior wall, through which a red glass rod has been passed; this leads into a sac measuring one and a half inches in diameter situated in the concavity of the arch of the aorta: on the side near the heart the walls of the sac are well formed, but at the upper and outer side the walls are ragged and indistinct, merging in places into recent blood-clot. The origin of the sac is obscure, but it probably is the remains of an enlarged lymphatic gland which has "broken down" and has subsequently communicated with the aorta after ulceration of the intervening tissues. The outer surface of the heart is covered with flaky deposits of recent lymph due to acute pericarditis, which was the cause of death. The endocardium is not affected. 1892

See *Medical Post-Mortem Register*, vol. xviii., p. 349.

- 1441a. A portion of the left external Iliac artery. There is a large irregular rent in the vessel leading into an abscess cavity which had formed in the psoas muscle owing to caries of the lumbar vertebræ. 1892

The patient was a young woman, aged 20, who had suffered for a long time from disease of the spine. At the autopsy the psoas muscle was found to have been entirely destroyed, and its sheath was distended with blood.

See *Surgical Post-Mortem Register* for 1890, p. 92.

SARCOMA.

- 1445a. Portions of an Artery infiltrated by sarcoma. The upper specimen is a part of the axillary artery free from the infiltration; its lower extremity is discoloured and jagged from the action of the pressure-forceps applied to arrest hæmorrhage. The two lower specimens are portions of the acromio-thoracic axis surrounded by and infiltrated with sarcomatous growth. The vessels, with the exception of the one into which the bristle is passed, are plugged with a firm clot. 1886

From a man, aged 33, who was admitted with a large tumour beneath the pectoral muscles. The mass was soft, and manifestly increased in size during the fortnight the patient was under observation. An attempt was made to remove the growth by a free incision along the lower margin of the pectoralis major, where it presented, through the fat of the axilla, a well-defined outline. That part of the tumour which lay below the vessels was easily removed, but no attempt was made to detach the portion which was found, during the operation, to have grown around those structures. Whilst securing some insignificant arteries, which had been divided in the lower part of the axilla, the hæmorrhage, which up to that stage had been but slight, began to be exceedingly copious. In searching for the seat of the bleeding, it became evident that it proceeded from where the axillary artery should have been, though that vessel could nowhere be found. The hæmorrhage was afterwards arrested by means of pressure-forceps. The patient lived a week after the operation, when there was suddenly a violent gush of blood, and before it could be arrested he died. Post-mortem examination showed that the part of the axillary artery involved in the tumour was completely broken up.

Sections are preserved in Series lv., No. 130.

See *Medico-Chirurgical Transactions* for 1885, vol. lxix., p. 157.

FUSIFORM ANEURYSM OF A RIGHT AORTIC ARCH.

- 1450a. A Heart together with the arch of the aorta, larynx, trachea, and œsophagus, where, as a congenital abnormality, the right aortic arch has persisted, passing behind the trachea and œsophagus to reach the left side of the spinal column. As other abnormalities, the two common carotid arteries arise separately, but close together forming the first branches, the right and left subclavian arteries being the

next vessels, one on either side of the trachea : the right recurrent laryngeal nerve passes, as is usual in this variety, beneath the aorta, instead of beneath the subclavian. Immediately above the origin of the carotids and at the junction of the ascending and transverse portions of the arch, the whole vessel is enlarged and dilated, the enlargement passing down to and gradually fading off at the origin of the cœliac axis (see next specimen) ; the surface of the aneurysm is irregular and nodular ; it has largely displaced both the trachea and œsophagus : it caused severe dyspnoea, and later on dysphagia and paralysis of the right side of the larynx : the arch of the aorta rises much higher than usual, and the heart itself is considerably enlarged : the remains of the ductus arteriosus is seen passing from the top of the pulmonary artery to the left subclavian. 1892

The patient was a man, aged 39, who died about eleven months after the onset of symptoms.

The specimen is probably quite unique, only twenty instances of this anatomical variety being known, none of which are described as aneurysmal.

Presented by W. P. Herringham, M.D.

1450b. The remaining portion of the thoracic and abdominal aorta from the preceding specimen (to which refer) : in the main, the aneurysmal dilatation ceases at the origin of the cœliac axis. 1892

FUSIFORM ANEURYSM OF THE AXILLARY ARTERY.

1452a. A Portion of the left subclavian and axillary arteries. The commencement of the third part of the subclavian has been tied with a silk ligature, and is filled with clot for half an inch from its end. The axillary is dilated into a fusiform aneurysm, which extended for five inches along the axillary trunk. In the recent state it contained a very little old clot and some recent soft clot. 1887

From a man, aged 54. The subclavian was tied in the third part of its course for an aneurysm of the axillary artery. The artery was large at the seat of ligature, and was slightly adherent to its sheath, but no difficulty was experienced in performing the operation. A slightly flattened kangaroo tendon was used. The artery was tied in two places, with an interval of about two-thirds of an inch between the two ligatures, and the vessel was divided. Half an hour after the operation violent hæmorrhage occurred, which was controlled with difficulty by means of pressure. It was found that the ligature had slipped off the proximal end of the divided artery. A silk ligature was applied, but not before a large quantity of blood had been lost. The patient died the same night.

See *Male Surgical Register*, vol. ii., 1887, No. 247.

1452b. The upper portion of the Heart together with the Arch of the Aorta from the preceding specimen. The ascending part of the arch is considerably dilated.

TRUE SACCULATED ANEURYSM, RESULTING FROM THE LODGMENT OF AN EMBOLUS.

1460a. Part of the Aorta and Iliac Arteries of the same child from whom No. 1299a was taken. At the orifice of the right external iliac is a small, true, sacculated aneurysm about the size of a nut, filled with a laminated coagulum, the artery below being also occluded by a decolorised clot. 1882

It seems probable that the occlusion of the artery was originally caused by the detachment of a portion of one of the growths on the aortic valves and its lodgment in this situation, the walls of the artery being subsequently dilated. Microscopic examination showed that all the coats were intact. The specimen was shown by Dr. Norman Moore at the Pathological Society, Session 1882-1883.

1460b. The Arteries of the Lower Extremities of a girl who had multiple emboli followed by the formation of aneurysms. The right common iliac artery near its seat of bifurcation contains a calcareous embolus, which is kept in place by a loop of white silk. The arterial wall immediately round the embolus is ulcerated, thinned, and expanded. The greater part of the external iliac and the upper part of the femoral is occluded by recent clot, which resulted from the ligature of the common

femoral artery in Scarpa's triangle shortly before death. The right femoral and popliteal arteries are patent and apparently healthy, but the posterior tibial opens by a small ulcerated aperture, through which a blue glass rod has been passed, into a large false aneurysm of the calf, which is formed by the condensation of the soft tissues of the organised blood-clot.

The left external iliac artery presents an aneurysmal dilatation, which is apparently of recent date. Lower down, both this artery and the common femoral are entirely occluded by calcareous matter and by old decolorised clot. 1887

From a girl, aged 20, who was admitted into St. Bartholomew's Hospital suffering from aneurysmal swellings at the bend of the right elbow and in the right popliteal space, respectively of three and four weeks duration. The heart was diseased and the aneurysms were considered to be of embolic origin. After treatment by rest and pressure, which at first appeared to be beneficial, the swelling in the arm rapidly increased, in such a manner as to render it probable that the aneurysm was becoming diffused. On this account the brachial artery was tied above the bend of the elbow, the vessel being secured by two ligatures and divided between them. The operation was followed by cessation of pulsation and slight diminution in the size of the aneurysm. Within a few days the popliteal swelling also began to extend; the superficial femoral artery was therefore tied in Scarpa's triangle in the same way as the brachial, and with equally good results.

Six weeks after admission the patient had a sudden attack of left hemiplegia, with pain in the right thigh and leg, followed by complete loss of pulsation in all the arteries of the right lower extremity. The aneurysmal swellings gave no further trouble and slowly decreased in size. The patient became weaker, and died eight weeks after admission. A post-mortem examination showed that the aorta at one spot was almost completely ulcerated through. The spleen and kidneys were scarred by the lodgment of emboli.

See also Series vii., No. 1299b, and for drawings, Series lvii., Nos. 195-200; and *Transactions of the Royal Medico-Chirurgical Society*, vol. lxx., p. 117.

1460c. Portions of the Right Brachial, Radial, and Ulnar Arteries, from the same case as the preceding. The swelling is formed by an aneurysmal sac, which has mainly resulted from the condensation of the surrounding soft tissues, but it is lined by old blood-clot. The sac communicates with the brachial artery by means of a small ulcerated aperture situated just above the bifurcation of the vessel. In the recent state this opening was occupied by clot, but a blue glass rod has now been passed through it to render its situation more apparent. The radial and ulnar arteries immediately below the opening both contain calcareous emboli, but of these the one which occupies the latter vessel is seen as a small white patch. 1887

1460d. The Arteries of the Base of the Brain, removed from the same patient as the preceding. The branches of the right middle cerebral are plugged in several places by recent emboli. 1887

1466a. The Arch and a portion of the descending Aorta, showing a dissecting aneurysm of this vessel. At the junction of the descending portion of the arch with the thoracic aorta is a calcareous plate, measuring one-third of an inch in length, and situated in the posterior wall of the vessel. This is cracked across, a transverse linear fissure allowing of the escape of blood between the middle and outer coats of the artery. The escaped blood extended about one-third round the aorta, tracked down the whole length of the vessel, and made its way between the coats of the two iliac arteries. Some portions of a laminated clot are still visible attached to the separated aortic walls. 1886

A woman, aged 55, was suddenly seized with severe pain in the epigastrium; she vomited several times. The pain and vomiting continued with remissions until she died unexpectedly at the end of a week from the onset of the first symptoms.

See *St. Bartholomew's Hospital Reports*, vol. xxi. (1885), pp. 211-216.

Sections are preserved in Series lv., Nos. 126 and 127.

RUPTURED ANEURYSM.

1469a. A Popliteal Artery and Vein. The posterior surface of the former is the seat of a small aneurysm, about the size of a walnut; only about two-thirds of the

sac is complete, a large opening existing opposite the junction of the aneurysmal sac with the artery. The upper end of this vessel is occupied by a firm, adherent, colourless clot; the lower end also contains a clot, which is not yet decolourised and is not so firm. The sac is filled by decolourised fibrin continuous with that in the vessels. The vein is slightly thickened and adherent; its upper part is filled with a soft friable clot. 1882

From a man, aged 40, who received a blow on his leg in August, 1881. A few days later he noticed for the first time a slight throbbing in the ham, which steadily increased. On December 12th, of the same year, his femoral artery was ligatured by Mr. Smith. Gangrene set in on the fourth day, and amputation of his thigh was performed on December 31st. An examination of the limb showed that the aneurysm had ruptured some time previously (probably at the time of the blow), and the clotted blood was confined merely by the surrounding tissues. The artery and vein at the seat of amputation were occluded by clots.

ANEURYSM OF AORTA BURSTING INTO PULMONARY ARTERY.

1476a. A Heart and the commencement of the Large Vessels. The first part of the arch of the aorta is uniformly dilated into a globular aneurysmal sac, measuring three inches in diameter, to which the pulmonary artery is adherent. A portion of the wall of the aneurysm has been cut away, and the pulmonary artery has been laid open, thereby disclosing an irregular opening in the intervening septum, through which a red glass rod has been passed. The interior of the sac has roughened and ulcerated walls, but the dilatation is limited to the ascending and transverse portions of the arch. The innominate, left carotid, and subclavian arteries, together with the greater part of the transverse portion of the arch, are unaffected. 1893

The patient was a man, aged 30. Seven months before his death he began to complain of pain across the upper part of the chest, which increased on exertion. The pain became more severe, until he was one day seized with sudden dyspnoea, gradually became comatose, and died in two or three hours. He had contracted syphilis five years previously.

Presented by S. H. Habershon, M.D.

1484a. A large Tri-locular Aneurysm of the Arch of the Aorta. There are three distinct loculi or sacs, which communicate, and are placed one above the other, involving the whole of the first part of the arch; the middle sac has extended backwards, and is formed by the dilatation of the aorta itself without implicating the pericardium. At the back of the specimen the pericardium has been partly cut away to show the thin walls of the middle sac. The other two sacs, which lead out of the middle sac, are formed for the most part from the pericardium, which has become thickened by inflammation and by adherence to the surrounding structures. This is very noticeable in the upper sac, to the outer walls of which portions of lung tissue still remain attached. The sacs show little or no deposit of laminated clot.

The whole of the aortic arch is much diseased, and shows two other distinct dilatations. There are atheromatous patches on its walls, and the aortic valves are thickened. There is some hypertrophy of the walls of the left ventricle. 1891

The patient was a sailor, aged 53 at the time of his death. He always had good health until his chest trouble began, about three years before he died. There was no history of syphilis or other serious illness. From 1858 till 1874 he was an able seaman in the Merchant Service. In 1874 he became a lighthouse-keeper in the Red Sea, where he had a number of steps to go up and down, and after a time he noticed that his breath became short. In June, 1886, when home on three months' leave, he was ill and suffered from shortness of breath and pain in the right side of his chest. He returned to his work, and remained away until June, 1887, when he was invalided and pensioned. He did not have medical advice until October, 1888, when he was treated as an out-patient at an infirmary until February, 1889. He was then too ill to attend. He was treated at his home by rest and opium, but sank, and at last died rather suddenly in September, 1889.

Presented by John F. Bullar, M.D.

1487a. The Heart and Aorta, with a portion of the Thoracic Wall, showing the seat of an aneurysm and the manner in which it has ruptured through the chest-wall. The heart is healthy, but the aorta is much dilated and is atheromatous. The

aneurysm extends from the transverse part of the arch downwards and forwards to the thorax, where it opens by a large aperture through the sternum and right costal cartilages on a level with the fifth costal interspace. The skin for some distance round the actual point of rupture is thickened and discoloured. The aneurysmal sac is large and free from clot; its walls are thickened to a considerable extent.

1887

From a married woman, aged 42, who first noticed a swelling at the right side of the sternum eleven months before her death. On raising the right arm she had aphonia. The tumour, which measured during life two and a half inches in diameter, had well-marked expansile pulsation. The patient suffered much from dyspnoea and cough. A cast of the case is preserved in Series lvi., No. 98a, and a drawing in Series lvii., No. 186.

See *Elizabeth Ward Book* for 1884, No. 245.

- 1487b. The Heart and Aorta, with a portion of the Thoracic Wall, showing the seat of an aneurysm, and the manner in which it has ruptured through the chest wall. The heart is healthy, but the aorta is greatly dilated, and is very atheromatous. The aneurysm extends from the transverse part of the arch downwards and forwards to the thorax, where it opens by an irregularly oval aperture through the sternum on a level with the third intercostal space. The aneurysmal sac is very large, and tracks downwards. It contains a large amount of clot. 1888

From a man, aged 38, who had syphilis fifteen years before his death. On admission to the Hospital, he had a prominent swelling extending from the sternal end of the clavicle to the cartilage of the fourth rib, with the left border of the sternum as an axis. In the swelling was well-marked expansile pulsation. The pulse was equal in both wrists; the pupils were equal. The aneurysm gradually pointed, the first drop of blood oozing out four weeks before his death.

A series of casts of the thorax, made by the patient himself, and showing the gradual increase in the size of the aneurysm, are preserved in Series lvi., No. 98b.

See *John Ward Book* for 1887, Case xi.

- 1497a. A Heart with the Arch of the Aorta. An aneurysm of the extra-pericardial portion of the aortic arch has ruptured into the pericardium. The aneurysm is fusiform, with two large saccules, one occupying the greater portion of the arch, and involving the great vessels, whilst the second smaller saccule is deeply ulcerated, and is separated from the left bronchus by the thickened walls and matted surrounding tissues. The larger saccule is partly obliterated by a fibrinous clot. An ulcerated track leads from the smaller saccule by a perforation large enough to admit the little finger into the pericardium, immediately anterior to the pulmonary artery. A black rod has been passed along this track. The pericardium showed no signs of recent inflammation, except in the vicinity of the perforation. The cavity was distended with a pint and a half of dark fluid blood without clots. 1889

From a man, aged 34, who presented during life the signs of a small aneurysmal tumour pulsating in the second left intercostal space. He was suddenly seized with faintness and symptoms of collapse. When seen on the same evening, he was apparently dying, being pulseless, with cold extremities and clammy skin. No effusion was apparent into any of the cavities. On the next day the patient had rallied; but on this and the succeeding day effusion into the pericardium gradually manifested itself, and was accompanied by a paroxysmal cough, with intense pain, presenting in some respects the character of angina pectoris. His highest temperature was 101° F. He lived fifty-six hours after the rupture had commenced. Six months before his death he had been treated by Tufnell's method, and it appears probable that the coagulum in the larger saccule was laid down during this period.

See *Transactions of the Pathological Society*, vol. xl., p. 62.

Presented by S. H. Habershon, M.D.

ANEURYSM OF THE ARCH OF THE AORTA, TREATED FOR NINE MONTHS BY TUFNELL'S METHOD.

- 1503a. An extensive Aneurysmal Dilatation of the Aortic Arch. The aneurysm extends from a point immediately above the semilunar valves to the origin of the left subclavian artery. On the cardiac side of the innominate artery the wall of the

vessel forms a pouch, which has extended forwards so as to become adherent to the thoracic wall in the third costal interspace. As a result of the pressure upon this part of the thorax, the second rib was absorbed to such an extent that it was readily fractured. The left lung had become adherent to the dilated aorta, which was here so thinned that it had ruptured into the left pleural cavity. The inner surface of the aneurysm has numerous calcified plates upon it, but there is no trace whatever of laminated fibrin. 1887

From a man, aged 48, who was an hotel-keeper. He had been well until fourteen months before his death, and gave a history of syphilis when young. On admission to the Hospital he suffered from the various symptoms of an aortic aneurysm, which gradually progressed, until, after a violent fit of coughing, he suddenly became collapsed and shortly afterwards died. He was treated upon Tufnell's system from April 12th until December 23rd of the same year. At the autopsy five or six pounds of blood were found in the left pleura. The right lung was collapsed and adherent to the aneurysm. The cardiac valves were normal, except that the aortic valves were somewhat thickened. The clavicle was pressed slightly forwards.

See *John Ward Book* for 1885, No. 35.

ANEURYSM OF THE INNOMINATE ARTERY.

1506a. A Saccular Aneurysm of the Innominate Artery, together with the heart, arch of the aorta, and great vessels of the neck. The sac is more or less globular in shape, and measures six and a half inches in diameter.

On the anterior aspect it is seen that the sac has become adherent to the skin which now forms a covering of the upper part; below this, the right sternomastoid and other muscles of the neck are involved in a similar way. Towards the lower part of the front wall is a wide gap, extending transversely across and into the cavity of the sac. In this gap lay the sternal end of the left clavicle, the upper part of the sternum, and the right first rib (see specimen, No. 17c): the two last-named bones are very much eroded. The sternal end of the right clavicle has been completely eroded; its outer half now protrudes from the back of the aneurysm. Below this gap, the innominate vein crosses the sac, to which its posterior wall is firmly adherent.

From behind it is plainly seen that the aneurysm is limited in origin to the innominate artery; the right common carotid and subclavian arteries are not involved, nor is the arch of the aorta, except to a very slight extent. The right internal jugular vein can be traced across the sac, but it is no longer pervious, having become blocked and obliterated at a point three inches above the commencement of the superior vena cava, where it crosses the left subclavian artery. This last-named vessel, from having thicker walls, has withstood the pressure of the aneurysm, and is pervious. The distal end of the sternal half of the right clavicle protrudes from the upper part of the sac towards its outer side.

The aorta is dilated and atheromatous, and its walls bulge outwards slightly in two or three places. The heart is somewhat hypertrophied. 1893

From a man, aged 32. A swelling in the neck was first noticed twelve months before his death.

See *Male Surgical Register*, vol. iv. (1892), No. 843.

1511a. An Aneurysm of the arch of the Aorta, which has penetrated the chest wall; with a fusiform Aneurysm of the left Subclavian Artery. An aneurysmal dilatation of large size involves the whole extent of the arch of the aorta as far as the origin of the left subclavian artery, except that portion immediately above the aortic valves. Anteriorly, the aneurysm has penetrated the thoracic wall to the right of the sternum, at the level of the second costal cartilage; and posteriorly it extended to the spine, and eroded the bodies of the two upper dorsal vertebræ. Its sac is partially filled with coagulum. The left subclavian artery, for an inch and a half from its origin, is the seat of a fusiform aneurysmal dilatation. The wall of the artery is lined by a thick layer of partially decolourised coagulum. The trachea is compressed by the

aortic aneurysm, and presents on its anterior surface several small perforations which communicate with the sac. The œsophagus was compressed by the subclavian aneurysm, and dysphagia was produced. 1881

The patient, a man, aged 46 years, died of hæmoptysis shortly after admission to Hospital.

1512a. Heart and large vessels, with Tongue, Larynx, and Trachea. The right subclavian artery is dilated into two aneurysmal pouches. The proximal is the larger of the two, and is almost filled with laminated clot. The posterior inferior wall, however, has given way, allowing it to become diffuse. It presses upon the right common carotid artery, and during life simulated an aneurysm of that artery. The trachea is considerably flattened, as a result of the pressure excited by the aneurysm. The distal aneurysm is smaller, and is situated on the posterior wall of the subclavian; it has been nearly obliterated owing to the pressure exerted by the larger aneurysm. 1885

See *Female Surgical Register*, vol. iv. (1884), No. 650.

F., æt. 62. Suffered pain in right arm and shoulder for seven months previous to death. A modified Tufnell's treatment was adopted.

1518a. The Right Middle Cerebral Artery with a small aneurysm on one side of its trunk. The aneurysm has ruptured and a glass rod has been passed through the laceration. The rupture has occurred at a point in the artery which is situated immediately beyond its first bifurcation. 1887

From a man, aged 54, who was found in a stupid condition a week before his death. When brought to the Hospital he had well-marked left hemiplegia, with some rigidity of his right side. Twelve years previously he was said to have had two attacks of paralysis, and at the post-mortem examination a small cyst was found on the left side of the brain, marking the site of previous hæmorrhage.

See *John Ward Book* for 1887, and *Medical Post-Mortem Book*, vol. xiii., p. 292.

1518b. The Middle Cerebral Artery of the Right Side. Just beyond the bifurcation of the central branch is a longitudinal rent in the vessel, which seems to be slightly dilated at this point. 1891

From a man, aged 43, who died on the day after admission into the Hospital. The aortic and mitral valves were both diseased, and there was the scar of an old infarct in the spleen.

See *Medical Post-Mortem Register*, vol. xvii., p. 328.

1530a. Arteries removed from the base of the brain. Two small aneurysms are well seen, one situated upon the basilar artery, between the posterior cerebral and the superior cerebellar arteries; the second upon the right anterior cerebral immediately behind the anterior communicating branch. Nearly all the vessels have undergone calcareous degeneration. The hæmorrhage occurred from the left posterior communicating artery, which is seen to be much smaller than the right. 1884

The specimen is taken from the brain of a woman who was admitted to the Hospital in a semi-conscious state with left hemiplegia, and conjugate deviation of the eyes to the right.

1532a. The Abdominal Aorta, showing an aneurysm situated an inch above its bifurcation. The aneurysm is sacculated, and measures two inches and a half in length by one inch in breadth. It is filled to the level of the vessel with firm clot. The iliac vessels are very atheromatous and calcareous. 1888

From a man, aged 87, who was admitted for an injury to the left hip.

See *Male Surgical Register*, vol. i. (1887), No. 1878.

1534a. An Aneurysm of the pancreatico-duodenalis artery. The sac is situated at the head of the pancreas, and is more or less globular in shape, measuring about two inches in the longest diameter. It has been laid open, and shows a considerable amount of clot adherent to the posterior wall. 1891

From a man, aged 37, who died of ulcerative endocarditis. Six weeks before his death he complained of severe pain at the umbilicus, where there was a tender spot. At the post-mortem examination firm adherent clots were found in the right brachial and in both femoral arteries.

See *Transactions of the Pathological Society*, vol. xli., p. 53.
Presented by Norman Moore, M.D.

1538a. The Right Common and External Iliac, with a portion of the femoral arteries and their respective veins. The common iliac artery has been tied with silk just above its bifurcation, and its proximal portion is filled with clot for half an inch above the upper ligature. The external iliac is dilated in its upper third, whilst its lower two-thirds form a large fusiform aneurysm filled with a firm clot, a large part of which is laminated. The internal iliac is closed by clot for an inch below the ligature. The common and superficial femoral with the profunda femoris are filled with dark adherent clot. No vein appears to have been injured during the operation. The external iliac vein is normal; the common femoral vein and its tributaries are also filled with clot, the veins being compressed by the aneurysm beneath Poupart's ligament. 1887

The patient was a discharged soldier, aged 52, who had an inguinal aneurysm. He had served in India, and had had syphilis; for two years he was aware that something had been wrong with his groin, and for two or three months the right lower limb had been much swollen. He had an aneurysm reaching from below Poupart's ligament up to a point midway between the crural arch and the umbilicus; there was a strong pulsation, but no bruit; in other respects he seemed a healthy man. The artery was tied above the aneurysm with a carbolised kangaroo tendon, and the pulsation was at once arrested; next day the pulsation had returned in full force. The artery was again exposed; the ligature was found *in situ*, with no appearance of loosening, but the point of an aneurysm-needle could be inserted between the vessel and the ligature. It was therefore removed, and two carbolised silk ligatures were placed on the artery, one above and one below the site of the first ligature; pulsation ceased at once. In forty-eight hours the pulsation returned, and continued until the day before death. The limb became gangrenous, amputation was performed, but the patient died three days afterwards, and twelve days from the date of the first operation.

See *Male Surgical Register*, vol. ii. (1885), No. 3175, and *Transactions of Clinical Society*, vol. xx., p. 29.

1538b. An Aneurysm of the Gluteal Artery. The internal iliac with part of the common iliac artery is also preserved, and has been laid open. The walls of these vessels are healthy. The sac of the aneurysm contains a recent blood-clot, formed by the coagulation of the contents after death. There is little or no lamination. About the last inch of the gluteal artery is occupied by a firm fibrinous clot, probably post-mortem in character; neither in it nor in the sac itself could any calcareous material be detected. The artery appears to terminate in the sac, there being no pervious vessel beyond it. A flat fibrous cord which runs down the back of the specimen may possibly be the continuation of the gluteal artery, obliterated by the pressure of the aneurysm. 1890

From a woman, aged 25, who died of ulcerative endocarditis; the aneurysm had been noticed for two months previous to her admission. At the post-mortem examination the aortic valves were found to be extensively diseased, and covered by a large mass of calcareous material. The aorta and other vessels were healthy. Numerous old infarcts were found in the spleen and kidneys.

The heart is preserved in Series vii., No. 1299d; the spleen in Series xxv., No. 2295b; and a kidney in Series xxviii., No. 2331a.

See *Female Surgical Register*, vol. i. (1889), No. 939.

1539a. The Right Common and External Iliac, with a portion of the Femoral Artery, showing a sacculated aneurysmal dilatation of the external iliac, with a fusiform aneurysm of the common femoral. The common iliac artery is atheromatous, and the upper inch and a half of the external iliac is healthy, but its lower part is dilated into a large aneurysmal sac, into which the upper part of the vessel opens by an oblique aperture, through which a piece of black catheter has been passed. The sac-wall, which is lined with clot, consists of the vessel-walls and of

its sheath in the greater part of its extent, but at its upper part the blood is only limited by the surrounding soft tissues, and in one place the walls have entirely disappeared and the blood has escaped. In several other places the walls of the sac are so thin as to be translucent. The lower part of the sac again opens into the external iliac by a circular aperture, through which a green rod has been passed. The portion of the external iliac which passes under Poupart's ligament is fairly healthy, but the common femoral is atheromatous, and is dilated to form a fusiform aneurysm, measuring when fresh about two inches in diameter and containing a soft clot. The rest of the femoral is healthy. 1887

From a man, aged 35, who was admitted on account of an inguinal aneurysm, which had only been observed for five weeks. The patient was treated according to Tufnell's method for three weeks, when the artery suddenly gave way; death from collapse occurring shortly afterwards.

See *Male Surgical Register*, vol. iii. (1885), No. 3326.

1546a. A Small Sacculated Aneurysm of the Dorsal Artery of the Left Foot. Its walls are extremely thin, and it could readily be emptied by pressure. The aneurysm and the arterial wall have been divided to show the passive clot. 1889

From a man, aged 54, who had observed a pulsating tumour on the dorsum of his foot for three months.

See *Male Surgical Register*, vol. ii. (1889), No. 843.

SPONTANEOUS CURE OF AORTIC ANEURYSM.

1548a. One Half of a Large Aneurysm of the Abdominal Aorta which has undergone spontaneous cure. The sac, which is hemispherical in shape, measures three inches in its long diameter; it has been cut through longitudinally with the portion of the aorta with which it was connected; its cavity is nearly filled by a laminated whitish clot. This is firmly adherent above and below to the walls of the sac, which are much thickened at these situations: over the most prominent part the walls of the sac are separated from the clot by a narrow space which contained blood-stained fluid. There is a ragged irregular opening from the aorta into the sac, in front of which, and for an inch downwards between the aortic walls and the clot, is a space into which the blood current passed. The aneurysm was situated immediately below the diaphragm, and although both the œsophagus and pancreas passed in front of it, they were not adherent to it. 1892

The patient was a man, aged 34, who died from septicæmia.

See *Medical Post-Mortem Register*, vol. xv., p. 280.

1551a. Iliac and Femoral Arteries, from a case in which the femoral artery had been ligatured in its continuity in Scarpa's triangle. The operation was performed six years and nine months before death, and effected the cure of a popliteal aneurysm. The site of the ligature is apparent just above the second black bristle, and from this point to the first bristle is a clot which is decolourised. Immediately above the aneurysm is another clot which has not yet become decolourised. The aneurysm itself has become converted into dense fibrous tissue. The vessel is throughout calcareous. It is patent between the seat of ligature and the cured aneurysm. 1885

A railway porter. Aneurysm of ten months' duration. It was very large, filling the whole popliteal space so as to bulge out upon the inner side of the thigh. The leg was œdematous, the veins being varicose. Esmarch's bandage and digital pressure having failed to effect a cure, the superficial femoral artery was tied with a carbolised silk ligature. Death resulted from pneumonia.

See *Henry Ward Book*, vol. vi., p. 396, and *Medical Post-Mortem Book*, vol. xi., p. 17.

1551b. Iliac, Femoral, and Popliteal Arteries, from a patient whose superficial femoral was ligatured for the cure of popliteal aneurysm six years before his death. At the seat of the ligature the vessel has become converted for a short distance into a fibrous cord. Between the point of ligature and the origin of the anastomotic

magna, however, the femoral artery is pervious and apparently healthy. It gives off several small branches. The aneurysm is converted into dense fibrous tissue. Below the aneurysm the popliteal is patent. 1885

Cf. No. 1407.

A labourer, aged 49, who had syphilis eighteen years previously. The aneurysm was noticed three weeks prior to admission, although he had suffered pain in his knee for two years. An Esmarch's bandage affording no relief, the artery was tied in two places with a catgut ligature, and divided. Pulsation returned five months later, and the aneurysm was cured by flexion. Death resulted from rupture of an intra-pericardial aortic aneurysm.

See *Henry Ward Book*, vol. vii., p. 67, and *Surgical Post-Mortem Book* for 1885, p. 101.

1551c. The Iliac, Common Femoral, and Popliteal Arteries, from a case in which the femoral had been ligatured in Scarpa's triangle twenty years before the death of the patient, for the cure of a popliteal aneurysm. The operation was performed by Mr. Stanley, late surgeon to the Hospital. The artery has unfortunately been divided close to the seat of ligature, but has been sewn together again with silk. For an inch and three-quarters from this point it has become converted into a solid fibrous cord, which is slightly smaller than the rest of the artery. Between the point of ligature and the remains of the aneurysm the artery is pervious and gives off several large vessels, but its lumen is partially occluded by a thin membranous blood-clot. The aneurysm itself is converted into a dense mass of fibrous tissue. 1887

From a man, aged 50, who died from the rupture of an aneurysm of the aorta.

See *Mark Ward Book* for 1887, No. 44.

1552a. A Portion of the Arch of the Aorta, with the Larynx and Trachea, from a case of aneurysm of the arch simulating an aneurysm of the innominate artery. The common carotid artery of the right side was ligatured thirty days before the death of the patient. The aneurysm arises from the transverse part of the arch, and extends upwards for a distance of five inches behind the right common carotid artery. It is conical in shape, and nearly filled with a laminated clot; its sac wall is complete, but thin. It overlies the innominate artery, and has compressed it at its bifurcation. The trachea throughout its whole course has been flattened laterally by its pressure. The right carotid artery is compressed at its origin by the aneurysm; its upper portion is filled with recent clot. The seat of ligature presents an ulcerated appearance where the artery has been divided, and its ends have retracted for a distance of nearly an inch. In the distal end is a little adherent clot, which extends as high as the bifurcation of the vessel. There is no sign of repair in either of the cut ends, nor is there any thickening in their walls. 1888

From a sailor, aged 59, who first noticed a swelling in the right side of his neck two years before he came under observation. When the swelling first appeared he had an attack of "asthma." He never had syphilis, and he had always been a sober man. The swelling, which increased slowly, was diagnosed as an aneurysm of the innominate artery. Thirty days before the death of the patient, his right common carotid was ligatured with silk in two places, and was subsequently divided between the ligatures. Pulsation recurred in the temporal artery within an hour of the operation. Thirteen days later, he suddenly lost consciousness for a short time, and on the fourteenth day after the operation he lost perception of light in his right eye.

At the post-mortem examination slight superficial softening of the left temporo-sphenoidal lobe was observed. The aneurysm was found to be in close contact with the sternum; it had compressed the vagus and root of the right lung, and had pushed upward and compressed the left innominate vein. It was closely adherent to the right clavicle and the first and second ribs on the right side. The whole aorta was very atheromatous.

See *Male Surgical Register*, vol. ii. (1886), No. 2663, and *Surgical Post-Mortem Register* for 1886, pp. 162, 163.

1559a. Portion of a left middle Cerebral Artery from within the fissure of Sylvius, completely occluded by an embolus; two of its branches, given off to the frontal

lobe, are occluded by the coagulum; the left frontal lobe was in consequence softened. 1881

From a female, aged 56 years, who died with morbid growths in the right lung.

See *Post-Mortem Book*, vol. viii., p. 220.

1559b. Portion of the Frontal Lobes, showing plugged anterior and middle cerebral arteries on the left side. 1885

The patient, a woman, aged 55, had stenosis of the aortic valves. Her leg was amputated for gangrene, when the main artery was found to be plugged. The kidneys and spleen both contained infarcts.

For further details see *Mary Ward Book* for 1885 (*s. v.* Mary Crabb), and *Surgical Post-Mortem Book* for 1885, p. 12.

1571c. The Aorta and main Arteries of the left upper extremity. It will be seen that the artery is plugged from the commencement of the subclavian to the termination of the radial at the wrist. 1885

F., æt. 48. No history of injury or other cause. Ill three months.

See *Female Surgical Register*, vol. ii. (1884), No. 742.

1571d. The Heart and Arteries of the right upper extremity, from a case of dry gangrene following upon embolism of the subclavian and brachial vessels. The heart is greatly enlarged and is very fatty. Its mitral orifice is so dilated as to admit of the passage of four fingers through it, and the valves are rigid, calcareous, and fringed with lymph. The aortic valves are slightly atheromatous, and the aorta is somewhat larger than normal. The innominate and right subclavian vessels are patent, but at the spot where the subscapular branch is given off from the axillary artery to the origin of the circumflex vessels, the main vessel is completely occluded by an embolus. The clot is decolourised; it is very firm, and is adherent to the walls of the artery. The brachial artery appears to be normal as far as its bifurcation, but it is then occluded by an embolus, and by a firm adherent clot which extends for about half an inch into the radial and ulnar arteries. The hand had undergone dry gangrene, and was mummified for about three inches above the wrist. 1887

From a man, aged 63. Whilst rubbing some butter into his shoe with his right hand, six weeks before his death, he suddenly felt a pain in the situation of the carpo-metacarpal joint of the thumb. A small black spot appeared in this situation, and his hand soon became blue and numb.

See *Male Surgical Register*, vol. i. (1884), No. 3637.

The hand is preserved in Series L., No. 3235d.

1571e. The Abdominal Aorta with the arteries of the lower extremities. The aorta is extremely degenerate, and about three inches from its bifurcation it contains a firm dark clot which occupies a part of its lumen. At the time of the autopsy the whole of the aorta in this situation was filled with coagulum. From the bifurcation downwards a clot completely filled both iliacs and the vessels of both legs as low as the popliteal arteries. In the wall of the common iliac on either side, just above the origin of the internal iliac and extending into that vessel, is a calcareous plate nearly an inch long and extending half way round the circumference. At the origin of the profunda artery is some dark-coloured and firmly adherent clot, and in the popliteal artery is a small piece of pale clot, which is also firmly adherent. Below the popliteal the arteries contained only a small quantity of dark coagulum, but they were hard and distended by thrombi. 1887

From a woman, aged 56, who, seven days before her death, was suddenly seized whilst walking with a numbness in her left leg below the knee. On admission she had double

mitral and tricuspid regurgitant murmurs. Two days after the seizure both legs became gangrenous, and she died a week after the onset of the disease. At the post-mortem examination the heart was found to weigh thirteen ounces, and the mitral and tricuspid valves were both diseased.

See *Elizabeth Ward Book* for 1885, No. 274.

1571f. The left External Iliac and Femoral Arteries from a case in which gangrene of the thigh occurred as the result of the lodgment of an embolus in the common femoral artery. The embolus is lodged at the termination of the common femoral, and is apparently derived from a vegetation on the aortic valves of the heart. The superficial femoral and profunda vessels were plugged with a dark-coloured and adherent clot for a distance of three inches below the embolus. The clot has not extended upwards probably because two muscular branches are given off from the femoral immediately above the seat of impaction. 1887

From a man, aged 63, who was the subject of aortic disease. The patient went to bed in his usual health on the seventh night before his death. On waking in the morning he felt a sudden pain as of "cramp" in his left hip. Within half an hour his leg and foot became numb, and on the second day a gangrenous patch was observed over the area of distribution of the descending branch of the external circumflex artery.

See *Male Surgical Register*, vol. i. (1885), No. 3792.

SERIES IX.

DISEASES AND INJURIES OF THE VEINS.

VARICOSE VEINS.

- 1576a. Portions of the Internal Saphenous Vein, removed by operation for the cure of varicose veins of the leg. They show well the dilated and tortuous condition of the vessel, with the formation of distinct pouches in places ; for the most part, and except in the walls of the pouches, the coats of the vein are considerably thickened. 1891

THROMBOSIS.

- 1578a. A Right Iliac Vein filled with a Thrombus, which, though firm in some parts, is breaking down in others. 1884

From a woman who had phlegmasia dolens, and died of pyæmia four weeks after delivery. The uterus is preserved in Series xlvi., No. 3094a, and the heart in Series vii., No. 1271a.

- 1588a. The Heart with the Great Vessels attached to it. The aorta and the superior vena cava are normal, but the innominate veins, the internal jugulars, and the subclavians, as well as the anterior and external jugulars, are filled with clot which is adherent to the walls of the vessels. The thrombosis on the right side is rather firmer than that on the left. A small mass of coagulum projects into the superior vena cava, but it is not adherent to its wall. The internal jugular and subclavian veins where they are cut across are seen to be filled with a firm clot. In the heart there is much enlargement of the right auricle and ventricle. The mitral orifice is thickened, and is narrow and button-hole shaped. The left ventricle is enlarged, though not to so great an extent as the right ventricle, and its walls are somewhat thickened. The aortic valves are shortened, and are each provided with a fringe of soft new growths. 1889

From a stevedore, aged 18, who, in addition to the thrombosis and mitral stenosis, had a double pleural effusion with collapse of the lungs. The azygos and superior intercostal veins were large and patent. He had rheumatic fever one year previously.

See *Luke Ward Book* for 1889, No. 19.

See *Transactions of the Pathological Society*, vol. xl., p. 75.

- 1589a. A Portion of the Left Parietal and Occipital Bones with the lateral sinus *in situ*. The sinus is occupied in its whole extent by a thrombus. 1889

From an old man, whose body was brought to the Hospital for purposes of dissection. All the sinuses in his skull were filled with blood-clot, and his brain presented symptoms of long-standing meningitis.

- 1600a. Two Kidneys, the veins of which are filled with partially decolourised, friable clot. 1882

From a woman, who died a fortnight after labour, and in whom the iliac veins and vena cava inferior were found similarly plugged.

NEW GROWTHS IN VEINS.

- 1606a. A Vena Cava Inferior which is almost entirely occupied by a sarcomatous growth. The tumour, which filled the right external and internal iliac veins, has so far infiltrated the vein-wall at its lower part that it cannot be separated. In the upper two-thirds of its course, however, the growth lies quite freely within the vein, and terminates in a tapering extremity at a point which corresponded with the lower border of the liver. The right external iliac artery was compressed but not infiltrated by the growth, which was attached to each side of the right ilium, ischium, and pubes. The glands along the side of the vena cava are infiltrated with sarcoma. Microscopically the growth is a chondrifying sarcoma. 1889

From an unmarried woman, aged 22, who first complained of pain over the posterior part of the right iliac bone three months before her death. Six weeks after the pain was felt a swelling was noticed in the right iliac fossa. Her right leg was flexed, and she suffered the most intense agony, which was increased on defæcation. She had retention of urine, and three days before her death there was œdema of the right leg.

Sections of the growth are preserved in Series lv., No. 133.

See *Female Surgical Register*, vol. iii. (1888), No. 1900.

- 1608a. The Left Kidney and a portion of the Left Lobe of the Liver, from a case in which the right kidney had been removed. A ligature has been passed round the right renal vessels at the point where the right renal vein opens into the inferior vena cava. A portion of the inferior vena cava has been included in the ligature. A thrombus fills the entire vena cava. 1885

SERIES X.

DISEASES AND INJURIES OF THE LARYNX
AND TRACHEA.

GOUT.

- 1611a. A Larynx, from a patient who suffered from gout in many of his joints. In the submucous tissue over the crico-arytenoid articulations are deposits of urate of soda; the surrounding tissues appear healthy and the articulations themselves are not affected. 1882

See account of case by Dr. Moore, in *Pathological Society's Transactions*, vol. xxxiii., p. 271.

ACUTE LARYNGITIS.

- 1612a. The Larynx, with the base of the Tongue and a portion of the Trachea, from a patient, aged twenty-eight, who died with acute laryngitis. The mucous membrane covering the epiglottis and lining the upper part of the glottis is swollen, and appears to be thickened. The openings of the ventricles of the larynx appear as mere slits, in consequence of the swelling of the mucous membrane. The subglottic portion of the larynx is superficially ulcerated. The site of a tracheotomy wound made during life is seen in the upper portion of the trachea. 1888

See *Lazarus Ward Book* for 1887, No. 2694.

A portion of the skin of the leg is preserved in Series xxxv., No. 2703a.

1614. The Larynx, from a case of œdematous laryngitis. The epiglottis is swollen, its edges meeting behind, excepting just at the upper part. The pharynx is inflamed and the posterior surface of the uvula is vesicated, whilst its junction with the left side of the pharynx is ulcerated. There is extreme œdema of the whole of the glottis, the swelling of the mucous membrane being so great as almost to occlude the superior opening of the glottis. The right tonsil is swollen and ulcerated, whilst the left is normal. A portion of the thyroid and cricoid cartilages has been removed to show the narrowing of the subglottic portion of the larynx. 1889

From a man, aged 60 years, who was first affected with painful and difficult deglutition on March 31st, 1811. On the following morning he was unable to swallow, and in the evening of the same day his respiration suddenly became so difficult that it was considered advisable to bleed him to the extent of thirty-two ounces. At two o'clock in the morning of April 2nd the symptoms were so urgent that Mr. Astley Cooper was called in to perform the operation of laryngotomy, after which the dyspnoea became less urgent. The patient died, however, on the same day. The autopsy was made by Mr. Astley Cooper.

See a paper on Cynanche Laryngea, by Dr. Farre, read before the Medico-Chirurgical Society, on February 18th, 1812, and reported in the *Medico-Chirurgical Transactions*, vol. iii., p. 86, and plate iii.

Presented by J. R. Farre, M.D.

- 1622a. The Larynx and Trachea of a child in whom an ulcer in the trachea, following on tracheotomy for diphtheria, spread into the innominate artery, and caused death from hæmorrhage.

The trachea has been laid open from behind, showing the site of the tracheotomy wound. Although this had healed externally, ulceration had continued around it

on the mucous surface of the trachea, causing adhesions to, and subsequently a small perforation into, the innominate artery. A glass rod has been placed in the communication between the trachea and the vessel. 1891

From a child, aged three years.

See *Medical Post-Mortem Register*, vol. xvii., p. 323.

1623a. A Larynx, Trachea, and the two Bronchi. There is marked oedema of the glottis, for the relief of which tracheotomy was performed. There is also necrosis of both arytaenoid cartilages and of the cartilages of the trachea, which have been divided in the tracheotomy wound. The mucous membrane over the whole of the trachea and of the bronchi is ulcerated and completely disorganised, and is converted into a rough velvety membrane. There is also the depressed scar of a healed ulcer on the left edge of the epiglottis. 1892

See *Medical Post-Mortem Register*, vol. xviii., p. 90.

LEPROSY OF THE LARYNX.

1624a. The Larynx of a man, aged thirty-four, who for ten years had suffered from Leprosy. The mucous membrane covering the posterior surface of the epiglottis, the true and false vocal cords, and the thyroid cartilage is ulcerated in an unusual manner, leaving a few thin irregular bands, which are undermined owing to the destruction of the submucous tissue. 1892

Six months before the patient's death the larynx became involved, and tracheotomy was performed.

See *Pathological Society's Transactions*, vol. xlii., p. 37.

SYPHILIS (CONGENITAL).

1630a. Larynx from a boy in whom were found many traces of congenital syphilis. Opposite the seventh and eighth rings of the trachea is a starred cicatrix. The tissues in contact with the trachea at this spot present a circumscribed thickening, about the size of a nut, which, on microscopic examination, was found to consist of fibrous tissue. There was no appearance of a scar on the cutaneous surface. 1882

TUBERCULOSIS.

1631a. The Larynx from a patient who died of tubercular phthisis. The larynx presents the appearance seen in early cases of laryngeal phthisis, viz., some tumefaction and slight thickening of the mucous membrane. 1886

1631b. The Larynx of a child, showing very early tubercular ulceration of the inter-arytaenoid fold. 1886

1631c. The Larynx from a case of tubercular phthisis; the whole mucous membrane is in a condition of diffuse superficial ulceration. 1886

1631d. The Larynx from a patient who died of tubercular phthisis. The whole mucous membrane is the seat of a process of diffuse ulceration. 1886

1631e. The Larynx and a portion of the Trachea from a patient who died with tubercular phthisis. The epiglottis is thickened by a tubercular inflammation, and has undergone some amount of ulceration at its apex. The right vocal cord is ulcerated, and there is a deep circumscribed ulcer in the subglottic portion of the larynx. 1886

The four preceding specimens were presented by Percy Kidd, M.D.

1631h. The Larynx and Trachea from a case of phthisis. The posterior end of the right vocal cord is destroyed by tubercular ulceration. The mucous membrane covering the posterior portion of the trachea is deeply and extensively ulcerated, the ulceration extending into the left bronchus. 1888

From a girl, aged 18, who, after acute pneumonia, had chronic pulmonary phthisis.

See *Elizabeth Ward Book* for 1887, No. 14.

1632a. A Larynx showing the effects of Tubercular Disease. The mucous membrane is generally roughened and papillated, much increased in thickness, and completely hides the vocal cords, which appear to be buried in its folds. The epiglottis and the aryteno-epiglottidean folds share in the general thickening. There appears to be a very superficial ulceration in various parts, most marked at the upper end of the trachea. 1884

The patient was a young man who died with general tuberculosis. He had suffered from aphasia for some time before his death.

1633b. A Larynx and Trachea from a patient who died of tubercular phthisis. The rima glottidis is much narrowed by the swollen and œdematous condition of the aryteno-epiglottidean folds, the mucous membrane of which, however, is not ulcerated. The under surface of the epiglottis and the mucous membrane lining the larynx and trachea is extremely roughened and granular. 1883

1633c. The Glottis and a portion of the Trachea of a patient who died from tubercular phthisis. There are numerous scattered ulcers on the inter-arytenoid fold and in the portion of the trachea which lies immediately beneath the glottis. 1886

1633d. The Larynx from a case of tubercular phthisis. There is a deep circumscribed symmetrical ulcer of the processûs vocales; the ulcer on the left side is the deeper. 1886

The phthisis was of about fifteen months' duration; there were no laryngeal symptoms during life; the ulcers were probably of recent origin.

1633e. The Glottis of a patient who died with tubercular phthisis. The whole cavity of the larynx is ulcerated, the ulceration being deeper upon the left side. The vocal cords are destroyed. 1886

The three preceding specimens were presented by Percy Kidd, M.D.

TUBERCULAR ULCERATION OF THE TRACHEA.

1633f. The Larynx and a portion of the Trachea from a man, aged forty-two, who died of tubercular phthisis. The whole of the mucous membrane lining the trachea is occupied by numerous circular ulcers, which extend to a considerable depth. The supraglottic portion of the larynx is free from ulceration. 1887

See *Medical Post-Mortem Book*, vol. xiii., p. 46.

1633g. The Right Half of a Larynx, showing thickening and a pachydermatous condition of the cords, due to tubercular disease. 1891

Presented by A. A. Kanthack, M.D.

ULCERATION OF ENLARGED GLAND INTO TRACHEA.

1633h. The Larynx and Trachea of a Child. Just above the bifurcation an enlarged lymphatic gland has become adherent to, and has ulcerated into, the trachea, causing death by suffocation. 1891

The patient was a little girl, aged four. She had been subject to attacks of spasmodic laryngitis. She was seized with a violent attack of dyspnoea, and died rapidly from asphyxia.

Presented by Alexander Harper, M.D.

1634a. The Larynx of an Adult, laid open from behind: it shows patches of leucoplakia on the epiglottis, on the right vocal cord, and on the right aryteno-epiglottic fold. This is a very rare condition. 1891

1634b. The Larynx of a Drunkard, laid open from behind, showing the thickening and induration of the vocal cords which occurs in persons addicted to drink. 1891

This, with the preceding specimen, was presented by A. A. Kanthack, M.D.

- 1636a. A Larynx with a portion of the Tongue and of the Trachea, from a patient, aged twenty, who died of tubercular phthisis. The whole of the supraglottic portion of the larynx has undergone ulceration, especially upon the left side. The left greater cornu of the hyoid is necrosed, and the epiglottis is completely destroyed.

1886

See *Matthew Ward Book* for 1885, No. 1304.

- 1641a. A Larynx showing ulceration and destruction of the tip of the epiglottis.

1883

From a patient who died of typhoid fever in the fourth week of his illness.

- 1641b. Larynx from a patient who died of typhoid fever. A small ulcerated opening is seen immediately behind the posterior attachment of the left true vocal cord. A bristle has been passed through the opening into a cavity in which lie the necrosed arytenoid cartilages.

1884

- 1641c. The Larynx of a boy, aged fifteen, in which extensive necrosis of the cartilages has taken place after typhoid fever. The ventricular bands were swollen and the aperture of the glottis was closed. There was no ulceration of the mucous membrane within the trachea, but after the glottis was opened it was found that the whole of the cricoid cartilage was necrosed and lying loose in the abscess, which extended for two inches upwards and downwards along the back and sides of the larynx. The right arytenoid cartilage could not be identified, but the left appeared to be normal.

1889

The patient died fourteen days after defervescence. He had suffered from noma on the inside of the right cheek, which was treated by scraping and nitric acid. He also had right parotitis. There was very slight tenderness over the larynx, and he was able to swallow solid food up to the day of his death. He died quite suddenly from laryngeal spasm.

A portion of the intestines is preserved in Series xviii., No. 2006a.

See *Medical Post-Mortem Register*, vol. xv., p. 172.

PAPILLOMA.

- 1645a. A Larynx showing a papillomatous growth on the left vocal cord. The growth was probably congenital.

1888

From a child, aged three years and nine months. He was said to have suffered from repeated attacks of dyspnoea, and his mother noticed that he never cried like other children. Tracheotomy was performed, but the child died cyanosed.

The specimen was prepared and presented by J. F. Steedman, Esq.

- 1650a. The left half of a Larynx, showing a small fibrous polypus attached to the anterior part of the true vocal cord. The tumour was discovered accidentally after death.

1891

EPITHELIOMA.

- 1653a. The Larynx with a Portion of the Tongue, showing a large epitheliomatous mass, which is situated immediately above the left aryteno-epiglottidean fold. The mass has grown in such a manner as partially to occlude the superior opening of the glottis. The tumour has commenced to ulcerate over its whole surface. There has been considerable œdema of the mucous membrane in the immediate neighbourhood of the growth.

1889

From a man, aged 45, who was admitted to the Hospital with great enlargement of the cervical glands, which he said had only existed for two months. He died the day after his admission to the Hospital. Secondary epitheliomatous growths were found in the lungs and liver.

See *Male Surgical Register*, vol. i. (1886), No. 2612.

- 1653b. A Vertical Section through the Tongue and Larynx, to show an extensive epitheliomatous ulceration at the base of the tongue. The ulcer has excavated a large portion of the base of the tongue, and has entirely destroyed the pharynx and the glottis down to the level of the false vocal cords.

1889

From a man, aged 46, who first noticed a swelling at the angle of his jaw, upon the right side, four months before his death. He died suddenly from syncope very shortly after his admission to the Hospital.

See *Male Surgical Register*, vol. v. (1887), No. 3676.

- 1655a.** A Tongue and Larynx extensively affected with Epithelioma. The disease has entirely destroyed the whole thickness of the base of the tongue and penetrated to the floor of the mouth. The epiglottis and the right vocal cord are destroyed. 1883

- 1655b.** A Larynx with a portion of the Trachea. The whole of its inner surface is occupied by an ulcer, which extends from the middle of the epiglottis to the first ring of the trachea. From its surface numerous cauliflower vegetations, for the most part of small size, project into the interior. On the left side, the only remains of the thyroid cartilage is a loose fragment measuring about an inch square, but of the cricoid cartilage the greater part remains. Of the arytenoid cartilage on this side there is no trace. All the cartilages are left on the right side at the lateral and posterior parts. The base of the epiglottis and root of the tongue immediately below it are involved in the ulceration. There are a few vegetations round the tracheotomy hole, but there was no direct continuity of ulceration towards the front. There was no enlargement of the glands. Microscopical examination showed the ulcer to be an epithelioma. 1888

From a man, aged 43, who was well until nine months before his death. He gradually lost his voice, although he continued to work up to six weeks before his admission to the Hospital. After suffering greatly from dyspnoea, he died from exhaustion and gradual suffocation.

See *Transactions of the Pathological Society*, vol. xxxviii., pp. 85-89.

Presented by Samuel West, M.D.

TUMOURS CONNECTED WITH THE TRACHEA.

- 1656a.** A Papillary Growth removed from the Trachea. 1883

The patient was a woman, aged 35 years, who had suffered from symptoms of obstruction to respiration for about twelve months. After laryngoscopic examination, the growth was removed by tracheotomy; it was adherent for about one inch to the second, third, and fourth rings of the trachea, and was not pedunculated.

Microscopical examination showed the growth to be a simple papilloma of an innocent nature. Sections are preserved in the microscopical cabinet, Series lv., No. 138.

See *Lawrence Ward Book*, vol. ix., p. 95, and account of case by Mr. Butlin in *St. Bartholomew's Hospital Reports*, vol. xviii.

PARTIAL EXCISION OF THE LARYNX.

- 1656b.** The Left Half of the Larynx, together with the true and false vocal cords, removed for an epitheliomatous growth situated upon the under surface of the true vocal cord. 1887

From a gentleman, aged 50, who suffered from hoarseness of two years' duration. He had a warty growth on the left vocal cord, which appeared to be non-malignant, although it presented some suspicious characters. At different times during a period of six months, portions of the growth were removed with forceps. Recurrence took place, and the cord exhibited impaired mobility. Hahn's tracheotomy tube was used during the operation, and was left in for two days. At the end of two days it was replaced by a smaller tube. During the first few days after the operation the patient was fed through an œsophageal tube by means of a syringe. The temperature never rose above 100°, and the pulse was, almost from the first, from 80 to 84. On the fifth day the patient began to swallow. On the seventh day the tracheotomy tube was permanently removed. Three weeks after the operation he drove to Wimbledon, and after a week at Wimbledon, returned to his home in the country. The chief, and indeed the only trouble from which he suffered, was cough, which commenced as soon as the large tube was replaced by a smaller tube, but which gradually became less distressing, and finally ceased within a few days after the permanent removal of the tube. He was last seen by Mr. Butlin on September 28th, when the wound was healed with the exception of a little sinus at the lower part. There was no sign of recurrent disease, or of affection of the glands of the neck. His general health was excellent, and he was able to speak in a gruff whisper.

Presented by H. T. Butlin, Esq.

- 1656c. The Left Half of a Larynx and Upper Part of a Trachea : it shows a large mass involving, and with the exception of a narrow space, through which a tracheotomy tube passed, completely blocking the whole of the larynx : the growth also protrudes through and around the tracheotomy wound, and has involved the skin in the neighbourhood : neither the epiglottis nor the œsophagus were affected. 1891

From a man, aged 43, whose larynx was opened three months before death on account of an epithelioma which arose mainly from the left vocal cord. The disease was freely removed, but rapidly returned ; there were no secondary deposits.

See *Male Surgical Register*, vol. ii. (1889), No. 1621.

- 1656d. A Larynx on which excision of the vocal cords was performed on account of epithelioma : it has been laid open from behind. The situation of the left vocal cord is occupied by an excavated irregular ulcer, which extends down to, and exposes, the thyroid cartilage. A similar ulcer, but a less extensive one, has involved the anterior half of the right cord. A tracheotomy wound is surrounded by a large abscess cavity between the front of the trachea and the skin. 1892

The patient was a man, aged 60.

See *Male Surgical Register*, vol. ii. (1889), No. 1593.

- 1659a. The Larynx of a child upon whom the operation of tracheotomy was performed for the relief of dyspnoea caused by diphtheria. On the anterior surface of the trachea the mucous membrane had become ulcerated from the presence of a badly-fitting metal tube : this has resulted in the formation of a kind of valve, which became engorged and caused a fit of coughing with fatal termination. 1891

A drawing of the larynx, when fresh, is preserved in Series lvii., No. 233.

See *Surgical Post-Mortem Register* (1890), p. 22.

STENOSIS OF THE LARYNX FOLLOWING TRACHEOTOMY.

- 1659b. The Larynx and Trachea, laid open from behind, of a child, aged five years, on whom tracheotomy was performed six months before death. Above the vocal cords the tissues appear normal ; from this point downwards there is great thickening, causing so much narrowing of the rima glottidis that a probe could only be passed through with difficulty. Below the tracheotomy wound there is a slight superficial ulcer on the anterior wall of the trachea, caused by the constant rubbing of a badly-fitting tube. 1893

See *Medical Post-Mortem Register* for 1890, p. 332.

- 1659c. The Larynx and Trachea of a child, laid open from behind, showing a small button-like mass of granulations on the anterior surface of the upper part of the trachea. 1893

The child, on whom tracheotomy had been performed one month previously, died suddenly from asphyxia, caused apparently by the entrance of vomited food into the trachea and lungs.

See *Medical Post-Mortem Register*, vol. xviii., p. 321.

FOOD IMPACTED IN THE LARYNX.

- 1660a. A Larynx and the upper part of the Trachea completely filled with a large mass of meat. 1881

The specimen was taken from the body of a man, who, while laughing and talking during a wedding breakfast, choked, and suddenly expired.

- 1660b. The Larynx and Upper Part of the Œsophagus of a man who was brought dead to the hospital : the specimen has been laid open from behind, disclosing a mass of partly masticated bread which is firmly impacted at the upper part of the œsophagus, and effectually closes the entrance to the larynx. 1892

FOREIGN BODIES.

- 1662a. A Glass Bead which was swallowed by a child and passed down the larynx and trachea. Two days later it was coughed up through a tracheotomy wound.

1891

The patient, a little girl, aged seven, was admitted on December 6th, 1890, with the history that she had swallowed a bead, and that it "had gone the wrong way." On auscultation, the bead could be heard passing up and down the trachea, between the bifurcation and the larynx, with each inspiration, and tracheotomy was decided on at once. Just before the operation was commenced it was found that the movements of the bead could no longer be heard; it was supposed that it had passed into the pharynx and had been swallowed, and the operation was postponed. On the 8th it was found that no breathing sounds could be heard in the right lung, and that the heart had become displaced towards the right. Tracheotomy was performed, and though the child was inverted while the wound was held open, and feathers were passed down the trachea, the bead did not appear, and the child was put to bed. During the night she had a violent attack of dyspnoea, the tube was withdrawn, and the bead was at once coughed up. She made a good recovery.

See *Female Surgical Register*, vol. i. (1890), No. 2548.

- 1662b. A Pebble which was swallowed and passed through the larynx into the trachea of a man. After remaining in the air-passages for forty-five hours it was expelled by coughing.

1892

For notes of the case see *Lancet* (1863), vol. ii., p. 277.

Presented by Henry Power, Esq.

- 1663a. Tongue and Larynx, showing the common situation in which the throat is cut.

1885

From an old woman who cut her throat with a razor; the wound did not at first extend into the pharynx, though it did so in the course of a week by a process of ulceration. Death resulted from dysphagia.

Presented by H. Lewis Jones, M.D.

- 1663b. Portion of the Tongue and Larynx, showing a self-inflicted jagged wound which has completely destroyed the crico-thyroid membrane and the anterior portion of the cricoid cartilage. The thyroid cartilage has numerous gashes in it, which in some cases extend as far as the right lobe of the thyroid gland. The trachea has been divided between its second and third rings.

1887

From a man, aged 29.

SERIES XI.

DISEASES AND INJURIES OF THE PLEURA, BRONCHIAL TUBES, AND LUNGS.

1668a. A Lung with a Portion of the Chest Wall. The lung is puckered and contracted over a considerable portion of its extent. The puckering appears to be the result of a localised pleuritic inflammation. The adjoining portion of the parietal layer of the pleura also presents an oval thickened patch, which is probably due to the same cause. 1888

From a subject brought to the Hospital for dissection.

1671a. A portion of the Thoracic Wall, with the seventh, eighth, and ninth ribs and left lung, to show the changes which have taken place as the result of a chronic empyema. The lung is much contracted, and is bound down to the pleura by such dense fibrous adhesions, that it cannot be separated without laceration of its substance. The parietal layer of the pleura is converted into a calcified plate measuring three-sixteenths of an inch in thickness. The empyema perhaps resulted from an injury to the seventh rib, which is fractured about its middle. 1887

From a subject brought to the Hospital for dissection.

1675a. Portions of Five Ribs of the Left Side, which were removed by operation from a patient who had previously suffered from empyema : it was hoped that the chest would fall in around the collapsed lung, and thus cause the obliteration of a large suppurating cavity. The bones were removed through one lateral incision after the periosteum had been stripped off. Fragment No. 3 shows some necrosis on its lower edge, caused by the presence of a drainage tube. 1891

See *Male Surgical Register*, vol. iii. (1888), No. 2977*.

1679a. A Portion of the Lower Lobe of the Lung, showing exaggerated fibroid change in the pulmonary tissue. The lung is consolidated, its vesicles being occupied by a soft caseous material ; the bronchi are dilated and their walls are thickened. The changes were much more marked in the lower than in the upper lobe, indicating a basic phthisis. 1888

Presented by Vincent Harris, M.D.

BRONCHIECTASIS.

1679b. A Left Lung, showing marked dilatation of the Bronchi ; these have been laid open, and it is seen that three of the largest all lead into a considerable cavity situated at the base. The walls of the bronchi are much thickened, and there is an increased amount of fibrous tissue throughout the lower parts of the lung. The bronchi leading to the upper lobe are also dilated.

The pleural surface of the lower lobes are covered by a thick "false membrane," and were in many places firmly adherent to the ribs and diaphragm. 1893

From a man, aged 32, who had general emphysema with many signs of old tubercular disease, including two abscesses in the brain.

See *Medical Post-Mortem Register*, vol. xviii., p. 77.

- 1681b. The Larynx, Trachea, and Right Lung of a child, aged five years, who had inhaled a nut into the air passages four days before death. In the posterior and outer wall of the trachea, just above the bifurcation, is a ragged ulcerated hole communicating with an abscess cavity in the surrounding tissue and containing the nut, part of which lies in the trachea and part in the cavity; a small portion of the tissue of the lung is collapsed, and in the very centre is a cavity, which in the recent state contained about two teaspoonfuls of pus. Small grey tubercles, some of them being quite calcareous, are scattered throughout the lung, which is in a condition of capillary bronchitis. There is a tracheotomy wound just below the cricoid cartilage. 1883

Tracheotomy was performed the day after the nut was supposed to have entered, but afforded no relief to the symptoms. There were old pleuritic adhesions, and the liver and spleen were tubercular.

See *President Ward Book*, vol. ix., p. 71.

- 1682a. Portions of Diphtheritic False Membrane, which were coughed up through the tube, after tracheotomy had been performed for the relief of dyspnoea. 1890

The patient was a little boy, aged three years and eight months, under treatment in Radcliffe Ward. He made a good recovery.

- 1685a. Casts of the Bronchial Tubes from a case of plastic bronchitis. The casts occur in the form of solid cylinders, measuring more than an inch in length, and of the thickness of a crow-quill; they consist of a fibrinous material. Some of the cylinders have a bifid extremity, which represents the dichotomy of the smaller bronchi. 1886

From a gentleman, aged 30, who had suffered for three months previously from an attack of tracheitis with some bronchitis. The bronchitis ran a somewhat chronic course, and about the end of the third month the casts were coughed up. Before this happened the patient perspired a great deal, but had no marked rise of temperature.

Presented by S. J. Gee, M.D.

- 1685b. A Membranous Cast which was coughed up from the lungs during the progress of a case of plastic bronchitis. 1891

Presented by P. G. Selby, Esq.

- 1687a. Portion of a Lung exhibiting an ulcerated opening extending through the anterior wall of the right bronchus, into one of the main branches of the pulmonary artery. The ulcer of the bronchus is larger than the aperture in the wall of the pulmonary artery. 1881

From a man who was brought to a hospital with profuse hæmoptysis, which was at first checked, but recurred and proved fatal; no foreign body was found in the bronchus and the cause of the ulceration was not explained.

Presented by Norman Moore, M.D.

EMPHYSEMA.

- 1689a. A Portion of the Lower Lobe of a Lung, showing, along the free border, large dilated air-vessels, due to chronic emphysema. 1893

- 1696a. A Section through the Left Lung of a child, aged eleven months, who died from inanition. The base of the lung is collapsed, whilst the rest is solid with catarrhal pneumonia. 1889

See *Medical Post-Mortem Register*, vol. xiv., p. 208.

- 1704a. A portion of the Left Lung from a case of pneumothorax. The lung is collapsed against its root, and was bound down by the thickened pleura. It presents several superficial depressions, which, from the rounded appearances presented by their edges, are apparently of long standing. Rods have been passed through these depressions into the finer bronchi. 1886

From a man, aged 24, who had an attack of pleurisy five years previously: shortly after admission to the Hospital five pints of pus were removed from his chest. Three months later he developed signs of phthisis, and soon afterwards died. See *Matthew Ward Book* for 1884, p. 1555.

1704b. Section of a Lung from a case of diffuse symmetrical pulmonary cirrhosis. The lung tissue is traversed throughout by numerous intersecting greyish fibroid strands, which appear in places to follow the lines of the interlobular septa. 1887

From a woman, aged 37, who had always been healthy until twelve months before her death. She first suffered from retching, vomiting, and cough with thick yellow expectoration. At a later period she spat up a little blood. On admission she had scattered crackling râles over the right apex and over the whole side behind. The breath sounds were harsh and almost tubular at the apex, with bronchophony.

A section of the lung is preserved in Series lv., No. 172.

See *Transactions of the Pathological Society*, vol. xxxvii., p. 126.

Presented by Percy Kidd, M.D.

1704c. A Section of a Lung which is in a condition of gangrene. The lower lobe is almost consolidated by the products of inflammation, and about its centre the pulmonary tissue has broken down into a pulpy, flocculent mass, which is circumscribed. Immediately above the large gangrenous patch is a smaller one which presents identical changes. 1889

1704d. A Portion of the Right Lung, from a patient who had a pneumo-thorax. A piece of india-rubber tubing has been passed along a bronchus from the root of the lung to the opening, which is situated at the lower part of the superior lobe on its postero-lateral surface. The lung itself is much contracted, and is covered with inflamed and thickened pleura. 1889

From a man, aged 30, who had long suffered from a winter-cough. Three days before his death he suddenly became very ill, and on admission to the Hospital he was found to be almost pulseless and cyanosed, with hurried respirations. He was too ill to allow any detailed examination of his chest to be made.

See *Matthew Ward Book* for 1887, No. 281.

1707a. A Portion of the Lower Lobe of the Lung of a man, aged fifty, who died from hæmoptysis. The majority of the air vesicles and bronchi are seen to be filled with blood, but the lung does not appear to have undergone any structural change. The hæmorrhage was capillary, and no plug was found in any pulmonary vessel. 1888

Presented by Vincent Harris, M.D.

1707b. A Portion of the Lower Lobe of the Right Lung, which is of a bright red colour owing to the filling of its air-cells with coagulated blood. The branches of the pulmonary artery are plugged, and there is some coagulated blood in the larger bronchi. 1889

From a woman, aged 31, who died from the effects of mitral stenosis.

See *Medical Post-Mortem Register*, vol. xiv., p. 296.

1711a. Portion of the Lower Lobe of a Lung of a Child. On the cut surface is seen a well-marked recent infarct. There are also two small abscess cavities with ragged walls. The whole of the pleural surface is covered with a thin deposit of coagulated lymph. 1890

See *Male Surgical Register*, vol. v. (1889), No. 958.

1711b. The Lung of a Child, aged ten, who died of pyæmia following acute periostitis of the tibia. Both on the pleural and on the cut surface numerous small abscesses are plainly seen. 1891

See *Female Surgical Register*, vol. i. (1889), No. 2582.

EXPERIMENTAL TUBERCULOSIS.

- 1713a. The Thoracic and Abdominal Viscera of a guinea-pig, which died ninety-two days after inoculation with tubercular material obtained from a human subject. The lungs, liver, spleen, and kidneys are filled with miliary tubercle. 1887

Prepared and presented by Prof. J. T. Cash, M.D., F.R.S.

- 1715a. Section of a Lung, injected, in which miliary tubercles are very thickly scattered. 1881

Presented by the Royal College of Surgeons.

TUBERCULOSIS.

- 1717a. A Section of Lung, showing a complete infiltration of the whole pulmonary tissue with miliary tubercle. The masses are better seen on that surface of the lung which was cut whilst the specimen was fresh, than on that which was made after hardening in spirit. 1889

From a man, aged 37. There was no caseation or breaking down of the pulmonary tissue. See *Medical Post-Mortem Register*, vol. xv., p. 24.

- 1718a. The Right Lung of a patient who died of tubercular phthisis. The apex of the lung is characteristically puckered. The puckering corresponds to deeply-seated encapsulated cavities lying in spongy lung tissue. Numerous nodules are scattered through the rest of the lungs. The left lung of the same patient was extensively excavated and generally diseased. 1887

From a man, aged 23, a candlemaker by trade, who had chronic phthisis of more than four years' duration.

- 1718b. The Left Lung of a patient who had tubercular phthisis. In the upper lobe are large cavities with trabeculæ running across them. In the lower lobes are numerous small suppurating cavities, some filled with caseating material, whilst others are of acute origin. In a small cavity at the base is a single unruptured miliary aneurysm. 1887

From a man, aged 27, a metal-turner by trade. The phthisis was of two years' duration; it commenced with hæmoptysis, and he suffered much from diarrhœa. A portion of the intestine, showing the tubercular ulceration, is preserved in Series xviii., No. 2016a.

- 1718c. The Right Lung from a patient who had tubercular phthisis. In the upper lobe is a large excavation, across which run numerous trabeculæ. The rest of the lobe is filled with caseous nodules. In the lower lobes are softening caseous masses with acute suppurating cavities. 1887

From a man, aged 19, a porter. The phthisis had probably existed for about a year. It commenced with an attack of bronchitis. The urgent symptoms lasted six months.

- 1718d. The Left Lung of a patient who had tubercular phthisis. As in the previous specimen, there is a large trabeculated excavation at the apex. In the lower and anterior part of the upper lobe the indurated lung tissue is hollowed out into small cavities. In one of the cavities is an unruptured aneurysm, of no great size, which is filled with a thrombus. 1887

From a man, aged 32, a butterman, who had chronic phthisis for two years.

The four preceding specimens were presented by Percy Kidd, M.D.

- 1724a. Right Lung of a girl, aged eleven months. There is a large cavity in the uppermost lobe. The cavity is lined by a membrane and is crossed by the remains of a vessel. 1885

The right lung contained several smaller cavities. The left was filled with tubercle. The child had suffered from a cough for more than a month before its death. It suddenly developed symptoms of acute tuberculosis, and died with meningitis. The peritoneum, liver, spleen, and kidneys contained masses of tubercle.

Exhibited by Dr. Norman Moore at the Pathological Society. See *Transactions of the Pathological Society*, vol. xxxvi. (1885), p. 108.

- 1724b. Lung showing tubercular cavities in its upper lobe. 1885

See *Male Surgical Register*, vol. iv. (1884), No. 647.

- 1724c. The Right Lung of a child, aged six months. In the middle lobe is a cavity as large as a marble, which communicates with the pleura by an aperture through which a piece of red glass rod has been passed. The cavity is divided by a septum, which is formed by an occluded artery. The lung is solidified by grey tubercle; the bronchial glands were enlarged, and contained tubercle bacilli, and there were tubercular deposits in the spleen. 1888

The child was admitted into the Hospital on account of its marasmic condition; a sudden attack of dyspnoea terminated its existence. The mother was said to be phthisical, but there was no other phthisical history.

See *Medical Post-Mortem Book*, vol. xiv., p. 185.

BOVINE TUBERCULOSIS.

- 1727a. A section of the lower Lobe of the Lung of a nyghau affected with bovine tuberculosis. The lung is completely solidified, and its alveoli are filled with caseous material which has become calcareous in the centre. The other portions of the lung are in the museum of the Royal College of Surgeons. 1882

From the Zoological Society's Gardens.

Presented by F. S. Eve, Esq.

- 1727b. A portion of the Diaphragm of the same nyghau. Its upper surface is studded with firm, nodular outgrowths of various size. 1882

From the Gardens of the Zoological Society.

Presented by F. S. Eve, Esq.

SARCOMA.

- 1728a. A portion of the Right Lung infiltrated with sarcoma, from a case of primary sarcoma of the lung. The surface of the lung is covered with soft lymph. It was collapsed against the root. From the root a new growth penetrates the lung. The growth begins around and between the bronchi, and extends for two inches into the walls of both bronchi, but without penetrating into their interior. In the lower part of the lung is a cavity filled with coagulated flocculent lymph. The microscopical characters of the growth are those of a round-celled sarcoma. 1886

A man, aged 52, a year before admission to the Hospital, began to complain of weakness and cough, with pain in the chest and occasional hæmoptysis. Five weeks before admission he became hemiplegic. A week before his death he had a large pleural effusion on his right side. At the autopsy several secondary growths of sarcoma were found in various parts of the brain.

See *Post-Mortem Book*, vol. xi., p. 261, and *Transactions of the Pathological Society*, vol. xxxvi., pp. 120-122.

- 1728b. A Section through a Left Lung infiltrated with a round-celled sarcoma. The lung-tissue proper is almost entirely replaced, except at its anterior surface, by the new growth, which has a yellow mottled appearance and is of a firm consistence. The growth is most dense along the parietal pleura. The pleural cavity was entirely obliterated. Microscopically the growth is a round-celled sarcoma. 1889

From a waiter, aged 18 years, who had symptoms of pulmonary phthisis at the left apex. An attack of hæmoptysis first drew attention to the disease, when the patient gave a history of two attacks of pleurisy on the left side. The signs of a cavity at the left apex developed, and subsequently disappeared, the only physical sign which remained being an absolutely dull note on percussing over the left side of the chest in front. A large new growth springing from the right iliac bone developed itself, and gave rise to acute pain in the right leg, which prevented the use of the limb. Many nodules of new growth subsequently developed in other parts of the body.

The right supra-renal capsule from the same case is preserved in Series xxvii., No. 2330b.

Presented by Arthur Davies, M.D.

OSSIFYING SARCOMA.

- 1728c. The Left Lung infiltrated with an ossifying sarcoma, which was secondary to a growth in the knee. The organ was so firmly bound down to the thoracic wall that it could only be removed by lacerating its structure. The convex surface is studded with numerous circular patches of osteo-sarcoma, the largest of which measures half an inch across, whilst the smallest measures no more than one-sixteenth of an inch in diameter. The patches are lightish-brown in colour and appear to originate from the under surface of the pleura; they do not extend for any distance into the substance of the lung. On the concave surface the new growths are much more extensive, and a portion of the pericardium has become firmly adherent to the pleura. Microscopically the growth consists essentially of a sarcomatous tumour, the cell elements of which are for the most part round. The cells are enclosed by well-defined trabeculae, which have the appearance of cancellous bone. No true bone corpuscles are present, however, nor is there any cartilage. The growth is permeated by large blood-vessels. 1889

A drawing of the lung is preserved in Series lvii., No. 273.

A microscopical preparation is preserved in Series lv., No. 176.

The primary growth is preserved in Series i., No. 480a.

- 1729a. A portion of Lung affected with new growth. The lung is infiltrated round its root by a new growth of carcinomatous type. The growth followed the line of the bronchi, and was continuous with a mass of new growth surrounding the main bronchi. 1886

From a case of cancer of the mediastinum occurring in a man, aged 26.

See *Medical Post-Mortem Book*, vol. x., p. 53.

- 1740a. A portion of the Left Lung showing numerous secondary deposits of sarcoma: these are well seen both on the pleural and on the cut surface. The primary disease occurred in the thyroid gland, and was of extremely rapid growth. 1892

The thyroid gland and surrounding parts are preserved in Series xxvi., No. 2318c, to which refer for a history of the case.

PARASITES IN THE LUNG.

- 1745a. A Section of human lung infested with the ova of bilharzia hæmatobia. 1889

From the same case as the genito-urinary organs preserved in Series xxviii., No. 2393c. The parent worms are preserved in the same Series, No. 2393d. A microscopical section of the lung is preserved in Series lv., No. 181.

Presented by Dr. Mackie.

- 1746a. Portions of the walls of an Hydatid Cyst which were coughed up from the lungs of a young woman who was supposed to be phthisical. 1885

After expectorating the hydatid membrane she made a good recovery.

Presented by S. J. Gee, M.D.

- 1746b. A portion of Lung in which there is an irregular cavity with a smooth lining membrane caused by a hydatid cyst. The cyst itself lies at the bottom of the bottle. 1890

Presented by F. Cresswell, Esq.

HÆMOPTYSIS.

- 1758a. Portion of the Lower Lobe of a Lung, from a case of phthisis in which there was extensive excavation. An unruptured aneurysm of the pulmonary artery, as big as a small bean, is seen to have been formed in the cavity. The aneurysm contains firm clot. The patient died from exhaustion. 1884

- 1758b. Portion of the Left Lung of a man, aged twenty-five, the subject of phthisis, who succumbed to an attack of tubercular meningitis. The lung was much excavated. An unruptured aneurysm, the size of a small pea, is seen in the cavity. It contains dark firm clot. A bristle is passed into the artery. 1884

- 1758c. Portion of the Left Upper Lobe from a male, aged thirty-nine, who died from a sudden hæmoptysis in the course of phthisis, although he was gaining flesh and improving in his general health. There is a tuberculated excavation. In one recess of the cavity is a ruptured aneurysm of the pulmonary artery as large as a small cherry. The point of rupture is a small linear slit. 1884
- 1758d. Portion of the Left Lung from a case of phthisis, in which death resulted from hæmoptysis. There was much excavation of the pulmonary substance. An aneurysm of the pulmonary artery as big as a pea is seen in the large cavity. A small irregular rent is visible in the aneurysm. A bristle has been passed into the diseased branch of the vessel. 1884
- 1758e. Portion of the Left Lung from a case of fatal hæmoptysis. In a small cavity close to the apex is an aneurysm of the pulmonary artery as large as a filbert. It has ruptured; its cavity was filled with a clot. Bristles are placed in the two ends of the affected branch. 1884

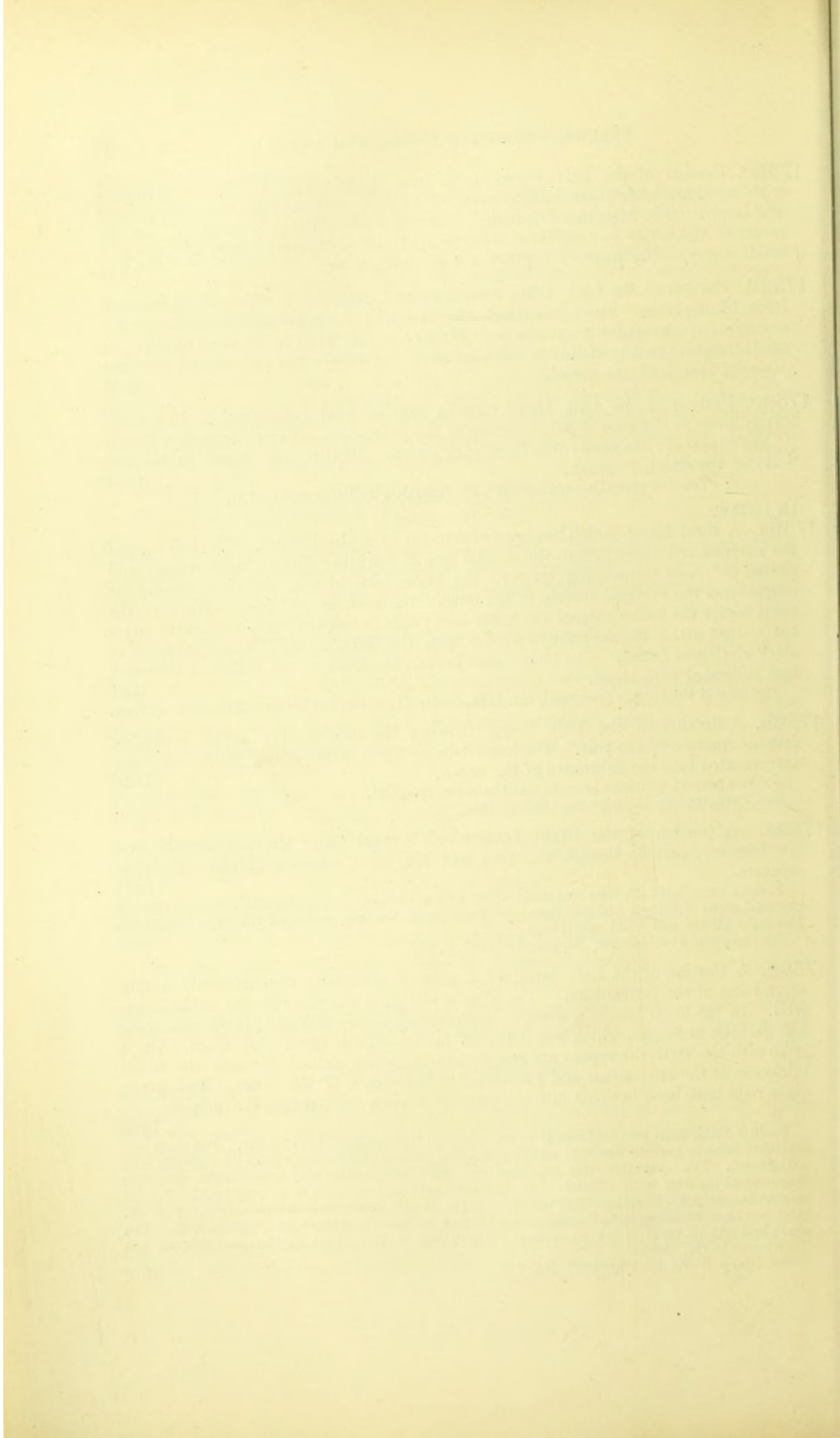
The five preceding specimens were presented by Percy Kidd, M.D.

INJURY.

- 1759a. A right Lung, which has been penetrated by a pistol bullet. The ball entered the anterior and lower part of the middle lobe at the level of the fifth interspace, and passed obliquely downwards through the lower lobe to the ninth rib, taking its course near the external surface of the lung. Its track is laid open, except at the point where the bullet entered the lower lobe; this is marked by a portion of glass rod. Just within the aperture of egress from the lung, a small round portion of black cloth was found. The lung tissue around the track of the bullet is contused and infiltrated with blood. 1881
- Portions of the rib are preserved, No. 763a, Series iii., where the history of the case is given.
- 1759b. A Section of the Left Lung, showing the results of a severe contusion without fracture of the ribs. The lower lobe is filled with blood, which has been extravasated into the substance of the organ. 1886
- From a patient who was brought dead into the Hospital.
See *Post-Mortem Register* for 1885, p. 184.
- 1759c. A portion of the Right Lung which is much torn; the main vessels have not, however, parted, though the root and the lower lobe are almost completely separated. 1888
- From a man, aged 23, who was dead when he was brought to the Hospital. There were no external signs of injury, nor was there any fracture of the ribs, costal cartilages, or sternum. The right pleura was filled with blood.
See *Surgical Post-Mortem Register* for 1887, p. 32.
- 1759d. A Portion of the Left Lung of a patient exhibiting wounds made during aspirations of the pericardium. The lung is collapsed and was adherent to the chest-wall. In the lower lobe is a wound corresponding to an external opening measuring half an inch in length, which was situated in the eighth intercostal space. On a level with the sixth interspace are two punctures, which extend through the whole thickness of the lung-tissue and penetrate the substance of the heart. Two green glass rods have been inserted into the punctures and a red rod into the incision. 1889

From a child, aged two and a half years, who had pericarditis with effusion. The chest was aspirated with a view to discover whether she had pleurisy, and a syringe of sero-pus was withdrawn. The operation was repeated two days later with the same result, and the diagnosis of pleurisy with effusion was therefore supposed to have been confirmed. It was only at the autopsy, however, that the true source of the sero-pus became evident. The left lung was then found to be collapsed and adherent to the chest-wall and pericardium. The heart had a thick layer of lymph upon it. There was a little fluid in the pericardium, but hardly any in the pleura.

See *Mary Ward Book* for 1887, No. 7.



SERIES XII.

DISEASES AND INJURIES OF THE NOSE, MOUTH, TONGUE, PALATE, AND FAUCES.

1760a. A large Lobulated Growth removed from the Nose of an old man, where it had been growing for several years. The surface of the tumour is thickly studded with the orifices of enlarged sebaceous follicles. A cut section is firm and fibrous, but in places contains sebaceous material. 1883

A microscopical examination showed that the tumour consists of enlarged sebaceous glands held together by fibrous tissue.

Sections are preserved, Series lv., No. 183.

1768a. A large Lobed Naso-Pharyngeal Polypus removed from a girl. It is composed of soft fibrous mucous tissue. 1883

1768b. A Myxomatous Naso-Pharyngeal Polypus, measuring about three inches in length, and with a base which is nearly an inch in breadth. The part which occupied the right nasal passage is firmer and whiter, and is somewhat constricted off from the remainder of the polypus. 1887

The growth was removed by avulsion from a woman, aged 33, in whom it had been growing for three years.

See *Female Surgical Register*, vol. v. (1886), No. 2743*.

1769a. A Large Naso-Pharyngeal Polypus, removed by avulsion from a girl. It consists of myxomatous tissue, with a little fibrous tissue. 1884

A section is preserved in Series lv., No. 186.

1770a. A Large Naso-Pharyngeal Polypus, two inches in its long diameter by one and a half in breadth. Its cut surface is firm and fibrous, and its base of attachment broad and very vascular. The tumour grew from the bones at the base of the skull, and was removed through an opening made in the roof of the mouth. The patient was a boy, aged fourteen years, and made a good recovery. 1883

On microscopical examination, the growth was found to consist of sarcomatous cells mixed with a good deal of loose connective tissue.

Presented by Thomas Smith, Esq.

1770b. A Large Lobed Naso-Pharyngeal Polypus, measuring two inches in breadth and nearly three inches in length. It was removed by avulsion from a man, aged sixty-five, in whom it had been growing for the preceding fourteen years. 1886

1772a. Section of a Skull with the Brain *in situ*. The antrum is occupied by a large and tolerably firm growth, which has extended upwards into the orbit, and inwards

so as to fill the nostril on the right side. The growth extends along the inferior meatus from the anterior nares, where it is ulcerating, nearly as far as the choanæ. Microscopically the growth is a spheroidal-celled carcinoma. 1887

The specimen was obtained from the body of a woman, aged 64, who died from epistaxis. The tumour had only been observed for two months before her death. The patient had well-marked diplopia.

Presented by J. A. Gray, Esq.

MYXOMA.

1776a. A Myxomatous Tumour removed from the cheek of a young man, aged twenty-one years, in whom it had been growing eighteen months. 1882

Microscopic sections are preserved, Series lv., No. 192.

EPITHELIOMA.

1777a. An Ulcerating Epithelioma growing upon the lower lip of a man, aged fifty-nine. The ulcer presents an oval outline, measuring an inch across by an inch and a quarter in its long diameter. It is situated upon the mucous membrane of the inner side of the lip. 1887

See *Male Surgical Register*, vol. iv. (1887), No. 144.

1777b. The Free Margin of the Lower Lip, showing a very considerable ulceration. On the right side is a punched-out cavity, which measured in the fresh condition three-quarters of an inch in length by half an inch in width. The ulcer is epitheliomatous; it is oval in shape and has everted edges. The mucous membrane is involved by a papillomatous ulceration which extends beyond the angle of the mouth. The left side of the lip is also hard and papillomatous. 1888

From a man, aged 49. Thirteen years before the removal of the lip he noticed a hard, painless, immovable lump on the right side of his lower lip, of the size of a small shot, which grew slowly, and eventually began to ulcerate.

See *Male Surgical Register*, vol. iv. (1887), No. 1604.

CONGENITAL CYST OF THE TONGUE.

1779a. The Specimen consists of a nearly Spherical Cyst, measuring three inches in diameter, and occupying the anterior portion of the tongue: it is situated below the muscular layers, which are thinned out and expanded over the cyst: the mucous membrane over the anterior half of the lower surface is a good deal thickened: at the sides large blood-vessels can be seen running along the margin between the cyst wall and the muscles. 1892

The patient was a child, aged three: a large cyst existed at birth and was tapped, but filled again rapidly: the cyst and portion of tongue now seen protruded constantly from the mouth, which could not be closed: the surface was dry and excoriated and the lower jaw greatly expanded, and the anterior half bent downwards, so that after the removal of the cyst the mouth could not be shut. The teeth were everted, and the intervals between them were at least twice as large as usual. The cyst contained semi-purulent fluid. Microscopical examination of its walls showed them to be composed of fibrous tissue only. There was no evidence of any "dermal" origin.

Two photographs of the child, taken before the operation, are preserved in Series lvii., No. 318.

Presented by Stephen Paget, Esq.

NÆVUS OF THE TONGUE.

1779b. The Left Half of a Tongue removed by operation, and showing a large nævus occupying nearly the whole of the dorsum. The epidermis is much thickened, and the papillæ are unduly prominent. 1893

The patient was a gentleman, aged 46. The growth was congenital, but had only caused trouble for nine weeks.

Presented by H. T. Butlin, Esq.

TUBERCULAR ULCERATION OF THE SOFT PALATE.

- 1781a. The Larynx and Trachea, with a portion of the soft palate, from a man, aged fifty-six, who died with tubercular phthisis. The epiglottis and larynx are deeply ulcerated over the greater portion of their surface. The edges of the epiglottis are eroded by the ulceration, and there is some considerable thickening of the arytæno-epiglottidean folds. The soft palate has also undergone a process of diffuse ulceration. 1887

See *Medical Post-Mortem Book*, vol. xii., p. 179.

- 1782a. A Tongue removed by operation on account of a large ulcer situated on the dorsum of the anterior half. The edges are sharply defined, and the affected area is slightly raised and fissured in places. There is, however, little or no loss of substance. Microscopical examination of the central portion showed no epithelial ingrowth nor other signs of malignant disease. 1892

See *Male Surgical Register*, vol. iv. (1890), No. 1772.

- 1785a. Portions of a Tongue removed by operation. The surface is covered by a warty, papillated growth, consisting of small, white, rounded elevations, about the size of a hemp-seed, so closely set together that the normal surface of the organ cannot be seen. Before removal these small outgrowths presented a semi-translucent appearance. 1884

Microscopic examination shows that the fungiform papillæ of the tongue are greatly enlarged, both their epithelial and connective tissue elements being increased.

DIFFUSE PAPILLOMA OF TONGUE.

- 1785a-i. A Portion of a Tongue, on the dorsum of which is a circular patch one and a half inches in diameter, where the papillæ have undergone a general hypertrophy producing a rough and shaggy appearance. On the cut surface the tissue immediately below the growth looks to the naked eye as though it were infiltrated by a malignant tumour; under the microscope, however, this is seen to consist only of inflammatory small cells, and there are no signs of epithelioma. 1892

- 1785b. A Small Pedunculated Tumour removed from the left side of the tongue. The tumour is of the size of a bean. It was hard and painful. Microscopically, the growth was composed of fibrous tissue. 1888

From a woman, aged 30, who had noticed the presence of a tumour on her tongue for five years.

A section of the growth is preserved in Series lv., No. 203, and a Drawing in Series lvii., No. 324.

See *Female Surgical Register*, vol. i. (1887), No. 1122.

SOFT FIBROMA OF THE TONGUE.

- 1785c. A Small Fibroma which was removed from the substance of the tongue of an old gentleman, aged seventy. It occupied the right half of the tongue, and was shelled out with perfect ease from amongst the muscles. Microscopical examination showed the tumour to be a soft fibroma. 1889

Presented by Stephen Paget, Esq.

LINGUAL ADENOMA.

- 1785d. A Cystic Tumour which was removed from the base of the tongue. The growth is irregular in shape, and measures three inches in length. It contains one large cyst lined with a shaggy membrane, and two smaller cysts. Microscopically it is an adenoma, closely resembling in appearance a serous salivary gland. The acini are circular; the epithelial cells are small and spheroidal. Many of the cells are distended by homogeneous globules, which are apparently colloid in nature, and the cavity of each acinus appears to be filled with a similar substance. The tumour was situated between the base of the tongue and the epiglottis. It was of about the size of a hen's egg, and was covered by the lingual mucous membrane. 1889

From a married woman, aged 33 years. The swelling had been noticed for twelve months, and was increasing in size. It caused pain radiating up the side of the neck, but there was neither dyspnoea nor dysphagia.

A microscopical preparation is preserved in Series lv., No. 197.

See *Female Surgical Register*, vol. ii. (1889), No. 396.

- 1785e. A Solid Tumour which was removed from the base of the tongue. The growth is oblong, measuring an inch in its long axis. It has a well-defined capsule, and its section is seen to be lobulated like a salivary gland. Microscopically it is a compound tubular gland, of which the acini are lined by cubical epithelium, so that it is almost identical with the preceding specimen, except that it is not undergoing cystic degeneration. 1889

From a woman, aged 27, who had noticed a painless swelling in her tongue for about two years before it was removed.

A microscopical specimen is preserved in Series lv., No. 199.

See *Female Surgical Register*, vol. ii. (1889), No. 1045.

LYMPHANGIOMA.

- 1785f. A Lymphangioma of the Tongue. The specimen has been cut in two, and is suspended so that the upper part shows the cut surface, while the lower shows the uneven surface of the side of the tongue, from which situation it was removed. When fresh, this surface showed a number of minute semi-transparent cysts, which contained clear fluid, and were formed of dilated lymphatic spaces. 1890

A microscopical section showing these spaces is preserved in Series lv., No. 204.

See *Male Surgical Register*, vol. i. (1889), No. 3569.

- 1785g. A Portion of the Left Half of a Tongue. In the substance of the muscular tissue is a tumour which is much firmer than the surrounding structures. On microscopical examination this was found to be a tubulo-glandular adenoma. There is no ulceration of the mucous membrane. 1891

From a lady, aged 40, who had noticed the tumour for about twelve months.

Microscopical sections are preserved in Series lv., No. 198.

Presented by Sir William Savory, Bart., F.R.S.

- 1785g-1. A Lymphangioma of the Tongue removed by operation. The part most affected is an oval patch measuring one inch in its long diameter, and is covered by a number of small cysts, which, when fresh, were white and translucent and contained a clear fluid. Microscopical examination showed that these are formed by dilatation of the lymphatic spaces. 1892

The patient was a girl, aged 14, who had noticed the growth for two years.

See *Female Surgical Register*, vol. iv. (1892), No. 563.

A drawing of the tongue, before operation, is preserved in Series lvii., No. 321, and microscopical sections in Series lv., No. 204a.

- 1785g-2. A Small Lymphangioma of the Tongue removed by operation. On the right side of the specimen are a number of small processes; when fresh, these were seen to be vesicles filled with a clear fluid. 1892

The patient was a boy, aged five, who had previously undergone an operation for the removal of a similar growth. Owing probably to an incomplete removal, it recurred till it reached the size seen, and was then freely removed by the knife.

A drawing of the tumour before the first operation is preserved in Series lvii., No. 319.

See *Male Surgical Register*, vol. i. (1890), No. 725.

SARCOMA OF THE TONGUE.

- 1786a. A Portion of a Tongue which was removed on account of a sarcomatous growth. The section exhibits a soft white tumour, oval in shape, of about the size of a five-ball, and measuring one and a half inches in length by an inch in breadth. It is situated immediately beneath the mucous membrane of the middle third of the left side of the tongue. It is circumscribed, and at one part exhibits traces of a

capsule. Microscopically it consists of sarcoma cells, which are large, round, and granular. The matrix is homogeneous, but in parts granular. Numerous small blood-vessels run amongst the cells. 1887

From a man, aged 40, who first noticed a soreness about the middle of the left side of his tongue three months before admission to the Hospital, though it was not until two months later that he observed any swelling. The tumour rapidly increased in size, but was only painful during mastication. One half of the tongue was removed, and the patient made a good recovery.

See *Male Surgical Register*, vol. ii. (1886), No. 3062; *The Lancet*, vol. i., 1887, p. 623.

EPITHELIOMA.

1787a. Section of a Tongue with an epitheliomatous growth at the right lateral margin. A large ingrowth of epithelial tissue of a triangular form has invaded the muscular tissue almost as far as the septum. 1884

1788a. Part of a Tongue, the surface of which is very rough and papillated. All the papillæ are much enlarged and the epithelium generally increased in thickness, so that the diseased part was considerably raised above the level of the rest of the tongue. There is nowhere any ulceration. 1883

From a man, who had first noticed a small pimple on his tongue five years previously. A year later he was under treatment at the Hospital, caustics being applied locally and iodide of potassium administered internally. At this time the growth was about the size of a two-shilling piece, and steadily spread up till the time of removal, when it covered half the organ. A microscopical examination showed that not only was the thickness of the epithelium increased, but that in addition there was a very distinct epitheliomatous growth, large columns of epithelial cells dipping deeply into the subjacent muscular tissue, and containing large cell-nests. Microscopical sections are preserved in Series lv., No. 211; also a Drawing of the tongue before operation in Series lvii., No. 331.

See *Darker Ward Book*, vol. ix., p. 45.

1788b. Commencing epithelioma of the tongue. 1884

1788c. Epithelioma of tongue. 1885

From a woman, aged 35.

Presented by Sir William Savory, Bart, F.R.S.

1788d. Tongue and Larynx. The tongue is excavated by a large epitheliomatous ulcer. 1885

1788e. The Left Anterior Half of a Tongue, which was removed on account of the large epitheliomatous ulceration seen upon its lateral aspect. The ulcer extends for some distance along its under surface, and the raising up of the tissue around its edges has given to it an almost fungating appearance. 1886

M., æt. 64. A tumour of the tongue had been noticed for five months prior to the operation. The lymphatic glands were not enlarged. The patient made a rapid recovery after the removal of the tongue.

See *Male Surgical Register*, vol. ii. (1885), No. 3345.

1788f. The Left Half of a Tongue removed on account of an epitheliomatous infiltration. The new growth has broken down to form a large and irregularly oval ulcer, which occupies the posterior two-thirds of the lateral margin of the organ. It measures an inch in length by half an inch across. 1887

From a man, aged 50, who had noticed for four or five months that his tongue was sore. He was in the habit of smoking a clay pipe on the left side of his mouth. The glands were not enlarged.

See *Male Surgical Register*, vol. iii. (1885), No. 3345.

1788g. The Right Half of a Tongue which was removed on account of an epitheliomatous growth. The growth is a large warty mass, situated upon the anterior portion of the tongue. 1887

From a man, aged 60, a postmaster, who attributed the tumour to the constant licking of postage labels. Seven years before admission the tongue was sore and red, but it was not until six months before the removal of the organ that any growth was observed.

See *Male Surgical Register*, vol. ii. (1886), No. 2651.

- 1788h. The anterior two-thirds of a Tongue affected with epithelioma. The front portion of the dorsum is smooth and fissured; it was the seat of chronic glossitis. The left margin presents an extensive epitheliomatous ulcer. The ingrowth extends deeply beneath the ulcer, so that it invades the muscular tissue. 1888

From a man, aged 44, who appears to have suffered from syphilis twenty years previously. The growth on his tongue was only noticed for two months before the operation.

See *Male Surgical Register*, vol. i. (1886), No. 3367.

- 1788i. The Larynx and Trachea with the Stump of the Tongue. The entire tongue had been removed fourteen days previously for epithelioma, the patient subsequently dying from suppurative phlebitis of the internal jugular vein. The surface of the tongue presents a well-formed cicatrix, and the ligatures applied at the time of the operation are seen to be still *in situ*. 1888

From a man, aged 53, who had the anterior portion of his tongue removed for epithelioma in December, 1884. There was no recurrence of the growth until February, 1887.

See *Male Surgical Register*, vol. iii. (1887), No. 788.

- 1788j. A Portion of a Tongue, showing an epitheliomatous growth occurring as a well-marked papillary mass upon the side of the organ. The new growth is raised and oval, measuring an inch and a half in length. 1889

From a man, aged 50, who first noticed a pimple on the right side of his tongue three months before it was deemed advisable to remove it.

See *Male Surgical Register*, vol. ii. (1888), No. 339.

- 1788k. The Anterior Three-fourths of a Tongue removed by operation on account of two separate epitheliomatous ulcers. The larger occupies the right border, the smaller is at the tip. Both of the ulcers have hard and raised edges, and there is a considerable amount of fungating outgrowth of the larger ulcer: they both, when examined microscopically, were found to be typical squamous-celled epitheliomas.

See *Male Surgical Register*, vol. v. (1889), No. 3504.

1891

- 1791a. The Left Half and Posterior Portion of a Tongue removed by operation for recurrence of an epithelioma. A section has been made through the ulcer, which is seen to have raised edges and to have extended deeply into the substance of the Tongue. 1892

From a patient, 75 years of age. The first operation had been performed some years previously.

- 1796a. A Congenital Fibrous Epulis growing from the right side of the alveolar margin of the superior maxilla, and occupying the position of the incisors. It extended a short distance backwards over the hard palate as well as downwards and forwards, causing some projection of the lip. 1889

From a child, aged one month.

See *Female Surgical Register*, vol. iii. (1889), No. 571.

- 1796b. An Epulis, together with the second bicuspid tooth, removed from the upper jaw. On removing the tooth, in order to get a full exposure of the gum, the growth, which is seen to be closely connected with the tooth, came away at the same time. It is of a flat oval shape, with here and there small white nodules of firmer consistence which do not contain bony material. 1890

Microscopical examination shows the growth to consist of fibrous tissue. A specimen is preserved in Series lv., No. 219.

From a woman, aged 28, who had noticed the tumour for one year.

See *Female Surgical Register*, vol. ii. (1889), No. 1522.

1798a. A Molar Tooth, with an epulis attached to the fangs. The epulis was composed entirely of fibrous tissue. 1881

1798b. A small Epulis removed from the jaw of a child, aged eleven years. The surface is warty and papillated. 1882

The growth was said to have existed since birth. It was easily removed, and appeared to spring rather from the superficial, than from the deeper parts of the gum.

Microscopic Examination.—The stroma of the tumour consists of a fibrillar tissue with many small round cells. Into this dip columns of epithelial cells of various size; in some parts the columns run almost the whole depth of the tumour.

See Microscopic sections, Series lv., No. 218.

Report of case in *President Ward Book*, vol. viii., p. 196.

EPULIS ATTACHED TO TOOTH.

1798c. An Epulis attached to a Molar Tooth. 1883

1799a. A Pedunculated Calcifying Fibroma, which grew from the upper jaw of a man, aged forty-six. The tumour had been growing for twenty-seven years, causing so little inconvenience that the patient was unwilling to have it removed. It sprang from the palate, just behind the incisor teeth. 1888

See *Male Surgical Register*, vol. iii. (1886), No. 1706.

1800a. A Tumour removed from the palate of a gentleman, aged sixty. It had been noticed two years previously, but had probably grown more quickly during the latter part of this period. It occupied the right side of the palate, extending a little across the middle line. It was elastic, almost fluctuating. It had a well-marked capsule, from which it was easily shelled out, as it had no firm connection with the bone. The wound healed quickly and without any exfoliation of bone. Microscopically the growth is a fibro-sarcoma. 1887

Presented by Stephen Paget, Esq.

1800b. A Section of a Tumour removed from the palate of a woman, aged twenty. The tumour had been growing for a period of four years. Microscopically it resembles a glandular formation in which the gland tissue is in most parts very imperfectly formed. The cells are evidently epithelial, and are usually arranged in irregular masses, separated from one another by a homogeneous stroma, which appears to be formed by a degeneration of the cells themselves. A few definite gland tubes may be met with, and in one part there are some cell-nests. The epithelial cells are generally small and round, but in the neighbourhood of the nests they become solid. 1887

A section is preserved in Series lv., No. 220.

See *Female Surgical Register*, vol. ii. (1886), No. 2132.

1800c. A Tumour removed from the palate. It is seen in section to be of firm consistence, with numerous minute cavities in it. It measures two inches in length by an inch and a half in breadth. Microscopically the stroma is composed of fibrous tissue and hyaline material. It contains small irregular masses of epithelial cells, amongst which are a few cell-nests. At one margin of the tumour the cells are larger and more numerous, whilst in places they are collected into masses which are enclosed in definite alveoli. Within a month of the removal of the tumour from the palate, where it had been growing for twenty years, it was found necessary to remove the superior maxilla. The growth infiltrating the bone was composed of a fibrous stroma enclosing very definite alveoli filled with large epithelial cells. The growth was evidently carcinomatous. 1887

From a man, aged 55. The tumour of his palate had existed for twenty years. It was pear-shaped, and was attached to the left side of the arch of the palate, the soft palate being free. He had noticed a swelling of the left cheek and an overflow of tears for two months.

A section of the tumour is preserved in Series lv., No. 221; a section of the growth in the superior maxilla in Series lv., No. 72.

See *Male Surgical Register*, vol. iii. (1887), No. 622.

1801a. A soft Palate, Fauces and Larynx affected with tubercular disease. A superficial ulceration of the mucous membrane extends over the greater part of the superior surface of the soft palate and uvula ; the mucous membrane of the fauces is thickened and penetrated by numerous small ulcers. The margins of the epiglottis are superficially ulcerated, and also the mucous follicles upon it ; the aryteno-epiglottidean folds, and arytenoid cartilages are unnaturally distinct, and infiltrated with tubercular material. 1881

From a boy, aged 15 years, who was admitted to the Hospital for sore throat, which he stated had only existed about a week. The cervical lymphatic glands had been enlarged for eight months. He died exhausted. The post-mortem examination revealed general tuberculosis of the lung, and tubercular ulceration of the intestines.

See *Darker Ward Book*, vol. vii., p. 204.

1803a. Section of a dermoid Tumour removed from the soft palate. It consists of a layer of cartilage covered by a tissue having the histological characters of ordinary skin. 1881

Presented by W. Marrant Baker, Esq.

1805a. A Membranous Cast of the Tonsil, which separated during an attack of diphtheria. 1890

From a child in Faith Ward.

ENLARGED TONSILS.

1806a. The Pharynx of a child exposed from behind, showing on each side chronic enlargement of the Tonsil. 1892

1807a. A Polypoid Growth which was removed from the tonsil. The tumour consists of a larger and a smaller portion, each of which is crescentic in shape. The two portions of the growth are attached to each other by a narrow bridge of tissue. Microscopically, the tissue is a soft fibroma, consisting entirely of connective tissue. 1888

From a man, aged 25, who stated that for ten years he had repeatedly suffered from sore throat. The swelling, however, gave him no inconvenience, and he did not know how long it had been growing.

See *Male Surgical Register*, vol. iii. (1886), No. 360.

SERIES XIII.

DISEASES OF THE TEETH.

1811d. Two lower Molar Teeth, each having an additional third fang on the inner side. 1881

Presented by I. I. Lyons, Esq.

1811e. A temporary Upper Central Incisor Tooth, from a child, aged three years. A supernumerary tooth, resembling in form a canine, is fused with it. There are two distinct pulp cavities, which appear to communicate at one point. The other teeth were normal. 1884

Presented by W. M. Gabriel, Esq.

1811f. Four Permanent Incisors whose fangs have undergone absorption. 1884

Presented by Alfred Coleman, Esq.

1811g. A left upper Wisdom Tooth of curious shape, much destroyed by caries. 1885

1811h. A right upper Wisdom Tooth of remarkably small size. Extracted previous to the insertion of artificial teeth. 1885

TRANSPLANTATION OF TEETH.

1811i. Three Teeth; two of them, the right upper canine and left upper second bicuspid, had been replanted about six or seven years ago, and when extracted were quite loose in their sockets. The third Tooth; the left upper first bicuspid, extracted at the time of the same operation on account of caries, is included in the preparation to show the amount of absorption the fangs of the first two have undergone. 1885

Presented by W. M. Gabriel, Esq.

1811j. A Wisdom Tooth of abnormally small size, extracted for caries. 1886

Presented by W. M. Gabriel, Esq.

MALFORMATION OF THE TEETH.

1811k. A Left Lower Canine Tooth with two distinct fangs. 1893

Presented by W. M. Gabriel, Esq.

1811l. A First Upper Molar Tooth with four fangs extracted on account of caries. 1893

Presented by W. M. Gabriel, Esq.

1811m. Two Upper Wisdom Teeth of unusual shape, extracted on account of caries. 1893

Presented by W. M. Gabriel, Esq.

1811n. One of Two Supernumerary Teeth, extracted from the hard palate on account of discomfort. 1893

Presented by W. M. Gabriel, Esq.

1818a. A Right First Upper Molar, extracted for extensive Caries. The cavity of decay is occupied by the hypertrophied pulp. Before the tooth was extracted this was of a pale red colour. It gave rise to no pain except when touched or bitten on. 1891

From a girl, aged 15.

Presented by W. M. Gabriel, Esq.

1820a. A Wisdom Tooth on each side of which is an enamel nodule. The tooth has been sawn in half, and in its interior, nearly opposite to the smaller nodule, is a dentinal nodule, the tip of which has been unfortunately taken off in preparing the section. The tooth was extracted for pain of a neuralgic character, which had existed for three or four years. 1885

Presented by W. M. Gabriel, Esq.

1821a. Five Cases of Exostosis growing from the roots of permanent teeth. 1884

Presented by A. Coleman, Esq.

1823a. An Ivory Tooth-Plate carved to fit the lower jaw. There are sockets for the reception of the front teeth, which have been fixed into the ivory base by pegs ; but the molars are represented by square blocks of ivory. On the under surface is a groove for the alveolar border of the inferior maxilla. 1888

The plate was found in a well at Brighton. Similar appliances were in use in England at the commencement of the present century.

Presented by Henry Willett, Esq.

SERIES XIV.

DISEASES OF THE SALIVARY GLANDS.

EXTIRPATION OF THE SUBMAXILLARY GLAND.

1826a. A Submaxillary Gland removed with a large submaxillary calculus. There is a deep depression at the upper and inner part of the gland, where the calculus lay. At the bottom of this depression is Wharton's duct, cut across at the point where it leaves the gland. A piece of glass rod has been passed along its lumen into the gland tissue. The gland itself is indurated, but otherwise appears to be healthy.

1888

The gland was removed from a gentleman, aged 52, through an incision in the neck. The presence of the calculus was suspected, but was not discovered until after the removal of the gland. The patient had been subject to occasional swelling of the submaxillary region for more than forty years. There had been permanent enlargement and suppuration of the salivary gland for some time before the operation was performed.

The calculus is preserved in Series liii., No. 245a, and a cast of it in Series lvi., No. 117a.

Presented by H. T. Butlin, Esq.

PAROTID TUMOUR.

1830a. Section of a similar Tumour removed from the same situation as the preceding specimens. In its centre is a cyst which contained some viscid mucoid fluid. 1882

From a man, aged 38, in whom it had been growing three years. In microscopic structure it consisted of a fibrous tissue mixed with fibro-cartilage, and traces of gland acini.

Microscopic sections are preserved in Series lv., No. 227.

1832a. Section of an Adeno-Sarcoma removed from the parotid gland of a boy.

1881

It consists of embryonic connective tissue containing tubules of gland tissue lined with small round epithelial cells.

Presented by Thomas Smith, Esq.

BLOOD CASTS FROM THE ŒSOPHAGUS.

1835a. Three Fibrinous Casts, which appear to have been formed in the œsophagus. They measure from three to twelve inches in length, and are nearly an inch in breadth at their thickest part. They are composed of fibrin with blood corpuscles in their meshes. 1887

From a patient, aged 22, who had repeated attacks of uncontrollable epistaxis. The nares were plugged, and the casts were subsequently vomited. He died of septic pneumonia.

See *Male Surgical Register*, vol. v. (1886), No. 1818.

SERIES XV.

DISEASES AND INJURIES OF THE PHARYNX
AND ŒSOPHAGUS.

- 1833a. An Œsophageal Diverticulum removed by operation : it measures rather more than an inch in length, and is composed mainly of striped-muscular tissue with a lining of mucous membrane. 1892

The patient was a gentleman, aged 50, who had suffered for five years from great inconvenience, due to the collection in, and the subsequent regurgitation of food from, the pouch : it was situated at the back of the œsophagus on a level with the cricoid cartilage. It was reached through an incision along the anterior margin of the left sterno-mastoid muscle ; the great vessels were drawn outwards, and the thyroid gland turned forwards and inwards : the pouch was then easily exposed and freed from its connection : the opening into the œsophagus was closed by means of eight silk ligatures. The patient made a good recovery.

Presented by H. T. Butlin, Esq.

- 1837a. Portions of ejected diphtheritic False Membrane of unusually firm consistence. 1881

Presented by Walter Jessop, Esq.

- 1838a. The Œsophagus and Portion of the Stomach. The œsophagus is ulcerated at a point close to the stomach. The ulceration is not cancerous. At a short distance above the ulcerated portion the softened wall has been perforated by a catheter. 1884

- 1839a. A Tongue and Larynx with a portion of the soft palate, showing the narrowing of the pharynx which has resulted from the cicatrisation of long-standing syphilitic ulcers. The calibre of the œsophagus is greatly narrowed at a point corresponding with the cricoid cartilage, whilst the vocal cords are ulcerated. The soft palate had ulcerated completely through, but the ulcer had healed, leaving a perforation through which a rod had been passed. 1886

From a woman, aged 36, who had borne ten dead children.

Presented by H. Holdrich Fisher, Esq.

- 1843a. A Larynx and Œsophagus, showing a stricture resulting from a malignant new growth. The wall of the œsophagus from the upper border of the cricoid cartilage is thickened and ulcerated by the new growth for a distance of two and a half inches. The lumen of the tube is encroached upon to such an extent that a thin rod can alone be passed along it. No suppuration appears to have taken place in the œsophagus, but a small abscess cavity was found lying beneath the left lobe of the thyroid gland and tracking upwards along the left ala of the thyroid cartilage. Microscopically the growth was an epithelioma. 1889

From a woman, aged 51, who had dysphagia for six months before her death. A No. 4 catheter could be passed through the stricture a month before the death of the patient.

See *Female Surgical Register*, vol. iv. (1888), No. 2744*.

1844a. Œsophagus, Trachea, Aorta, and Glands. The Œsophagus presents a large cancerous ulceration, which has extended through the anterior wall into the trachea. The opening from the Œsophagus into the trachea is large and ragged; it is divided by a septum which runs transversely across its centre. The glands are enlarged.

1884

For details of the case see a report by James Berry, Esq., in the *St. Bartholomew's Hospital Reports* for 1884, vol. xx., p. 53.

1844b. A Larynx and Œsophagus affected with malignant disease. The new growth commenced in the Œsophagus at a point somewhat below the level of the cricoid cartilage, and for a distance of an inch and a half it has narrowed the lumen to such an extent that a probe could only with the greatest difficulty be passed along it. The growth has softened anteriorly, and communicates with the trachea through the interval between the fourth and fifth rings by a large ragged opening. This opening, as may be seen by looking into the trachea, is surrounded by a raised edge of new growth. The mucous membrane is ulcerated for some distance. Microscopically the new growth was found to be an epithelioma.

1889

From a man, aged 57 years, who died shortly after his admission to the Hospital from broncho-pneumonia.

See *Male Surgical Register*, vol. iii. (1889), s. v. Thomas Paine.

1846a. Œsophagus, Pharynx, and Trachea. The Œsophagus is contracted by a narrow ring of epitheliomatous cancer.

1884

The stricture was treated by the retention for ten weeks of a soft rubber tube similar to the one suspended by the side of the specimen.

For details of the case see a report by James Berry, Esq., in the *St. Bartholomew's Hospital Reports* for 1884, vol. xx., p. 49.

1846b. Œsophagus and Stomach, from a case of cancer of the Œsophagus, in which gastrostomy had been performed eight months before death. The Œsophagus is narrowed and ulcerated for a distance of three and a half inches above its cardiac extremity; the ulceration has commenced at a point opposite the bifurcation of the trachea, and has extended downwards. It has not invaded the stomach. The ulceration at its upper part has perforated the walls of the Œsophagus, and has exposed a bronchial gland, which appears as a black mark extending transversely across the tube. The cancer is of the scirrhus type. There were no secondary deposits, nor were the glands infiltrated. The stomach appears to be normal. The gastrostomy opening is situated at the lowest point in the greater curvature, midway between the cardiac and pyloric orifices. The skin with its orifice, and a portion of the costal cartilages adherent by the results of old inflammation to the greater curvature of the stomach, are left *in situ*.

1884

For details of the case see paper by T. Whitehead Reid, Esq., in the *St. Bartholomew's Hospital Reports* for 1884, vol. xx., p. 117, and *Lancet*, November 3rd, 1883.

1847a. Œsophagus and Stomach. The Œsophagus is ulcerated close to the point where it opens into the stomach by a cancerous ulceration. At a short distance above the stricture the softened wall has been perforated by a catheter.

1884

WOUND OF PHARYNX.

1863a. A Pharynx which has been laid open from behind to show the track of a stabbing wound inflicted by a pocket-knife. A black glass rod is placed in the wound, and passes between the main vessels of the left side and the larynx, just below the bifurcation of the common carotid artery.

1891

The external bleeding was easily controlled by means of a pad, but the patient gradually sank, and died about twelve hours after the injury. At the post-mortem examination it was found that the facial vein, now marked by a silk ligature, and the superior thyroid artery had both been severed, and that the escaping blood passed through the internal opening of the wound into the œsophagus and was swallowed.

See *Surgical Post-Mortem Register* for 1890, p. 18.

- 1867b. The Œsophagus and Trachea with a Portion of the Stomach of a girl who swallowed a marble. The œsophagus is ulcerated for about an inch immediately above the cardiac orifice, and it was so much softened that its wall gave way as soon as it was removed from the body, leaving a large ragged opening, through which passed the small black marble seen in the preparation. 1889

From a girl, aged four years, who had swallowed a marble three days before death. Ineffectual efforts were made to dislodge it from the œsophagus.

See *Female Surgical Register*, vol. i. (1888), No. 1679.

- 1869a. A Vulcanite Tooth-Plate, with three artificial teeth and four sharp hooks attached, which was swallowed, and remained in the œsophagus for three months. 1890

The patient was admitted into the Hospital shortly after the accident, and attempts were made to remove the plate, but unsuccessfully. After a few days he left the Hospital at his own desire, but returned again at the end of three months. On the second occasion the plate was removed by means of a pair of forceps.

See *Male Surgical Register*, vol. i. (1889), No. 1703.

Presented by Mr. W. S. Langford.

- 1869b. A Similar Specimen, removed under chloroform by means of a long curved pair of forceps shortly after it had been swallowed. It had remained fixed in the œsophagus at about the level of the cricoid cartilage. 1890

See *Male Surgical Register*, vol. iv. (1890), No. 960.

- 1869c. A Halfpenny which was partially swallowed by a child four years of age, and was removed from the pharynx by means of curved forceps after having been firmly impacted there for eight days. 1892

SERIES XVI.

DISEASES OF THE PERITONEUM, OMENTUM, AND MESENTERY.

- 1883a. A Mass of Caseous Material found in the peritoneal cavity, and resulting from a previous localised peritonitis, probably of a tubercular origin. 1892

The patient was a man, aged 30, who died from intestinal obstruction caused by old adhesions between the coils of the ileum : a similar caseating nodule was found in the liver.

The constricted portion of intestine is preserved in Series xviii., No. 2017a.

See also *Male Surgical Register*, vol. ii. (1889), No. 2028, and *Surgical Post-Mortem Register*, 1889, p. 98.

- 1885a. A Small Calcified Mass developed in the mesentery of the small intestine. It did not give rise to any symptoms during life. 1888

SARCOMA OF THE OMENTUM.

- 1886b. A Piece of the Great Omentum, attached at its upper border to part of the great curvature of the stomach. It is greatly thickened, and has been rendered nodular by infiltration with oval-celled sarcomatous tissue. The primary growth occurred in the testicle, which was removed four months before the death of the patient. 1889

From a man, aged 21, in whom the sarcoma of the peritoneum was secondary to sarcoma of the testis. The intestines were not distended, but their mesenteric and peritoneal attachments were closely studded with thousands of small nodules, varying in size from a pin's head to a hazel-nut. The appendices epiploicæ were also greatly enlarged, and the parietal layer of the peritoneum over the greater part of its extent was similarly affected. The left inguinal canal was filled with new growth, which protruded into the peritoneal cavity. All the viscera were healthy. The lymphatic glands in the abdomen were not enlarged.

The testis is preserved in Series xxxvi., No. 2797g.

See *Male Surgical Register*, vol. iv. (1889), No. 3264.

- 1886c. A Portion of the under surface of the Diaphragm with part of the liver. The parietal layer of the peritoneum is studded with nodules of sarcoma-tissue, which do not penetrate into the gland. 1889

From the same case as the preceding.

MULTIPLE SECONDARY CARCINOMA OF THE PERITONEUM.

- 1886d. A Diaphragm to which portions of some of the lower ribs are still attached : the under surface is covered with great regularity by a number of rounded or nodulated sessile growths, varying in size from that of a pea to that of a broad bean : some few are slightly pedunculated. Other parts of the peritoneum were affected, but to a less extent ; there were a few nodules on the falciform ligament

of the liver : the pelvic organs were matted together by growths of a similar nature : under the microscope their structure is carcinomatous of the encephaloid type, showing large glandular cells embedded in a scanty meshwork of fibrous tissue. 1892

The patient was a girl, aged 15. The seat of the primary disease was not detected, but it was probably in one or other of the pelvic viscera (see *Teratological Catalogue*, No. 3673c). A drawing of the diaphragm and liver, when fresh, is preserved in Series lvii., No. 366, and microscopical sections are preserved in Series lv., No. 244a.

See *Medical Post-Mortem Register*, vol. xvii., p. 280.

1890a. A Section of the Bladder and Rectum, from a case of cancer of the peritoneum. The whole of the recto-vesical pouch is occupied by a mass of colloid cancer, which has resulted from the degeneration of a medullary carcinoma. So far as can be ascertained, the carcinomatous growth sprang from the bottom of the recto-vesical pouch. At one spot it has opened by a process of infiltration into the posterior wall of the bladder. Neither the rectum nor the folds of intestine above appear to be implicated in the growth. 1887

From a gentleman, aged 62, who for more than twenty years before his death had a slight mucous discharge from the bowel. On July 14th he passed a tablespoonful of pus by the rectum ; on the 15th he had extreme frequency of micturition ; on the 18th air passed per urethram, and a little later in the day some feces. The patient died of exhaustion on December 16th. At the autopsy a cancer of the intestine was found to have perforated the bladder, the size of the perforation being that of a shilling. There were neither secondary deposits nor enlarged glands in the immediate neighbourhood, nor were there any abscesses. There was a little suppurative pyelitis on both sides, and a few minute abscesses in the renal substance.

Presented by Samuel West, M.D.

1891a. A Portion of the Mesentery, a very large part of which had become converted into a hard cake-like mass from being infiltrated with scirrhus carcinoma. 1891

Microscopical sections, showing the usual structure of this class of malignant disease, are preserved in Series lv., No. 246.

Received in exchange from the Royal Free Hospital.

WOUNDS OF THE PERITONEUM.

1894a. A Portion of the Peritoneum, which was accidentally cut during the operation of suprapubic cystotomy. The incision was immediately closed by pointed sutures of fine silk, and was healed by first intention. The patient died of syncope two days later. Cf. No. 2089a. 1889

See Series xxix., No. 2417c.

SERIES XVII.

DISEASES AND INJURIES OF THE STOMACH.

1904a. A Stomach, the mucous surface of which is dotted with numerous punctiform hæmorrhages. 1882

From a man who died of cirrhosis of the liver, and had suffered from persistent vomiting. A drawing of the stomach, when fresh, is preserved in Series lvii., No. 394.

1908a. Part of a Stomach with alteration at the pyloric extremity. The mucous membrane at the greater curvature presents several small depressions of irregular shape and size. Two of these, about the size of a split pea, are small ulcers. Their edges are abrupt, and not undermined; there is no thickening of the surrounding tissues, and the peritoneum is normal. They do not appear to extend deeper than the submucous tissue, and in the recent state each contained a small clot of blood. They could not be proved to communicate with any branch of the gastric arteries. 1882

From a man, aged 55, who died on the seventeenth day after a burn of the hands and face. For the last two days of his life, he vomited large quantities of dark-coloured blood, and passed a considerable quantity of the same with his motions. A post-mortem examination showed recent peritonitis and pericarditis. The mucous membrane of the intestines was natural.

See *Kenton Ward Book*, p. 384, September 29th, 1881.

1908b. Portion of a Stomach in which there is an oval chronic ulcer with raised and thickened edges, about an inch long and rather more than half an inch broad. In the very centre of the floor the ulceration has nearly penetrated the viscus. The pylorus was distant four inches from the ulcer, which is on the posterior wall at the lesser curvature. The wall of the stomach in the vicinity is much thickened. 1883

1908c. The Stomach of an infant. Numerous small but deep round or oval ulcers are seen on the posterior wall of the cardiac end near its lesser curvature. The position of some of the ulcers are marked by small blood-clots. 1886

A small male child, born after a natural but rather tedious labour, suddenly vomited blood twenty-one and a half hours after birth, and a few hours later melæna succeeded. Up to this time milk was taken and vitality seemed but slightly impaired. The discharge of blood continuing, much altered by admixture with meconium and mucus, the child rapidly sank, and died within twenty-four hours from the first appearance of blood.

See *Transactions of the Clinical Society* (1886), vol. xix., p. 1.

Presented by Dr. Sawtell.

1908d. A portion of the wall of the stomach, showing a thickening of its coats and at one spot a chronic ulcer. The ulcer is circular in form, measuring rather more than an inch in diameter, with distinct abrupt edges; it is situated on the lesser curvature two inches from the pylorus. In its base are two perforations both closed with lymph. There are no old adhesions, nor is there any thickening at the base. 1886

See *Medical Post-Mortem Book*, vol. x., p. 224.

1911a. The Stomach of a woman, aged fifty-two, who had chronic gastric ulcers. The omentum and stomach were adherent to the peritoneum in the neighbourhood of the tenth rib on the left side, but there was no general peritonitis. The stomach, which has been laid open, is seen to contain two ulcers, each measuring an inch across. One is situated on the upper and posterior part, and its floor is formed by the pancreas, whilst the other has perforated into the sac of the great omentum. The edges of both ulcers are rounded and thickened. The stomach contained the twenty-eight plum-stones preserved in the next specimen; there was no history obtainable as to when they were swallowed. 1889

From a woman, aged 52, who was addicted to liquor. For twenty-five years she had symptoms of gastric ulcer.

See *Mary Ward Book* for 1888, No. 173.

1911b. Twenty-eight Plum-Stones removed after death from the stomach preserved in the preceding specimen. 1889

1913a. A Portion of a Stomach showing an ulcer situated within the pylorus, exactly at the end of the lesser curvature. The ulcer measures a quarter of an inch in diameter, and has perforated into the pericardium. 1888

From a man, aged 58, who had suffered for some time with pain after food, and occasional vomiting, but who had never brought up any blood. At 10 a.m. he was seized with severe abdominal pain, which was relieved by pressure, and he died in the early morning of the following day.

See *John Ward Book* for 1885, No. 57.

DIPHThERITIC ULCERATION.

1918a. A Stomach from a child who died of diphtheria. At the cardiac orifice the mucous membrane is covered by several small shreds of membrane. 1883

DIPHThERITIC MEMBRANE IN THE STOMACH.

1918b. The Stomach of a child who died from diphtheria. Nearly the whole of the mucous surface is covered by the fine flaky "false membrane" of diphtheria. When fresh, the mucous membrane was red and acutely inflamed, and the "false membrane" of the usual ashen-grey tint. It had not spread beyond the pylorus. 1891

From a child, aged one and a half years; tracheotomy had been performed some time previously. At the post-mortem examination the pharynx was affected, but the œsophagus was normal.

See *Medical Post-Mortem Register*, vol. xvii., p. 331.

1919a. A piece of the mucous and muscular coats of the stomach, showing a small sessile polypus. 1885

1919b. A portion of a healthy Stomach with the cardiac orifice. A tumour is seen to surround the orifice in such a manner that about one-third of its circumference is formed by a tough whitish growth of a somewhat reniform shape. The tumour is covered by healthy mucous membrane; it is slightly constricted at its base, and appears to spring from the submucous tissue. The cardiac orifice is not obstructed. Microscopical examination showed that the tumour is a fibro-myoma, consisting of bundles of delicately fibrillated tissue interlacing in places, with long rod-shaped nuclei interposed in the axis of the fibres. 1886

See *Transactions of the Pathological Society*, vol. xxxv., p. 196.

Presented by Percy Kidd, M.D.

1922a. A Carcinomatous Infiltration of the body of the Stomach. The viscus is greatly contracted, its walls being so much thickened that they measure in parts a quarter to half an inch in thickness. When it was laid open it measured eight inches from the œsophagus to the pylorus round the greater curvature, and four

and a half inches at its widest part. The walls are so rigid that the organ maintains its shape when it is placed upright. The tissue near the œsophagus appears to be less infiltrated than the rest, and the disease ceases abruptly at the pyloric orifice. The mucous membrane in the pyloric portion has undergone some superficial ulceration, but there is no definite ulcer in any part of the organ. Microscopic examination shows that the growth consists of a dense connective tissue stroma, containing a few very large epithelial cells. 1887

From a man, aged 55, who had suffered from abdominal pain for sixteen months, and from jaundice for six months previous to his death.

See *Luke Ward Book* for 1885, p. 2055, and *Medical Post-Mortem Book*, vol. xii., p. 124.

1924a. A Stomach, extremely contracted, and widely infiltrated with cancer. Its wall is thickened, and soft polypus-like or mammillated growths project from its mucous membrane. The surface of these is composed of mucous tissue, and the deeper portion is infiltrated with cancer. 1881

1931a. A Stomach which has been laid open to show a large malignant ulcer situated on the posterior wall of the greater curvature: as a result of the subsequent inflammation the stomach has become adherent to the adjacent portion of the transverse colon, into which a fistulous opening, caused by spreading of the ulceration, now leads. Near the pylorus, but on the gastric mucous membrane, is a small raised nodule, probably malignant in character. 1892

See *Medical Post-Mortem Register*, vol. xvi., p. 29.

1946a. A Stomach, the mucous membrane of which is corrugated and blackened from the effects of hydrochloric acid. 1881

From a person who swallowed four or five ounces of strong hydrochloric acid. Death took place in twenty-four hours.

1946b. A Portion of a Stomach from a patient who was poisoned with hydrochloric acid. Three ounces of "spirits of salts" was taken at half-past three in the afternoon, and the patient died at half-past six the next morning. The mucous membrane is blackened and corrugated. 1888

Presented by W. T. Strugnell, Esq.

1946c. A Section through the Stomach of a man who was poisoned with hydrochloric acid. The rugæ on the mucous membrane are well defined, and the whole surface of the stomach is blackened. 1889

From a man, aged 61, who drank an unknown quantity of "spirits of salts" from a jug. He died the same day. The mucous membrane of the œsophagus could be peeled off in strips. The tongue was greatly swollen. The duodenum and the first fifteen feet of the small intestines were of a greyish colour. The rest of the ileum and the large intestine were normal.

See *John Ward Book* for 1886, No. 190.

1946d. A Portion of a Stomach with the commencement of the duodenum. The gastric mucous membrane presents two irregular ulcerated patches, the edges of which are undermined, and several smaller ulcers. It is stained a deep black colour in parts. The pylorus is also ulcerated, and its walls are greatly thickened by a whitish growth situated in its submucous and muscular coats. Microscopically, this new growth was found to be due to newly-formed fibrous tissue, which in one part bounded a small abscess situated deeply in the muscular coat of the intestine. The stomach is not enlarged; it was adherent at one spot to the liver. 1889

From a man, aged 32, who had poisoned himself with zinc chloride and hydrochloric acid five months before his death.

See *Medical Post-Mortem Register*, vol. xiv., p. 308.

- 1948a. Portion of a Stomach from a man, aged thirty-two, who died from the effects of poisoning by oxalic acid. Nearly the whole of the mucous membrane is in a soft and sloughing condition, with dark brown patches in places. Near the centre of the specimen is a large oblong patch, from which the mucous membrane has been separated, leaving only the muscular coat, which again is very thin towards the lower part. 1890

The man was brought into the Hospital dead.
See *Medical Post-Mortem Book*, vol. xv., p. 61.

- 1949a. A Portion of the Stomach from a man who died from the effects of taking corrosive sublimate. The mucous membrane was at first of an ashen-grey colour, which has deepened to a brown as a result of exposure to the light. It was slightly congested in the neighbourhood of the cardiac orifice. 1888

From a man, aged 76, who swallowed a large quantity of corrosive sublimate in a glass of water. He rapidly became collapsed, and died two hours and a half after taking the poison. For further details of the case, see *The British Medical Journal*, vol. ii. (1885), pp. 599-600.

The duodenum from this case is preserved in Series xviii., No. 2043a.

A drawing of the stomach whilst it was still fresh is preserved in Series lvii., No. 389.

Presented by Dr. C. R. Walker.

- 1949b. A Portion of the Stomach from a case of acute phosphorus-poisoning. The mucous membrane appears to be normal, but microscopically there is a general degeneration of the gland cells; the degeneration is best marked in the ovoid cells. 1888

From a man, aged 36, who accidentally ate some bread and butter on which phosphorus paste had been spread. He became drowsy and giddy an hour afterwards, and subsequently vomited and had great epigastric pain. On admission to the Hospital, four days after the accident, he was slightly jaundiced, and had marked abdominal tenderness. The eructations were said to taste of phosphorus. The liver and spleen could not be felt on palpation. The patient died in a collapsed condition eight days after eating the phosphorus.

See *Luke Ward Book* for 1884, No. 1534.

The liver is preserved in Series xxi., No. 2238a.

- 1949c. A Portion of a Stomach showing the changes which have resulted from the ingestion of carbolic acid. The mucous membrane is congested, swollen, and velvety in appearance, and there are numerous small hæmorrhages upon it. (*Cf.* No. 2044a.) 1888

From a man, aged 70 years, who drank four ounces of a solution of impure carbolic acid. He was not found until two days after his death. His lips were burnt. The spleen and stomach smelt very strongly, the kidneys slightly, and the liver still less of carbolic acid. There was intense congestion of the duodenum, which gradually decreased to the colon.

Presented by John Adams, Esq.

- 1949d. A Stomach, together with the last four inches of the œsophagus, from a case of poisoning by carbolic acid. The stomach has been laid open along its lesser curvature: it is seen that the whole of the mucous membrane of the œsophagus and stomach is thickly covered by a firm encrustation of a dirty yellow colour: when fresh this was of an almost snowy white, and the contrast with the acutely inflamed mucous membrane, seen in a few places where the encrustation had been broken off, was most marked. 1892

The patient was a young woman, aged 22, who died three hours after taking the poison: her lips and the middle of the mouth were charred by the acid.

Drawings of the face and of the stomach, when fresh, are preserved in Series lvii., Nos. 292 and 390.

See *Medical Post-Mortem Register*, vol. xviii., p. 194.

- 1950a. The Stomach and Œsophagus of a child, aged two years and three months, on whom the operation of gastrostomy was performed on account of stricture caused by swallowing a solution of caustic potash. The œsophagus presents an extreme contraction and thickening of its coats, commencing about four inches from its

upper orifice and extending downwards about one inch and a half, the tube being somewhat dilated above. The wound shows scarcely any signs of healing, and both its edges and the skin where the deep sutures have been passed are in a sloughy condition. Scarcely any adhesion has taken place between the contiguous surfaces of peritoneum, so that the peritoneal cavity is in free communication with both the stomach and external air; nevertheless there was no escape of food or signs of peritonitis. The child lived a fortnight after the operation. The potash had been swallowed seven months previously. 1883

See *Darker Ward Book*, vol. viii., p. 237.

1951a. The Stomach and part of the Jejunum of a man on whom the operation of gastro-enterostomy was performed for the relief of a malignant growth at the pylorus. The stomach has been laid open along its lesser curvature; the jejunum has also been laid open. In each of these is seen a decalcified bone plate, by means of which the two viscera were approximated and held together; in the centre of them is the aperture of communication. The peritoneal surfaces of the two viscera are also united by a series of fine sutures. The jejunum has become united to the stomach over the whole area of the intended union.

The growth has involved the pyloric end of the stomach, the walls of which are much thickened. There is also a large ulcer with raised edges on the anterior wall of this region; the duodenum does not seem to be affected. Microscopical examination showed that the malignant growth was a short columnar-celled carcinoma. 1891

The patient was a man, aged 34, who, when admitted, had only suffered from symptoms of pyloric obstruction for five weeks. A month later the operation of gastro-enterostomy was performed, but he died on the second day.

At the post-mortem examination it was found that there was no peritonitis.

See *Male Surgical Register*, vol. i. (1890), No. 2586.

A microscopical section is preserved in Series lv., No. 252.

LORETTA'S OPERATION.

1951b. A Stomach upon which Loretta's Operation of forcible dilatation of the pylorus was performed seven days before death. The whole viscus is very considerably dilated; it has been laid open by a curved incision carried along its anterior surface through the pylorus into the duodenum. The walls of the stomach are very much thickened, and in the posterior wall there is a large ulcer which has involved and destroyed all the coats except the peritoneal; its edges are raised and thickened, and it is continuous with the thickened wall immediately in front of the pylorus. Microscopical examination showed that the ulcer was innocent in character, and that it contained no signs of carcinoma or other malignant growth.

Parallel with the incision already mentioned, and about one and a half inches below it, there is seen the recent scar of the incision by which the stomach was opened during life. On the outside this has united for half its length, but on the inner surface the mucous membrane is separated from the muscular layers through the whole length of the incision. 1893

From a man, aged 30, who had suffered from pain in the epigastrium for five years. He died from exhaustion seven days after the operation.

See *Male Surgical Register*, vol. v. (1892), No. 756.

SERIES XVIII.

DISEASES AND INJURIES OF THE INTESTINES.

DUODENUM INFECTED WITH THE ANCHYLOSTOMA DUODENALE.

- 1956a. A Piece of Intestine infested with the Anchylostoma (*Sclerostoma* or *Dochmius*) duodenale. A few of the worms still remain adherent to the intestinal wall, but for their better display the greater number have been placed upon a piece of talc beneath the preparation. In the recent condition the mucous membrane of the intestine was covered with mucus and granular lymph, in which the parasites were partially embedded. 1888

Obtained in exchange from the Hunterian Museum.

AMYLOID DEGENERATION OF THE INTESTINE.

- 1952a. A portion of small intestine which has undergone amyloid degeneration. The amyloid substance is stained with iodine. 1888

- 1952a. A piece of the small intestine showing along the mesenteric border two pouches: the larger of the two is more or less globular, and measures about one inch in diameter: it protrudes between the layers of the mesentery, which is slightly thickened over the sac: the smaller pouch, situated six inches from the larger, is pyriform in shape, and measures three-quarters of an inch in its long diameter. The remaining portion of the intestine is normal in appearance, and shows no enlargement from distension. 1892

From a woman, aged 56, who died from cerebral hæmorrhage: she also had emphysema and chronic interstitial nephritis.

See *Medical Post-Mortem Register*, vol. xviii., p. 355.

- 1961a. A Cæcum, around which an abscess formed during life. The tissues around the cæcum are matted together, and the vermiform appendix has been destroyed by the inflammation. A glass rod is passed through an opening into the gut, indicating the spot where the abscess burst. The patient died with abscess in the liver and spleen. 1882

ACUTE INFLAMMATION OF INTESTINE.

- 1962a. Portion of small intestine from a case of acute enteritis. The whole of the mucous membrane presents a roughened appearance, especially over the valvulæ conniventes, from the deposit of small masses of lymph. The peritoneum is not affected. 1882

SIMPLE ULCERATION OF THE INTESTINE.

- 1963a. A Portion of the descending colon, which is greatly thinned as a result of over-distension. The mucous membrane contains numerous small irregular ulcers, which extend so deeply as almost to perforate the intestinal wall. The ulceration is

of the simple variety, and appears to be due to the mechanical distension and irritation to which its walls have been subjected. At the upper portion of the preparation the peritoneum has given way, and the extreme tenuity of the muscular coat is well seen. At one spot the wall has been accidentally ruptured in removing the preparation from the body. 1887

From a man, aged 47, who died from the effects of cancer of the rectum. The cancerous symptoms had only existed for six months.

See *Male Surgical Register*, vol. i. (1887), No. 937.

1966a. Portions of a duodenum and stomach. Immediately beyond the pylorus are four irregularly shaped ulcers, with raised indurated margins and deeply excavated bases. One of these has perforated the intestine, with the exception of the peritoneal coat. The pancreas is firmly fixed to the gut by strong adhesions. 1883

From a man, aged 49, who died of pulmonary mischief of long standing. No symptoms pointing to the condition of the duodenum were noticed during the time he was in the Hospital.

See account of case by Dr. Moore in the *Transactions of the Pathological Society*, vol. xxxiv.

1967a. Portion of a stomach and duodenum. At the commencement of the latter is an irregularly circular ulcer, with raised and thickened edges, and an uneven base. A bristle is passed through a small aperture in the floor, into a branch of the pancreatic artery, which was opened up by the process of ulceration. As in the preceding specimen, the pancreas is thickened and adherent to the gut. A microscopic examination showed no evidence of any new growth. 1882

From a man, aged 34, who died from hæmorrhage into the bowels.

See *Post-Mortem Book*, vol. ix., p. 236.

The specimen was shown by Dr. Moore at the Pathological Society. Session 1882-1883.

1968a. A portion of the small intestine with the cæcum, and a part of the large intestine. In the cæcum, and again in the large intestine, are two circular ulcers with thickened edges, resembling the chronic ulcers found in the stomach. Midway between the two ulcers is a thinner portion of intestinal wall. The ulcers have perforated all the intestinal coats, and the fæcal extravasation which occurred led to death from peritonitis. 1888

From a woman, aged 49, who stated that she had been quite well until she had been thrown out of a cart two days before her admission to the Hospital. On the day following the accident she suffered great pain in her abdomen and was constantly sick. A fortnight later an ill-defined swelling, giving a sense of resistance upon pressure, was observed in the course of the ascending colon and half way across the transverse colon. She had some diarrhœa, and her temperature rose gradually to 101.2° F. The patient gradually became weaker, and died about two months after her admission.

See *Female Surgical Register*, vol. i. (1887), No. 1746, and *St. Bartholomew's Hospital Reports*, vol. xxiii., pp. 215-217.

1969a. The Duodenum of a Child, aged twelve months, who died on the twentieth day after an extensive scald of the chest. When fresh, the specimen showed the signs of acute inflammation and of some ulceration. Traces of these conditions are still seen in the discolouration and thickening of the mucous membrane. 1890

See *Female Surgical Register*, vol. iii. (1888), No. 1253.

DYSENTERY.

1970a. The Descending Colon with the upper part of the Sigmoid Flexure, from a case of chronic diarrhœa occurring in an Insane Person. The intestine has been laid open, showing that the mucous membrane is much hypertrophied. Running for the most part parallel to the long axis of the bowel are deep, irregular, but narrow ulcers, which extend down to, and in one instance has perforated, the

peritoneal coat. Although it is only seen with difficulty, the peritoneum over the bowel is much thickened, as was also the parietal layer generally. 1891

The patient was a man, aged 63, an inmate of the Middlesex County Asylum at Banstead. He suffered from very intractable diarrhoea without any typhoid symptoms for eight weeks before his death. Dr. Claye Shaw writes: "I have found this condition very common in chronic secondary dementia, and in the last stages of general paralysis."

Presented by T. Claye Shaw, M.D.

1973a. Portion of a Large Intestine with an irregular superficial ulcer of the mucous membrane, the margins of which are slightly ragged. 1881

From a man who died of erysipelas and diarrhoea. The intestines exhibited the appearances of general follicular catarrh. He had previously had several attacks of dysentery.

1984a. A Piece of the Large Intestine from a case of dysentery. There is throughout very extensive superficial ulceration of the mucous membrane. Numerous small ulcers, which vary considerably in depth, are scattered over the surface of the intestine. One of the ulcers near the head of the colon had perforated, and near the perforation was a small collection of faeces bounded by lymph. 1888

From a woman, aged 31, who had suffered for four months from acute dysenteric diarrhoea, which confined her to bed.

See *Faith Ward Book* for 1885, No. 444.

ULCERATIVE COLITIS.

1987a. The Colon, showing a condition of colitis polyposa. The whole surface of the colon is covered with numerous small dark blue projections, which are irregular in shape, and some of which appear pedunculated. Between the projections the intestinal surface was whitish, thickened, and not quite smooth. Microscopically the mucous membrane covering the actual polypus was comparatively normal, showing numerous crypts of Lieberkühn, but from the neighbouring surface of the intestine it had disappeared, showing that the disease was the result of antecedent ulceration, leading to scarring, and leaving projections of healthy tissue. 1889

From a domestic servant, aged 20, who had a tubercular history. Twelve months before her death, she first noticed a little blood coming after motions. She was never constipated, nor had she diarrhoea until two months before her death. She rapidly became emaciated and died from exhaustion. *Cf.* No. 2046a.

A microscopical preparation is preserved in Series lv., No. 254.

See *Hope Ward Book* for 1888, No. 225.

1987b. A specimen of Colitis Polyposa, from the same case as the preceding. 1889

1987c. A Portion of the Transverse and Descending Colon, from a very advanced case of ulcerative colitis. The anterior wall of the transverse colon has completely disappeared for a distance of four inches, whilst for a farther distance of three inches the intestine presents a fenestrated appearance. The mucous membrane which remains is extensively ulcerated. The ulcers are sinuous in outline, and are separated from each other by islets of mucous membrane. The bases of the ulcer are formed by the transverse muscular coat of the intestine. The omentum was somewhat adherent to the intestines, as a result of chronic peritonitis. The mucous membrane of the rectum was also extensively ulcerated, but shreds of it stood out in the same manner as in the preceding specimen, to form islets of comparatively healthy tissue. The ulceration extended for a distance of five inches from the anus, and was succeeded by five inches of healthy gut. Above this point the ulceration recommences, and eventually leads to the destruction of the intestinal wall. The small intestine was healthy throughout, and the rest of the viscera were normal. 1889

From an unmarried girl, aged 20, who for eighteen months had passed blood per rectum during defæcation. She had much pain, and a diagnosis was made of tubercular ulceration high up in the colon. Five days before her death she had an attack of subacute peritonitis.

A drawing is preserved in Series lviii., No. 427.

See *Transactions of the Pathological Society*, vol. xl., p. 109.

See *Female Surgical Register*, vol. iii. (1889), No. 2536*.

1990a. A portion of Ileum, showing the enlargement of Peyer's patches and of the solitary glands, which is typical of the first stage of typhoid fever. 1883

2004a. Portions of the descending Colon, showing a typhoid ulcer which has perforated the gut. 1882

See *Pathological Society's Transactions*, vol. xxxiii., p. 150.

2006a. The last eight inches of the Ileum, showing the condition of Peyer's patches in a boy who had a severe attack of typhoid fever. Fourteen days after deferescence had taken place, he died suddenly from dyspnœa, the result of necrosis of the cricoid cartilage. The Peyer's patches have evidently undergone extensive destruction, and in each there still remains a small circular ulcer of the mucous membrane which extends as deeply as the muscular coat. One or two solitary glands in the upper part of the preparation also appear to have undergone ulceration. All the ulcers are in the process of healing. They present even and shelving edges. 1889

See *Medical Post-Mortem Register*, vol. xv., p. 172.

The larynx is preserved in Series x., No. 1641c.

2007a. Portions of small Intestines, showing the cicatrices resulting from syphilitic ulceration. The patches are numerous and thickened; some are ulcerated; some show scar tissue and contraction, and some consist of fresh connective tissue. 1885

An account of the case will be found in the *Pathological Society's Transactions*, vol. xxxv. (1884), p. 233. The skull-cap is preserved in Series i., No. 340a.

2011a. Part of the Jejunum laid open, showing extensive tubercular ulceration of the mucous membrane. The ulcers are situated transversely to the axis of the intestine. 1890

From a child, aged five years, who died of general tuberculosis.

Presented by C. E. Russel-Rendle, Esq.

2016a. A Portion of the Ileum from a patient who died with tubercular phthisis. The mucous membrane is diffusely ulcerated. The individual ulcers are confluent, and so the ulceration is sinuous in character. There is no appreciable thickening of the coats of the intestine. 1887

From a metal turner, aged 27, who suffered for two years from phthisis. He had hæmoptysis and diarrhœa.

The left lung of this patient is preserved in Series xi., No. 1718b.

2016b. The Cæcum, with a portion of the Ileum and a small part of the Colon, from a patient who died with tubercular phthisis. The mucous membrane of the ileum and large intestine is much ulcerated, and is puckered by the contraction of old cicatrices. The cæcum is much thickened and ulcerated, the ulcers being here confluent and of the sinuous type. 1887

From a woman who had suffered for three years from chronic phthisis, with much diarrhœa.

The two preceding specimens were presented by Percy Kidd, M.D.

2017a. Portion of the Ileum, the seat of stricture caused by old adhesions. The stricture was situated at about three feet from the ileo-cæcal valve, and above it the whole of the small intestine was much dilated. Only about eight inches of this dilated intestine are shown, the calibre of which is nearly equal to that of the colon.

At the stricture the intestine is coiled on itself and firmly fixed in that position, while beyond the constriction the intestine is of normal size. 1890

From a man, aged 30, who died in the Hospital of intestinal obstruction. At the post-mortem examination water could with difficulty be forced through the stricture. A calcareous sausage-shaped mass, three and a half inches long, the result of an old tubercular (?) abscess, was found in the front wall of the abdomen, just below the umbilicus. His left kidney was also tubercular.

See *Male Surgical Register*, vol. iii. (1889), No. 2028; also *Surgical Post-Mortem Register*, 1889, p. 98.

2018a. A Cæcum with portions of the contiguous intestine. The small intestine is much dilated, and immediately above the ileo-cæcal valve is the seat of extensive ulceration, which gives a reticular appearance to the surface of the gut. The ridge of the ileo-cæcal valve is very low, and much of its structure seems to have been destroyed. The ileo-cæcal orifice is considerably constricted, so that it would barely give passage to a large probe. In the cæcum is the aperture of an operation wound, and three inches farther down, the large intestine exhibits an ulcer in the transverse diameter of the gut. 1883

From a man, aged 47 years, from whom no previous history of abdominal obstruction could be obtained. Before death he suffered from complete obstruction for twelve days, when right lumbar colotomy was performed without affording any relief. The case is described by Dr. Moore in the *Transactions of the Pathological Society*, vol. xxxiv., p. 112.

MUCOUS POLYPI.

2019a. The Sigmoid Flexure, the Rectum and the Urinary Bladder. At the lower part of the rectum is a tight stricture, above which the gut is dilated. A glass rod is passed through an ulcerated track, extending from the intestine into the bladder; it also communicated with a large abscess cavity lying between the two viscera. The mucous membrane of the descending colon and upper part of the sigmoid flexure is covered with pendulous soft polypoid growths, which were found on microscopic examination to consist entirely of mucous tissue. 1881

From a female; nearly all the fæces passed through the bladder.

A section of the polypus is preserved in Series lv., No. 261.

2019b. Portion of a Colon, the mucous membrane of which is studded at intervals with small polypoid growths of a similar nature to those seen in the preceding specimen. They commence immediately beyond the ileo-cæcal valve, and may be found as far as about midway along the descending colon; they have no distinct relation to any particular portion of the circumference of the gut, and are quite separate from each other; some are sessile, others slightly pedunculated, all are soft, and both covered with and surrounded by healthy mucous membrane. They are formed entirely by a thickening of the submucous connective tissue. 1883

From a man, aged 60; there was no stricture of the rectum. The case is described by Mr. Bowlby in the *Transactions of the Pathological Society*, vol. xxxiv., p. 108.

2019c. A Portion of the Large Intestine, which has been laid open. Attached by a short pedicle, about a quarter of an inch in length, is a small oval polypus, of the size of a horse-bean. About an inch above it is a second pedicle, to which a similar polypus was probably attached. The polypus was discovered accidentally after death. 1890

Compare Specimen No. 2062a for a somewhat similar growth from the rectum.

2020a. A piece of Jejunum, about one foot from the duodenum, having a mass of cancerous material situated opposite the attachment of the mesentery. 1885

From a man who had cancer of the pancreas. For further details see *Medical Post-Mortem Book*, vol. x., p. 93.

2022a. Portion of Small Intestine obstructed by a new growth. From the jejunum to the ileo-cæcal valve, the small intestine was thickened and dilated. Above the valve there was some pigmentation; the orifice of the valve was narrower than natural. On section of the walls of the intestine there was found to be some increase of connective tissue, but no new growth. From the ileo-cæcal valve to the descending colon the intestine was dilated, and at the commencement of the descending colon it was obstructed by a large ragged new growth which extended round the mucous membrane. Microscopic examination showed that the growth was an angio-sarcoma. 1884

2022b. Portion of the Jejunum constricted by a growth of cancer. The intestine above the constricted part is dilated into a sac, whilst the part below is very small and atrophied. 1884

From a man, aged 47, who had vomited faecal material for a month, and had suffered from complete constipation for twelve days before his death.

Presented by J. Dowson, M.B.

2023a. A Portion of the lower part of the Colon, situated about two feet above the anus. The bowel is so tightly constricted, and its lumen has been so greatly contracted by a narrow ring of new growth, that a narrow glass rod can with difficulty be passed along it. The intestine above the constriction is dilated, but its walls are not thickened or infiltrated with the growth, which was found upon microscopical examination to be carcinomatous. 1889

From a woman, aged 73, who had always been constipated. She had a loose stool on the 15th of September after using an enema. When she was first seen, six days later, she was vomiting stercoraceous matter, and she died without any action of the bowels on October 24th.

Presented by Alfred Weakley, Esq.

2027a. A Cæcum with portions of the small and large intestines. Immediately above the ileo-cæcal valve the ileum is closely constricted by a cancerous growth in its walls, which, on microscopic examination, proved to be encephaloid carcinoma. 1883

2027b. Cancer of the Ascending Colon, which has ulcerated into the duodenum. The colon has been laid open, and at about two inches from the ileo-cæcal valve is a deeply excavated ulcer, involving the whole circumference of the bowel; its edges are hard and indurated, and had formed, both above and below the ulcerated cavity, a constriction which scarcely allowed the passage of the little finger. The mucous membrane of the cæcum and ileo-cæcal valve is healthy, but immediately above the valve on the peritoneal surface there is a mass of new growth, the size of a large walnut. The duodenum had become adherent to the colon, and at one spot a small fistula, in which a piece of tubing has been placed, had formed. There was no secondary deposit other than that mentioned above, nor were any of the lymphatic glands affected. 1890

A microscopical examination showed the growth to be columnar-celled carcinoma.

From a man, aged 39.

See *Medical Post-Mortem Register*, vol. xiv., p. 377.

ILEO-COLOSTOMY FOR CARCINOMA OF THE CÆCUM.

2027c. A Cæcum, together with the Ascending, Transverse, and Descending Colon and a portion of the Ileum. At the level of the ileo-cæcal valve the cæcum is the seat of malignant disease, which has caused a stricture, for the relief of which the operation of ileo-colostomy has been performed, *i.e.*, the ileum has been divided at a point situated a few inches from its termination at the ileo-cæcal valve; the distal

opening has been closed, while the proximal opening has been implanted into the sigmoid flexure : this portion of the bowel has been laid open, and portions of its walls removed, to show more clearly the method, by means of india-rubber rings, which has been employed to fix the two pieces of intestine together. 1892

The patient was a man, aged 64 : he survived the operation for a few hours only. At the autopsy it was found that no faecal extravasation had occurred : there were extensive secondary deposits in the liver and mesenteric lymphatic glands.

See *Male Surgical Register*, vol. iii. (1891), No. 1459.

2029a. The Cæcum with a Portion of the Large Intestine, in which, as a result of a malignant growth of the transverse colon, a rupture of the cæcum has occurred. In the anterior wall of the cæcum are two irregular jagged apertures, one measuring half an inch in diameter, and the other about a quarter of that size. In the transverse colon, just above the splenic flexure, is a malignant growth which infiltrates and completely encircles the walls of the great intestine. The growth is soft, with raised edges, and is extensively ulcerated in its centre. Microscopically, the growth is an adenoid cancer, which is undergoing colloid degeneration. 1888

From a man, aged 54, who suffered from symptoms of intestinal obstruction for five months before his death. The patient died on the day after left lumbar colotomy had been performed.

See *Male Surgical Register*, vol. iii. (1887), No. 73.

2031a. An Appendix Vermiformis. The first inch is normal, but immediately below this a small though not very hard faecal mass was impacted in such a manner as to cause ulceration and perforation of the bowel. The apex of the vermiform appendix was entire, but between the impacted mass and the apex the wall was ruptured in more than one place. 1886

The faecal mass is in a small bottle at the bottom of the jar containing the specimen.

See *Medical Post-Mortem Book*, vol. x., p. 344.

2031b. A mass of hardened Fæces, about the size of a hazel-nut, which was found lying loosely in the iliac fossa. It is laminated in structure, and has evidently been formed in the vermiform appendix. 1888

From a boy, aged 14, in whom the vermiform appendix had sloughed, leading to death from peritonitis.

See *Male Surgical Register*, vol. iv. (1887), No. 1829.

2032a. A Pin surrounded by a mass of hard faecal matter, which becoming impacted in the vermiform appendix, caused typhlitis, perforation of the intestine, peritonitis, and death. 1885

For further details see *Male Surgical Register*, vol. v. (1885), No. 1311.

2032b. A Pin which was found projecting from the vermiform appendix of a man, aged thirty-six, who died from pyæmia. There was no history of the pin having been swallowed. It is coated with gritty matter, so that it had probably remained in the intestine for a considerable period. The vermiform appendix was thickened and ulcerated. 1888

From a man, aged 42, who had been in good health until five months before his death, when he began to complain of a constant gnawing pain on the right side of his abdomen. He subsequently had pyæmia with phlebitis of his iliac veins, secondary multiple abscesses of his liver and broncho-pneumonia. The presence of the pin was not suspected until it was found at the autopsy. The patient was admitted to John Ward.

See *Male Surgical Register*, vol. iv. (1888), s. v. W. Torode.

2032c. A Vermiform Appendix, which was removed during life on account of its gangrenous condition. It measures in its shrunken condition nearly four inches in

length. Its walls are thickened by inflammation, and are gangrenous at one spot situated about its middle. It contained the small mass of hardened fæces which is preserved in the next specimen, No. 2032d. 1889

From a boy, aged 16, who had been in his usual health until November 3rd, when he ate some sausage-meat. He vomited shortly after doing so, and suffered great pain in his abdomen; he had diarrhoea and experienced the greatest pain in his right iliac region. On opening the abdomen, on November 9th, there was evidence of local peritonitis upon the right side, and on examining the large intestines a considerable quantity of pus welled up. The appendix vermiformis was found to be gangrenous, and it was therefore removed together with its contained fæcal concretion. Some days later a median laparotomy was performed in consequence of symptoms pointing to a fresh suppurative peritonitis on the left side. A collection of some ounces of pus was found in a large cavity, bounded by agglutinated intestines. The abscess sac, which extended into the pelvic cavity, was drained, and the patient made a complete though somewhat slow recovery.

See *Transactions of the Medico-Chirurgical Society*, vol. lxxii., p. 433.

See *Male Surgical Register*, vol. iv. (1889), s. v. A. Scarle.

2032d. A small mass of hardened fæces, which was impacted in the upper part of the vermiform appendix, preserved in the previous specimen, No. 2032c. The mass weighs six grains. 1889

INJURY.

2040a. A portion of the Duodenum, exhibiting two large rents with jagged edges, in addition to two small circular apertures. All the injuries were inflicted during the life of the patient, who died collapsed five hours after a blow upon the abdomen. 1886

2040b. A portion of the Descending Colon, showing a large rent in its side. The rupture resulted from tension upon the bowel consequent upon strangulation, occurring immediately below an artificial anus which had been made four years previously. The strangulation resulted from a large loop of ileum being forced through the abdominal walls. 1887

From a man, aged 75, upon whom colotomy had been performed for the relief of intestinal obstruction. A few days before his death he took cold, and whilst coughing he felt something give way, and found that a large swelling had appeared just below the artificial anus. A great deal of blood oozed from the swelling, and he suffered greatly from pain. He died two days after the appearance of the tumour.

For further details of the case see *The British Medical Journal*, vol. i., 1885, p. 1039.

Presented by Thomas Simpson, Esq.

2040c. A portion of Jejunum, situated four feet from the end of the duodenum, which had been wounded opposite the attachment of the mesentery. The cut is transverse to the long axis of the intestine, and measures nearly an inch in length. The suture had been introduced during life; a small amount of fæcal matter could be squeezed out. The colon just above the sigmoid flexure had also been wounded. 1889

From a man, aged 40, who had received a stab in his abdomen ten hours before his admission to the Hospital. His abdomen was then swollen and tender, and he was in great pain. The wound was situated immediately below the ribs on the left side; it was three-fourths of an inch long, and a thin blood-stained fluid was oozing from it. The wound was enlarged and the wounded intestine was brought together with Lembert's sutures. The patient died with general peritonitis three days later.

See *Male Surgical Register*, vol. ii. (1888), No. 2841.

2040d. A portion of the Descending Colon, showing a large rent in its long axis. 1889

From a man, aged 32, who died shortly after his admission to the Hospital. There was a rent in the middle of his mesentery which extended for a distance of fourteen inches.

See *Male Surgical Register*, vol. iv. (1888), No. 2220; and *Surgical Post-Mortem Book* for 1888, p. 88.

2040e. A portion of the Small Intestine where, as the result of a severe injury, the peritoneal and muscular coats have been ruptured and have retracted. There is no tear in the mucous membrane, which forms a loop three inches in length, and now protrudes through the aperture in its outer covering. 1892

2040f. A part of the Sigmoid Flexure from the same case as the preceding specimen and showing a similar injury. In this case there is also a rent in the mesentery, but the portion of mucous membrane left uncovered is much less, and only measures one and a half inches in length. 1892

The patient was a child, aged two, who was run over in the street and brought to the Hospital, where he shortly afterwards died.

See *Surgical Post-Mortem Register* (1891), p. 93.

OPERATIONS ON THE INTESTINES.

2040m. The adjacent portions of Small Intestine united by means of Senn's decalcified bone plates, from a case of strangulated umbilical hernia necessitating resection of the gangrenous gut. At the open ends of the intestine the mucous membrane has been invaginated and the peritoneal surfaces united by silk sutures. The plates were then introduced and the contiguous portions of intestine sutured together. It is seen that the proximal end is still the larger, not having recovered from the distension caused by the obstruction.

Openings have been made in the walls of the bowel to show the position of the plates. 1892

The patient was a woman, aged 41, who had suffered from a hernia for eighteen months. Symptoms of strangulation had existed for four days. She survived the operation seven hours. At the post-mortem examination it was found that the intestine had united. The sutures were deeply buried in newly-formed plastic lymph, and no extravasation had occurred.

The portion of gangrenous bowel removed at the time of operation is preserved in Series xx., No. 2109c.

See *Female Surgical Register*, vol. iii., (1891), No. 1718.

ENTEROTOMY.

2040n. A portion of the lower part of the Jejunum which was opened in the course of an abdominal section. An impacted gall-stone was extracted, and the gut sewn up by a double row of continuous sutures. 1893

The patient was a woman, aged 72, who was admitted in a collapsed state from acute intestinal obstruction. Laparotomy was performed, but she did not rally, and died in a few hours.

See *Female Surgical Register*, vol. v. (1892), No. 278.

2041a. Perforation of Intestine by a fish-bone. A piece of small intestine with a small hole through which a fish-bone protrudes. The peritoneum is roughened and discoloured; the bone measures about one inch in length. 1882

Taken from a man who had been a patient in the Hospital for about a fortnight, and had part of that time been on "fish-diet;" he died with acute peritonitis.

POISONING BY NITRIC AND SULPHURIC ACIDS.

2042a. A portion of the Duodenum from a case of poisoning by a mixture of nitric and sulphuric acids. The whole of the mucous membrane is thickened, and presents a fine velvety appearance. When fresh it was of a bright green colour; this has mostly faded, and a pale yellow is all that now remains. The change in colour caused by the poison extended to a point rather over two feet from the pylorus. 1893

A drawing of the appearance, when fresh, of the œsophagus, stomach, and duodenum, is preserved in Series lvii., No. 385.

See also *Medical Post-Mortem Register*, vol. xviii., p. 295.

2043a. The Duodenum, from a case of poisoning by corrosive sublimate. The intestinal wall is blackened, and at its upper part is completely ulcerated through. From the rounded appearances of the edges of the ulcer, however, it appears that it was not due to corrosion, but to some more chronic process, which resulted in the adhesion of the duodenum to the neighbouring tissues, thereby preventing perforation. 1887

From a man, aged 76, who committed suicide by swallowing a large quantity of corrosive sublimate in a glass of water. He died collapsed five hours after the dose.

The stomach is preserved in Series xvii., No. 1949a, and a drawing of it in Series lvii., No. 389.

See *British Medical Journal*, vol. ii., 1885, p. 599.

Presented by C. Rotherham Walker, M.D.

2044a. A portion of the Small Intestine, showing the changes which have occurred as a result of carbolic acid poisoning. The mucous membrane is much swollen, and has a velvety appearance, owing to the enlargement of the villi and the effusion of lymph. (Cf. No. 1949c.) 1888

The stomach and duodenum from the same case are preserved in the Hunterian Museum, Nos. 2386a and b. The patient only lived for three hours after taking the poison.

Obtained in exchange from the Royal College of Surgeons of England.

The first part of the book is devoted to a general history of the United States, from the discovery of the continent to the present time. The second part is a history of the individual states, and the third part is a history of the federal government.

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SERIES XIX.

DISEASES AND INJURIES OF THE RECTUM AND ANUS.

2046a. Large Intestine and Rectum. The whole extent of the gut is superficially ulcerated, the ulceration terminating abruptly by a transverse line at the lower part of the specimen. 1885

From a woman who had no syphilitic or tubercular history, but who had suffered from symptoms of stricture of the rectum for two and a half years before her death.

See *Sitwell Ward Book*, vol. viii., p. 176.

2048a. The Rectum, with the Uterus and a portion of the Vagina, from a patient who had a fibrous stricture of the rectum. The stricture is tubular, and commences three inches above the anus, extending upwards to a height of six or seven inches. It is so tight that the glass rod which is passed through the upper portion almost fills the lumen of the gut. The stricture seems to be produced by a thickening and contraction of the muscular coat. The muscular element appears to have disappeared, leaving only a greatly hypertrophied fibrous network. The upper part of the stricture ends abruptly, but the mucous membrane is superficially ulcerated for a distance of from one to two inches higher, the muscular coat corresponding to this portion being somewhat hypertrophied, but not contracted. At the bottom of Douglas' pouch is a well-marked cicatrix, apparently indicating the site of an old abscess cavity in the fascia between the peritoneum and the rectum. The rectum opposite this point has been dragged upon, and drawn towards the cicatrix. 1887

From a woman, aged 32, who was quite well till she was prematurely delivered of a still-born child six years before her death. This premature labour was followed by intense pain in the lower part of the belly, and she had other symptoms of pelvic cellulitis. A month later she had a discharge of blood and pus from the rectum, which continued for some weeks. Soon afterwards she noticed a slight difficulty in passing her motions, and she also had some discharge from her bowel. The trouble gradually increased, until a year before her death, when it rapidly got worse.

See *Female Surgical Register*, vol. iv. (1885), No. 2311, and *Transactions of the Pathological Society*, vol. xxxvii., p. 255.

2055a. A Rectum, with the surrounding parts, from a woman, aged forty-two. The last two inches of the rectum exhibit numerous fistulous openings. A little higher up is a rather larger perforation, through which a catheter is passed into an abscess cavity in Douglas's pouch, capable of holding about half a pint of fluid. The lower part of the colon and the sigmoid flexure are closely adherent to the abscess wall, which in one place has so compressed the gut as to interfere with its calibre. The uterus is much flattened and forms part of the abscess wall. 1883

The patient was admitted to the Hospital suffering from symptoms of obstruction of the large intestine. Colotomy was proposed, but the patient declined to submit to any operation. She had been treated for fistula in Guy's Hospital a year previously.

See *Stanley Ward Book*, vol. x., p. 173.

ABSCESS IN THE WALLS OF THE RECTUM.

2055b. A Rectum, together with the Uterus of an old woman. In the anterior wall of the rectum, at about four inches from the anus, situated just behind the uterus, is an abscess cavity. Its sides are pressed together, and it measures nearly an inch in its longest diameter. Between the abscess and the mucous membrane of the bowel the walls of the rectum are much thickened, and the calibre of the bowel is diminished, together giving the appearance of a malignant tumour. This part, however, is quite soft to the touch, and the microscope showed that the thickening is due to inflammation only, and not to carcinoma or any other new growth.

Several hæmorrhoids are present round the margin of the anus. 1892

The patient was aged 67 at the time of her death. She was also the subject of osteitis deformans. The bones affected were the right radius and right tibia. They are preserved in Series i., Nos. 74e and f.

See *Female Surgical Register*, vol. v. (1891), No. 2639*.

RECTO-PROSTATIC FISTULA.

2056a. A portion of a Rectum, with the urinary Bladder and Prostate, showing a recto-prostatic fistula; the point of communication between the rectum and prostate is indicated by a piece of catheter. The rectum is ulcerated for a distance of two inches from the anus. The bladder is thickened, and its mucous membrane is everywhere ulcerated. The fistulous connection with the rectum opens into the prostatic portion of the urethra at a point situated immediately below the sphincter vesicæ on the left side of the caput gallinaginis. The glandular portion of the prostate has sloughed and is converted into an abscess cavity. 1889

From a man, aged 32 years, who had long suffered from general tuberculosis.

The testes are preserved in Series xxxvi., No. 2780c and d.

See *Male Surgical Register*, vol. v. (1888), No. 714.

HEALED FISTULOUS COMMUNICATION BETWEEN THE BLADDER AND THE SIGMOID FLEXURE.

2057a. A Bladder, Rectum, and Sigmoid Flexure. The mucous membrane of the latter is much thickened and thrown into large transverse folds, one of which, being separated in part from its connections, forms a bridge across the gut. Between these folds are deep pits or depressions, the base of the deepest being mainly formed by the peritoneum covering the gut. At the seat of the greatest thickening, the sigmoid flexure is firmly adherent to the bladder by very strong, but rather elongated, adhesions. Opposite this point a small pigmented depression in the vesical mucous membrane marks the seat of a former communication between the two contiguous viscera. The mucous membrane of the bladder is natural, but the prostate is somewhat hypertrophied. 1882

From a gentleman who had suffered for several years with dysenteric symptoms. Some years before death he frequently passed flatus per urethram, but never any faecal matter. After a time this ceased, and for the last two years of his life there were no signs of any communication existing between the intestine and the bladder.

Presented by Dr. Martin.

2057b. The Rectum and Sigmoid Flexure of a patient upon whom the operation of colotomy was performed three days before death for the relief of a syphilitic stricture of the rectum. The bowel from the anus upwards is much thickened, and its cut edge almost resembles cartilage. The thickening gradually diminishes until it is imperceptible at the splenic flexure. There is hardly any epithelium covering the diseased portion of the intestine. A microscopic examination of a portion of the intestinal wall, taken about fourteen inches above the anus, shows that the epithelial lining is entirely absent. The submucous tissue is so infiltrated with round cells as to look like a section of lymphatic gland. The muscular coat is also invaded by lymph corpuscles and a dense fibrous meshwork, whilst the outer peritoneal coat is infiltrated with cells. 1887

From a woman, aged 35, who had acquired syphilis about twelve years before her admission to the Hospital. All round the margins of the anus and vagina, and extending for some distance up both, there was a mass of cicatricial tissue to be felt during life. The patient had suffered for several years from diarrhoea, and for some months before her death had been unable to retain her fæces. Left lumbar colotomy was performed three days before death. At the autopsy no other signs of syphilis were discovered. A microscopic section is preserved in Series lv., No. 268.

See *Transactions of the Pathological Society*, vol. xxxvii., p. 258, and *Female Surgical Register*, vol. v. (1885), No. 1644.

- 2062a.** A portion of the Rectum, laid open to show a pedunculated rectal polypus. The polypus is attached to the mucous membrane of the intestine by a tapering stalk measuring an inch and a quarter in length. It is spongy in texture, and it contains small cavities filled with clear fluid. Under the microscope the tumour is found to be composed of areolar tissue containing a number of glands resembling those found in the rectal mucous membrane. 1886

From a woman, aged 50, in whom it was accidentally discovered at the post-mortem examination.

- 2062b.** A very large Polypus, which sprang from the inside of the rectum immediately above the anus. The greater portion of the tumour is a simple papilloma, but at one part of its base it is becoming cancerous. The cancerous portion is undergoing colloid degeneration. It is situated at the neck of the polypus, close to the skin of the anus. A small fistula connects the cancerous portion with the exterior; a glass rod has been passed along its track. 1889

From a man, aged 55, who had been troubled for six years with a mucous discharge from his rectum. The discharge was occasionally stained with blood. For some months before the removal of the growth he suffered from difficulty in passing his motions and from a small fistula. The polypus was in great part attached to the mucous membrane, but near the anus it had infiltrated the wall of the bowel and had extended to the skin.

Sections are preserved in Series lv., Nos. 275 and 276.

Presented by D. H. Goodsall, Esq.

- 2062c.** A large papillomatous growth, removed from the Rectum. It is a soft lobular tumour, which was reddish-coloured when fresh. It was attached to the wall of the bowel by a pedicle of myxomatous tissue, measuring four inches in width. Microscopically, it was found to consist of numerous branching papillæ, covered with columnar epithelium, and formed of very delicate connective tissue. 1889

From a woman, aged 50, who had observed the growth for two years.

See *Female Surgical Register*, vol. iv. (1888), No. 1912.

- 2064a.** A very large fibro-cellular polypus, from the Rectum. Its surface is smooth, and presents a slight trace of lobulation; its base of attachment is about one inch and a half in diameter. On section, it appears to be composed of very loose gelatinous connective tissue, the spaces of which immediately after removal contained a considerable amount of fluid. The weight of the tumour, when fresh, was nearly two pounds. 1883

The patient was a girl, aged 24. She had suffered for some time with slight difficulty of defæcation, which, however, caused but little trouble. One day, while straining at stool, the tumour was extruded through the anus by the sphincter, by which it was tightly gripped, and became irreducible. It was then removed by transfixion of the base and ligature. Microscopic sections are preserved, No. 271.—The case is described by Mr. Bowlby in the *Transactions of the Pathological Society*, vol. xxxiv., p. 107.

Presented by Dr. Everley Taylor.

MULTIPLE POLYPI OF THE RECTUM.

- 2065a.** The Rectum, with the anus and a portion of the sigmoid flexure, from a case of multiple polypi of the rectum. There is a considerable deposit of adenoid cancer at the junction of the sigmoid flexure with the rectum. It surrounds the bowel and almost obliterates its canal. A glass rod has been passed through the stricture thus

formed. The rectum below the constriction contains a large number of polypoid growths. The polypi are more or less globose in shape, having slender stalks, but here and there are ribbon-like, ragged, slender, and branched outgrowths, whilst some of the smaller growths are sessile. Above the seat of cancer there are but few to be found, and in the ascending and transverse colon there were not more than three or four, and these were small and rudimentary. The rectum, where it passed over the concavity of the sacrum, was adherent to the neighbouring parietal peritoneum. The large intestine above the stricture was enormously distended by fæces. The peritoneum over the anterior longitudinal muscular band of the cæcum had been split by the excessive stretching. Microscopical examination of the growth surrounding the intestine at the seat of stricture showed that it was an adenoid cancer. The polypi consist of simple glandular tissue, but their bases are continuous with the carcinomatous growth, which has infiltrated the whole thickness of the wall of the rectum. 1888

From a man, aged 20 years. Ten years previously he was taken to the London Hospital for hæmorrhage from the bowel, and was operated upon. For three or four months he remained well, but the bleeding returned, and recurred at intervals during four years. He was subsequently operated on several times with temporary relief. His appearance on admission was that of extreme anæmia. He complained of pain in the rectum, especially on defæcation. He had an almost constant discharge of bloody mucus from the bowel, and frequent attacks of hæmorrhage. He could protrude from the anus at will a polypoid mass the size of a plover's egg. The polypi could be seen by dilating the rectum, and some were removed after passing a ligature round their pedicles. After being thrice discharged and re-admitted, the patient was brought to the Hospital moribund and with signs of peritonitis. A brother and sister of this patient presented themselves for treatment, and they were found to be suffering in exactly the same manner from multiple polypi of the lower bowel.

See *Male Surgical Register*, vol. ii. (1887), Nos. 183 and 1908, and *St. Bartholomew's Hospital Reports*, vol. xxiii., pp. 225-227.

Sections of the growth are preserved in Series lv., Nos. 281 and 282.

2065b. A pedunculated Polypus, removed from the rectum of a younger brother of the patient from whom the preceding preparation was obtained. It resembles in every respect the polypoid growths which have already been described. 1888

From a young man, aged 17 years, whose bowel had been liable to become prolapsed and to bleed as long as he could remember. For the last four or five years the patient had suffered pain on going to stool, and had great difficulty in passing his motions. On admission to the Hospital, he was found to be suffering from great anæmia. There was no external swelling, but on introducing the finger, the rectum was found full of soft, vascular, and pedunculated polypi, varying in size from a pea to a small cherry. Eight or nine of the largest polypi were ligatured and removed under chloroform. The patient ceased to bleed and gradually recovered his strength. Other polypi were removed at subsequent periods.

See *St. Bartholomew's Hospital Reports*, vol. xxiii., Case ii., p. 227.

2065a-1. Six polypi, removed by operation from the Rectum. The largest measures two inches in diameter, and is irregularly nodular on the surface. The smaller polypi are of about the size of a filbert. Microscopically, the structure is that of a simple adenoid polypus. 1892

The patient was a boy, aged 11, who had suffered from hæmorrhage for four years.

See *Male Surgical Register*, vol. ii. (1890), No. 3177.

POLYPUS OF THE RECTUM PRODUCED BY BILHARZIA.

2065c. A small Papilloma of the Rectum, produced by the irritation of Bilharzia hæmatobia. There were other smaller tumours in the rectum. The polypus consists of numerous dense papillæ, and its substance is filled with the ova of the parasite. 1889

From a native boy, aged 14 years, who was admitted to the Hospital at Alexandria suffering from severe diarrhœa and hæmorrhage from the rectum, which had lasted for some time. Examination of the rectum showed that it was studded with small hard nodules, evidently of bilharzial origin. The tumour was prolapsed whilst straining at stool. It was ligatured and removed.

Presented by Dr. Mackie, of Alexandria.

- 2065d. Five small Papillomata, removed from the rectum by operation. They were due to the irritation caused by the ova of Bilharzia. 1890

From a young Arab who had had similar growths removed previously.
Presented by Dr. De Lisle, of Alexandria.

- 2066a. The lower portion of the Rectum, removed during life from a single lady, aged fifty-one, on account of the growth of an adenoid cancer. The growth, as is seen in the specimen, completely surrounded the bowel, its centre, which was ulcerated, being situated about two and a half inches from the anus; it has, however, been entirely removed, for the preparation is suspended by the healthy mucous membrane. The peritoneum was clearly seen during the operation, but it did not appear to be affected. The intestinal walls are not greatly thickened, nor is the lumen contracted. 1887

The patient had suffered from troublesome diarrhoea for the last eight months, especially in the forenoon, her motions often being as many as a dozen in the twenty-four hours.

Presented by W. Harrison Cripps, Esq.

SARCOMA OF THE ANUS.

- 2066b. A section of a sessile tumour, which occupied the space between the ischial tuberosities and the coccyx in a man, aged sixty-four. The surface of the tumour was ulcerated, and gave rise to considerable discharge. A fistulous track passed through the anterior portion of the growth into the rectum. Microscopically, the growth is an oval-celled sarcoma. The patient only had pain on sitting, there was none on defæcation, although the tumour entirely concealed the anus. The inguinal glands were large and tender. 1889

A section is preserved in Series lv., No. 278.

Presented by F. Swinford Edwards, Esq.

- 2067a. A Bladder, with the extremity of the Rectum. The mucous membrane of the anterior surface of the rectum is thickened and infiltrated with a soft cancerous growth, but it is not ulcerated. Lying between the rectum and the prostate and posterior surface of the bladder are masses of a firmer growth continuous with the tumour in the mucous membrane of the rectum, which, by its protrusion, considerably narrowed the canal of the gut. 1881

The growth consisted, histologically, of closely packed tortuous columns of cells of the epithelial type, the nuclei of which were distinct, but the protoplasm around them scanty and coalesced into a mass.

From a middle-aged man, who died from malignant disease of the liver, which weighed thirty-three and a quarter pounds. The growth in the liver presented the same histological character as the rectal growth, and was probably secondary to it. The patient suffered great pain in the rectum, with tenesmus, difficulty in defæcation, and the passage of large quantities of bloody mucus.

ADENOID CARCINOMA OF THE RECTUM.

- 2068a. The Anus and surrounding skin, showing a large mass of adenoid carcinoma, which arises from the lower portion of the Rectum. The growth, consisting of numerous branching processes, with a finely honeycombed appearance, forms a large mass which conceals the anal orifice. It grows mostly from the right side, and has invaded and infiltrated the skin in several places. The entrance to the bowel is on the left side, where a black rubber tube marks the place where fæces passed. The several processes have shrunken very much, and are greatly altered from their appearance during life. 1891

The whole mass was removed by operation, but the patient, a woman, aged 30, died the same night from shock and loss of blood. The tumour had been growing for three years: microscopical examination proved it to be one of adenoid carcinoma.

A drawing of the growth before removal is preserved in Series lvii., No. 457.

See *Female Surgical Register*, vol. v. (1890), No. 1174.

2069a. A Rectum, which has been laid open longitudinally to show a very extensive adenoid carcinoma which involves the whole circumference of the bowel from immediately above the anus to a point nearly three inches higher up. The surface of the growth has a rough, shaggy appearance, and at the spot where the section has been made, it can be seen to have penetrated the muscular coats, which are much thickened at this point. 1893

The patient was a man, aged 64, who had suffered from rectal trouble for fifteen years. A spontaneous fracture of the left humerus, due to a secondary deposit of carcinoma, took place before death.

See *Male Surgical Register*, vol. iii. (1888), No 2923.

2070a. The upper portion of a Rectum, the calibre of which is so narrowed, that, before being laid open, it barely admitted the tip of the finger. The walls are much thickened by the deposit of cancerous material, whilst, at the seat of the greatest constriction, the mucous membrane is ulcerated and ragged. A bristle is passed through a small hole in the gut, which communicated with the peritoneal cavity. 1882

From a lady, aged 35, who had none of the symptoms of cancer, and only suffered from slight constipation. She died very suddenly of acute peritonitis.

Presented by F. Swinford Edwards, Esq.

2072a. A Pelvis, with the Rectum *in situ*, to show the position of a carcinomatous ulceration. The ulceration commences five inches above the anus, and continues for a distance of three inches upwards. It involves the whole circumference of the gut, and extends as deeply as the muscular coat. The lumen of the intestine is not encroached upon or contracted. There was no other new growth in the intestine. 1889

From a man, aged 52, who had always been dyspeptic. He had been ailing for five years. He had diarrhoea, but had never noticed any pus in his stools.

See *Luke Ward Book* for 1886, No. 265.

2073a. Part of a Rectum and Sigmoid Flexure. The calibre of the rectum is contracted by the deposit of cancerous material in an annular form. The obstruction to the passage of fæces has resulted in a dilatation and thinning of the gut above. 1882

2073b. The lower part of the Descending Colon, the Sigmoid Flexure, and Rectum of a man, aged seventy-five, on whom the operation of inguinal colotomy was performed for the relief of a malignant stricture of the rectum. The rectum has been laid open, and is considerably narrowed a few inches above the anus. At this point a ragged, shaggy tumour, involving the walls of the gut, protrudes into the lumen of the bowel, but the whole circumference is not involved. At this point also, and for an inch above it, the mucous membrane is ulcerated; above, there is little or no distension. The lower part of the sigmoid flexure is bound down to the upper part of the rectum by a firm adhesion, which has formed in connection with one of the appendices epiploicæ. About six inches above this is the artificial anus, with a well-marked "spur" between the two openings. There is only slight prolapse of the gut at this point. Under the microscope the growth was found to be spheroidal-celled, *i.e.*, true scirrhus carcinoma, without any trace of gland cells. 1891

The patient was an old man, aged 75, who had suffered from malignant disease of the rectum for several months. He survived the operation of colotomy for five weeks. At the post-mortem examination the peritoneum, mesenteric glands, and liver were all largely infiltrated by secondary deposits.

See *Male Surgical Register*, vol. v. (1890), No. 2303.

2076a. The lower portion of the Rectum and the Anus, from a man, aged thirty-eight. The mucous membrane in the neighbourhood of the anus is festooned with hæmorrhoids. The piles are for the most part of the external variety, since

they are partially covered by skin and partially by mucous membrane. The central round mass is, however, entirely covered by mucous membrane, and is, therefore, an internal pile. 1887

See *Male Surgical Register*, vol. iii. (1886), No. 1810.

2078a. Portions of a Rectum and Sigmoid Flexure, at the junction of which is a wound of the intestine produced by an enema tube. The mucous surface of the gut is ulcerated at the seat of injury, but not elsewhere. On the peritoneal surface the intestine is slightly discoloured, but there is no extensive peritonitis, the inflammation being limited to an exudation of lymph over the wounded surface and the silk sutures, which had been inserted shortly after the accident. Small portions of the stitches may be seen on the outer surface of the gut under the overlapping appendices epiploicæ, which at the post-mortem were adherent to the subjacent intestine and completely covered the sutures. No trace of the silk is visible on the internal surface of the intestine. 1882

From a woman, in whom the injury occurred during the passing of a long enema tube, a soap injection being subsequently thrown into the peritoneal cavity. Abdominal section was performed shortly after, and the gut sewn up. She died in about forty-eight hours.

See *Lucas Ward Book*, vol. vii., p. 424.

2079a. The Rectum and Pelvic Organs of a female child, on whom an operation was performed for the cure of imperforate rectum. This has been laid open from behind. Its mucous membrane is smooth and free from inflammation. 1890

From a child, who died, at the age of five weeks, of exhaustion. At birth there was a *cul de sac* about an inch long, but no impulse could be felt. Left inguinal colotomy was performed on the third day after birth. Ten days later a director was passed down the bowel, the *cul de sac* was everted over the director, pushed out at the anus, incised, and dilated.

Presented by Stephen Paget, Esq.

2079b. The Rectum and Bladder, together with the Kidneys, of an infant, three days old, on whom an operation had been performed for the relief of imperforate anus. The rectum has been laid open from behind. Its walls for the last inch are much thickened from acute œdema and inflammation. The mucous membrane is also much ulcerated. The right kidney is rudimentary, and weighed only a few grains. It had no ureter. The descending colon was found running straight down the middle line of the body, with no sigmoid flexure. The baby died with symptoms of suppression of urine. 1890

Presented by Stephen Paget, Esq.

2079c. The lower part of the Sigmoid Flexure and Rectum, together with the Bladder of an infant, who had an imperforate rectum. The whole of the bowel, especially the lowest part, is greatly distended. An irregular opening, about six inches from the rectum, was made at an operation during life to relieve the obstruction. Previously to this an attempt had been made through the imperforate rectum to reach the distended bowel, but unsuccessfully. A green rod shows where a trochar passed into the peritoneal cavity. 1891

From a child, who was 13 days old when submitted to operation. As the attempt to relieve it per anum failed, an incision in the middle line was made above the pubes, and the distended bowel stitched to the skin and then opened. The child did not rally, and died the second day after the operation.

At the post-mortem examination a small Meckel's diverticulum of the small intestine was found. This is preserved in Series vi. of the *Teratological Catalogue*, No. 3638d.

Presented by Stephen Paget, Esq.

2080a. Portion of the lower end of the Rectum with the anus, removed for cancer. At the lower portion of the specimen is the cut end of the rectum which is free from disease. 1881

Presented by W. Harrison Cripps, Esq.

SERIES XX.

HERNIÆ, OR PROTRUSIONS, AND OTHER DISPLACEMENTS OF THE INTESTINAL CANAL AND OMENTUM.

CONDITIONS WHICH PREDISPOSE TO HERNIA.

2081a. A Testicle and Cord in which the tunica vaginalis is patent as far as the internal abdominal ring. A small pouch of peritoneum descends at the internal abdominal ring, and ends behind the unclosed upper part of the tunica vaginalis, so that it really presents a very early stage of funicular hernia. The plica vascularis is very prominent. 1888

2082a. The sac of a large irreducible femoral hernia, for which the operation of radical cure was performed. It had existed for many years, and its walls are so thick and contain so much fibrous tissue, that when removed the sac did not collapse, but retained its present shape. 1892

The patient was an elderly woman. For further details see *Female Surgical Register*, vol. v. (1890), No. 1697.

SACCULATION OF THE SAC.

2082b. The sac of a large umbilical hernia, removed by operation. The interior is divided up by bands of fibrous tissue and portions of adherent omentum into several sacculi, varying in size from that of a walnut to that of an orange. 1893

See *Female Surgical Register*, vol. ii. (1892), No. 80.

HYDROCELE OF THE SAC.

2083a. The sac of a femoral hernia, removed in the course of an operation for radical cure. Owing to adhesions which had formed at the neck of the sac, the sac itself had become cut off from the general cavity of the peritoneum, and had subsequently become distended with fluid, thus forming a so-called "hydrocele of the sac." 1892

See *Female Surgical Register*, vol. iv. (1891), No. 441.

HERNIAL SAC CLOSED BY OPERATION.

2089a. A portion of the abdominal wall, taken from the neighbourhood of the crural ring. The sac of a femoral hernia had been cut off and the peritoneum sutured eight days before death. The peritoneum over the crural ring is slightly puckered, but it is quite closed, and there are no traces of the hernial sac. 1889

The patient, a man, aged 63, admitted to the Hospital on account of a strangulated femoral hernia, died of perforation of the gut six feet above the ileo-cæcal valve. The external wound was soundly healed.

See *Male Surgical Register*, vol. iii. (1887), No. 1775.

2095a. Right Inguinal Hernia. There is a long and narrow sac closely related to the constituents of the spermatic cord. A very long and slender strip of omentum is closely adherent to the hinder wall of the sac. The history is unknown, but it seems quite impossible for the omentum to have been the cause of the sac. 1889

2099a. A piece of Intestine, removed from a hernia. The intestine presents a well-marked stricture, which was situated at a point three inches from the ileo-cæcal valve. The mesentery is greatly thickened as a result of chronic inflammation.

1885

From a case of strangulated hernia, in which reduction had been effected by taxis. The patient subsequently died from a rupture of the bowel.

2105a. A portion of Jejunum, of which a part of the circumference was strangulated in one of the crural canals, so constituting a Richter's hernia. That portion of the circumference which has been nipped is congested and dark coloured. Its wall has given way immediately above the seat of constriction.

1889

From a woman, aged 69 years, who had suffered for four or five years from a femoral hernia, for which she had never worn a truss. Nine days before her admission to the Hospital she was suddenly seized with violent abdominal pain and vomiting. There was complete obstruction without passage of flatus. An operation for relief of the strangulation was performed, but the patient died four days afterwards.

See *Female Surgical Register*, vol. iv. (1889), No. 206.

2109a. A "spur" of small Intestine, removed by an enterotome from a case of strangulated femoral hernia, which could not be returned at the time of the operation owing to the adhesions which the gut had contracted.

1885

From a woman, aged 55, who had been ruptured twenty years. The bowel was laid open April 29th. The enterotome was inserted upon September 6th. The enterotome, with the piece of intestine in its blades, was removed on October 8th. The patient was discharged, fæces passing per anum, on January 20th.

See *Female Surgical Register*, vol. iv. (1884), No. 453.

2109b. The sac of a Right Inguinal Hernia, with its contents. Protruding through an operation wound at the neck of the sac is a piece of intestine which has been laid open: it is dark and in a gangrenous condition. The hernia had long been irreducible, and the intestine is adherent to the walls of the sac.

1892

The patient was a man, aged 32, who had had a hernia for ten years. At the operation the intestine in the sac was found gangrenous; the stricture was divided and a healthy piece pulled down, sutured to the sides of the wound and opened. He did not rally, but gradually sank, and died at the end of two days.

See *Male Surgical Register*, vol. iii. (1889), No. 3715.

2109c. The contents of the sac, together with the ring which formed the constriction, in a case of strangulated umbilical hernia. The intestine is gangrenous and has been laid open; it, with the neck of the sac and a portion of the abdominal wall, was resected at the time of operation, and the cut ends of the intestine sutured together.

1892

See Specimen, Series xviii., No. 2040m.

For notes of the case see *Female Surgical Register*, vol. iii. (1891), No. 1718.

2111a. Hernia of the Vermiform Appendix. The hernia is funicular. The cæcum was found after death lying immediately within the neck of the sac, the vermiform appendix extending downwards half-way along the back of the sac. The upper two-thirds of the appendix is devoid of mesentery; the lower third lies free in the sac. The spermatic artery and vein lie upon the back of the sac, exactly opposite the attachment of the vermiform appendix. The vas deferens and its artery are situated a little to the inner side. The tunica vaginalis is very thick, and is puckered over the testis.

1888

HERNIA OF THE CÆCUM.

2111b. The Cæcum, together with a portion of the abdominal walls and the inguinal canal and right testis of a child, on whom an operation for the relief of strangulated hernia was performed four days before death. A thin fold of membrane, the plica

vascularis, extends down from the back of the cæcum towards the hernial sac, which is now empty and collapsed. It does not communicate with the cavity of the tunica vaginalis. 1891

The child was three months old, and the symptoms of strangulation had lasted one day. At the time of the operation the cæcum and vermiform appendix were found in a well-formed sac, and easily returned after division of the stricture. The child died four days later from bronchitis.

- 2111c. A portion of the abdominal wall, from which protrudes a Hernia of the Cæcum. At the operation the gut, which had become gangrenous, was found to have given way. It was stitched to the margins of the ring, and freely opened. A blue rod has been passed through the external opening into the small intestine. A small green rod marks the orifice of the vermiform appendix, and a red rod is passed into the large intestine. The continuation of the large intestine is much shrunken and contracted from disease, and is now no larger than the ileum. 1891

The child was aged three months, and lived five weeks after the operation. For full notes of this and the preceding specimen see a paper by Mr. Stephen Paget (by whom the specimens were presented) in the *Lancet*, vol. i. (1891), p. 928.

RADICAL CURE OF CÆCAL HERNIA.

- 2111d. A Cæcum, Vermiform Appendix, Right Testis, and surrounding structures, removed in the course of an operation for the radical cure of a hernia. A green glass rod protrudes from the last two inches of the ileum; a fine green glass rod is sewn on to the vermiform appendix, the extremity of which is curved downwards and fixed by adhesions to the under and posterior portion of the cæcum, and a fine blue glass rod is sewn on to the peritoneum covering the spermatic cord immediately above the testis. Owing to a previous but unsuccessful operation, the parts are considerably displaced from their normal positions, thus, the cæcum has passed down behind the peritoneum into the scrotum, so that it is covered by peritoneum on its anterior and inner surface only. 1893

From a boy, aged four, on whom an operation for the cure of a right inguinal hernia had been previously performed in a provincial hospital. During the course of the second operation it was found impossible to separate the cæcum from the walls of the sac. The cæcum was therefore removed, together with the testis, and the distal end of the ileum was joined to the proximal end of the ascending colon. The boy made an excellent recovery.

See *Male Surgical Register*, vol. iii. (1892), No. 848.

- 2115a. Sac of a femoral hernia, from an aged female. The walls of the sac are exceedingly thin, and it only contains a mass of fibrous substance with a laminated calcareous centre. 1888

Presented by C. B. Lockwood, Esq.

- 2115b. A retro-peritoneal hernia of the Vermiform Appendix. The appendix lay in an isolated sac by the side of the pouch of an inguinal hernia. The hernial sac formed by the upper part of the processus vaginalis is very long, and it is throughout blended with the fibres of the internal cremaster muscle. A glass rod has been passed into the lumen of the vermiform appendix, which is situated immediately behind the sac. 1889

From a child, aged ten weeks, who was admitted with symptoms of strangulated hernia. The anterior sac was opened, but no intestine was found in it. The child died, and at the autopsy an intussusception of the small intestines was found.

See *Male Surgical Register*, vol. iv. (1888), No. 2586.

- 2115c. A retro-peritoneal hernia of the Vermiform Appendix, which lies curled up and partially concealed in an enlarged and elongated fossa sub-cæcalis. 1890

From the dissecting-room.

Presented by C. B. Lockwood, Esq.

2115d. A retro-peritoneal hernia of the Vermiform Appendix. The specimen also shows the empty sac of a large oblique inguinal hernia which has descended into the scrotum. The testis lies in the tunica vaginalis, which has been laid open, but does not communicate with the sac of the hernia. 1890

From the dissecting-room.

Presented by C. B. Lockwood, Esq.

2115e. The sac of a large scrotal hernia, containing the cæcum and several coils of small intestine. Part of the wall of the cæcum, the coats of which are much thickened, has been removed to show the opening of the vermiform appendix, into which a piece of black tube has been inserted: the ileo-cæcal valve lies to the right of this orifice. The coils of small intestine are firmly matted together, forming an irreducible hernia. 1890

From the dissecting-room.

Presented by C. B. Lockwood, Esq.

2121a. An inguinal hernia. A portion of omentum has become adherent to the inner surface of the sac, close to the fundus. 1883

2134a. Inguinal hernia, combined with hydrocele of the tunica vaginalis. 1883

2136a. Congenital hernia from a sucking-pig. The tunica vaginalis contains a loop of small intestine. The plica gubernatrix and plica vascularis are well shown. 1886

Presented by C. B. Lockwood, Esq.

UNDESCENDED TESTIS.

2137a. A Testis with the Tunica Vaginalis, which was removed during an operation for the radical cure of a congenital inguinal hernia. The testis had only partially descended, and lay in the inguinal canal. It is smaller than the normal. 1893

See *Male Surgical Register*, vol. iv. (1891), No. 2925a.

HERNIA OF THE SIGMOID FLEXURE.

2139a. A Congenital Hernia of the Sigmoid Flexure. The intestine was held in the mouth of the sac by a fold of peritoneum—the plica vascularis—which contained the spermatic vessels and a quantity of muscular fibres. The fold was situated towards the outer side of the sac. The vas deferens, under which a red rod is placed, lies towards the inner side of the sac, and is also accompanied by muscular fibres. The hernial sac appears to be continuous with the tunica vaginalis, although their cavities do not communicate. 1888

Examples of cæcocele are preserved in the Teratological Series vi., No. 3632a and b.

Presented by C. B. Lockwood, Esq.

2140a. The Sac of a Funicular Hernia. A portion of the anterior wall has been cut out, so as to show the septum which separates the cavity of the tunica vaginalis from that of the sac. 1884

From a subject in the dissecting-rooms.

2140b. The Sac of an Inguinal Hernia. The funicular portion of the peritoneum is closed at the level of the internal ring, but for the rest of its extent remains as an open tube, into which a black rod has been passed. A hernia descending through the internal ring has made its way behind the unclosed funicular portion. The position of the hernial sac (which has been opened in front) is indicated by a white glass rod. 1885

A drawing is preserved in Series lvii., No. 463.

2140c. An Inguinal Hernia, constituting an example of the form described by Hey as "encysted." The funicular portion of the peritoneum is unclosed, except at its

upper extremity. A hernial sac has been formed by the gradual invagination of the closed upper extremity into the unobliterated portion of the funicular process of the tunica vaginalis. 1885

2140d. An Inguinal Hernia in many respects similar to the foregoing, but differing in the fact that the sac is lobulated, or divided by a partition into two separate portions. 1885

The four preceding specimens were exhibited before the Pathological Society. See *Transactions of the Pathological Society*, vol. xxxvi. (1885), p. 216.

2140e. The Sac of a Hernia, probably funicular. On its posterior wall is a deep pouch. The fold of serous membrane which forms the inner boundary of the sac contains the spermatic artery and vein, whilst running round the lower end of the sac and up its outer side is a fibrous band. This band is apparently a blood-vessel, and may originally have been a recurrent branch of the spermatic artery, such as is seen in the Anatomical and Physiological Catalogue, Series xx., No. 870a. 1887

2140f. Sac of a Congenital Inguinal Hernia, obtained from a female. The sac occupied the right inguinal canal, and protruded from the external ring. The mouth of the sac is very small, and leads into a long narrow canal which opens into the body of the sac. The end of the sac is pointed, and is united by a thick band of fibrous tissue to the labium. 1889

2143a. A Cyst, which constituted the sac of a hydrocele of a femoral hernia. At its upper part the cyst was in connection with the crural canal by a narrow aperture, which, during life, admitted of the passage of a probe. 1886

F., æt. 44, who had noticed a swelling in her right groin for twelve months. The tumour was tapped six months after its appearance, when clear fluid was evacuated. The swelling gradually returned, and the entire sac was removed six months after it had been tapped.

See *Female Surgical Register*, vol. i. (1885), No. 1973.

CONGENITAL UMBILICAL HERNIA.

2156a. The Sac of a Congenital Umbilical Hernia. The tumour appears to be formed by a dilatation of the coverings of that portion of the umbilical cord which was nearest to the body of the child. It is fusiform in shape, and has the main constituents of the funis running as a bundle along its lower border. The wall of the sac consists of a thin and soft membrane, which was so transparent whilst the specimen was fresh, that the coils of intestine could readily be seen within it. The external surface was polished, and closely resembled the outer surface of the cord; whilst internally the sac is covered with a smooth layer which is apparently derived from the peritoneum. At the apex of the tumour the funis reappears, and has upon its under surface a cyst containing a viscid fluid. A bristle has been passed for a short distance into the umbilical vein, and a green rod has been passed between the sac wall and its peritoneal lining. 1887

From a newly-born child at full time. The labour was quite natural, but a placenta-like mass was attached to the child's abdomen. On closer examination, with the aid of a candle, this mass was found to be a transparent sac containing several coils of small intestines, measuring in all about a foot in length. The sac was situated in the funis at the part nearest to the child's abdomen. The cord was ligatured and divided in the ordinary manner, and an ineffectual attempt was made to get back the bowel through the umbilical aperture. The sac was then carefully opened on a director, and after division of the umbilical ring the intestine was returned into the abdominal cavity. The child survived for three days, dying of peritonitis.

A drawing of the specimen, enlarged from a sketch made before the operation, is preserved in Series lvii., No. 465.

See also *Transactions of the Pathological Society*, vol. xxxix.

Presented by J. J. de Z. Marshall, Esq.

- 2156b. A portion of the anterior abdominal wall, showing an Umbilical Hernia. The hernia consists of a mass of subperitoneal fat, which passes through a circular aperture in the linea alba. The peritoneum is not protruded, and there is no true hernia. 1889

From a man, aged 65, who died from peritonitis after the tumour had been explored.
See *Male Surgical Register*, vol. ii. (1886), No. 1100.

AN INTERSTITIAL, ASCENDING, OR INTERPARIETAL HERNIA.

- 2157a. A portion of the Right Innominate Bone, with the various muscles and fasciæ attached to it, from a case of strangulated interstitial inguinal hernia with retained testis. The aponeurosis of the external oblique muscle terminates as usual in two pillars to form the external ring, but the ring itself has been enlarged to about four times its natural size. Behind the aponeurosis is a considerable interval, in which the remains of the hernial sac lay. During life and before the operation this space was occupied by the right testis and the sac. The space, which in the specimen is kept open by glass rods, is formed by a separation of the external oblique muscle from the conjoined tendon of the internal oblique and transversalis muscles, as well as by a splitting of the aponeurosis itself toward the linea semilunaris. 1889

From a man, aged 45, who for eighteen years had suffered from a hernia, for which he had worn a truss. The hernia suddenly became strangulated twenty-four hours before his admission to the Hospital. When he was first seen, there was a swelling parallel to and above Poupart's ligament. The swelling was tense, resonant, and irreducible; there was no impulse on coughing. The skin over it was red and discoloured. The intestine could be felt lying above the retained testicle and external to it. On exposing the intestine, about twelve inches of it, in three coils, was found in the processus vaginalis and reflected between the abdominal muscles; it was congested and almost black. The testicle and a small piece of the omentum were removed. The patient died a few hours after the operation. At the autopsy the gut was found to have been strangulated in two places.

See *Male Surgical Register*, vol. iv. (1888), No. 362.

- 1257b. The Retained Testis, with a Portion of Omentum, which were removed from the preceding case during the operation for the relief of the strangulated hernia. The testis was situated about half-way down the right inguinal canal. 1889
- 2159a. A Portion of the Abdominal Wall, in the neighbourhood of the linea alba. A small tumour consisting of fat and subperitoneal tissue has made its way through the linea alba. During life the tumour could be felt as a lobulated mass situated beneath the skin; it was freely moveable and partly reducible. 1887

- 1259b. A Portion of the Anterior Abdominal Wall, showing a hernia of the subperitoneal fat. A small rounded tumour, consisting of fat and subperitoneal connective tissue, is seen to have made its way through the linea alba at a spot situated about three inches above the umbilicus. The peritoneum is not protruded, however, nor is there any true hernia. 1889

From a man, aged 65, who was admitted to the Hospital on account of this tumour, which was supposed to be a hernia. The tumour was exposed, and was returned into the abdominal cavity through the aperture in the linea alba, which was sewn up. The patient died of peritonitis five days after the operation. At the autopsy it was found that the peritoneum was uninjured, but that the inflammation appeared to have extended to it from the superjacent wound.

See *Male Surgical Register*, vol. ii. (1886), No. 1100.

VENTRAL HERNIA OF AN APPENDIX EPIPLOICA.

- 2159c. A Portion of the Abdominal Wall, from the left side. A mass, which at first sight consists of subperitoneal fat, protrudes through the left linea semilunaris at a spot a little below the level of the umbilicus. On more careful examination, however, it is readily seen that the protrusion consists of one of the appendices epiploicæ, which has passed through an opening in the peritoneum. It is invested

by an extremely thin hernial sac, to which it is adherent. At the point where the sac pierces the linea semilunaris there is a distinct ring, like that seen at the umbilicus. The mode of formation of this protrusion is quite inexplicable. There is no sign of any previous wound, and the appendices appear so late in foetal life that it could hardly have been due to a developmental cause. 1889

See *Transactions of the Pathological Society*, vol. xl., p. 15.

2161a. The right side of a Pelvis, with a portion of the Femur, showing a Strangulated Obturator Hernia. The sac is about the size of a plover's egg, and is protruded over the upper edge of the obturator externus muscle, the peritoneum forming it being considerably thickened and in immediate contact above with the ramus of the pubes. The obturator nerve and artery (both cut short) lie on the anterior surface of the hernial protrusion, the former occupying the more external position. A large artery from the internal circumflex winds around the outer side of the sac and anastomoses behind it with a branch from the obturator. A deeply congested portion of the ileum occupies the sac, and, in the recent condition, was slightly adherent to its front wall, there being scarcely any fluid present. The difference in calibre between the intestine above and below the stricture is well marked. The peritoneum at the crural ring is slightly bulged, and the head of the femur is the seat of old rheumatoid arthritis. 1883

From a woman, aged 69, who, without having ever suffered from any previous symptoms, was suddenly seized with severe pain in the abdomen followed by continuous vomiting and constipation. She died exhausted on the eleventh day of her illness.

See *Faith Ward Book* for 1882, vol. i., p. 734; and account by Mr. Bowlby in the *Transactions of the Pathological Society*, vol. xxxiv., p. 109.

2161b. Portion of the left side of the Pelvis, from the same patient as the preceding specimen. An empty hernial sac rather larger than a nut occupies the upper part of the obturator foramen, immediately above the free edge of the obturator externus muscle. The obturator nerve lies directly over the front of the hernial tumour, while the artery divides at the posterior surface into its two main branches, which encircle the neck of the sac. 1883

2163b. A portion of the Left Half of the Diaphragm, from a case of diaphragmatic hernia. There is a large oval aperture with rounded edges; through this aperture the stomach and a large portion of the transverse colon passed during life. At the autopsy the lung was completely hidden by the distended stomach. The heart was much dilated and lay upon the right lung, whilst the left lung was collapsed, and occupied the apex of the thorax; it was only half the weight of the right lung, and had a depression upon its anterior surface corresponding with the position of the stomach. The intestines, on account of the numerous adhesions which they had contracted, were only removed with difficulty. 1887

From a man, who was admitted to the County Asylum, Stafford, suffering from acute melancholia. He died of chronic bronchitis and emphysema. Fifteen years before his death, whilst working in a pit, a heavy piece of coal fell upon him, and he was brought to the surface insensible. He was confined to his bed for some months, and was subsequently treated for choleraic diarrhoea, and later for bronchitis.

Presented by A. Everley Taylor, Esq.

2163c. A portion of the Liver, with the Diaphragm. In the middle of the right half of the diaphragm is a ragged oval rent, measuring two and a half inches by one and a half, through which, in the fresh state, the convex surface of the liver protruded into the right pleural cavity. 1888

From a man, aged 58, who jumped from a first-floor window, and died soon after admission to the Hospital.

See *Surgical Post-Mortem Book* for 1887, p. 74.

2164a. A portion of the Ileum in the neighbourhood of the ileo-cæcal valve, which has become strangulated by the formation of a band of adhesion, the result of peritonitis eight months before death. The patient had complete obstruction for a week; abdominal section was performed, but he died unrelieved forty-eight hours after the operation. 1887

Presented by A. Maude, Esq.

2168a. A piece of the Small Intestine, communicating with which is a diverticulum four inches in length, which leads up to the umbilicus, *i.e.*, a patent omphalomesaraic duct. In the loop thus formed another piece of small intestine became fixed and strangulated, causing death from internal intestinal obstruction. A small opening at the umbilicus allowed the passage of a fine probe. In this opening a fine green glass rod has been placed. 1891

From a lad, aged 16, of whom the following history is given:—Up to twelve years of age matter of a more or less faecal character was constantly passed from the umbilicus; since then the opening had gradually closed and the discharge ceased. One night, at 11 p.m., he was suddenly seized with severe griping pains in the abdomen. He was seen the next afternoon by his doctor, who lived at a considerable distance. All the signs of acute intestinal obstruction were then present, but the patient was so collapsed that any operation was deemed inadvisable. He died the next day. At the post-mortem examination the condition described above was discovered.

Presented by Dr. Hammersley.

HERNIA INTO THE FOSSA INTERSIGMOIDEA.

2176a. A portion of the Ileum, with the Cæcum and Colon, from a case of strangulated hernia in which about six inches of the lower end of the ileum had passed through an opening (the foramen intersigmoideum) in the sheet of peritoneum which extends from the posterior surface of the sigmoid flexure to the left iliac fossa. The opening in the peritoneum is oval, its long diameter measuring about half an inch. It is situated close to the left side of the sigmoid flexure, its lower margin being about an inch above and to the outer side of the sacro-iliac synchondrosis, and the same distance from the ovary. The opening leads into a sac of peritoneum having very thin walls, which were attached to, or continuous with, the margins of the opening. The sac is pyriform, measuring three inches in its long diameter, and it extends upwards and backwards beneath the large intestine. Its posterior surface is in contact with the iliacus and lumbar muscles, and was only loosely connected with them, but its anterior surface is adherent to the peritoneum and posterior surface of the large bowel. The sigmoid flexure is nearly surrounded by peritoneum, but it has not a distinct mesentery, since the two layers of peritoneum reflected from it are nowhere in contact. Above the opening of the hernia the sigmoid flexure is bound down to the iliac fossa by three bands of thickened peritoneum. This portion of the intestine is displaced towards the middle line. The distended cæcum occupies a position immediately to the right of the middle line. (The ascending colon took a course obliquely across the abdomen to the left hypochondrium, where it turned sharply to the right and followed the course of the diaphragm until it reached the middle line; it then bent upon itself and returned above and parallel to its former course as far as the lower edge of the spleen; thence it took the usual direction to the sigmoid flexure). Both the ascending and descending portions of the large intestine are closely united and almost surrounded by a single layer of peritoneum. There is no transverse colon. Immediately above the cæcum the ascending colon and the adjacent curve of the sigmoid flexure are bound together by a ribbon-like band of fibrous tissue three-quarters of an inch in breadth and half an inch in length; the adhesion to the sigmoid flexure is two inches below the level of the hernial opening. The ascending colon is slightly narrowed by the tension to which the band gives rise, but the calibre of the lower bowel is unaltered. 1887

From a woman, aged 63, who was suddenly attacked with symptoms of acute intestinal obstruction. On the following day she passed a small motion with a little slime and blood. Two days later she had fecal vomiting. Eight days after the onset of the symptoms right lumbar colotomy was performed, and she died three days afterwards.

See *The British Medical Journal*, vol. i. (1885), p. 1195.

A drawing is preserved in Series lvii., No. 460.

VOLVULUS.

- 2177a. A portion of the descending Colon, showing a well-marked constriction produced by the twisting of two portions of large intestine around each other, so that a loop was strangulated. 1881

From an old man, who died with symptoms of acute intestinal obstruction.

VOLVULUS OF THE CÆCUM.

- 2177b. The Cæcum, the lowest part of the Ileum, and the beginning of the Colon, are involved in a volvulus, which has resulted in the intestine being twisted three times on its transverse axis from right to left. The cæcum is attached by sutures to the abdominal wall, a portion of which is left in the preparation; it is gangrenous in patches, and in one place has completely ulcerated, so as to lead to a perforation of the intestine. No feces have escaped, however, owing to the surrounding adhesions. On tracing the gut backwards, it is seen that the colon beyond the splenic flexure, instead of passing across the abdomen to form the transverse arch, descends vertically to the left iliac fossa. From this point it returns to the lower border of the stomach, forming a U-shaped bend. It then turns to the right, and having reached the median line of the abdomen, again runs downwards to end in the cæcum, which was situated over the last lumbar vertebra, almost in the middle line. (*Cf.* 2176a.) 1888

From a man, aged 63, who was seized suddenly with severe abdominal pain and vomiting. His bowels, which had been regular up to the time of the seizure, became obstinately confined. On his admission to the Hospital, two days later, nothing could be found to account for the pain, but there was a slight fulness and tenderness in the right iliac region. Stercoraceous vomiting set in eight days after the initial symptoms had appeared, and the abdomen was opened in the middle line, and a portion of inflamed and distended cæcum was secured by sutures to the abdominal wall. The patient died on the following day.

See *Male Surgical Register*, vol. iii. (1887), No. 495, and *Transactions of the Clinical Society*, vol. xxi., p. 139.

MULTIPLE INTUSSUSCEPTION.

- 2181a. The Ascending, Transverse, and a portion of the Descending Colon of a child. At the ileo-cæcal valve the small intestine has become invaginated into the colon for a distance of about two inches, carrying with it a portion of the caput coli and a part of the vermiform appendix. The invagination is two inches in length. A trap-door has been cut in the colon to show the flakes of lymph upon the intussuscepted portion of intestine. In the transverse portion of the colon is a second intussusception, the distal portion of the large intestine being ensheathed in the proximal part. It is therefore an example of the extremely rare form of intussusception known as the "ascending" variety. As in the previous case, a trap-door has been cut in the wall of the intestine to show the presence of recently effused lymph. From the presence of the lymph it may be argued that both intussusceptions occurred during life. 1886

From a male child, aged five months, who presented the ordinary symptoms of acute intestinal obstruction. Injections of milk and water and of air were tried ineffectually. The infant died five days after the onset of the symptoms. A drawing is preserved in Series lvii., No. 475.

A full account of the specimen will be found in the *Pathological Society's Transactions*, vol. xxxvii., p. 240.

Presented by John Emmerson, M.D.

- 2182a. The Ileo-Cæcal Valve, with a portion of Small Intestine, showing an intussusception. About six inches of the small intestine have become intussuscepted,

the end of it being gangrenous where it protrudes into the cæcum. The sheath of small intestine which contains the intussuscepted portion has ulcerated in two places in a line transverse to the long axis of the gut. 1888

From a girl, aged nine, who seven days before her death was suddenly seized with great abdominal pain and vomiting. Enterotomy was performed through an abdominal incision, the intestine being opened four inches above the site of the intussusception; but the patient died two days after the operation. At the autopsy it was found that there had been no fæcal extravasation, and that neither the constricting portion of the intestine nor the sheath were in a state of tension.

See *Female Surgical Register*, vol. iv. (1885), No. 1975.

DOUBLE INTUSSUSCEPTION.

2183a. A Cæcum, with a portion of the Ascending Colon, into which an intussusception of the Ileum has occurred. Both the colon and the ileum have been laid open longitudinally, disclosing in the centre of the latter a Meckel's diverticulum, which has itself been invaginated into the ileum. The diverticulum has been incised; the mucous membrane lining both it and the intussuscepted part of the ileum is dark and discoloured from the acute inflammation which the tissues had undergone, producing a gangrenous condition with sloughing of the end of the intussusceptum. A large black tube has been passed from the opening made in the ileum, and protrudes at the proximal end of the same. 1892

The patient was a labourer, aged 42, whose history was as follows:—On April 27th, 1891, he was seized with severe abdominal pain, accompanied by vomiting. He was also constipated. Under treatment he recovered in a week, and resumed work. On May 18th, the symptoms returned, but were not relieved by treatment. The vomiting soon ceased. Peritonitis set in, and he died on June 9th, about a fortnight after the onset of symptoms.

Presented by James Adams, M.D.

2185a. A Section through the Ileo-Cæcal Valve of a female child, aged seven months. The lower portion of the ileum has undergone intussusception into the colon. The invaginated portion of the gut is greatly thickened as a result of inflammation, and its terminal portion is becoming gangrenous. 1889

See *Female Surgical Register*, vol. i. (1888), No. 2161.

A section of the thickened intestine is preserved in Series lv., No. 290.

INTUSSUSCEPTION OF THE RECTUM IN AN ADULT.

2188a. The Large Intestine is invaginated for about three inches; it is firmly bound down by a contracted mesenteric attachment; the intussuscepted portion cannot be drawn out; it therefore appears to have been of long standing. Above the intussuscepted portion is a small projection which appears to be the root of a small polypus. 1885

M., æt. 37. Labourer, always in good health. He had an attack of diarrhœa and tenesmus, but subsequently he was found to be suffering from an intussusception, the invaginated portion being within easy reach of the finger after the hand had been introduced into the rectum. On the ninth day vomiting and hiccough commenced; the abdomen was tympanitic. Lumbar colotomy was performed, but the patient died.

Presented by Dr. Lanchester.

INTUSSUSCEPTION OF THE SIGMOID FLEXURE INTO THE RECTUM IN AN ADULT.

2188b. The specimen consists of part of the Descending Colon and Sigmoid Flexure which have been invaginated into the rectum; a piece of the latter has been removed, showing the lower orifice of the invaginated intestine, into which a piece of black catheter has been passed; the coats of the bowel in the neighbourhood of the intussusception are thickened, and there is a coating of coagulated lymph between the layers of contiguous mucous membrane: there is also some distension of the colon above the constriction. 1891

The patient was a woman, about 40 years of age, who died in the Surrey County Lunatic Asylum. She suffered from attacks of obstruction, sometimes accompanied with fæcal

vomiting, for the last two years of her life, during which time the intussusception probably existed; she ultimately died from exhaustion following gangrene of the foot and leg. Post-mortem it was discovered that she also had two partially calcified fibroid tumours of the uterus which pressed slightly on the rectum.

Presented by A. M. Jackson, M.D.

- 2191a. Portion of Intestine from an infant who had recovered from an attack of intussusception. The large intestine has almost entirely disappeared, being represented by three inches of the rectum, which has been cut just above the anus, and may be seen at the lower part of the specimen. At the junction of the rectum with the small intestine (*i.e.*, the place where the continuity of the canal has been re-established), the calibre of the gut is slightly narrowed by an annular constriction, the peritoneum at this place being scarred and puckered. Immediately above, the small intestine is thinned and dilated into a large pouch, while two and a half inches higher is a polypus composed of glandular and fibrous structures one inch and a quarter in length. Around this growth the intestine is inflamed, ulcerated, and adherent to the neighbouring mesenteric glands. The rest of the intestine was normal. 1883

The patient was a child, aged 13 months, and was admitted into the Hospital with the history that twelve days previously she had been seized with severe pain in the abdomen, and since then had passed only blood and mucus. On admission, a portion of gangrenous gut was found protruding from the anus and was removed; three days later another and smaller portion came away, and in another week the patient had completely recovered. Two months later she died of congenital syphilis.

The case is described by Mr. Bowlby in the *Transactions of the Pathological Society*, vol. xxxiv., p. 106.

A drawing is also preserved in Series lvii., No. 477.

- 2191b. The two portions of Intestine alluded to in the descriptions of the preceding specimen. The upper one consists of a part of the cæcum and vermiform appendix, the lower apparently of part of the large intestine. 1883

- 2191c. An Intussusception of the Small Intestine which was removed by operation. The outer layer (*intussusciens*) has been divided longitudinally and hangs below the intussuscepted part, one half of which only is shown. The inner layers are greatly congested and blood-stained, and are much thickened from recent acute inflammation. Above this is hung a small fibrous polypus which shows some calcareous degeneration in its centre; it is covered by mucous membrane. This was attached to the ileum at a spot about two feet distant from the ileo-cæcal valve and immediately above the intussusception. 1892

The patient was a woman, aged 30, who was admitted into the Hospital suffering from acute intestinal obstruction. Abdominal section was performed and the intussusception found. As it could not be reduced, the parts were resected, when the polypus was discovered and removed at the same time. She died two days later from peritonitis.

See *Female Surgical Register*, vol. ii. (1891), No. 2092.

SERIES XXI.

DISEASES AND INJURIES OF THE LIVER.

PERIHEPATITIS.

2193a. The specimen consists of the Left Lobe and part of the Right Lobe of the Liver, together with the suspensory ligament, and that portion of the diaphragm to which the ligament is attached. The peritoneal surface of all these is thickened by a deposit of "false membrane," due to former general peritonitis. This now forms a definite and easily detachable covering (see next specimen, No. 2193b) of uniform thickness with the exception of small circular depressions, which extend nearly, but not quite, through to the liver substance beneath. The surface of the liver, which does not show the depressions named, is slightly roughened. 1893

See *Medical Post-Mortem Register*, vol. xviii., p. 359.

2193b. A Portion of the "false membrane" covering the Liver as described in the preceding specimen (No. 2193a), to which refer. The depressions, which are distinctly cup-shaped, though extending deeply into, do not perforate the "membrane." 1893

2194a. Section of a left Lobe of a greatly enlarged Liver, affected with amyloid degeneration. 1881

TUBERCLE.

2194b. A section of the left Lobe of a Liver affected with Tubercle. The cut surfaces show several deposits of caseous material, the largest of which is two inches in its longest diameter, and projects prominently from the superior surface of the organ. The deposits have, on section, a honeycomb appearance, from breaking down of the tubercular material at several small points. In histological structure the deposits presented the ordinary character of tubercle. Some small grey nodules were scattered beneath the mucous membrane of the bladder, and were found, on microscopic examination, to be miliary tubercles. 1882

From a lad, who died with amyloid degeneration of the abdominal viscera. He had previously suffered from symptoms of tubercular disease of the genito-urinary organs. There was no evidence of syphilis. Cicatricial contractions of the upper and lower ends of the right ureter from old ulceration were found, and hydronephrosis of the corresponding kidney, but there was no tubercular ulceration in progress.

Microscopic sections are preserved in Series lv., No. 319.

Presented by F. S. Eve, Esq.

2194c. Section of a Liver which has undergone lardaceous or amyloid degeneration. The degenerate tissue is darkly stained with iodine. 1887

2194d. A Portion of a Liver which has been very greatly enlarged, as a result of amyloid degeneration. It weighed ten pounds, nine ounces, and its surface was scarred, puckered, and contracted. Its section is firm, and the glandular substance is seen

to be replaced by the small, shining masses which are characteristic of amyloid degeneration. Microscopically, the organ was found to have undergone typically the changes which result from amyloid degeneration, but without any increase of fibrous tissue. 1888

From a boy, aged 18, who had a remarkable ulceration of many of his joints. The spleen was enormously enlarged. For further history of the case, see No. 312a.

The joints are preserved in Series i., Nos. 312a, b, c, d.

The spleen is preserved in Series xxv., No. 2295a.

See *Male Surgical Register*, vol. v. (1886), No. 2691*.

- 2196a. Section of a Portion of Liver containing a circumscribed tubercular abscess. The abscess wall is covered with shreds of partially organised lymph. The specimen was obtained from a patient who died of pulmonary phthisis. 1888

Presented by Vincent Harris, M.D.

- 2196b. A Portion of a Liver containing a Large Abscess, situated in the right lobe near its convex surface. The walls of the abscess are irregular, and it has penetrated for some distance into the hepatic tissue, so that its floor is rough and spongy. The abscess communicated by a ragged aperture with a circumscribed portion of the peritoneal cavity. 1889

From a man, aged 45, whose transverse colon was adherent to the lower border of the liver. In this part of the intestines there were the pigmented cicatrices of three small ulcers. The left lobe of the liver was in a state of cloudy swelling. The patient had been employed in the gas works. He drank freely, and had probably suffered from syphilis.

See *Matthew Ward Book* for 1887, No. 230.

- 2196c. A Portion of the Right Lobe of the Liver, showing on the cut surface a number of irregular abscess cavities of various sizes, the walls of which are rough and uneven. The peritoneal surface is not much altered in shape. 1891

Received in exchange from the Museum of the Royal Free Hospital.

- 2198a. A Liver showing the effects of cirrhosis. 1885

NON-ALCOHOLIC CIRRHOSIS.

- 2198b. A Liver presenting all the characters of Cirrhosis. It weighs twenty-nine ounces, and is indurated and pale from the increase of connective tissue. Its external surface is tuberculated and nodular, and a similar appearance is seen on section. Microscopically the liver is infiltrated with a very vascular small-celled growth, which in many places has completely destroyed the lobules by a simple process of pressure, since the growth of connective tissue is entirely interlobular. The cells of the liver are normal, and have not undergone any fatty change such as is common in cases of ordinary cirrhosis, nor does there appear to be any abnormal quantity of pigment. 1889

From a professional man, five feet nine and a half inches in height, 65 years of age, who was able to work until three weeks before his death. He then began to suffer from ascites accompanied by slight jaundice. Seven years previously he had suffered from an attack of biliary colic, which subsequently recurred, but he had not experienced an attack during the eighteen months preceding his death. Four years previously he had suffered from angina pectoris. For thirty-five years he had been a teetotaller and had never at any time indulged in alcohol to excess. In every respect he was abstemious. He had never suffered from syphilis. At the autopsy the kidneys were found to be small, the heart cut crisply, and the coronary arteries were calcified.

A microscopical section is preserved in Series lv., No. 303.

See *Transactions of the Pathological Society*, vol. xl., p. 137.

Presented by Evan Alban, Esq.

- 2198c. A Portion of Liver, the whole substance of which is indurated and pale from an increase of the interlobular prolongation of Glisson's capsule. Its external surface is distinctly nodular, the nodules varying in size and in distinctness. 1889

From a woman, aged 67 years. The whole organ only weighed thirty ounces.

See *Medical Post-Mortem Register*, vol. xiv., p. 191.

- 2199a. Section of a Liver in an early stage of cirrhosis. The lobules are well defined, and are coloured by the bile. 1882

From a girl, aged 18, who died with chronic peritonitis.
Microscopic sections are preserved in Series lv., No. 302.

- 2199b. The Liver of a child in a condition of extreme cirrhosis. The whole gland is much diminished in size, and weighed, when recently removed, only sixteen ounces; its surface presents a nearly uniformly corrugated or hob-nailed appearance; this is most marked on the left lobe. 1891

From a boy, aged ten, who died in a condition of extreme emaciation after having been in the Hospital for three months. He had peculiar nervous symptoms, which were only partially explained by the post-mortem appearances.

For details see *Medical Post-Mortem Register*, vol. xvii., p. 24, and *Hospital Reports*, vol. xxvi., p. 59 (1890).

SYPHILIS.

- 2202a. Section of a Liver containing Gummata. 1882

From a boy who showed other traces of congenital syphilis.

- 2202b. The Liver from a boy, aged nine. Its surface is extremely irregular, and in several places it is puckered into deep scars. On section several large yellowish and tough masses of irregular outline were found, each being surrounded by a red zone of engorged liver substance. One of these masses is seen in section at the bottom of the bottle. Microscopic examination showed the masses to be large gummata, and in their vicinity here and there on the surface were minute collections of embryonic connective tissue cells. 1887

From a boy who, with some intervals, had been in Luke Ward from December, 1883, to September, 1885. His most prominent symptoms were emaciation, ascites, and enlarged liver. He had a very sallow skin and well-marked Hutchinsonian teeth. The liver, kidneys, stomach, intestines, and spleen all showed advanced amyloid change.

See *Transactions of the Pathological Society*, vol. xxxviii., p. 271.

- 2202c. A Portion of a Liver showing on section numerous Syphilitic Gummata. The liver weighed four and a half pounds, and the surface was seamed in all directions with large depressed scars, three or four of which are still seen. When freshly cut, the rounded nodules, most of which, but not all, were situated near the surface, were of a yellowish colour, and somewhat soft consistence, but nowhere breaking down; they had a border of whitish connective tissue, which in some instances penetrated into the interior of the nodules: around a few of these was a zone of congested liver-tissue. There is a shaggy coat formed by partially adherent lymph over the lower part of the surface. 1890

From a man, aged 46, who was in the Hospital for seven weeks before his death. The abdominal lymphatic glands were enlarged, and he had chronic parenchymatous nephritis.

See *Medical Post-Mortem Register*, vol. xiv., p. 264.

"NUTMEG" LIVER.

- 2203a. A portion of a typical "nutmeg" Liver. It shows well the mottled appearance caused by chronic venous congestion. 1893

From a man, aged 41, who had extensive disease of the aortic valves. The heart weighed twenty-one ounces; there were also double pleural effusion and ascites.

See *Medical Post-Mortem Register*, vol. xx., p. 51.

- 2204a. A section of Liver, showing a cystic dilatation of many of the bile capillaries. The cysts are very numerous, and vary in size from a pin's point to a large pea. 1889

From a child who was burnt to death.

Presented by Joseph Griffiths, M.D.

PYLEPHLEBITIS.

- 2205a. A Liver, the Portal Vein of which was found to be plugged by a firm partially decolourised clot. The whole gland is enlarged, and weighed sixty-five ounces. The lobulus Spigelii is enlarged to four or five times its normal size. The gall-bladder is much thickened, and all the tissues in the transverse fissure are firmly matted together. 1892

From a man, aged 41, who was admitted into the Hospital and died the same evening.

See *Medical Post-Mortem Register*, vol. xvi., p. 108.

A drawing is preserved in Series lvii., No. 491.

- 2209a. A Section of a Liver which has been enormously enlarged by the infiltration of a melanotic sarcoma. The entire liver weighed sixteen pounds when it was removed from the body. The section shows large nodules of a black colour and circular in outline, which are separated from each other by strong white septa. In some parts the growth is diffuse and of a grey colour, but there is nowhere any trace of liver tissue. 1889

From a warehouseman, aged 48, whose father had died from a tumour. Three years before his admission to the Hospital his right eye was removed on account of a melanotic tumour, which grew from the choroid. Four months before his death he had pain in the right side of the abdomen, accompanied by nausea and retching, and in three months he had lost a stone in weight. The liver dulness during life reached as high as the fifth rib. Melanotic growths were found in the mesenteric glands and in both kidneys. The peritoneum showed numerous minute specks, and there was one in the skin of the left axilla of the size of a pin's head. There was no new growth in the chest nor in the spleen.

A portion of the kidney is preserved in Series xxviii., No. 2390d.

See *Luke Ward Book* for 1888, No. 192.

See *Transactions of the Pathological Society*, vol. xl., p. 138.

- 2215a. A Section through a Liver, very extensively diseased by Multiple Sarcomata. The whole gland was enormously but uniformly involved, and reached to the umbilicus in the middle line. On section it was found to be filled with masses of soft yellowish material, nearly circular in shape, and varying in size from a quarter to one inch in diameter, and being so numerous as to leave very little liver substance remaining. The bile ducts were pervious, and bile was present in the duodenum. The portal vein was normal. An enlarged lymphatic gland which had commenced to "break down" was found in the hilum of the liver; the lumbar lymphatic glands were also increased in size. 1892

From a man, aged 56. Under the microscope the tumours were found to be small rounded sarcomata.

See *Medical Post-Mortem Register*, vol. xvii., p. 142.

- 2216a. The Right Lobe of a Liver which is the seat of numerous secondary deposits of cancer. The nodules of cancer are large, white, and firm, with depressed centres. The liver weighed seventy ounces. Microscopically, the organ is infiltrated with a well-marked columnar carcinoma. 1888

From a man, aged 52, who had cancer of the rectum.

The pelvis, with the rectum *in situ*, is preserved in Series xix., No. 2072a.

See *Medical Post-Mortem Book*, vol. xiii., p. 14.

- 2216b. A Portion of the Right Lobe of the Liver infiltrated by a large mass of new growth. Microscopical examination showed it to consist of encephaloid cancer. The growth is dense and firm, and has entirely destroyed the hepatic tissue. It was secondary to a carcinoma of the rectum in a man, aged sixty-two years. The liver weighed seven pounds. 1888

Sections are preserved in Series lv., No. 315.

See *Male Surgical Register*, vol. iv. (1887), No. 1753.

- 2216c. The Left Lobe and part of the Right Lobe of a Liver, showing several rounded masses which are the secondary deposits of colloid carcinoma. They occur

on or near the surface. One of the masses situated on the under surface shows distinct umbilication. On section they are seen not to extend deeply into the liver substance. The primary growth occurred at the cardiac end of the stomach, and involved by direct extension the lower end of the œsophagus. There was also some infiltration of the supra-renal capsules and of the neighbouring lymphatic glands.

1892

The patient was a man, aged 35.

See *Medical Post-Mortem Register*, vol. xvii., p. 301.

2217a. A Liver affected with diffuse lympho-sarcoma. The gland is uniformly enlarged, and is nearly white. Its surface is smooth. It weighs forty ounces. There were no isolated growths. 1885

F., æt. five. In perfect health until six months before death. Tubercle in both lungs. Microscopic examination showed the liver to be infiltrated with small round cells. The glandular destruction was not so great towards the centre as towards the surface, and there was a considerable amount of fibrous tissue in the central part.

A section is preserved in Series lv., No. 311.

See *Transactions of the Pathological Society*, vol. xxxvi. (1885), p. 236.

2217b. A section through a Liver infiltrated with a carcinomatous growth which is undergoing colloid degeneration. The nodules of new growth are numerous. They are circumscribed, and are for the most part situated immediately beneath the capsule of the liver. The surface of the liver is slightly dimpled immediately over the largest mass of cancer. 1888

From a woman, aged 21, who had been ailing for eleven months before her death. She presented all the symptoms of a cerebral tumour, but there was no evidence before death of any hepatic or renal disease. The patient had syphilis.

See *Mary Ward Book* for 1887, s. v. Maude Pocock. The kidney is preserved in Series xxviii., No. 2390c.

NÆVUS OF THE LIVER.

2224a. A Longitudinal Section through a portion of the Right Lobe of a Liver. At the free or inferior border there is a large nævus ; it was more or less globular, and measures nearly two inches in diameter. 1893

Microscopical sections are preserved in Series lv., No. 310.

See *Surgical Post-Mortem Register*, 1891, p. 128.

2230a. Portion of a Liver in which is an old, shrivelled hydatid cyst, rolled in a spiral manner, and containing a very little cretaceous and cheesy material. 1884
The patient died from tumours of the breast and head.

2231a. An unusually complete Hydatid Cyst removed by dissection from the liver of a woman. The contents of the cyst had suppurated. 1886

F., æt. 30. Pain had been felt in the right side of the abdomen for a month previously. An abscess had burst through the navel ten days before the removal of the cyst.

See *Martha Ward Book* for 1885, No. 195.

2235a. A Portion of the Right Lobe of a Liver in which there are two Hydatid Cysts. The two cysts were found to communicate by means of a small opening, but the hydatid sacs were originally distinct. The upper cyst does not actually lie in the liver substance, the walls of its upper half being formed merely by the capsule of the liver : it now contains only a few shreds as remnants of the hydatid sac ; the lower and smaller space was laid open by an operation a fortnight before death, the decomposing hydatid sac was removed, and the edges of the cyst were stitched to the front abdominal wall. The section shows that the walls of both cysts, after removal of the hydatid sacs, are formed of firm fibrous tissue. 1891

The patient was a girl, aged 16, who had good health until two years before she came under treatment. At her first admission into the Hospital she was tapped, and much relieved

thereby for seven months ; the swellings then returned. After several tappings an operation, as described above, was performed, but she gradually sank and died.

See *Transactions of the Pathological Society*, vol. xlii., p. 175 ; also *Medical Post-Mortem Register*, vol. xvii., p. 200.

2237a. Numerous small Hydatid Cysts, passed per anum by a woman. 1885

2237b. Portions of the wall of an Hydatid Cyst, with some of the intracystic growths, passed per anum by a lad, aged eight years. 1885

The liver was enlarged to within one inch of Poupart's ligament, and the spleen to within two inches of the crest of the ilium. The patient suffered from jaundice and general wasting. He recovered.

2237c. A portion of Liver infested with the ova of *Bilharzia hæmatobia*. Cf. Nos. 1745a and 2306b. 1889

From the same case as the genito-urinary organs preserved in Series xxviii., No. 2393c. The parent worms are preserved in the same Series, No. 2393d.

Presented by Dr. Mackie.

ACUTE PHOSPHORUS-POISONING.

2238a. A Section of a Liver from a case of acute phosphorus-poisoning. The liver was of normal size. It is of a uniform orange colour. Microscopically, it showed abundant fatty degeneration with some amount of fatty infiltration. 1888

From a man, aged 36, who accidentally ate some bread and butter on which phosphorus paste had been spread. He became drowsy and giddy an hour afterwards, and subsequently vomited, and had great pain in the epigastrium. On admission to the Hospital, four days after the accident, he was slightly jaundiced and had marked abdominal tenderness. The liver and spleen were impalpable. The eructations were said to taste of phosphorus. The patient died in a collapsed condition eight days after eating the phosphorus.

See *Luke Ward Book* for 1884, No. 1534.

A portion of the stomach is preserved in Series xvii., No. 1949b, and a section of the liver in Series lv., No. 297.

ACTINOMYCOSIS.

2239a. Section of a human Liver from a case of actinomycosis. 1885

See *Transactions of the Pathological Society*, vol. xxxvi. (1885), p. 254.

Presented by S. G. Shattock, Esq.

2239b. Two portions of a Liver affected with Actinomycosis ; the longer specimen is part of the right lobe, the shorter part of the left. The diseased parts consist of a coarse meshwork of white fibrous tissue with a spongy or honeycombed appearance, enclosing small spaces of various sizes ; the section through the edge of the left lobe shows these spaces to have coalesced, forming an irregular cavity over an inch in length. The diseased masses have for the most part replaced the liver substance, and there is only a slight bulging of the surface over them. A portion of the diaphragm remains attached to the upper surface of the left lobe, to which it was firmly adherent ; the capsule of the liver itself is not thickened. 1890

From a woman, aged 34, who, when admitted on July 22nd, 1889, was obviously very ill, but whose symptoms were obscure. She died a fortnight later.

For further particulars, see *Medical Post-Mortem Register*, vol. xvi, p. 3.

Microscopically, typical actinomycosis spores were found in abundance, and a specimen is preserved in Series lv., No. 321.

A portion of the spleen is preserved in Series xxv., No. 2306c.

2240a. A Portion of the Right Lobe of a Liver, showing, on the anterior surface, an irregular rent, over five inches in length, which is closed by a recent blood-clot. 1892

From a young man, aged 15, who, whilst riding a bicycle, was struck in the right side by the end of a shaft. He survived the injury four days, death arising from peritonitis caused by the escape of blood and bile. The laceration itself is closed, and the repair nearly complete. Compare Specimen 2308b, in Series xxv.

See further *Male Surgical Register*, vol. ii. (1891), No. 1087.

2241a. A portion of a Liver separated from the organ by an injury, and which had become adherent to a portion of the small intestine. 1881

From a man, aged 19 years, who fell a distance of thirty feet down a lift. He survived the accident ten days. The following symptoms were observed :—pain in abdomen, thoracic breathing, slight jaundice, and hæmaturia. Death took place from peritonitis. The liver was deeply lacerated, and one kidney was lacerated to a considerable extent.

See *Harley Ward Book*, vol. vii., p. 400 ; and *St. Bartholomew's Hospital Reports*, vol. xvii.

SERIES XXII.

DISEASES AND INJURIES OF THE GALL BLADDER AND BILIARY DUCTS.

2247a. Portion of a Liver, with the Gall-Bladder, in the neck of which a calculus is lodged. The walls of the gall-bladder are considerably thickened. 1882

2247b. The Gall-Bladder with a Portion of the Liver. The cystic duct is blocked by a small gall-stone which lies at the commencement of the duct. The walls of the gall-bladder are somewhat thickened and show traces of inflammation. 1889

From a woman, aged 52, who died with morbus cordis. The liver was chronically congested, and she had emphysema.

See *Medical Post-Mortem Register*, vol. xv., p. 8.

2248a. A Portion of the Right Lobe of the Liver with the Gall-Bladder. The cystic duct and gall-bladder are both greatly distended, owing to the impaction of a calculus in the former just after it leaves the gall-bladder. In the fresh state the gall-bladder contained four ounces of clear mucus and a large number of small biliary calculi. 1888

2263a. A greatly Thickened and Ulcerated Gall-Bladder. Its internal surface is in many places thickly covered with a fine, mud-like, dark brown deposit of cholesterolin, though no distinct gall-stones are present. Near the fundus are numerous small circular ulcers, the size of a split pea or rather less; one of these, larger and deeper than the others, had perforated the walls and caused acute and fatal peritonitis. 1892

From a man, aged 67.

See *Medical Post-Mortem Register*, vol. xvii., p. 285b.

2264a. A Portion of a Liver with an enlarged Gall-Bladder, part of the wall of which, together with the duct, has been removed in order to show a mass of malignant disease in its interior. The walls of the gall-bladder are irregularly infiltrated with the growth, which varies from a quarter of an inch to an inch in thickness: the free surface is ulcerated, and has a flocculent appearance; the deep parts are more consolidated: at the upper part, *i.e.*, that nearest the cystic duct, there is much less growth, and the ulcerated surface is discoloured by small particles of pigment. The growth had extended directly into the liver, but there were no separate deposits in that organ. The lymphatic glands in the hilum, together with some of the lumbar and mesenteric glands, were affected. The gall-bladder contained numerous small gall-stones, which are preserved in the next specimen. 1890

Microscopical examination of the more solid parts showed the growth to consist of scirrhous carcinoma.

A section is preserved in Series lv., No. 325.

From a man, aged 67, who had been accustomed to pass gall-stones for some years.

See *Medical Post-Mortem Register*, vol. xiv., p. 113.

2264b. A number of small Gall-Stones removed from the gall-bladder of the preceding specimen. They are mostly the size of small peas, and of a pale yellow colour : a few are larger, of a light brown colour, and faceted. The fine pigmented granules were also taken from the gall-bladder, in the walls of which some still remain. 1890

2266a. A Gall-Bladder and part of a Liver, showing a small epitheliomatous papillary growth in the former, and secondary cancerous deposits in the latter. 1883

PUNCTURED WOUND OF THE GALL-BLADDER.

2268a. A Portion of the Liver with the Gall-Bladder. At about one inch from the neck of the gall-bladder there is a small rounded opening perforating all the coats. 1893

From a boy, aged 15, who fell from a load of straw on to a pitchfork, one prong entering the abdominal wall just above the right anterior superior spine of the ilium. It passed upwards in the substance of the abdominal wall before entering the peritoneal cavity ; it then bruised the anterior edge of the liver, grazed the under surface of the gall-bladder, and finally perforated it at the orifice now seen. The boy died five days later. At the autopsy it was found that a great deal of bile had been extravasated into the peritoneal cavity, and had caused much matting together of the intestines.

Presented by W. Giffard Nash, Esq.

SERIES XXIII.

DISEASES OF THE PANCREAS.

2272a. The Pancreas of a Child who died of Tubercular Meningitis. At the lower end is seen a deposit of white tubercular matter, while just above this is a small cavity formed by the breaking down of similar material. 1890

See *Medical Post-Mortem Book*, vol. xvi., p. 86.

2276a. A Section of the Pancreas with the Duodenum attached. The head of the pancreas is infiltrated with a mass of new growth, which extends into the intestinal wall and presses upon the common bile duct in such a way as to occlude it. 1889

From an adult who was first seen two years before his death, when he complained of dyspeptic symptoms. Twelve months later he appeared to be suffering from pulmonary phthisis, and a fortnight before his death he became deeply jaundiced. At the autopsy his lungs were found to be riddled with cancer, and he had numerous round nodules in his kidneys.

The right suprarenal capsule with a part of the kidney attached is preserved in Series xxvii., No. 2330b.

Presented by S. H. Habershon, M.D.

SERIES XXIV.

DISEASES OF THE LYMPHATIC GLANDS AND VESSELS.

2278a. A Mass of Enlarged Lymphatic Glands removed from the Axilla of a man, aged thirty, who died from Lymphadenoma. The spleen was also affected. 1891

See *Male Surgical Register*, vol. ii. (1891), No. 389.

2280a. An Enlarged Lymphatic Gland of the Neck removed by operation. A section has been made through the gland, and, when fresh, large caseous masses were clearly seen, especially at the outer edge of the cut surface. The distinction between healthy and diseased tissues are now only faintly discernible. 1891

2284a. A chain of Lymphatic Glands, enlarged from the deposit of tubercle secondary to disease of the hip-joint.

The lower portion, to which the left common iliac artery is attached, was situated round the brim of the pelvis, and led from the suppurating hip-joint: the upper part of the specimen lay along the left side of the aorta, and extended as high as the diaphragm. They were very firm and gritty when cut. There was no enlargement on the right side either of the pelvic or abdominal glands. 1892

The hip-joint from the same case is preserved in Series ii., No. 570c, to which refer for the history of the case.

See also *Female Surgical Register*, vol. iv. (1890), No. 143.

2287a. Section of a Mass of Lymphatic Glands infiltrated with scirrhus cancer. They were removed from the axilla of the woman whose breast is preserved in Series xlvi., No. 3165b. 1889

See *Female Surgical Register*, vol. ii. (1888), No. 1622.

2291a. A mass of Abdominal Lymphatic Glands very much enlarged from a secondary deposit of Carcinoma. They were situated in front of the upper sacral and lower lumbar vertebræ, and have surrounded and partially displaced the bifurcation of the aorta and commencement of the inferior vena cava. The primary disease occurred in the prostate gland, microscopical examination of which, and of this specimen, showed the typical structure of scirrhus carcinoma. 1892

See *Male Surgical Register*, vol. v. (1891), No. 451.

Microscopical sections of the prostate are preserved in Series lv., No. 565a.

SERIES XXV.

DISEASES AND INJURIES OF THE SPLEEN.

HYPERTROPHY.

- 2295a. A Section of a Spleen which was very greatly enlarged. It weighed rather more than three pounds, and the section measures ten and a half inches in length by four inches in breadth at its widest part. Microscopically, the tissue is blurred and indistinct, with a slight infiltration of amyloid disease. 1888

It was obtained from a boy, aged 18, who had an unusual form of ulceration in several joints. The liver was undergoing amyloid degeneration, and weighed ten pounds nine ounces. The kidneys were large and pale, presenting the appearance of catarrhal inflammation, with commencing amyloid degeneration of the glomeruli.

The joints are preserved in Series i., Nos. 312a, b, c, d, and a section of the liver in Series xxi., No. 2194d.

See *Male Surgical Register*, vol. v. (1885), No. 2691*.

- 2295b. A Spleen, considerably enlarged, and showing numerous depressed scars, the result of old infarcts. 1890

From a woman, aged 25, who died of ulcerative endocarditis. She also had an aneurysm of the gluteal artery. The heart is preserved in Series vii., No. 1299d, the aneurysm in Series viii., No. 1538b, and one of the kidneys in Series xxviii., No. 2331e.

At the post-mortem examination the spleen weighed sixteen ounces.

See *Female Surgical Register*, vol. i. (1889), No. 939.

- 2295c. Section of a Portion of a Spleen, the seat of an old Infarct; this, as seen in its cut surface, is pale and discoloured, and is triangular in shape, with the apex towards the centre of the viscus; there is marked shrinking on the peritoneal surface. 1891

From a woman, aged 25, who died from advanced heart disease.

See *Medical Post-Mortem Register*, vol. xvii., p. 359.

AMYLOID DEGENERATION.

- 2298a. A Section of a Spleen which has undergone lardaceous or amyloid degeneration. The degenerate portion is darkly stained with iodine. 1887

CHANGES IN THE SPLEEN IN RICKETS.

- 2298b. A Large firm Spleen, from a case of well-marked rickets. Microscopically, the increase in size of the spleen is due to hyperplasia of the normal elements. 1888

From a small, emaciated child, aged eleven months. The anterior fontanelle was widely open, and the ribs were characteristically beaded.

See *Medical Post-Mortem Book*, vol. xiii., p. 198.

- 2298c. A Portion of a Spleen which has undergone Amyloid Degeneration. The cut surface shows very well the appearance due to this disease. The specimen was prepared by hardening in strong alcohol. 1892

From a man, aged 44, who died from exhaustion due to prolonged suppuration in disease: the liver and kidneys were also affected.

See *Male Surgical Register*, vol. i. (1890), No. 3132.

- 2298d. A Portion of a Spleen, showing in a marked degree, especially on the cut surface, the changes due to Amyloid Degeneration. The Malpighian bodies, even

in a large infarct, are deeply stained by iodine. There is a good sized splenunculus, which shows a similar change. The whole gland weighed twelve ounces. 1893

From a woman, aged 35, who died from phthisis.
See *Medical Post-Mortem Register*, vol. xix., p. 276.

2301a. Section of a Spleen with an Accessory Spleen infiltrated with tubercle. The spleen is greatly enlarged, and is seen to be filled with large numbers of yellowish-white nodules. 1888

From a child, aged five years, who died from general tuberculosis. The tubercular deposits were most marked in the lungs, spleen and liver.
See *Medical Post-Mortem Register*, vol. xiv., p. 325.

MELANOTIC SARCOMA.

2304a. Section through the Spleen of a Horse, showing a great increase in the pigment. The whole organ is infiltrated with a growth of melanotic sarcoma, only a small portion remaining unaffected. The growths were secondary to a melanotic tumour occurring in the skin. 1888

Obtained in exchange from the Hunterian Museum.

2305a. Section of a Spleen from a case of osteitis deformans. It is studded with many round white nodules of lymphomatous material. 1888

2306a. An hydatid Cyst from the Spleen, the wall of which is almost completely calcified. 1881

2306b. A Portion of a Spleen infested with the ova of *Bilharzia hæmatobia*. Cf. Nos. 1745a and 2237c. 1889

From the same case as the genito-urinary organs preserved in Series xxviii., No. 2393c. The parent worms are preserved in the same Series, No. 2393d. A microscopic section of the spleen is preserved in Series lv., No. 351.

Presented by Dr. Mackie.

2306c. A Section of the Spleen from a woman, aged thirty-five, whose liver was largely infiltrated with a growth due to actinomycosis. The spleen was enlarged, weighing twelve ounces, and was very adherent to the surrounding structures; a portion of the diaphragm and of the left lung are seen to be attached to the upper border. About the lower third of the spleen was occupied by a flesh-like growth, uniform in consistence, with a fairly well defined border; two or three similar but smaller masses existed in other parts. Near the centre was a small cavity (seen in the specimen), which contained gelatinous material similar to that found in the liver. 1890

Portions of the liver are preserved in Series xxi., No. 2239b.
See also *Medical Post-Mortem Register*, vol. xvi., p. 3.

2308a. A Spleen which has been torn upon its anterior and external surfaces, the laceration extending completely across the organ. The site of the injury is occupied by a firm white scar, measuring one-eighth of an inch across. The outermost convex border is still soft and lacerable; it tore when it was separated from the superjacent clot. 1888

From a woman, aged 42, who jumped out of a second-floor window ten weeks before her death. She sustained a fracture of the left femur in addition to the abdominal injury.

See *Female Surgical Register*, vol. ii. (1887), No. 3519*.

2308b. A Spleen which has been extensively ruptured on the outer surface, near the upper margin. There has been an excellent attempt at repair, as the rupture is closed by a firmly adherent clot. 1890

From a woman, aged 39, who was knocked down and run over by an omnibus. She received other severe injuries, namely, fracture of the six upper ribs on the right side, with laceration of the right lung. There was also a small rupture of the right lobe of the liver. She died sixty hours after the accident.

See *Female Surgical Register*, vol. ii. (1889), No. 2269.

SERIES XXVI.

DISEASES OF THE THYROID GLAND.

2310a. A Cystic Adenoma of the right lobe of the Thyroid Gland. The new growth lies immediately in front of the trachea, which it compresses from before backwards. 1887

2310b. A Cystic Adenoma of the right lobe of the Thyroid Gland. 1887
A photograph is preserved in Series lvii., No. 562.

2310c. One-half of the left lobe of a Thyroid Gland, which was the seat of a cystic adenomatous goitre. The tumour is invested with a well-marked capsule, under which the enlarged thyroid vessels, which have been injected, may be seen ramifying. The rough surface without any capsule, situated at the lower and inner part of the gland, marks the place where the tumour was attached by a narrow isthmus to the opposite lobe. The superior thyroid artery is seen as a large vessel at the upper and back part of the specimen. The cut surface shows two large adenomatous nodules, each provided with a definite capsule. Immediately below them are several cysts which contain more or less broken-down masses of colloid substance mixed with blood. Small blood-vessels ramify in the connective tissue between the cysts. After its removal the whole tumour weighed eighteen ounces. 1889

The patient was a young man who had had a large bilateral goitre for many years. Of late it had given him so much trouble that he was unable to follow his occupation, that of a labourer.

The tumour was removed through an oblique incision over its long axis. All the main vessels were secured with double ligatures before being divided, so that the patient lost very little blood. The left half of the gland was removed completely, the right being left *in situ*. The wound was dressed after Kocher's method, and healed completely in about a week, no complications occurring. The right half of the goitre underwent the usual diminution in size and subsequent re-enlargement a few weeks after the operation.

Four months after the operation the patient was still in good health, and enjoying immunity from the symptoms which had previously troubled him.

A cast of the neck of the patient from whom this tumour was taken is preserved in Series lvi., No. 138g.

See also *St. Bartholomew's Hospital Reports*, vol. xxv. (1889), p. 97.

Presented by Messrs. Edward Jessop and James Berry.

2310d. A Cystic Adenoma of the left half of the Thyroid Gland, removed by operation for the relief of dyspnoea. The tumour has been laid open, and shows a number of cysts of various sizes; some of these contained fluid more or less colloid in character, while others are filled by solid gland substance. 1891

For details of the case see *Male Surgical Register*, vol. i. (1889), No. 350.

2310e. A similar Specimen, differing only in the fact that there is rather more solid material, and that there is towards the lower part of the tumour a hard spicule composed of bone or of calcareous substance. 1891

See *Female Surgical Register*, vol. v. (1890), No. 1161

2311a. Tongue and Larynx. The thyroid gland is hypertrophied. 1885
Sections are preserved in Series lv., No. 357.

2311b. One-half of an enlarged Left Lobe of a Thyroid Gland, removed by operation. 1891
The cut surface shows that there has been a uniform increase of the gland tissues, so that the separate vesicles are now distinctly visible; under the microscope, these are seen to be filled with homogeneous colloid material, causing some loss of the lining epithelium.

Microscopical sections are preserved in Series lv., No. 353a.

See *Female Surgical Register*, vol. iv. (1890), No. 1640.

2312a. One-half of a tumour of the Thyroid Gland, which was removed by operation on account of increasing dyspnoea. The cut surface shows that it is composed of a number of small cysts, varying in size from that of a hazel nut downwards: the cavity of the cysts is occupied partly by a fine papillated growth and partly by a jelly-like material of a pale pinkish-brown colour. The tumour, as a whole, is no doubt due to a general dilatation of the normal vesicles of the gland: it weighed two ounces when fresh. 1891

The patient was a young lady, aged 17 years: two years after the operation she was in good health.

Presented by Alfred Willett, Esq.

2314a. Tongue, Larynx, Trachea, and Lungs of a child. A large cystic growth of about the size of half an orange extends along the left side of the larynx. Tracheotomy has been performed. The inner surface of the trachea is ulcerated. The lungs are studded with several small patches of consolidated tissue. 1885

From a child, aged two years, in whom the swelling had been noticed for twenty-two months. One week before death Morton's fluid was injected. The child died of broncho-pneumonia. During life the tumour extended backwards as far as the pharynx and spine, and it was closely adherent to the lower jaw and trachea.

For further details see *Female Surgical Register*, vol. ii. (1884), No. 594.

2314b. Larynx and Trachea. The trachea is flattened from before backwards by the pressure of a large cystic tumour which was in connection with the isthmus of the thyroid. The cyst is lined with the remains of a partially organised blood-clot. Its walls are composed of encephaloid cancer, which is undergoing colloid degeneration. 1885

From a woman, aged 46, who died suddenly of asphyxia. In the few minutes preceding death, the tumour was said to have increased from the size of a walnut to that of an orange. After death it contained about two ounces of recent blood.

For further details see *The British Medical Journal*, vol. ii. (1884), p. 20. A section is preserved, Series lv., No. 356.

Presented by J. S. Hunt, Esq.

2314c. The Trachea and Thyroid Gland, from a case of goitre. This specimen shows an hypertrophied condition of the whole gland, including the pyramid of Lalouette. The gland completely covers the anterior surface of the larynx, and extends upwards as far as the hyoid bone. The trachea is nearly surrounded by the growth, being compressed from side to side; the lateral lobes almost meet behind. A section through the left lobe shows a great increase in the connective tissue of the gland, as well as numerous small cysts. During life the tumour extended as low as the posterior surface of the manubrium sterni. 1887

2314d. The Trachea and Thyroid Gland, from a case of goitre. The right lobe of the thyroid is the seat of cystic disease. The sterno-thyroid muscle has been

displaced outwards and forwards, and is spread out over the surface of the tumour in the usual manner. A long, narrow pyramid of gland tissue, extending upwards to the hyoid bone, is connected with the left lobe of the gland. 1887

2314e. Cystic Disease involving the whole of the thyroid gland. The right lobe has been laid open, showing numerous cysts in its interior. Some of the cysts are filled with the usual colloid material, others are more or less calcified. On the left side the outward displacement of the carotid vessels may be noticed. The relations which the recurrent nerves usually bear to a goitre are also well seen. They lie in the grooves between the thyroid and the œsophagus. 1887

2314f. Portions of cyst-wall and partially calcified colloid contents of a large Cystic Goitre removed by operation. 1887

The cyst was globular, measuring about five inches in diameter; the cyst-wall was thick and tough; the interior was completely filled with the solid material shown in this specimen. It consists of the ordinary mucoid contents of a thyroid cyst solidified together with the remains of blood-clot. Much calcification has occurred in it.

Removed by Dr. Comte, at Geneva, July 30th, 1886.

Photographs of the patient before and after operation are preserved in Series lvii., No. 546.

2314g. Part of a Goitre, Trachea, and Œsophagus, cut horizontally, to show the relations which they bear to each other. The left lobe of the gland is larger than the right; it has caused slight flattening of the left side of the trachea. The position of the inferior thyroid vessels and the recurrent laryngeal nerves may also be seen. The internal structure of an ordinary cystic goitre is well illustrated by the specimen. 1887

This and the five preceding specimens were presented by James Berry, Esq.

2314h. A large Cystic Goitre, which was removed after the death of the patient. The cyst is confined to the right lobe. It is globular in shape and measures three inches in diameter; it has a thick and tough wall, and contains a considerable quantity of solid material, which has shrunk from the action of the spirit. The contents are the ordinary mucoid contents of a thyroid cyst with the remains of blood-clot. 1889

From a middle-aged woman, who died after amputation of the thigh for a myeloid sarcoma of the knee.

See *Female Surgical Register*, vol. v. (1889), No. 958.

2314i. An Adenoma of the Thyroid Gland, removed by operation. The tumour was nearly spherical in shape, measuring rather over two inches in its longest diameter; the section shows that it has a well-marked capsule, and, with the exception of an irregular cavity in the centre, it consists uniformly of gland tissue, with no tendency to the formation of separate cysts. 1891

The patient was a girl, aged 10.

See *Female Surgical Register*, vol. ii. (1890), No. 388.

A microscopical section is preserved in Series lv., No. 353b.

THYROID CYST.

2314k. One-half of a Cyst removed by operation from the Thyroid Gland. The cut surface shows that there is a well-marked fibrous capsule, inside of which is a layer of gland-substance, varying from one-eighth to half an inch in thickness; there is a central cavity one inch and a half in diameter, which contained fluid. The whole cyst measures two and a half inches in diameter. 1893

See *Female Surgical Register*, vol. v. (1892), No. 537.

ATROPHY OF THE THYROID GLAND.

- 2317a. A Larynx, with part of a Thyroid Gland, showing the extreme amount of atrophy which has taken place in a woman, aged sixty-three, who had myxœdema. The two lateral lobes are reduced to mere bags of fibrous tissue. The patient had chronic peritonitis, with great thickening of the capsules of the spleen and liver.

1889

See *Medical Post-Mortem Register*, vol. xv., p. 250.

- 2317b. A Thyroid Gland in a condition of extreme atrophy, from a patient who died after having suffered from myxœdema for many years.

1891

The patient was a woman, aged 56, who had been under observation for some years. A photograph, taken in 1884, is preserved in Series lvii., No. 409.

See *Medical Post-Mortem Register*, vol. xviii., p. 150.

- 2318a. A Malignant Growth attacking a Bronchocele of many years' duration.

1887

From a middle-aged man, who lived at Barnsley, in Yorkshire.

MALIGNANT DISEASE OF THE THYROID GLAND.

- 2318b. A Thyroid Gland, together with the Larynx, Trachea, and surrounding parts, which has become the seat of primary carcinoma. The disease has involved the whole of the left lobe and isthmus, these parts now forming a flattened oval mass with a slightly nodular surface, which is unduly and firmly adherent to the sheath of the left common carotid artery and jugular vein and other deep structures: the lymphatic glands on the right side are much affected, and form a large mass behind the vessels: the principal growth is hard and inelastic to the touch. The œsophagus has been laid open from behind, and shows a large ragged ulcerated surface, formed by direct extension of the disease, immediately behind the larynx. The trachea is somewhat flattened and is pushed over towards the right. The bodies of the fourth and fifth cervical vertebræ were also involved, and, when softened, showed under the microscope distinct deposits of thyroid tissue in the substance of the bone.

1891

The patient was a widow, aged 47, who first complained of pain in the neck ten months before her admission to the Hospital. Six months later a swelling was noticed. Both these symptoms gradually increased until her death, which occurred fifteen months after the onset of the disease. Dysphagia only occurred during the last two weeks of her life.

A portion of the cervical spine is preserved in Series v., No. 1131b, and microscopical sections in Series lv., No. 100.

See *Female Surgical Register*, vol. ii. (1891), No. 2026*.

SARCOMA OF THE THYROID GLAND.

- 2318c. The Larynx, Trachea, and Great Vessels of the Neck. On the right side the region of the thyroid gland is occupied by a large tumour, which has become adherent to and has directly involved the skin, the right clavicle, upper part of the sternum, and surrounding structures: the sterno-mastoid muscle is thinned out over the tumour, and is adherent to and implicated by the growth, as also are the internal jugular vein and carotid artery of that side. The tumour has been laid open from the front, and its interior is seen to be soft and shreddy and deeply blood-stained. Microscopical examination showed its structure to be a myxosarcoma.

Both the œsophagus and trachea are displaced towards the left, and although the walls of both are involved, in neither is the mucous membrane ulcerated.

1892

The patient was a gentleman, aged 68. Up to nine weeks before his death he had always enjoyed good health; at this date he first noticed a slight swelling on the right side of his neck; a fortnight later he first consulted a medical man for neuralgia running up the side of

his neck and head ; there was then a firm and tender swelling occupying the position of the right half of the thyroid gland ; it was fixed to the larynx, and increased very rapidly ; a fortnight later dysphagia set in with paralysis of the vocal cord of the right side ; all the symptoms increased with very great rapidity, and he died nine weeks after the swelling was first noticed from exhaustion and pneumonia due to secondary deposits in the lung.

A portion of the left lung showing numerous secondary deposits is preserved in Series xi., No. 1740a, and microscopical sections of the tumour in Series lv., No. 359.

2319a. A Large Tumour of the Thyroid Gland, with the adjacent parts. The tumour is extremely hard and of similar shape to the gland in which it grows, being composed of two lateral lobes of equal size joined by an isthmus. The cut surface is fibrous. Each lobe reaches the level of the hyoid bone above, and of the bifurcation of the trachea below. They are joined by a broad isthmus, reaching from the cricoid cartilage over the upper half of the trachea. Above, the lobes present a rounded outline, and are quite separable from each other, and their limits are clearly marked. Behind, below, and laterally the limits of the growth are quite undefined, the surrounding parts being infiltrated by the tumour, and not simply pushed aside. Thus the common carotid artery, the external and internal carotids, the internal jugular vein, the pneumogastric, recurrent laryngeal and sympathetic nerves are on each side entirely included in the tumour. The depressor muscles of the hyoid bone are infiltrated and fixed ; the œsophagus is infiltrated, and so compressed an inch and a half below the cricoid cartilage, that the tip of the little finger can barely be passed. The trachea has been compressed both laterally and in front, in the latter situation by the isthmus of the tumour (which has been divided), while its lower portion, which in life occupied the thorax and root of the neck, is infiltrated with new growths on each side, and so narrowed by lateral compression that the little finger cannot be passed. The aorta and all its branches, the innominate veins, with the superior vena cava and the pulmonary artery, are all incorporated in the tumour to a greater or less extent ; but although the calibre of these vessels is more or less diminished by pressure, in none of them is there any ulceration or clotting of blood. The apex of the left lung is seen in the specimen closely adherent to, and not separable from, the lowest portion of the growth. The bifurcation of the trachea with both bronchi is adherent to the tumour, as also are the bronchial lymphatic glands. Neither in the neck nor in the thorax were the latter at all enlarged or otherwise altered. 1884

The specimen is taken from a woman, mother of four children. Three years before her death the neck became fuller, and after laughing she would occasionally have "crowing inspiration." One year before her death the thyroid appeared to be incorporated with the trachea. It was very hard, quite painless, and fuller than natural. There was no dyspnoea. The swelling enlarged very slowly, and extended backwards upon each side of the trachea, which appeared to be grasped by it. A laryngoscopic examination showed that the left vocal cord was paralysed and that the trachea was narrowed to a chink. The patient gradually became worse, her breathing being stridulous and difficult after the slightest exertion, so that on several occasions suffocation appeared to be imminent. She was, however, generally relieved by chloroform inhalations. The tumour in front of the trachea was divided, and considerable temporary benefit was derived from the operation. The patient ultimately died.

A section of the tumour is preserved, Series lv., No. 355. The specimen was shown at the Pathological Society in December, 1884.

2319b. Fœtus, with Large Tumour of the Thyroid Gland. The tumour is of a goitrous nature. Histologically it is a spindle-celled sarcoma, with hypertrophy of the glandular tissue. 1884

The child was born at full time as a face presentation.

Presented by S. Cathcart, Esq.

2319c. The Tongue, Larynx, Trachea, and Thyroid Gland, from a case of primary sarcoma of the thyroid. The new growth forms a huge mass which ulcerated

through the skin and has extended into the thorax. It completely compresses the left recurrent laryngeal nerve, and has flattened the two common carotid arteries. It has grown by a downward prolongation through the upper wall of the arch of the aorta, but without causing any extravasation of blood. 1886

F., æt. 46. Sarcomatous deposits were found in the kidneys, in one rib, and in the brain. All the deposits consist of sarcoma cells, whilst those in the kidney have a stroma which has undergone hyaline degeneration. The growth had existed for about four months.

Portions of the brain are preserved in Series xxx., No. 2499b; sections of the brain, thyroid, and kidney in Series lv., Nos. 358, 387, and 436.

See also *Transactions of the Pathological Society*, vol. xxxvii., pp. 513-514.

INJURIES TO, AND OPERATIONS UPON, THE THYROID GLAND.

2319d. A Larynx and Trachea, from a case in which the removal of a thyroid cyst was followed by suppuration, which led to an opening into the trachea. There is a great deal of inflammatory thickening and infiltration, extending down the right side of the trachea as far as the arch of the aorta. A cavity is situated in front of this thickened mass which communicates by a fistulous track (along which a green glass rod has been passed) with the trachea. The opening into the trachea in the recent state was only about as large as a pin's head; it was situated between the second and third rings. The whole trachea is very much softened. 1888

From a man, aged 41, who was admitted into the Hospital with a cyst of the thyroid gland, which was subsequently dissected away from the surrounding structures. Diffuse suppuration took place round the wound, and a month after the operation had been performed it was found that the bottom of the wound communicated with the trachea. Two days later the patient died. At the autopsy the heart and pericardium were normal, and there was no pleurisy. There was general diffuse broncho-pneumonia of both lungs, with pus in the tubes and a gangrenous condition of a small portion of the right base.

See *Male Surgical Register*, vol. i. (1886), No. 2948, and *St. Bartholomew's Hospital Reports*, vol. xxiii. (1887), pp. 218-220.

SERIES XXVII.

DISEASES OF THE SUPRA-RENAL BODIES.

- 2320a. The Supra-renals of a Child, into the substance of which extensive hæmorrhage has occurred. The glands have been laid open; behind and between them is a portion of the abdominal aorta. 1891

From a child, aged seven months, who died of whooping-cough.
See *Medical Post-Mortem Register*, vol. xvii., p. 68.

- 2321a. The Kidneys and Supra-renal Capsules, from a case of Addison's disease. The substance of both supra-renal capsules is completely destroyed by tubercular disease. Microscopical examination showed the presence of typical miliary tubercle, but no bacilli were discovered. The kidneys appear to be healthy. 1887

From a boy, aged 14, who had been ill for twelve months preceding his death. He had well-marked bronzing of his skin, but there was no evidence of tubercular disease during life.
Presented by T. R. Atkinson, Esq.

- 2322a. The Supra-renal Capsules, from a woman who died with Addison's disease. The organs are large and firm, the right being larger than the left, and measuring two and a quarter inches in length. On section, the right capsule is seen to contain numerous yellow patches, each of which is surrounded by a bluish-white tissue, cutting like cartilage, and closely resembling it in appearance. The yellow patches appear to consist of caseous material, but they are hard and firm, cutting like horn. There is no normal tissue remaining, so far as can be seen by the naked eye.

The left capsule is apparently affected in a similar manner, but the yellow material is not so marked, and is confined to the medullary portion.

Microscopically, the degenerating portions of the gland were tubercular, and contained tubercle bacilli. 1889

From a married woman, aged 23 years, the mother of four children. She had been ailing since the birth of the first child, six years previously. On admission to the Victoria Park Hospital, she was found to be suffering from phthisis. Her complexion was sallow, but the skin of her face, neck, arms and hands were tinted of a light brown. There were numerous bright brownish-black spots covering the tinted area. The spots did not disappear on pressure. They were especially well marked about the ears, cheek, and neck, and they appeared in crops. Two months after the admission of the patient she was seized with excessive vomiting, which lasted for four days, when she became comatose and died. At the autopsy a small consolidated patch was found at the apex of the right lung, but with this exception the lungs and all the other thoracic and abdominal organs were healthy.

See *Transactions of the Pathological Society*, vol. xl., p. 300.
Presented by V. D. Harris, M.D.

- 2326a. A Kidney and Supra-renal Capsule, from a patient who died of Addison's disease. The capsule has degenerated into a mass of caseous material, and is considerably enlarged. 1882

A microscopic examination showed the existence of true tuberculosis.
Sections are preserved in Series lv., No. 361.

ABSCESS IN THE SUPRA-RENAL CAPSULE.

- 2326b.** A Section through a Kidney and Supra-renal Capsule. The supra-renal capsule has been converted into a globular mass, which measured three inches in circumference when it was fresh. The glandular substance has been completely destroyed, and its walls are thickened by a deposit of caseating material. The cavity was filled with thin sanious pus. 1889

From a man, aged 67 years, who died of diabetes. There was no evidence during life of any symptoms of Addison's disease. The opposite supra-renal was healthy.

See *Surgical Post-Mortem Register* for 1888, p. 51.

SARCOMA OF THE SUPRA-RENAL BODIES.

- 2330a.** The Right Kidney and Supra-renal Body of a Child. The kidney is normal, but the adrenal is greatly enlarged, and is infiltrated and surrounded by a tough red sarcomatous growth. 1888

M., æt. one and a half years. The child was almost a mass of sarcomatous tissue. From the first symptoms of his illness to the time of his death five months elapsed, whilst from the observation of the first swelling, which appeared on his skull, till the time of his death, was a period of thirteen weeks. The growth is a round-celled sarcoma.

See also Series i., Nos. 437b, c, d.

See *Transactions of the Pathological Society*, vol. xxxvi. (1885), pp. 393-395.

- 2330b.** The Right Supra-renal Capsule, with a section of the Kidney attached to it. The adrenal is infiltrated with a carcinomatous growth, which has produced a great increase in its size. 1888

From a male adult who was treated for dyspepsia two years before his death, and who subsequently developed symptoms of phthisis. During the last fourteen days of his life he was deeply jaundiced, and was very delirious. At the autopsy large nodules of cancer were found in the pancreas, lungs, and adrenals.

The pancreas is preserved in Series xxiii., No. 2276a.

Presented by S. H. Habershon, M.D.

- 2330c.** A Section through the Right Kidney and Supra-renal Capsule. The supra-renal capsule is infiltrated with a round-celled sarcoma. It is oval in shape, and measures three inches in its long axis. 1889

From a man, aged 18 years. The primary growth occurred in the left lung.

The lung is preserved in Series xi., No. 1728b.

Presented by Arthur Davies, M.D.

SERIES XXVIII.

DISEASES AND INJURIES OF THE KIDNEYS, THEIR PELVES, AND THE URETERS.

AMYLOID DEGENERATION.

- 2331b. Amyloid disease of the Kidney, treated with iodine. The organ is slightly enlarged, and presents numerous brown dots, especially in the cortical portion, the result of the application of iodine. 1883
- 2331c. Section of a Kidney, which has undergone lardaceous or amyloid degeneration. The degenerate tissue is darkly stained with iodine. 1887
- 2331d. A Section of a Kidney, stained with iodine to show the portions affected with amyloid degeneration. 1889

INFARCTS.

- 2331e. A Kidney, showing numerous depressed and puckered scars, the result of infarcts. The other kidney was similarly affected, but neither was materially enlarged. 1890

From a woman, aged 25, who died of ulcerative endocarditis. She was in the Hospital for three months, and the urine always contained a considerable amount of albumen. There were similar infarcts in the spleen. The heart is preserved in Series vii., No. 1299d, and the spleen in Series xxv., No. 2295b. See also Series viii., No. 1538b.

See *Female Surgical Register*, vol. i. (1889), No. 939.

HYPERTROPHY OF A SINGLE KIDNEY.

- 2331f. A Right Kidney and Ureter, with the Bladder. There is a congenital absence of the kidney, ureter, and vesicula seminalis in the left side, with compensatory hypertrophy of the right kidney. This weighs nine ounces, and with the exception of the fact that it is rather more lobulated on the surface than usual, it is quite normal. Microscopically, its structure shows no pathological change. 1893

From a young man, aged 21, who died from acute peritonitis after herniotomy; the hernia (inguinal) occurred on the right side. The left supra-renal body, as well as the right, was of normal size and appearance.

See *Surgical Post-Mortem Register* for 1889, p. 33.

- 2331g. A specimen somewhat similar to the preceding (No. 2331f). In this case the development of the right kidney and ureter has been arrested, the kidney being represented only by a small amount of fibrous tissue, flattened and oval in shape, and measuring about one and a half inches in its longest diameter. A small renal artery and vein enter the undeveloped hilum, from which the ureter emerges by three distinct channels, which coalesce. At a point two inches nearer the bladder, the right ureter becomes impervious, and is continued for another two inches as a solid fibrous cord. Below this point it again becomes pervious, and is continued on as a hollow tube till it reaches the base of the bladder; at this point it does not

enter the bladder, but enters the right vesicula seminalis, which is much larger and more convoluted than usual. It should also be noticed that the bladder and prostate gland are both asymmetrical in shape, the right half of each being distinctly smaller than the left.

The left kidney shows less compensatory hypertrophy than is usual in these cases. It is normal in appearance, and weighs seven ounces. 1893

From a young man, aged 30.

See *Surgical Post-Mortem Register* for 1891, p. 31.

2331h. A similar specimen, from a child, aged eleven years. The left kidney is represented only by a small flattened mass of fibrous tissue, one and a half inches long by half an inch deep. The first two inches of the left ureter are not pervious.

The right kidney shows compensatory hypertrophy, and weighs four ounces. Its outer surface is lobulated to an unusual extent. 1893

See *Medical Post-Mortem Register*, vol. xx., p. 55.

CHRONIC INTERSTITIAL NEPHRITIS.

2335a. A Kidney, from a case of chronic Bright's disease. It is much smaller than natural, irregular in shape, roughened and torn where the capsule has been removed, and presents one small cyst in the cortical portion. 1883

From the same patient as the hypertrophied heart, No. 1241a, Series vii.

2335b. The Left Kidney, from a case of Chronic Interstitial Nephritis. The organ is small and contracted, and its cortex is considerably diminished. The pelvis and calyces are not dilated. On its outer surface are two cysts, one of which, in the fresh state, was as big as a small hen's egg. 1887

From a man, aged 78, who was admitted to the Hospital on account of retention of urine, resulting from an enlarged prostate.

The bladder, showing an enlarged and tunnelled prostate, is preserved in Series xxxix., No. 2842a.

See *Male Surgical Register*, vol. i. (1886), Nos. 353 and 726.

2335c. A Kidney, from a case of Chronic Interstitial Nephritis. Its surface is granular, the capsule was adherent, and it presents one or two cysts. The cortex was very narrow. The whole organ weighed four ounces. Microscopical examination showed abundant connective tissue increase; many tubules were quite denuded of epithelium, others contained blood-casts; some of the glomeruli were natural, whilst others were shrivelled and degenerate. The arteries were greatly thickened. 1888

From a married woman, aged 28, who had no history of scarlet fever, but who had twice suffered from acute rheumatism. Thirteen months before her admission to the Hospital she had been laid up with pleurisy and bronchitis, and six months later her legs began to swell. She had abundant albumin in her urine, and at the post-mortem examination her heart was found to be hypertrophied.

See *Faith Ward Book* for 1886, No. 1562.

2335d. A Kidney, from a case of Chronic Interstitial Nephritis. It was, when fresh, of stony hardness. It weighs five ounces. The surface, from which the capsule, which was very adherent, has been detached, is granular. The cortex is much thinned, and the structure obscured. 1890

From a man, aged 38. The heart was enormously enlarged, and is preserved in Series vii., No. 1241b.

See *Medical Post-Mortem Register*, vol. xv., p. 63.

2335e. Two Kidneys, showing in a marked degree the changes due to Chronic Interstitial Nephritis. They are smaller than the normal. The capsule is unduly adherent, and detachable with difficulty, leaving the surface rough, uneven, and of a velvety appearance, with here and there small thin-walled cysts. These, when broken,

leave a shallow depression in the kidney substance. Both kidneys have been laid open by a longitudinal incision. On the cut surface it is seen that the cortex is diminished in thickness, and that the apices of the pyramids are rounded off and flattened. The coats of the arteries are thickened, so that the vessels, when cut, remain widely open. The two kidneys together weigh six ounces. 1893

From a man, aged 56, who also had an enlarged and dilated heart (twenty-two ounces), atheromatous coronary arteries, a "nutmeg" liver, with emphysema of the lungs, and effusion into the right pleura.

See *Medical Post-Mortem Register*, vol. xx., p. 41.

- 2336a. A granular contracted Kidney, removed from a man who died after lithotripsy. The cortex is rough, and in some places torn by the removal of the capsule, which was very adherent; it is much reduced in thickness, and is occupied by many cysts of various sizes, some of which are filled with calculous material. 1882

PYONEPHROSIS.

- 2338a. Kidney, enlarged and in an advanced condition of pyonephrosis. The cavities were filled with inspissated pus of the consistency of cream-cheese. 1885

See *Martha Ward Book*, 1884, No. 329.

- 2338b. The Bladder and Left Kidney, from a patient who fractured his spine at the junction of the fourth and fifth dorsal vertebræ five months before death. The bladder is considerably hypertrophied, and its mucous membrane is ulcerated. The ureters are dilated. The kidney is inflamed, and contains numerous small abscesses scattered throughout the cortex and pyramids. 1886

M., æt. 54. The patient fell sixteen feet from a scaffold across a wall. On admission he was sensible, but had total anæsthesia and akinesia in his lower limbs, and in his trunk to the level of the sixth rib. Two months after the accident he had complete atony of the bladder and rectum.

See *Male Surgical Register*, vol. v. (1885), No. 2773* ; and for the condition of the cord, *St. Bartholomew's Hospital Reports*, vol. xxi. (1885), pp. 140-143.

- 2341a. A Tubercular Kidney, from a child who died of phthisis. The organ is much enlarged and its papillæ partly destroyed. In the cortex are many abscess-cavities, each lined with a thick, white, pyogenic membrane, and not communicating with the pelvis of the organ. The ureter is much thickened and dilated; its mucous membrane is almost entirely removed, and on its inner surface are many tubercular ulcers. The mucous membrane of the bladder is the seat of a similar ulceration, which, in this situation, seems to be of more recent date. 1884

In the left kidney there was one large patch of tubercle; otherwise it was of normal size.

- 2341b. The Left Kidney, from a case of tuberculosis of the genito-urinary tract. The organ is slightly enlarged, and is occupied by numerous abscesses, of which the largest is situated at the upper part of the kidney. In the recent state these abscesses were filled with inspissated pus. The ureter is enlarged and thickened, its mucous surface being much ulcerated. 1887

From a man, aged 48, who suffered for two years before his death from symptoms of tubercular disease of the genito-urinary tract. After eighteen months he presented symptoms of general tuberculosis. At the autopsy the lungs were found to be a mass of tubercle.

The bladder, prostate, and testes are preserved in Series xxix., 2412d.

Presented by A. A. Bowlby, Esq.

- 2341c. Section of a Tubercular Kidney. The organ was firmly adherent to the intestines and vertebral column by dense fibrous tissue, which enclosed the renal vessels and surrounded the vena cava. The kidney is filled with soft caseous

matter, which is inspissated, and is converted into a series of cysts, which open into a distended calyx. The ureter was thickened for about four inches, and contained a little curdy pus. 1888

From a woman, aged 47.

See *Female Surgical Register*, vol. i. (1887), No. 1088.

2341d. The Bladder and Kidneys, from a case of tuberculosis of the urinary tract. The kidneys are greatly enlarged. The right is converted into a series of cavities containing caseous matter, in one of which is a small piece of adherent calculous material. The left kidney is less diseased, but it contains numerous cavities, which are filled with caseous matter.

The ureters are greatly distended, and their walls are covered with tubercular and caseating material.

The bladder is only slightly hypertrophied, but its mucous coat behind the trigone is studded with recent grey tubercles, whilst the rest of its surface is coated with caseous material and ragged shreds of lymph. 1889

From a man, aged 24, who was admitted to the Hospital on account of tubercular disease. Neither testes nor prostate were affected.

A drawing of the kidneys and bladder is preserved in Series lvii., No. 629.

See *Male Surgical Register*, vol. ii. (1889), No. 547.

NEPHROPHTHISIS IN ANIMALS.

2342a. Portions of the Kidney of an ox, affected with tubercular disease. The kidney substance is completely changed into a tuberculous mass, whilst numerous white nodules are seen upon its surface. In some parts of the lower specimen are zones of more or less completely calcified material. The kidneys were greatly enlarged. 1885

Upon microscopic examination, abundant groups of bacilli were found. The bacilli agreed in form, method of staining, and size, with the bacilli of tubercle in man. The morbid changes correspond with the descriptions of Perlsucht.

This specimen was exhibited before the Pathological Society.

Sections are preserved in Series lv., No. 383.

CALCULUS IN THE CORTEX OF THE KIDNEY.

2344a. A Kidney, having a good-sized rough calculus embedded in its cortex. The substance of the kidney does not appear to be inflamed, and except in the immediate neighbourhood of the stone, where the parenchyma has been absorbed by pressure, the gland is uninjured. 1886

The calculus does not seem to have given rise to any symptoms during life.

2345a. The Bladder and Kidneys, from a patient who had numerous renal calculi. The kidneys are much enlarged, especially the right; both organs contain numerous calculi in their calyces. In the pelvis of each kidney, and extending downwards into the upper part of each ureter, is a branched calculus. The kidneys are little more than membranous sacs, owing to the distension which they have undergone. They contained a considerable quantity of glutinous pus. The bladder is normal. 1887

From a woman, aged 25, from whose bladder in early childhood a calculus had been removed. She had increasing symptoms of renal calculus, and died a few hours after admission to the Hospital.

See *Female Surgical Register*, vol. ii. (1885), No. 2204.

2345b. The Left Kidney, which has been converted into a series of cysts, which were filled with pus and urine. A large branched stone extends from the pelvis into

all the calyces. The organ itself is dilated to about three times its ordinary size, whilst the ureter is much thickened and dilated. (*Cf.* 2355a.) 1888

From a man, aged 30, who was admitted to the Hospital with a suppurating bursa patellæ. His urine was found to be loaded with pus, but he did not complain of any urinary trouble. About a week after his admission he had suppression of urine and died.

See *Male Surgical Register*, vol. iv. (1888), No. 1372.

2346a. The Kidneys of a Child, containing calculi. The case is of interest, as, notwithstanding the size of the calculi and the large amount of injury which they have caused to the kidney substance, there was no suspicion during life that they existed. The child died of pneumonia. 1884

2347a. A Kidney, in the pelvis of which a Calculus is impacted, as in No. 2347. The calculus is apparently composed of uric acid. The parenchyma of the organ is slightly thinned, but otherwise normal. 1881

Taken from the body of a female, aged 79 years, who had been almost entirely confined to her bed for six years, owing to pain in the right loin and flank, associated with ilio-lumbar herpes.

Presented by J. Brickwell, Esq.

2347b. A Dilated, Sacculated Kidney. The orifice of the ureter is entirely occluded by a stone about the size of a small bean. The calyces are destroyed, and only a very thin piece of the cortex remains. 1884

SPECIMENS ILLUSTRATING THE REMOTER EFFECTS OF RENAL CALCULUS.

2351a. The lower specimen is a Left Kidney, containing several Calculi. Though not much enlarged, it is greatly disorganised, and, owing to the long-continued irritation and inflammation, is surrounded by dense fibrous tissue, which has firmly united it to the neighbouring structures. A light green glass rod has been placed in a sinus where a calculus has ulcerated through into the descending colon.

The upper specimen is a portion of the lower lobe of the left lung firmly united to the diaphragm, which again was adherent to the kidney. A blue glass rod shows where a sinus, also caused by a calculus, led through the diaphragm into the substance of the lung, there causing the formation of an abscess, which proved fatal.

Since each sinus led into the pelvis of the kidney, there was a direct communication from the abscess in the lung through the diaphragm and kidney into the descending colon. 1892

A drawing of the parts, when fresh, is presented in Series lvii., No. 632.

For notes of the case see *Male Surgical Register*, vol. v. (1890), No. 3520.

2354a. A large mass of Fat, formed around an Ureter which contained a Calculus. The adjacent tissues were thickened by chronic inflammation. The opposite half of this specimen is in the Museum of the Royal College of Surgeons. 1882

2355a. The Right Kidney, from a case in which suppurative nephritis occurred in both organs, owing to the presence of calculi. The kidney is enlarged to nearly three times its normal size. The glandular portion is converted into a number of cysts, whilst the pelvis is completely obliterated by a dense growth, which is found, on microscopic examination, to consist of inflamed fat and fibrous tissue. A small oblong calculus of uric acid completely blocks the upper part of the ureter. The ureter, near the kidney, is constricted, but as it passes downwards it gradually dilates, until it attains nearly four times its natural diameter. 1888

The left kidney is preserved, as a specimen, in No. 2345b.

2358a. The Right Kidney, in a condition of acute inflammation, resulting from the presence of calculi in its substance and the obstruction of its duct by the impaction of a calculus. The organ is greatly dilated, so that it forms a lobulated cyst; and

its parenchyma has undergone absorption until there remains only a thin tough coating of the consistence of leather. In the fresh state the interior of the cyst was of a bright, inflammatory colour, spotted with flakes of pus, and it still appears shaggy from the deposit of lymph upon its inner surface. The calculus, blocking up the ureter near its commencement, is oval and dark-coloured. Several small dark-coloured calculi of oxalate of lime lay in the infundibula of the kidney. 1886

From a woman, aged 31, who suffered long-standing and severe pain of a wearing character in the right side, which she dated from her last confinement, two years previously. She never had any attack of renal colic, hæmaturia, or vesical irritability. A swelling below the liver, noticed for six months, gradually increased until it was as large as a foetal head. The urine contained pus. An exploratory puncture into the tumour let out thick greenish pus. Nephrectomy was performed, and the patient made a good recovery.

A drawing is preserved in Series lvii., No. 620.

Presented by Alfred Willett, Esq.

2358b. The Right Kidney, which is sacculated and distended to about twice its natural size. A sinus in the groin led into the pelvis of the organ. The greater part of the renal tissue is absorbed. A calculus, which sent its branches a short distance up the calyces, was firmly wedged into the ureter and pelvis, which it completely occluded. 1888

From a girl, aged 20, who suffered from pyonephrosis. An incision was made into the kidney, and the patient died six months later from chronic pyæmia.

See *Female Surgical Register*, vol. i. (1887), No. 1512*.

2359a. A Pair of Kidneys. The left one, as a result of the long-continued irritation of a branched calculus, is atrophied, and is converted into a mere membranous sac. The calculus extends into, and plugs, the ureter. The right kidney is hypertrophied, weighing twelve ounces. It has undergone some amount of fatty degeneration. 1888

From a man, aged 61, who had diabetes with albuminuria, and subsequently gangrene of the left foot.

See *Male Surgical Register*, vol. i. (1887), No. 275.

2361a. The Kidneys, Ureters, and Bladder. The kidneys are enlarged and sacculated, and their pelves are dilated. The right ureter, immediately beyond the pelvis of the kidney, presents a very tight and tortuous stricture about an inch in length. The stricture is so tight that it was barely possible to inject water through it. Two inches lower down this ureter is again constricted, but the second stricture is not so narrow, and is annular in form. The left ureter is also constricted in two places, about two inches apart. The upper stricture is situated two inches from the kidney, and the ureter above it is dilated into a pouch. The strictures will admit of the passage of a No. 7 catheter. All the strictures are tough and fibrous, and appear to be of long standing. The bladder is very much hypertrophied. 1887

From a man, aged 44, upon whom urethrotomy was performed for the relief of an impassible stricture of the urethra.

See *Male Surgical Register*, vol. iii. (1884), No. 2774.

2368a. The Urinary Bladder, Ureters, and Kidneys, in which there are two Ureters on each side. The bladder is slightly more capacious than usual, but its walls are not thickened. On both sides, the orifice of the more posterior ureter shows some pouching between the mucous membrane and the muscular coats.

On the left side, both ureters, particularly the more posterior, are much increased in size, and the pelvis of the kidney is greatly dilated, causing absorption and loss of kidney substance. A similar condition is present, though to a less extent, on the right side, except that the calibre of the anterior ureter is hardly increased beyond the normal. 1892

From a man, aged 50, who died from cerebral hæmorrhage.

See *Medical Post-Mortem Register*, vol. xvii., p. 2.

2369a. A Portion of the Bladder, with the Right Kidney and Ureter. The kidney is little more than a membranous sac, owing to the entire absorption of its glandular substance. The pelvis is greatly dilated, and opens by two apertures into a distended double ureter. The ureters run separately in the first half of their course, and then fuse into a single dilated tube. The muscular wall of the bladder is somewhat hypertrophied. 1887

From a man, aged 47, who was admitted with extravasation of urine, resulting from a stricture of the urethra, which had existed for several years.

See *Male Surgical Register*, vol. ii. (1886), No. 2067.

2369b. A Kidney, which is greatly enlarged, and is surrounded by a thick layer of dense fat. The glandular substance has been almost destroyed by large abscess cavities, and the ureter is plugged with fibrin. 1889

From a man, aged 46, who had a long-standing stricture of the urethra.

The bladder and urethra are preserved in Series xl., No. 2872b.

See *Male Surgical Register*, vol. iv. (1888), No. 4012*.

2370a. The Bladder, Ureters, and Kidneys of a boy, aged seventeen years. The bladder is enlarged and greatly hypertrophied, and its mucous coat is ulcerated. The ureters are enormously distended and thickened, except at their entrance into the bladder, where they are of the normal size. The pelves and infundibula of the kidneys are widely dilated, thickened, and rough from a deposit of lymph upon their inner surfaces. The glandular substance has entirely disappeared. 1889

From a railway porter, who had phimosis. The constriction was so considerable that the point of a hair-pin could not be passed through it to the meatus urinarius. The patient died three days after he was circumcised. For twelve hours preceding his death he suffered from uræmic convulsions, with suppression of urine. Until the operation was performed he was able to do his work.

Presented by J. H. Gilbertson, Esq.

2371a. A "Surgical Kidney." It is rather smaller than natural; its surface is irregular, and in parts torn where the capsule was adherent; the pelvis and calyces are slightly dilated, and the mucous membrane lining them is discoloured and thickened. The gland, as a whole, is softened, and scattered throughout its substance, but more particularly in the cortical portions, are numerous abscesses, varying in size from a pin's head to a nut. 1883

From an old man, who died a few days after lithotripsy had been performed. The middle lobe of the prostate was enlarged, the mucous membrane of the bladder showed signs of recent and old inflammations, and the opposite kidney was in a similar condition to the present specimen, neither of the ureters were much dilated, but the mucous membrane of both showed signs of old inflammation.

NEPHRECTOMY.

2372a. A Kidney, the smaller portion of which was removed by the operation of nephrectomy. All trace of the normal shape of the organ is lost, the whole of it being dilated into cysts, and closely surrounded by, and adherent to, a mass of inflammatory tissue. A silk ligature marks the place where the section of the kidney was made. 1882

From a man, who had been treated for stricture of the urethra, and had symptoms of obstruction to the escape of urine from the kidney. At the operation it was found impossible to remove the entire organ, on account of the close connections with the surrounding structures. The patient died the following day of suppression of urine. At the post-mortem, the opposite kidney was found contracted and granular, the prostate was slightly enlarged, but there was no appearance whatever of stricture of the urethra. The opposite ureter was normal.

See *Henry Ward Book*, vol. viii., p. 124; and account, by Mr. Marsh, in the *Clinical Society's Transactions*, vol. xv., p. 140.

2372b. The Ureter and Bladder, from the same patient as the previous specimen. The upper portion of the former is enormously hypertrophied and dilated, and the

surrounding tissues are matted together by inflammation. About an inch and a half above the bladder the ureter becomes greatly narrowed, so that its calibre before the tube was laid open barely admitted a small probe. The cause of the stricture is not evident. 1882

2372c. Portions of Kidney, removed by the operation of lumbar nephrectomy. Very little of the glandular substance is to be seen, the specimen consisting chiefly of the cortical substance dilated into cysts of irregular size and shape. 1883

From a boy, aged 17 years, on whom the operation of nephrotomy had been performed one year and nine months previously on account of continued pain in the left loin, associated with pus in the urine. For more than a year after this he was much relieved from his previous symptoms, but for some months previous to the removal of the kidney had suffered from a more profuse discharge from the nephrotomy wound and steadily increasing hectic. The kidney was rather closely adherent to the surrounding structures. The patient made a good recovery. Microscopical examination revealed dilatation of the tubules, and an increase of the intertubular connective tissue.

See *Kenton Ward Book*, vol. vii., p. 204; *Harley Ward Book*, vol. ix., p. 8; and paper, by Mr. Marrant Baker, in the *Transactions of the International Medical Congress for 1881*, vol. ii., p. 262.

2372d. A Kidney, removed by the operation of nephrectomy for disorganisation of its substance, as a result of a large branched renal calculus which occupied the pelvis. The kidney is seen to be little more than a series of thin-walled cysts. The stone consisted chiefly of phosphates. 1886

From a woman, aged 41, who had noticed a swelling in the right flank for seven months. The urine was thick and creamy when passed, but there had never been any severe pain, nor was there hæmaturia. After removal the patient made a good recovery. The calculus is preserved in Series lii., No. 52d.

See *Female Surgical Register*, vol. iii. (1885), No. 516, and *St. Bartholomew's Hospital Reports*, vol. xxi., p. 121.

2372e. A Kidney, removed by the operation of nephrectomy, on account of the injury which it had sustained from the presence of a calculus. The organ is slightly enlarged, its pelvis is distended, and it is covered with a layer of flocculent lymph. The medullary portion has undergone very considerable absorption, the pyramids being converted into abscess cavities; this is more especially the case at the upper border of the kidney. The capsule is partially adherent. The ureter, dilated at the upper part, is constricted and thickened below. 1886

From a patient, aged 31, who had suffered from symptoms of renal calculus for six years. During the latter part of this period she had profuse pyelitis with high temperature. After removal of the kidney she made a good recovery. Dr. Ord gives the following description of the stone which the kidney contained: "The calculus is somewhat heart-shaped. It weighs twelve grains. Its colour is yellowish brown in parts, and dark grey in others. The surface is tuberculated, and under a low magnifying power has very much the appearances presented by brown sugar, the semi-transparent nodules of which are covered in some parts by a deposit resembling a layer of the same crystals wetted. The calculus consisted of oxalate of lime, of phosphates, and of uric acid, with possibly a small intermixture of carbonate of lime."

Presented by Thomas Smith, Esq.

2372f. A Kidney, which was removed by the operation of nephrectomy. The organ is not enlarged, nor is its capsule adherent, but its surface is rough and tuberculated. On section it is seen that the boundary layer of the medulla has been absorbed as the result of the irritation of a calculus. This absorption has occurred in several places; one at the upper border of the kidney contains a tri-radiate calculus, whilst the other cavities are situated along the outer border of the gland. A chemical examination of the calculus, made by Dr. Lapraik, showed it to consist of a mixture of phosphate and oxalate of lime in about equal proportions. 1887

See *Male Surgical Register*, vol. i. (1886), No. 208.

2373a. Kidneys, Bladder, and portion of the Rectum of a child. The pelvis and calyces of the right kidney are dilated, and considerable absorption of the glandular substance has taken place. The left kidney is less altered. The ureters are dilated and pervious. The bladder does not appear to be thickened. 1885

From an infant, aged 14 days, who had an imperforate anus. At the autopsy the sigmoid flexure was found to be much distended; it turned across the sacrum to the right side, and ended in a blind dilated rectum. The bladder contained a drachm of healthy urine. The dilated condition of the kidneys may have been due to the distended and abnormal sigmoid flexure impeding the flow of urine along the ureters.

See *Female Surgical Register*, vol. i. (1885), No. 3993.

HYDRONEPHROSIS.

2375a. A Right Kidney, removed by operation. The pelvis is very much distended and now forms a large sac; very little kidney substance remains. The ureter, into which a blue glass rod has been inserted, is at the lowest part of the sac, and communicates with it by a more or less valvular opening. Its calibre is not enlarged. 1892

The patient was a woman, aged 43, who had suffered from pain in the region of the kidney for three years. No stone was found, and the only cause suggested was abnormal arrangement of the arteries. The woman made a good recovery, and was quite well one year after the operation.

See *Transactions of the Pathological Society*, vol. xlii., p. 185.

Presented by Alban Doran, Esq.

2375b. A Right Kidney, which has become enormously distended, and which now consists of a number of sacs communicating with each other, the largest of these is at the upper end. The tumour reached from the diaphragm (a portion of which is adherent to the cyst-wall) down to the pelvis, where it is firmly fixed to the cæcum and first part of the ascending colon. It measures eleven and a half inches in length, and six inches in diameter at the widest part. The parietal layer of the peritoneum is stretched over and forms part of its inner wall. The commencement of the ureter lies at the back, into which a small blue glass rod has been placed. It does not appear to be dilated, but the opening is bent on itself so as to cause a more or less valvular orifice.

Openings have been cut in the walls of the cysts, through which it is seen that the kidney substance has been entirely absorbed. 1893

From a man, aged 48, who was admitted for an intracapsular fracture of the femur. No cause was found for the great distension of the right kidney. The left kidney was healthy, and weighed ten ounces.

See *Male Surgical Register*, vol. iv. (1890), No. 2002.

2377a. A Section through the Left Kidney. The pelvis is enormously dilated, and was full of urine. In the anterior, superior, and posterior walls of the pelvis is a deposit of calcareous substance, like that found in an atheromatous aorta. The ureter appeared to be pervious. 1889

From a man, aged 45, who died from cerebral hæmorrhage.

See *Medical Post-Mortem Register*, vol. xiv., p. 133.

2379a. Sections of two Kidneys. A cyst, the size of an orange, and having a very thin wall, projects from the surface of the lower specimen, and a similar, but much smaller, cyst is shown in the section of the kidney suspended above it. There is no obvious disease of their parenchyma. 1881

From a man who died with the aortic aneurysm which is preserved in Series viii., No. 1511a.

2381a. Section of a Kidney affected with chronic interstitial nephritis. The organ is much smaller than usual, and its cortex is narrowed. Numerous small cysts are situated upon its surface, lying beneath the capsule. 1888

From a man, aged 59, who died of hæmorrhage into the pons Varolii. The opposite kidney was in a similar condition.

See *Medical Post-Mortem Book*, vol. xiii., p. 61.

2384a. The Left Kidney, whose substance is transformed into a large number of thin-walled cysts. The cysts vary in size from a small shot to a pigeon's egg. They were filled with a yellow viscid and transparent fluid. 1888

From a married woman, aged 59, who suffered from ascites. Both kidneys were equally affected.

See *Martha Ward Book* for 1887, No. 42.

2384b. The Right Kidney, from the same case as the preceding. It shows the same changes as those which have already been described. 1888

2386a. A Kidney of a Pig, which has undergone extreme cystic degeneration. Little or no kidney substance remains. The ureter is also very much dilated. 1890

Presented by Mr. Streeter.

2389a. The Kidneys of a child, into the substance of which considerable hæmorrhage has occurred. The effused blood lies beneath the lining membrane of the pelvis of the kidney. A similar condition was found in the bladder. 1891

From a child who died of tubercular meningitis.

The bladder is preserved in Series xxix., No. 2405a, and drawings of the kidneys and bladder, when recent, in Series lvii., Nos. 637 and 644.

See *Male Surgical Register*, vol. v. (1890), No. 679.

BLOOD-CAST OF THE URETER.

2389b. A cylindrical blood-clot, measuring fourteen inches in length, and forming a cast of the ureter; it was passed from the urethra during micturition. 1893

The patient was a man, aged 54, who suffered from malignant disease of the kidney. Persistent and profuse hæmaturia had existed for several months. The left kidney was subsequently removed by operation, and was found to be the seat of round-celled sarcoma.

See *Male Surgical Register*, vol. ii. (1893), No. 50.

2390a. A Cancerous Growth in the Right Kidney. The new tissue has infiltrated the whole of the organ, which is enlarged to the size of a fist. The glandular substance has almost entirely disappeared, except for traces of the calyces. In the pelvis was a ragged calculus about half an inch in length. The new growth, when examined by the microscope, was found to be a carcinoma with a very extensive fibrous stroma. 1886

From a woman, aged 48. There were cancerous deposits in the liver and lungs.

See *Medical Post-Mortem Book*, vol. xi., p. 341.

2390b. A Section of a large and soft Cancerous Mass, involving the Right Kidney. The organ retains somewhat of its outline, but it is greatly enlarged. When fresh it measured nine inches in length, four inches in width, and three inches in thickness. In places the surface is nodular. The tumour is almost pulpy in consistency; it is contained within the capsule of the kidney, and involves about a third of the lower portion of the organ. The ureter opens into a sort of cavity formed by the breaking down of the tumour. Microscopically, the growth is a carcinoma, the constituent cells exactly resembling those in the renal tubes. The matrix is alveolar. 1887

From a patient, aged 49, who had suffered for a year from hæmaturia with a gnawing pain in her right lumbar and inguinal regions. An exploratory operation was performed, but it was deemed inadvisable to remove the tumour. The patient died a fortnight later.

See *Female Surgical Register*, vol. v. (1885), No. 2263.

2390c. A Section through a Kidney, infiltrated with a carcinoma which is undergoing colloid degeneration. The growth extends as a pyramidal mass through the whole thickness of the organ from the capsule to the calyx. 1888

From a woman, aged 21, who had been ailing for eleven months before her death. She presented all the symptoms of cerebral tumour, but there was no evidence before death of any hepatic or renal disease. The patient had had syphilis.

See *Mary Ward Book* for 1887, s. v. Maude Pocock. The liver is preserved in Series xxi., No. 2217b.

- 2390d. Section of a Kidney, containing a small mass of melanotic sarcoma at its upper part. 1889

From a man, aged 47, who had melanotic sarcoma of the skin, with secondary deposits in most of the abdominal viscera.

A section of the liver is preserved in Series xxi., No. 2209a.

CHLOROMA, OR GREEN SARCOMA.

- 2390e. The Anterior Half of the Left Kidney, showing numerous patches of new growth, which, when fresh, were of a bright-green colour, and, on microscopical section, proved to be of a sarcomatous nature. The growths were soft, and, when fresh, they projected slightly above the surface of the glandular substance. They were situated, for the most part, deeply in the kidney substance, though some were at the periphery. The shape of one growth was suggestive of its having resulted from an infarct. 1889

From a boy, aged 10 years, who had multiple tumours of the orbits, internal ear, cerebral dura mater, and other parts. The growths were everywhere of the same greenish colour seen in the specimen. The tumours appeared to have been growing for about six months. The first symptoms were those of facial paralysis on the left side.

See *Mark Ward Book* for 1888, No. 45.

- 2390f. The posterior half of the Right Kidney, from the same case as the preceding, showing similar nodules of new growth. 1889

SARCOMA.

- 2391a. One half of a very large Sarcoma of the Kidney. The tumour is roughly nodular, and preserves the general outline of the gland. The vessels (of which the vein is of very large dimensions) and ureter occupy their usual positions at the hilum. On the cut surface it is seen that there is a large central mass, which is smooth on section. This is surrounded by a zone of loose shreddy material, and outside this is another zone, varying from two to three inches in width, composed of a smooth substance, which here and there is broken up into separate masses by bands of fibrous tissue. Microscopically, it consists mainly of small round cells. 1893

The patient was a child, aged eight and three-quarter years. A swelling on the left side of the abdomen was first noticed when she was four years old. It then appeared as a small rounded swelling a little below, and to the left of, the umbilicus. After death the tumour was found to be adherent to the abdominal wall along its left side; the remainder, covered by peritoneum, projected into the peritoneal cavity, of which it occupied the greater part, having pushed the intestines and other viscera to one side. It weighed twenty-seven pounds, and measured forty inches in circumference.

Microscopical sections are preserved in Series lv., No. 387a.

Presented by Thomas Willey, Esq.

- 2392a. A Kidney, from a patient upon whom the operation of nephro-lithotomy was performed eight days before death. The organ has become converted into an irregular mass, in which are many cavities of various sizes. The largest cavity opened into the operation wound. The cavities contained pus and some small calculi. The whole cortex of the gland is occupied by a mass of new growth, which was found, upon examination, to be of an epitheliomatous nature. The ureter was entirely compressed by the new growth. 1886

From a woman, aged 63, who first noticed a swelling in the left lumbar region five months before admission to the Hospital. Hæmaturia was observed on a single occasion four years previously. During the last year of her life the patient had been troubled with frequent micturition, but the amount of urine passed was exceedingly small. At the operation a large branched calculus was found occupying the pelvis of the kidney. This calculus was removed piecemeal; it consisted of uric acid encrusted with phosphates. At the autopsy the right kidney was found to be of twice the normal size and fatty. The ureter was dilated and pervious; it contained urine.

The calculus is preserved in Series lii., No. 46c.

See *Female Surgical Register*, vol. iii. (1885), No. 793; and *St. Bartholomew's Hospital Reports*, vol. xxi. (1885), pp. 125-127.

2392b. The Left Kidney, from a patient upon whom nephrotomy had been unsuccessfully performed fifty hours before death. The operation wound is seen as a slit in the pelvis of the organ. Two small calculi lie in the uppermost calyx, the one smooth and oval, and the other spiculated. The pelvic portion of the ureter is considerably dilated. The greater part of the kidney appears to be healthy. 1888

From a boy, aged 15 years, who had suffered from several attacks of renal colic during a period of ten years. A calculus was felt in the pelvis of the kidney after laparotomy had been performed on the left side, but it could not be detected when an incision into the kidney was made through the lumbar region. Death occurred from shock. The right kidney was healthy.

See *Male Surgical Register*, vol. iii. (1886), No. 1312.

CONGENITAL CYSTIC ADENOMA OF THE KIDNEY.

2392c. One half of a Kidney, together with a large Tumour, involving nearly the whole of the cortex and external border. On the cut surface it is seen that there is a well-marked capsule, separating the kidney from the tumour; this latter is glandular in appearance, consisting of minute cysts, which are just visible to the naked eye. On the outer surface, the cortex of the kidney is thinly spread out over the new growth. Microscopically, the tumour consists of numerous small cysts, varying in size, and each lined by a single layer of short cubical epithelium. Their cavity is occupied by a finely granular material. 1893

The patient was an infant, aged ten months, from whom the kidney was removed by operation. A good recovery ensued; eleven months afterwards recurrence occurred, and the child shortly died.

For a history of the case, see *British Medical Journal* for April 1st, 1893, p. 694.

Microscopical sections are preserved in Series I., No. 386.

Presented by W. J. Walsham, Esq.

2393b. The Urinary Organs, from a case of *Bilharzia hæmatobia*. The bladder is contracted, and its mucous membrane is thickened by a number of papillomatous masses, which are found microscopically to contain enormous numbers of *Bilharzia ova*. The ureters are dilated and thickened. Their mucous membrane is covered with a slate-coloured membrane, also containing large numbers of ova. The pelves of the kidneys are lined with the same membrane and ova. 1889

From an old Arab, who came to the Hospital at Alexandria suffering from dreadful and continuous pain, and passing almost pure blood mixed with enormous quantities of debris containing the ova of *bilharzia*. Perineal urethrotomy was performed for relief of the pain, but the man died a week later from uræmia.

See *Transactions of the Pathological Society*, vol. xxxviii., p. 191.

Presented by Dr. Mackie, per Reginald Harrison, Esq.

2393c. The Kidneys, with the Bladder and Ureters, from a case of *Bilharzia hæmatobia*. The bladder is small and contracted, and its mucous membrane is raised into numerous soft swellings, which contain abundance of *Bilharzia ova*. The ureters are dilated, and their mucous surface is studded with small soft projections, which are also full of ova. The kidneys are in a condition of pyonephrosis, and the mucous membrane of the pelves is covered with little granulations, each containing numberless ova. 1889

From a country Arab, who was admitted into the Hospital at Alexandria. He was passing bloody urine mixed with debris, and was in a wretchedly emaciated condition, and suffering agony. By examination above the pubes and per rectum, the bladder was found to be reduced to a small tumour, and it was very painful on pressure, so that it gave the impression of cancer. The bloody matter and debris passed by the urethra swarmed with *bilharzia ova*. Perineal urethrotomy was performed to relieve the sufferings of the patient, after which he lived for a week or two in perfect ease, dying from chronic uræmic poisoning. At the autopsy many specimens of the parent worm were found in the portal vein.

Portions of the lungs, liver, and spleen are preserved in Nos. 1745a, 2237c, and 2306b.

Microscopic sections of the bladder and kidneys are preserved in Series lv., Nos. 417, 395, and 394.

The female worms are preserved in the next preparation.

Presented by Dr. Mackie.

- 2393d. Ten Specimens of the Adult Female Worm, *Bilharzia hæmatobia*, obtained from the portal vein of the patient from whom the preceding preparation was taken. 1889

Presented by Dr. Mackie.

- 2394a. A Right Kidney, which has undergone extensive laceration upon its outer and anterior surface. 1886

From a patient who was brought to the Hospital dead.

See *Surgical Post-Mortem Register* for 1885, p. 184.

REPAIR OF A RUPTURED KIDNEY.

- 2394b. A Section of a Kidney, which has a laceration extending from the hilum for a distance of one inch and a half into the cortex. The rupture is simple and linear in character. The edges at its upper part are united by altered blood-clot, whilst the whole is covered by a thick layer of condensed fat. 1889

From a man, aged 27, who fell from a scaffolding a distance of about twenty-six feet. On admission to the Hospital, he was found to have fractured his skull, and several of his ribs. He subsequently suffered from surgical emphysema and gangrene of the lungs. He survived the accident for eighteen days, during which time, although conscious, he made no complaint of abdominal pain. On admission to the Hospital, his urine contained a little blood, but three days after the accident it was found to be acid, with a specific gravity of 1020, containing neither sugar, albumin, nor blood.

See *Male Surgical Register*, vol. iv. (1888), No. 2710.

- 2394c. The Opposite Half of the same Kidney as the preceding, showing a large hæmatoma situated at the hilum. 1889

SERIES XXIX.

DISEASES AND INJURIES OF THE URINARY
BLADDER.

2396a. An Enormously Dilated Bladder. The organ measures eight inches in height, and contained, at the time of death, five pints of urine. The walls are well developed, and there are no herniæ of the mucous membrane, although, in many places, the muscular bundles are becoming separated as a result of the distension which the bladder has undergone. 1889

The bladder was taken from the body of an inmate of the Banstead Asylum. Ten pints of urine were drawn off the day before the patient died.

Presented by W. Gilmore Ellis, Esq.

2398a. A Bladder, from a man, aged fifty-five, who had twice been operated upon for stone; on the first occasion for a calculus in the urethra, and a second time for a vesical concretion. At a third operation no calculus could be found. On opening the bladder after death, however, the calculus was found to be lying in a cyst, which communicates with the bladder by a small aperture. The opening, in the recent state, would scarcely admit a probe. The calculus had almost ulcerated through the cyst-wall into the peritoneal cavity. 1889

See *Transactions of the Pathological Society*, vol. xl., p. 179.

2398b. A Bladder, containing a Calculus encysted behind the Prostate. The organ is much hypertrophied, and its mucous coat is ulcerated in places. Immediately behind the prostate is a small pouch, in which lies a phosphatic calculus. The inter-uretral band of muscular fibres has been torn in such a way as to form a bridge across this part of the bladder. The calculus has been partially broken at one place. 1889

From a man, aged 55, who had twice been operated on for the removal of a calculus. On the first occasion the calculus lay immediately behind a stricture of the urethra. On his third admission to the Hospital he had numerous perineal fistulæ, and an abscess in the scrotum. Median cystotomy was performed three months before his death.

See *Male Surgical Register*, vol. v. (1886), No. 3854*, and vol. v. (1887), No. 1619.

2400a. A Bladder and Prostate Gland. The central, as well as each lateral, lobe of the prostate is enlarged. The bladder is dilated, and its muscular coat is somewhat hypertrophied. The mucous membrane is healthy, but it is depressed into numerous small pits between the muscular fibres. At the upper part of the bladder are two well-defined pouches communicating by separate small openings with the general vesical cavity. They appear to be formed by protrusions of the mucous membrane between the muscular fibres. 1886

See *Male Surgical Register*, vol. ii. (1885), No. 2055.

2404a. A dilated Bladder, with a large number of small saccules, into which black bristles have been passed. 1885

See *Male Surgical Register*, vol. ii. (1884), No. 3054.

- 2405a. The Bladder of a Child, in which there has been an extensive hæmorrhage beneath the mucous membrane. An effusion of blood was also found to have occurred into the substance of both kidneys. 1891

From a child who died of tubercular meningitis.

The kidneys are preserved in Series xxviii., No. 2389a, and drawings of both organs, when recent, in Series lvii., Nos. 637 and 644.

See *Male Surgical Register*, vol. v. (1890), No. 679.

- 2408a. A Bladder, from which the whole of the mucous lining, preserved in specimen No. 2408b, has sloughed. The bladder wall is soft and easily lacerated, and its inner surface is rough and ulcerated. The prostate is natural, but the urethra has sloughed round an aperture in the perineum. The cæcum was found to be adherent to the upper surface of the bladder; but on separating the two surfaces, the whole of the fundus separated as a slough, leaving the aperture seen in the specimen. The edges of the bladder, after the separation of the slough, presented a ragged border. The kidneys were in a condition of tubal nephritis. There was no stricture of the urethra. 1888

See *Transactions of the Pathological Society*, vol. xxxix., p. 164.

- 2408b. The whole of the Mucous Membrane of the Urinary Bladder, with a portion of the muscular coat, which was found as a slough in the bladder, preserved as specimen No. 2408a. The surface of the slough is covered with a rough phosphatic deposit. 1888

From a man, aged 36, who was admitted with retention of urine of three days' duration. A small catgut was passed upon a railroad catheter and retained, three or four pints of urine draining away. Much blood passed, and it was conjectured that the bladder contained blood-clot. Though the urethra admitted a No. 10 English catheter five days after admission, the patient was unable to void urine spontaneously, and in spite of antiseptic precautions, the urine became foul and ammoniacal. A month after admission perineal cystotomy was performed, but was followed by only temporary improvement; suppuration continued, and he died two months after admission.

See *Male Surgical Register*, vol. v. (1887), No. 2487.

- 2410a. A Bladder, which presents a well-marked pouch. The viscus is heart-shaped; the left side is thicker and smaller than the right; it is the true bladder. Glass rods have been passed through the prostatic urethra and through each ureter. Between and below the openings of the ureters is a deep *cul de sac*, large enough to admit the tip of the little finger. The right portion of the bladder is the larger; it is separated from the left by a strong fibrous band. The mucous membrane of the whole organ is inflamed, and is in some places ulcerated. 1885

From a man, aged 54, who had suffered from bladder trouble all his life. Catheters were habitually employed. Two or three seconds after his bladder appeared to have been emptied, an ounce or two of purulent urine, with a little blood, was expelled violently through the catheter. He had no stone.

His bladder was shown at the Pathological Society.

See *Transactions of the Pathological Society*, vol. xxxvi. (1885), p. 283.

Presented by D. Mackinder, M.D.

- 2412a. A Bladder and Ureter, in an early stage of tubercular disease. The bladder, which is inverted, presents numerous small papillæ (grey tubercles) especially numerous near the orifices of the ureters. In other places the papillæ are ulcerated at their apices. There are several ulcers on the mucous membrane of the ureter, the inner surface of which is also rough and thickened. 1882

Presented by J. Macready, Esq.

- 2412b. The Urinary Organs of a child, aged nine years, in an advanced stage of tubercular disease. The mucous membrane of the bladder is rough and thickened, it has lost its natural polish, and is thickly set with small circular ulcers. The ulceration has in many places been succeeded by caseous degeneration, and close to

the orifice of the left ureter the mucous membrane has been extensively destroyed. The kidney contains several large caseating masses, which are mostly situated in the neighbourhood of the pyramids, the cortical portion of the gland being nearly free. The right ureter, which is laid open, presents several ulcers similar to those found in the bladder. 1882

Presented by J. Macready, Esq.

2412c. The Left Kidney and the Bladder, from a case of tubercular disease of the genito-urinary tract. The pelvis of the kidney is dilated and is partially absorbed. The glandular substance appears fatty. In the cortical portion are two or three large cavities which, in the recent condition, were filled with thin pus. The bladder is much hypertrophied and inflamed, and there is some diffuse inflammation about its neck. The prostate is the seat of a tubercular deposit; it is surrounded by an abscess of about the size of a large walnut, which opened into the membranous portion of the urethra. 1886

From a man, aged 43, who had suffered from stricture for twenty-four years; he died of general tuberculosis.

See *Male Surgical Register*, vol. iii. (1885), No. 162.

2412d. The Bladder and Testes, from a case of tuberculosis of the genito-urinary tract. The mucous membrane of the bladder is ulcerated, whilst the prostate is converted into a large abscess. The vesiculæ seminales are greatly enlarged, and the vas deferens is thickened and cord-like. The epididymis of each testicle is also enlarged, and is converted into a caseating mass, and the body of either testis presents numerous patches of tubercle. 1887

From a man, aged 48, who suffered for two years before his death from tubercular disease of his genito-urinary tract. After eighteen months he presented symptoms of general tuberculosis. At the autopsy the lungs were found to be a mass of tubercle.

The left kidney, with its ureter, is preserved in Series xxviii., No. 2341b.

Presented by A. A. Bowlby, Esq.

2412e. A Urinary Bladder. The mucous membrane covering its floor is extensively and superficially ulcerated. At one spot, situated on the posterior wall, midway between the apex and the trigone, is a warty mass of tissue rising a quarter of an inch above the surrounding mucous membrane. 1889

From a man, aged 25, who had suffered for two years from irritability of the bladder, and who for two months preceding his death had passed pus in his urine. The bladder was drained through an incision in the perineum with temporary relief, but the patient died of suppression of urine. At the post-mortem examination extensive tubercular disease of both kidneys was found, and there were vomices in both lungs.

Presented by W. Bruce Clarke, Esq.

2417a. A Bladder, containing Multiple Mucous Polypi. The organ is much hypertrophied and somewhat dilated. The trigone, and the whole wall over an area which extends in all directions from the urethral orifice for a distance of about an inch, is occupied by polypoid growths. The polypi are numerous, and their stalks are, in the majority of cases, slender. In many places the growths are compound, one stalk bearing several tumours. The growths vary in size; some are no larger than a pea, and closely resemble the small hypertrophied synovial fringes met with in osteo-arthritis, whilst others are as large as the top of the finger or thumb. The two largest polypi (which are suspended below the preparation) were found loose in the bladder. On the left side of the bladder wall, and to a less extent upon its posterior surface, are some sessile growths which closely resemble the polypi. In the parts where the sessile growths are found the mucous membrane is ulcerated. The polypi, on section, are soft, fleshy, and gelatinous. Microscopical examination showed

that they consisted of myxomatous tissue, in which are numerous oval connective tissue corpuscles. The muscular coat of the bladder is inflamed, but not ulcerated.

1888

From a boy, aged nine years, who had incontinence of urine for four months before his death, and who suffered great pain in his hypogastrium and loins. The pain was worse on defaecation and when he passed his water voluntarily. It was also increased by exercise and jolting. The urine, which passed in a full stream, was very foetid, and contained albumin, urates, and pus. No stone was discovered on sounding, but a soft mass was felt in the region of the trigone. He passed blood in his water only on one occasion. At the autopsy the kidneys were found to be much enlarged, and the pelves and calyces were dilated. The glandular substance was dark red, with numerous patches of suppuration. The capsule was thickened and easily separated, whilst the ureters were dilated to the size of the little finger.

See *Male Surgical Register*, vol. ii. (1887), Nos. 183 and 1908, and *St. Bartholomew's Hospital Reports*, vol. xxiii., pp. 236-238.

PAPILLOMA OF THE BLADDER.

- 2417b. A Bladder, showing a new growth, which is situated on the left side of the organ, immediately above the orifice of the ureter. The greater portion of the growth was removed, before the death of the patient, by the operation of supra-pubic cystotomy. The rest of the bladder appears to be healthy. Microscopical examination showed that the tumour consisted of branching processes of fibrous tissue covered by a single or by several layers of oval epithelial cells. 1889

From a man, aged 45, who was kicked over the pubes five years before his death. On the day following the injury he passed blood in his urine for the first time, and continued to do so until he died, two days after the performance of the operation. At the autopsy a considerable quantity of clotted blood was found in the bladder.

A section of the growth is preserved in Series lv., No. 398.

See *Male Surgical Register*, vol. v. (1887), No. 3276.

- 2417c. A Portion of a Bladder, containing a Villous Papilloma. The right side of the organ is covered by a low sessile villous growth; there is no solid tumour, but a crop of delicate filamentous processes covers a patch about the size of a penny. Immediately above the growth, as the specimen is slung in the bottle, is the stump—covered by clot—of another part of the tumour, which had been removed shortly before the death of the patient. The mucous membrane of the bladder is blood-stained and pouched, whilst the vesical wall is hypertrophied. 1889

From a man, aged 60 years, who had been passing blood with his water for the last four years. For some time one, or even two, months intervened without hæmaturia, but during the three weeks preceding his death the bleeding was incessant. He died of syncope two days after the portions of growth preserved in the next specimen had been removed by a supra-pubic incision into the bladder.

- 2417d. Portions of a Villous Tumour, removed from the bladder preserved in the preceding specimen. The tumour was removed by supra-pubic incision. 1889

This, with the preceding specimen, was presented by Stephen Paget, Esq.

- 2418a. A Bladder, in which there is a Villous Papilloma of about the size of a hazel nut, attached by a flat ribband-like pedicle to its posterior wall, immediately to the outer side of the right ureter. 1889

From a man, aged 59, who died of hæmaturia.

See *Male Surgical Register*, vol. i. (1888), Nos. 2146 and 2550.

SARCOMA OF THE BLADDER.

- 2419a. A Bladder, containing a large Sarcomatous Tumour. The organ has been laid open along its anterior wall, and its cavity is seen to be obliterated, except at its upper part, by a large new growth, which has infiltrated its anterior and lateral walls, as well as the fundus. The portion of the growth which occupies the cavity of the bladder is a cauliflower-like and tuberous mass. By the extension of the growth posteriorly the rectum has become involved, and close to the anus the growth

actually projects into the cavity of the bowel. The projecting portion, however, has broken down, and in this way a fistulous passage has been established between the bladder and rectum; along it a rod has been passed. At the upper part of the specimen a portion of a catheter has been passed through a supra-pubic puncture which was made a fortnight before the death of the patient. 1887

From a man, aged 54, who first suffered from hæmaturia eighteen months before his death. The sarcoma was partially removed by median lithotomy and dilatation of the prostate; but as the tumour continued to grow, and micturition was difficult and painful, the bladder was punctured above the pubes.

See *Male Surgical Register*, vol. v. (1884), No. 2785, and vol. v. (1885), No. 3678*.

2419b. A Bladder, which has been turned with its mucous membrane outwards, to show a very extensive papillomatous growth covering almost the whole of the fundus. Microscopically, the growth consists of complex branching papillæ formed of connective tissue covered with vesical epithelium. The growth does not implicate the deeper portions of the bladder, and it is, therefore, not malignant. 1889

From a man, aged 55, who was quite healthy until a year before his death, when he began to suffer from hæmaturia. He had much pain on passing urine.

See *Male Surgical Register*, vol. ii. (1888), No. 1873.

2420a. A Bladder, affected with Epithelioma. The mucous membrane is everywhere thickened and ulcerated. There are deposits of phosphates about the trigone. The wound made during the operation of cystotomy is seen in front of the orifice of the urethra. 1887

From a man, aged 62. Perineal section was performed upon the patient seven days before his death.

See *Male Surgical Register*, vol. iii. (1885), No. 1204.

2421a. Portions of a Papillomatous Growth, removed from the bladder, during life, by an opening made through the abdominal walls. The growth, which was of about the size of a small walnut, was attached to the side of the bladder, a little above and behind the left ureter. Microscopically, the growth consists of branching processes of fibrous tissue covered by one or more layers of oval epithelial cells. 1888

From a man, aged 46, who had observed blood in his urine for five years before his death. The urine sometimes stopped whilst he was micturating. There was much pain after micturition and during defæcation, as well as when pressure was made over the pubes. The patient died two days after the bladder was opened. At the autopsy the bladder was found to contain much blood.

See *Male Surgical Register*, vol. v. (1887), No. 3296.

2422a. Encephaloid Cancer of the Bladder. 1884

From a patient, aged 60, who had suffered for two years from hæmaturia.
Presented by Sir William S. Savory, Bart., F.R.S.

2424a. An Urinary Bladder, whose walls and trigone are infiltrated with a dense growth, which is quite smooth on the surface, and is white on section. Similar growths infiltrate the fundus of the organ above the level of the ureters, and one large mass is situated immediately above the left ureter. The tumours were not shreddy or villous, and there were no enlarged glands. The bladder-wall is hypertrophied. Microscopically, the growth was found to be an alveolar carcinoma, nearly allied to scirrhus. 1889

From a man, aged 62, who for twelve years had difficulty in passing his water. Twelve months before death his urine became foul, and he subsequently had very great pain in the region of his bladder. There was no suspicion of a new growth until after the death of the patient.

See *Male Surgical Register*, vol. v. (1888), No. 376.

2426a. A Bladder, which is symmetrically ulcerated in two places. The ulceration is situated upon either side of the trigone. There is also extensive ulceration at the

upper and back of the bladder, where a small perforation has taken place into the peritoneal cavity. Through the perforation a glass rod has been passed. 1888

From a man, aged 60, who had several attacks of hæmaturia during the years 1883 and 1884. From Christmas, 1885, until his death, in August, 1886, the hæmaturia was constant but painless. At the post-mortem examination general peritonitis was found. There were no secondary growths or enlarged glands.

See *Transactions of the Pathological Society*, vol. xxxviii., p. 181.

Presented by W. Bruce-Clarke, Esq.

- 2426b. The Bladder and Left Kidney, showing an epithelioma of the bladder leading to occlusion of the ureter. The bladder is ulcerated over the whole extent of the trigone, and presents, in this region, a slightly raised epitheliomatous appearance. The left ureter is completely blocked, for about half an inch, by the extension of the growth into it, and as a result of this occlusion it is greatly distended, and was filled with thick creamy pus. The kidney is converted into a large sacculated cyst, the renal substance being completely absorbed. Microscopical examination of the ulcerated portion of the bladder shows that it is infiltrated by a typical epithelioma. 1888

From a man, aged 44, who had suffered for eighteen months from hæmaturia and difficulty in passing water.

See *Male Surgical Register*, vol. iii. (1886), No. 3136.

- 2433a. The Urinary Organs of a patient who had numerous calculi. The left kidney contains a branched phosphatic calculus in its pelvis. The bladder is pouched, a glass rod being passed through the aperture of communication. The portion which is in direct connection with the urethra contains a uric acid calculus, whilst the pouch contains two smaller stones of the same nature. The prostatic urethra is blocked by a long round calculus, which appears to be moulded to its shape, consisting chiefly of urates and phosphates. 1885

M., æt. 24. Difficulty in passing water for five years; catheter first passed two years since; admitted with retention of urine; a No. 7 silver catheter was passed. Death from anæmia.

See *Surgical Register*, vol. iv. (1884), No. 1010.

- 2439a. A Piece of Solder, removed from the bladder by the operation of median perineal urethrotomy. 1888

From a watchmaker, aged 47, who had been cut for stone twenty-two years previously. He always suffered pain before passing water, which he relieved by passing a No. 10 catheter. He passed a piece of solder along his urethra on one occasion when he had no catheter, but in withdrawing it the stick broke, and a part passed into his bladder.

See *Male Surgical Register*, vol. iv. (1888), No. 898.

- 2439b. A Catheter, removed from the bladder. 1890

The patient was a prisoner in Newgate.

Presented by Luther Holden, Esq.

- 2440a. A Bladder, exhibiting an Intra-peritoneal Rupture, situated at its upper and back part. The rupture is longitudinal in direction, and extends through the whole thickness of the viscus; a blue glass rod has been placed in it. The organ is greatly contracted. 1887

From a boy, aged 12, who was run over by a van. On admission he was found to have a fractured pelvis, he was collapsed, and was passing blood by his rectum and urethra. The patient gradually developed signs of peritonitis, and died four days after the injury. At the autopsy no urine was found in the peritoneum, although it must have escaped freely from the bladder.

See *Male Surgical Register*, vol. iii. (1886), No. 407.

- 2440b. A Traumatic Rupture of the Bladder. A long rent extends through the whole length and thickness of the organ, and two smaller irregular rents, into which

glass rods have been passed, are situated on either side of the central laceration. The larger rupture involves the peritoneum. 1887

From a man, aged 49, who was run over by an omnibus. He stated that he had not passed water for five or six hours before the accident. He died of shock, and at the autopsy the small intestine was found to be ruptured, the mesentery was torn, and there was a comminuted fracture of the pelvis.

See *Male Surgical Register*, vol. i. (1885), No. 2873.

2440c. A Bladder, which has undergone extensive extra-peritoneal laceration. A large rent is situated on either side of the organ, about three-quarters of an inch above the vesical orifice of the urethra. The lacerations communicate with a cavity large enough to hold a small orange, which existed between the back of the pubes and the front of the bladder. The membranous portion of the urethra is also torn transversely. The peritoneum was not ruptured, but there was extensive extravasation of urine into the cellular tissue of the pelvis and the back of the abdomen. 1888

From a boy, aged 14, who fell between a railway platform and a moving train. There was a fracture through both horizontal rami of the pubes, as well as through the descending ramus of the ischium. The patient survived the injury for thirty-three hours.

See *Male Surgical Register*, vol. iii. (1887), No. 1181.

2443a. A Bladder, upon which the operation of supra-pubic lithotomy was performed, three days before the death of the patient, for the removal of an encysted calculus. The bladder is somewhat hypertrophied, and in addition to the pouch and depression which are seen in the specimen, there is a cavity in the left side of the prostate, which was filled with prostatic calculi. A few of these calculi have dropped out, and are seen at the bottom of the bottle. 1888

From a man, aged 57, who had for some years suffered from slight hæmaturia and cystitis, with frequent micturition. He had been sounded several times, but always with a negative result. In 1886 he came under the care of Mr. Swinford Edwards, and after a prolonged examination under chloroform, a stone was detected. As it was impossible to seize the stone with a lithotrite, supra-pubic lithotomy was performed, and a stone was found impacted in the pouch at the left side of the bladder. The stone was removed with some little difficulty, and with it some calculous material from the depression situated near the apex of the bladder, into which a glass rod has been inserted. The patient died three days later with suppression of urine. At the autopsy the kidneys were found to be granular.

Presented by F. Swinford Edwards, Esq.

SUPRA-PUBIC CYSTOTOMY.

2443b. The Bladder, Ureters, and Kidneys, from a man on whom the operation of supra-pubic cystotomy for the extraction of a very large calculus, weighing twenty-four and a half ounces, was performed rather more than one year before his death. The bladder is shrunken and its walls thickened. There is a small fistulous opening in the scar above the pubis, marked by a blue glass rod. The ureters are both dilated, their walls are hypertrophied, and a small calculus blocks the entrance of the left ureter into the bladder.

Both kidneys are extensively diseased. On the right side the pelvis is dilated, and there is little, if any, kidney substance remaining. On the left side there is much hypertrophy, with dilatation of the pelvis and of the spaces between the pyramids, while the cortex is thickened. 1893

From a soldier, aged 44. Until a few weeks before his admission for the operation, he had been on active duty as a sergeant of artillery, without any symptoms. The wound closed, and in three months he recovered from the operation sufficiently to return to his duties. Eighteen months later he returned to the hospital, as a small fistula had formed in the track of the scar after some heavy work. He then had a considerable amount of pus in his urine, with slight attacks of dysuria. Suppression of urine set in, from which he died. At the post-mortem it was found that a calculus was blocking the ureter, as seen in the specimen.

The calculus, which weighed twenty-four and a half ounces, is preserved in Series lii., No. 54a.

See *Male Surgical Register*, vol. ii. (1887), No. 2200.

LITHOTRITY.

2444a. The Bladder and Kidney of a patient upon whom lithotrity had been ineffectually performed shortly before death. The left kidney is much enlarged, and contains numerous small miliary abscesses in its cortex. The right kidney is small, its pyramids are absorbed, and its pelvis is much dilated. The bladder is contracted and thickened; there is a small pouch behind the prostate. It contains three pieces of recently broken uric acid calculus. In the dilated prostatic urethra is another portion of the same calculus. The fragments together weigh seventeen drachms.

1887

From a patient, aged 59, who was admitted to the Hospital in a dying condition.

See *Male Surgical Register*, vol. ii. (1885), No. 3038.

EPITHELIOMA OF THE BLADDER, REMOVED DURING LIFE.

2445b. A Portion of the entire thickness of the Wall of the Bladder, measuring three inches in length by two inches in breadth. Its vesical surface presents a large circular ulcer, which is somewhat cup-shaped. The ulcer extends deeply into the muscular coat of the bladder. Microscopically, it is an epithelioma. 1889

From a man, aged 70, who had suffered from hæmaturia for eight months. The bladder was opened by a supra-pubic incision, and the ulcer was then seen to be situated at the apex, and slightly at the back wall, of the organ. Before the operation could be completed, however, the patient became collapsed, and it was found necessary to close the wound, after cauterising the bleeding surface of the ulcer. Four days later the bladder was again opened, and the portion of its wall with the adherent peritoneum was excised. The patient died nine days afterwards. The post-mortem examination showed that there was no peritonitis, that the peritoneal cavity was shut off from the bladder, and that partial union of the muscular coat had taken place.

Presented by W. Bruce Clarke, Esq.

SERIES XXX.

DISEASES AND INJURIES OF THE BRAIN AND ITS MEMBRANES.

2446a. Portions of the left Parietal and Temporal Bones, showing a fracture running across the line of the middle meningeal artery. The artery is torn, and some blood-clot lies in the groove in the bone. 1883

From a man, aged 64, who fell off his cab, and was admitted into the Hospital drowsy and helpless. From this condition he rallied, and after ten days was able to sit up in a chair; on the thirteenth day from the injury he suddenly became comatose and died. A post-mortem examination showed a hæmorrhage into the arachnoid cavity, some of the blood being recent, while the smaller portion evidently dated back to the time of the accident. The vessels were atheromatous.

See *Kenton Ward Book*, vol. viii., p. 265.

2446b. A Portion of the Calvaria, which has been fractured on the right side in the temporal region. The fracture has led to rupture of the middle meningeal artery. As a result of the rupture, a free hæmorrhage has taken place between the dura mater and the skull, and this has formed a large and very dense clot, which is well seen in the specimen. 1888

From a woman, aged 65, who was run over by a van. She had a fracture extending through the middle fossa of the skull, with much laceration of the brain substance.

See *Female Surgical Register*, vol. ii. (1888), No. 2052.

2447a. Two Flat, Oval Blood-Clots, which were found in the cavity of the arachnoid of a man, aged thirty-seven, who died from general paralysis of the insane. They measure approximately seven by four inches, and vary in thickness from one-sixteenth to a quarter of an inch. They were firm and partly decolourised when found, and showed very clearly the imprint of the cerebral convolutions. This last feature has almost completely disappeared. 1891

The patient was under restraint in an asylum for six months before his death. Two months before death there were well-marked mental symptoms, but the physical signs of general paralysis did not supervene until one month later. He became unconscious two days before he died. At the autopsy no source of the hæmorrhage could be discovered. The lateral ventricles were not distended. Gangrene of part of the lower lobe of one lung was found.

Presented by A. M. Jackson, M.D.

2447b. The Right Hemisphere of a Brain, in which a very extensive hæmorrhage has taken place beneath the arachnoid membrane. The effusion of blood is nearly equally distributed over the outer surface, being rather more marked towards the posterior and outer aspects. The inner surface is not affected. The left hemisphere presented a similar appearance, but to a less extent. 1891

The patient was a man, aged 47. He also had cirrhosis of the liver.

See *Medical Post-Mortem Register*, vol. xvii., p. 313.

2449a. A Portion of a Calvaria, showing a Blood Cyst in the arachnoid. The cyst is situated a little below the right parietal eminence; its walls are thick, and are lined by organised blood-clot. It is evidently of long standing. When the cyst was laid open, it contained six ounces of blood-stained fluid. 1889

From a man, aged 68 years. No history of an injury to the head was obtainable.

The bladder and urethra of this patient are preserved in Series xl., No. 2872a.

See *Surgical Post-Mortem Register* for 1888, p. 147, and *Male Surgical Register*, vol. ii. (1888), No. 2996.

2456a. The Dura Mater, covering the upper part of the Brain. The under surface of the right side is much thickened by numerous flat nodulated growths, some of which are attached by a thin pedicle only. It is evident that the greater number of these lie beneath the arachnoid. They are probably due to syphilitic inflammation of the dura mater. A large mass, which was more loosely connected than the rest, and became detached during the removal of the cranium, is hung above the specimen already described; it also occurred on the right side. 1892

From a man, aged 36, who died in Wandsworth Lunatic Asylum. He had been an inmate of various asylums for the last eight years of his life.

Microscopical sections of the tumour are preserved in Series lv., No. 419a.

Presented by A. M. Jackson, M.D.

SYPHILITIC DISEASE.

2457a. Portion of a Dura Mater, taken from the same case as the Skull-Cap in Series i., No. 322a. Roundish gummatous deposits, about the diameter of a pea, are situated upon the dura mater, along the course of the superior longitudinal sinus. They correspond in position to patches of increased vascularity in the inner table of the skull-cap. 1881

On examination with the microscope they showed the structure of a gumma.

2459a. The upper part of the Dura Mater, on the cerebral surface of which are several irregular growths composed of hard bony substance. They are not symmetrical, those on the right side being situated over the frontal and parietal regions, that on the left side mostly over the occipital region. There is also a hard spicule on the right side of the posterior part of the falx cerebri. 1892

From the Dissecting-room.

2464a. The Falx Cerebri of a man, aged forty-six, who died from acute mania of eight weeks' duration. He was supposed to be suffering from syphilis. On the lower edge of the falx are several elongated calcareous masses of irregular shape. They appear to be simply deposited on, and not in, the membrane, and are found on both sides of it. In some places the membrane is much thinned, and the calcareous matter can be seen through the atrophied structure. The brain and the rest of the meninges were apparently healthy. 1882

Presented by W. Lenton Heath, M.D.

2465a. The right half of a Brain and Cerebellum, with a portion of the Dura Mater of the same side. To the under surface of the latter is attached, by a broad base, a large globular tumour, measuring nearly two inches in diameter, and which has caused a corresponding depression in the surface of the hemisphere. The centre of the depression is over the upper two inches of the fissure of Rolando (centres for arm and leg). The pia mater and arachnoid pass over, and line, the surface of the depression, and though they appear somewhat thinned, they are not, except at one spot, adherent to the tumour: owing to this adherent spot they have been torn in removing the tumour from its bed. On the cranial side of the dura mater the situation of the base of the tumour can be clearly seen. It was slightly adherent to the bone at this spot. 1891

The patient was a woman, aged 38. There was no history of syphilis, nor had she ever suffered from fits. She had never given any signs of insanity, had never had any paralysis, and never complained of headache. She was quite well until four days before her death, which occurred from acute double pneumonia. She was quite conscious until six hours before her death. At the post-mortem examination the whole surface of the brain was covered with pus.

A microscopical section of the tumour (a fibroma) is preserved in Series lv., No. 424a.

Presented by G. F. Barnes, M.D.

2465b. The portion of the right parietal bone to which the Fibroma of the dura mater (see preceding specimen, No. 2465a) was attached. The whole bone is thick, and there is on the inner surface a flattened irregular exostosis, the base of which is deeply grooved by nutrient arteries; at this point the dura mater was adherent, but not firmly so. 1892

FIBRO-SARCOMA OF THE DURA MATER.

2466a. The Fibro-Sarcoma, 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 the ascending frontal convolutions. The parietal bone was eroded on its inner surface. 1886

From a woman, aged 25, who had right hemiplegia thirteen years before her death; for eleven years she suffered from "fits," said to be 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 autopsy the uterus was found to be healthy; there was no pus. The lungs were solid. A small mass of new growth was discovered at the left pulmonary apex.

Microscopically, the tumour was a fibro-sarcoma. A section is preserved in Series lv., No. 425.

See *Transactions of the Pathological Society*, vol. xxxvii., p. 12.

Presented by L. Drage, Esq.

PSAMMOMA OF THE DURA MATER.

2466b. A Psammoma involving the superior frontal gyrus of the right side. 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 was partially absorbed as a result of pressure. 1886

The specimen came from a body brought for dissection, and no further details could be obtained.

Microscopically, the tumour consists of a number of small concentric bodies resembling Paccinian corpuscles in transverse section. These bodies lie in a stroma of fibro-sarcomatous tissue: Sections are preserved in Series lv., No. 426.

See also *Transactions of the Pathological Society*, vol. xxxvii., p. 55.

ANGIOMA OF THE CEREBRAL MEMBRANES.

2466c. The Angioma forms an oval swelling, situated upon a vein, and lying upon the under surface of the pia mater, covering the angular gyrus. The vessels around the tumour are numerous and enlarged. The tumour itself measures, after preservation in spirit, one inch in length by three-quarters of an inch in diameter. It consists of a close plexus of blood-vessels, which have an average diameter of one-eighth of an inch, and are of sufficient size to take a coarse injection of gelatine and carmine. The vessels appear to be derived from the vein upon which they lie, reinforced by branches from the neighbouring veins. 1888

From a man, aged 20, who suddenly became comatose after returning from work in an apparently healthy condition. He very soon became semi-conscious, with symptoms of left-sided hemiplegia and divergent squint. Two days after the seizure the patient had several attacks of opisthotonus, with spasm of the left limbs; and he died two days later. At the

post-mortem examination a large irregular hæmorrhage was found in the right cerebral hemisphere. The origin of the hæmorrhage was evidently the tumour situated upon the surface of the right angular gyrus. The hæmorrhage extended from the surface of the brain to the posterior part of the internal capsule, and had neither burst into the lateral ventricle nor externally. The spinal cord and other organs of the body were quite healthy.

See *Luke Ward Book* for 1887, No. 159; *St. Bartholomew's Hospital Reports*, vol. xxiii., pp. 179-181; *Transactions of the Pathological Society*, vol. xxxix., p. 4.

- 2468a. A Tumour of the Cerebellum, involving the median portion of its under surface. It measured three and a half inches in length, and widely separates the two lateral lobes. Anteriorly, it extends as far as the pons, whilst behind it reaches almost to the free margin of the cerebellum. Its upper surface lies on the under aspect of the median lobe, which is much compressed and flattened. It grew from the pia mater. Examined by the microscope, it was found to be a round-cell sarcoma. 1885

F., æt. nine. Suffered from violent attacks of vomiting a year before death. Double optic neuritis, partial blindness, and slight incoördination of muscles in walking occurred in August, 1884. In January, 1885, complete blindness, but the optic neuritis has not passed into atrophy; vomits once a week; severe frontal headache. Death, February, 1885.

On opening the skull, the inner table, in the region of the occipital protuberance, was rough, as if from chronic osteitis, but with 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 much expanded owing to the quantity of fluid. Lateral ventricles enormously dilated. Foramina of Monro large enough to admit the end of the little finger. Third and fourth ventricles and aqueduct of Sylvius enlarged; the optic thalami about one inch and a quarter apart. Foramen of Magendie undiscoverable. The venæ Galeni were not pressed upon by the tumour.

A section is preserved in Series lv., No. 435.

Presented by J. L. Hewer, Esq.

- 2468b. The Dura Mater, from a case of partial perforation of the skull by a sarcoma of the brain. The membrane presents numerous clean-cut perforations answering to the holes in the skull. 1888

The calvaria is preserved in Series i., No. 549a.

See also the *Transactions of the Pathological Society*, vol. xxxix., p. 1.

- 2481a. Section through a Pons Varolii, into the left side of which there has been an extravasation of blood, extending from the level of the inferior corpora quadrigemina to the upper part of the medulla. The maximum hæmorrhage is near the upper part of the fourth ventricle, whose floor it has destroyed. At this level the hæmorrhage extended outwards on the left side into the middle crus cerebelli for nearly an inch. Within the nerve-substance the hæmorrhage is strictly limited to the left half. The origins of the fifth, seventh, and eighth nerves are involved; the sixth is not involved, but appears to be subjected to pressure. The motor track is not involved. 1889

From a widow, aged 38 years, who was admitted to the Hospital suffering from hemiplegia. There was incomplete palsy of the right leg and arm. The tongue pointed strongly to the right; all the muscles on the left side of the face were paralysed. There was no rigidity or aphasia. The deep reflexes were normal. The patient was a gin-drinker. She was suddenly attacked with giddiness, and became unconscious; on recovery she was paralysed. After admission to the Hospital, she was found to have some anæsthesia of the right side, and she had a downward squint of the left eye.

See *Mary Ward Book* for 1888, s.v. M. Baxter.

- 2483a. Part of a Medulla Oblongata and Cerebellum, with the surrounding parts. Between the pons and cerebellum, and extending into the fourth ventricle, is a blood-clot. 1882

The patient was brought to the Hospital dead, with the history that he had fallen off a cab, and immediately expired.

2483b. The Left Cerebral Hemisphere of a Microcephalic Brain. The whole brain only weighed twenty-eight and a half ounces, the left hemisphere weighing twelve and a half ounces, and the right twelve and a quarter ounces. The dura mater was thickened and adherent to the skull in several places. The pia mater was adherent over the middle third of the ascending frontal convolution. 1888

From a married woman, aged 30 years, who had borne no children. There was a history of fracture of the skull, and it was probable that she had been a drunkard. She had hallucinations of sight, fancying that people were coming to kill her. After admission into Broadmoor, her history was one of progressive general paralysis—restlessness, destructiveness, grandiose ideas, followed by general paresis and dementia, with frequent attacks of epileptiform convulsions. She rapidly wasted during the last two months of her life.

Presented by David Nicolson, M.D.

ABSCESS OF THE CEREBRAL CORTEX, FROM A CASE OF JACKSONIAN EPILEPSY.

2484a. The Left Cerebral Hemisphere, cut transversely to show an abscess of the cortex. The section has been made through the upper part of the ascending frontal convolution, and has been carried vertically downwards. The abscess is situated in this convolution, beneath the pia mater and a thin layer of brain substance, a quarter of an inch above the fissure of Sylvius. It is conical in section, extending into the substance of the brain for five-eighths of an inch. Its base is irregularly notched. The cerebral substance, for a considerable distance round the abscess, has been so much inflamed that the pia mater is adherent, and the membrane has, therefore, been left *in situ*. 1887

From a female patient, aged 20, who was admitted to the Hospital with a history of headache lasting for three weeks, with some paresis of the right arm and leg, the face being unaffected. She was said to have suffered from thirteen "fits," consisting of convulsions attacking the right side of the face and spreading to the right arm and leg. The convulsive attacks were followed by aphasia. On admission, she had slight facial paralysis with total loss of power in the right arm and some loss of control over the right leg. No knee-jerk or ankle-clonus could be obtained. There was aphasia and intense double optic neuritis. The lungs and heart were normal. The muscles of the right arm and leg were wasted, but reacted to the Faradaic current. Sensation was normal, and there was no verbal deafness. A week after her admission the patient developed pneumonia, purpuric spots were observed over her abdomen, the urine became albuminous, and she died a week later. At the post-mortem no meningitis or ear-disease was discovered, and there was no thrombosis in the sinuses to account for the cerebral abscess.

See *Mary Ward Book* for 1887, No. 42.

2486a. The Left Cerebral Hemisphere, showing an abscess in the temporo-sphenoidal lobe, which resulted from the extension of an inflammation into the brain substance. The inflammation originated from necrosis of the mastoid cells. 1886

M., æt. five; admitted with a mastoid abscess, from which offensive pus was evacuated one month before death. At the autopsy no diffuse meningitis was found, but there was a localised patch of inflammation of the meninges corresponding with the diseased bone.

The temporal bone is preserved in Series i., No. 226b. See *Male Surgical Register*, vol. v. (1885), No. 482.

2486b. The lower part of the Left Hemisphere of a Brain, showing two Abscess Cavities. The larger is roughly oval in shape, measuring about three by one and a quarter inches; it involves the white matter beneath the convolutions of the island of Reil, the outer and posterior part of the lenticular nucleus, and the posterior part of the posterior limb of the internal capsule; the circumference was red and thickened, the abscess being evidently old. The smaller abscess, the size of a small marble, lies at the mesial border of the lenticular nucleus. 1891

The patient was a man, aged 31. For further details see *Medical Post-Mortem Register*, vol. xvi., p. 69.

2486c. The anterior halves of the Lateral Hemispheres of a Brain. Beneath the left frontal convolutions the substance of the brain has been excavated by a large abscess, a part of the walls of which has been removed to show the cavity thus formed. This tracked backwards towards the lateral ventricle, and the two spaces now communicate, the thin separation between them having been broken since the brain was removed. There is also marked bulging of the left frontal convolutions on the inner aspect of the hemisphere, accompanied by a corresponding depression on the right side. 1891

The patient was a man, aged 25, who was admitted into the Hospital suffering from erysipelas of the left side of the forehead. The inflammation spread to the frontal bones, and thence to the frontal sinuses, causing a localised necrosis both of the horizontal and orbital plates (see next specimen), and spreading through the former to the dura mater and the brain, with the formation of the abscess described.

See *Male Surgical Register*, vol. iv. (1890), No. 582.

2486d. Portions of the Left Frontal Bone, from the same case as the preceding specimen (to which refer). Small openings, into which bristles have been passed, with ragged, uneven edges, resulting from ulceration, exist in the outer table and in the horizontal and orbital plates. The lining membrane of the frontal sinuses is thick and of a velvety appearance. 1891

2487a. The Cerebellum, showing the site of a localised abscess in the left lobe, resulting from a fracture which extended transversely through the external auditory meatus and tympanum, as well as through the petrous and mastoid portions of the temporal bone. Pus was also diffused through the temporal bone, and the internal auditory meatus, with the seventh pair of nerves, was implicated in the suppuration. The membrana tympani was entirely destroyed. 1887

From a man, aged 43, who fell off a mail-cart on to his head, sustaining a fracture of the base of the skull. On admission he could answer questions, there was hæmorrhage from the left ear and left nostril. The pupils were equal, and he passed water naturally, but there was paralysis of the left side of the face. Three days after the accident the discharge from his ear became purulent and subsequently fœtid, and the patient died a fortnight later.

• See *Male Surgical Register*, vol. ii. (1886), No. 3410.

2492a. A series of five sections taken through the Pons Varolii, showing a deposit of Tubercular Material. The sections are taken at the following levels, each being seen from the under side :—

- i. Below the pons, through the superficial origin of the auditory nerve.
- ii. Through the fourth ventricle, at the level of the striæ acusticæ.
- iii. Through the lower part of the pons, at about the level of the superficial origin of the facial nerve.
- iv. A little below the centre of the pons, and through the upper part of the fourth ventricle, at the level of the superior fovea.
- v. Through the pons and upper part of the fourth ventricle, at the level of the superficial origin of the fifth nerve.

The tubercular material is seen to be scattered irregularly through the deeper parts of the pons. Before the sections were made, the tumour projected as two small nodules on the right side of the floor of the fourth ventricle, just above the auditory striæ. The specimen was hardened in Müller's reagent, some of the colour of which still remains. 1890

From a man, aged 40, in whom no other evidences of tubercle could be found.

See *Medical Post-Mortem Register*, vol. xv., p. 294.

See also *Pathological Society's Reports* for 1890. The Morbid Growth Committee of this Society reported that the tumour was tubercular in nature.

2497a. A Cerebellum, showing a glioma springing from the superior vermiciform process, and indenting the inner borders of the lateral hemispheres. 1889

From a young man, aged 17, in whom the pressure of the tumour had given rise to hydrocephalus.

Presented by James Berry, Esq.

MULTIPLE SARCOMATA OF THE CEREBRUM.

2499a. A Sarcomatous Growth, involving the left fifth nerve near its origin. 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 six 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 portion of the left occipital lobe has been cut away to show the extension of the sarcomatous tissue into it. (In a flat case in the first gallery.) 1886

M., æt. 49; married; an ex-policeman. On February 18th, 1885, he had violent pain of a neuralgic character over the left side of his head; this was accompanied by a slight numbness of the affected part. On the following day 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 was unable to feel a continuous current from a thirty-cell battery. On 24th February, the cornea of the left eye became hazy, and there was some catarrh of the right eye. On 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.

The patient gradually became worse. There was, however, no optic neuritis in the right eye. Pleurisy developed on the right side. The speech became affected, first only the using of wrong words, but later the patient was entirely unable to speak. The gait became feeble. There was incontinence of urine and fæces, and death occurred on June 27th, 1885.

At the post-mortem examination twenty-seven tumours, varying in size from a walnut to an orange, were found in different parts of the body. They occurred, amongst other places, at the root of the right lung, in the liver, kidneys, and mesentery.

Microscopically, these tumours were fibro-sarcomatous in character. Sections are preserved in Series lv., No. 437.

The patient was shown, by Mr. Strugnell, before the Clinical Society. See *Transactions of the Clinical Society*, vol. xviii. (1885), p. 330, and *Transactions of the Pathological Society*, vol. xxxvii., p. 62.

Presented by F. W. Strugnell, Esq.

2499b. Multiple Sarcomata in the cerebral hemispheres, with entire absence of cerebral symptoms. 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 its most superficial part, allowing of the protrusion of the new growth. In the substance of the occipital lobe, immediately above, and anterior to, the end of the posterior horn, was a patch of new growth about the size of a split pea, with a small hæmorrhage just above it. Similar patches of new growth were scattered about in other parts of the hemispheres. 1886

From a woman, aged 47, who sustained a lacerated wound from glass in her neck four years before her death. Three or four months before she died her thyroid gland swelled and became painful. The swelling increased rapidly, and the patient, after suffering for a week or two from aphonia, and from stridor for a day or two, died asphyxiated.

The tumour was diagnosed to be a malignant growth of the thyroid. With the exception of some pain in the head, which was referred to in the course of the lesser occipital nerve, the patient had absolutely no cerebral symptoms. Microscopically, the tumour in the brain consisted of an oval-celled sarcoma.

The thyroid gland is preserved in Series xxvi., No. 2319c. Sections of the brain are preserved in Series lv., No. 436.

See also *Transactions of the Pathological Society*, vol. xxxvii., p. 54.

- 2499c. A Brain infiltrated with numerous Sarcomatous Tumours, from a case in which sarcomata were also found involving the spinal cord. A large tumour involves the optic commissure; another is visible on the under surface of that portion of the corpus callosum which is turned downwards. Sarcomatous growths are also seen in the anterior cornua of the right lateral ventricle, and in the third ventricle, just behind the anterior pillar of the fornix. They also occurred in the dura mater, round the internal auditory meatus on either side. 1887

For further details of the case see Series xxxi., No. 2541a.

**SYMMETRICAL TUMOURS OF THE CEREBRAL HEMISPHERES,
WITH SOFTENING OF THE CORONÆ RADIATÆ.**

- 2499d. A Series of Sections of the Cerebral Hemispheres. The upper half of the brain has been removed by a horizontal section made about the level of the basal ganglia. Vertical sections of this portion have then been made, and have been arranged in the following order, from above downwards:—

Left side.

Right side.

Pediculo-frontal.

Frontal.

Parietal.

Pediculo-parietal.

Occipital.

Occipital.

The healthy white matter is seen to be coloured light-green, whilst the grey matter of the convolutions is brownish-green. The tumour is represented by the granular brownish patch in the centre of the corona radiata. The softened white matter in the immediate neighbourhood of the tumour is of a waxy-yellow colour; it is best seen in the left parietal section, which is the third section from the top on the left-hand side of the specimen. The tumour is seen to extend throughout the sections as a long track of disease in the white matter of both hemispheres. It is roughly club-shaped, broadest opposite the motor convolutions, and tailing off into the occipital lobes. 1889

From a man, aged 31 years. His symptoms on admission to the Hospital were of two days' duration, and consisted of headache, fever (a temperature of 102° F.), and a tendency to sweats. There followed stiffness of the neck and back, terminating in rigidity and opisthotonus, optic neuritis, gradual coma, right hemiplegia, and death in about five weeks. Microscopically, the tumour proved to be of a sarcomatous nature.

See *Transactions of the Pathological Society*, vol. xl., p. 19.

See *Luke Ward Book* for 1888, No. 107.

INTRACYSTIC SARCOMA OF BRAIN.

- 2500a. The specimen consists of a portion of the Right Hemisphere: situated in the posterior part is a well-marked flattened cyst, measuring two inches in diameter and containing a soft flocculent growth: under the microscope this was found to be a sarcoma of a very vascular nature; the rest of the cyst contained a pale yellow fluid; the specimen was hardened in Müller's solution. 1892

The patient was a man, aged 42.

For further details see *Medical Post-Mortem Register*, vol. xvii., p. 112.

SARCOMA OF THE CEREBELLUM.

- 2501a. A Round-celled Sarcoma, involving the inferior vermiform process of the cerebellum. The tumour has encroached upon the amygdalæ on either side, and has scooped out for itself a cavity in the substance of either lateral hemisphere. 1886

M., æt. 36. Admitted into Mark Ward on January 28th, 1885. He had suffered from 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 first 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.

On March 2nd, convulsions set in, and lasted for five minutes. Afterwards there was albuminuria, renewed vomiting, and finally death occurred from asthenia upon April 18th, 1885.

Microscopically, the tumour is a round-celled sarcoma. Sections are preserved in Series lv., No. 438.

See *Transactions of the Pathological Society*, vol. xxxvii., p. 66. Cf. No. 2468a in this Series.

PSAMMOMA OF PONS VAROLII.

2501b. The Right Half of the Pons Varolii and Cerebellum, which have been cut through longitudinally. The whole of the pons is much enlarged, measuring two inches from before backwards, and has, on section, an uniform white appearance; it projects backwards into the fourth ventricle; the anterior surface is irregular and slightly lobulated. Under the microscope its structure is that of a psammoma.

1892

See *Medical Post-Mortem Register*, vol. xviii., p. 57.

Microscopical sections are preserved in Series lv., No. 451a.

CARCINOMA OF CEREBELLUM.

2502b. A primary Carcinoma of the left lateral hemisphere of the cerebellum. The upper and anterior borders of the left lateral hemisphere are the seat of a new growth of a soft, gelatinous consistency. The right hemisphere is unaffected. 1886

M., æt. 47. Admitted to Matthew Ward, April 18th, 1886; 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 rose to 101.4° Fahr., and vomiting was constant. Death took place on the third day. The new growth is a carcinoma; the cells are numerous and soft, for the most part of the squamous epithelial type, though here and there they become cylindrical. They are embedded in alveoli of connective tissue, which are slight in comparison with the number of cells, so that the tumour is allied to the encephaloid cancers.

A section is preserved in Series lv., No. 448.

See *Transactions of the Pathological Society*, vol. xxxvii., p. 66.

CASEATING TUBERCLE IN THE CEREBELLUM.

2502c. A Cerebellum, which contains a caseating tubercular mass. The left cerebellar hemisphere is much larger than the right, the enlargement being even and uniform. The tumour is not apparent externally, except at a point situated three-quarters of an inch from the postero-internal angle of the hemisphere, where there is a small nodule. The pia mater over this nodule is granular and opaque, and the cerebellar markings are less distinct than in other parts.

A vertical section through the left hemisphere discloses a hard caseous mass, which occupies nearly the whole of the posterior two-thirds of the section. The tumour is irregularly oval in outline, and measures one inch and a quarter in its long diameter by an inch transversely. A zone of softened tissue, measuring nearly a quarter of an inch in thickness, surrounds the tumour, the softened area being of much greater extent in the neighbourhood of the anterior and upper border of the growth. The foramen of Magendie is patent. Microscopical examination showed the tumour to be a mass of caseating tubercle.

1889

From a boy, aged 13, who complained for four months of pain in his head, which was not however, limited to any exact spot. The pain was continuous, but underwent paroxysmal exacerbations. His sight failed gradually, until, during the last three days of his life, he was totally blind. He had occasional attacks of rigidity, during which he lost consciousness for periods of five or six minutes. From time to time he vomited. For several weeks before his admission to the Hospital he staggered whilst walking. The patient had strumous disease of the distal end of the metacarpal bone of the left thumb.

A section of the tumour is preserved in Series lv., No. 431.

See *St. Bartholomew's Hospital Reports*, vol. xxiii., pp. 186-188.

Presented by E. Mansel Symptom, M.D.

TUMOUR OF PITUITARY BODY.

- 2504a. Portions of the body of the Sphenoid Bone, with the Sella Turcica and a tumour in the site of the Pituitary Body. The new growth is composed of two parts, each rather larger than a walnut, the one composed of hard nodulated bone, the other of a soft, homogeneous, brain-like material, containing numerous cysts, in the cavities of which are found the remains of broken-down epithelium and some calcareous débris. 1883

The patient was a man, aged 22, who had suffered from frequent fits for ten years before death. A microscopic examination shows that the softer part of the growth is composed of a stroma of connective tissue containing a very large number of small blood-vessels. In various parts of this stroma are ingrowths of epithelial cells, which show a great tendency to undergo cystic degeneration, thus forming the cysts seen in the specimen. The harder part of the tumour is not composed of true bone, but of the calcified stroma.

Microscopic sections are preserved in Series lv., Nos. 446 and 447.

CYST OF THE CHOROID PLEXUS.

- 2511a. A simple Cyst, springing from the choroid plexus in the right lateral ventricle of the brain. The cyst appears to be the result of a cystic degeneration of the choroid plexus. 1886

A young gentleman, aged 21, had been noticed by his friends to be indolent and lazy for 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 a certain want of energy, he had always appeared to be in excellent health, and never had any fits.

At the autopsy, thirty-six hours after death, the abdominal and thoracic viscera were found 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, and had not burst.

A section of the tumour is preserved in Series lv., No. 449.

See *Transactions of the Pathological Society*, vol. xxxvii., p. 57.

Presented by W. Lenton Heath, M.D.

GENERAL PARALYSIS OF THE INSANE.

- 2511b. The Brain of a woman, who died from General Paralysis. The upper portions of both hemispheres have been removed in order to expose fully the lateral ventricles, both of which are dilated. Other characteristics of the disease are also seen in this specimen, viz., (i.) thickening of the pia mater, (ii.) shrinking of the cortical substance of the convolutions, thus rendering the sulci unduly prominent, (iii.) the presence of small cysts on the choroid plexus, (iv.) the dilated perivascular spaces, seen in the cut surface as minute orifices, not larger than those caused by the point of a fine needle. 1893

The patient was a married woman, aged 37, who died in the Banstead Lunatic Asylum eighteen months after her admission. She had well-marked signs of the disease, which steadily increased until her death.

Presented by T. Claye Shaw, M.D.

- 2512a. A Brain, from which the upper part and sides of the lateral hemispheres have been removed, laying open the lateral ventricles and disclosing a cyst of the pineal gland overlapping the corpora quadrigemina. This cyst is about the size of a hazel nut, is nearly globular, and, when fresh, was seen to have thin translucent walls: it contained a clear, serous fluid. A small piece of its upper wall has been removed. 1891

The patient was a woman, aged 36, who had diabetes.

See *Alexandra Ward Book*, 1890, No. 2025.

2513a. A Section of a Brain, affected with internal hydrocephalus. The lateral ventricle is so greatly distended as to form an arched cavity measuring nearly two inches across at its widest part. 1889

From a boy, aged 18 years.

2521a. An unusually fine example of a Skull, from a case of chronic hydrocephalus. The fontanelles are seen to be widely open, and the bones in several places present patches of cranio-tabes. 1886

From a male child, aged sixteen months. There were no signs of rickets. The brain was enormously dilated, and contained more than five pints of fluid in the lateral and third ventricles. The iter a tertio ad quartum ventriculum was closed; there did not appear to be any increase of fluid in the central canal. (In case D.)

See *Transactions of the Pathological Society*, vol. xxxvii., p. 366.

2523a. The Left Cerebral Hemisphere, showing extensive laceration of the under surfaces of the frontal and temporo-sphenoidal lobes. The pia mater has been extensively torn, and the cerebral substance in the neighbourhood of the lacerated portions is contused. 1888

From a builder, aged 26, who fell twenty-five feet. He had a fracture of the skull extending across the right frontal, parietal, and occipital bones, and passing through the petrous portion of the temporal to the foramen lacerum medium.

See *Male Surgical Register*, vol. v. (1887), No. 519.

2523b. The lower part of the Right Hemisphere of a Brain, showing extensive laceration and destruction of the brain substance. The anterior part of the superior temporo-sphenoidal convolution and the island of Reil are the regions that are most affected. A large, recent clot occupies the cavity formed by the loss of brain substance. 1891

The patient was a young man, aged 25, who was struck with a knuckle-duster on the right temple, the blow causing a compound depressed fracture over the situation of the middle meningeal artery. The skull was trephined at this situation (see next specimen), and the wound washed out. He went on favourably until the seventh day after the accident, when his temperature suddenly rose, and he died. At the post-mortem examination it was found that the base was not fractured, nor was there any hæmorrhage between the skull and dura mater.

See *Male Surgical Register*, vol. iii. (1889), No. 3528.

2523c. A portion of the right Temporal Bone, showing the piece of bone which was removed by the trephine in the preceding specimen. The groove for the middle meningeal artery lies over the middle of the disc of bone. 1891

ATROPHY OF CONVOLUTIONS AFTER TREPHINING.

2523d. The anterior portion of a Brain, showing marked atrophy of the right frontal convolutions. 1893

From a man, aged 61, who died on the third day after having been run over by a van.

Twelve years previously he sustained a compound comminuted fracture of his right frontal bone, for which he was admitted into Guy's Hospital; he was trephined and several fragments of bone were removed; this left a considerable depression over the seat of injury with atrophy of the corresponding convolutions.

See *Male Surgical Register*, vol. i. (1889), No. 3485.

PISTOL-WOUND OF THE CRANIUM.

2524a. A Skull, with the Brain *in situ*, prepared in such a way as to show the course of a bullet fired upwards from the mouth. The bullet has traversed the hard palate, the ethmoid and the frontal portion of the brain, leaving a track along which a black rod has been passed. The bullet was extracted from an abscess which formed twenty days after the injury behind the coronal suture; the remains of it are still visible. The lateral ventricle was not opened. The layers of arachnoid

around the aperture are adherent, but there is no other evidence of meningitis. The portion of the brain corresponding with the left frontal lobes, which were disorganised, appear to be contracting by a process of cicatrisation. 1886

From a man, aged 38, who shot himself through the mouth with a revolver. He survived the injury one month, and during this time remained in a state of stupor unless he was roused, when he was cheerful and possessed some memory.

See *Transactions of the Pathological Society*, vol. xxxvii., p. 3.

Presented by C. B. Lockwood, Esq.

2530a. Sections through the Cerebral Hemispheres, from a case of aphasia, in which the chief lesions were seated in the supra-marginal and angular gyri, Broca's convolution being unaffected. On the left side of the brain, corresponding with the whole extent of the supra-marginal and angular convolutions, is a large area of softening, which, in the recent condition, was considerably depressed below the level of the rest of the cortex. The colour was pale yellow, and the surface was speckled with small patches of white and yellow (fatty change).

The softening appears to have been due to embolism of the peripheral branch of the Sylvian artery. 1885

For further details and history of the case see the *British Medical Journal*, vol. i. (1885), p. 1242, and the *Medical Society's Proceedings*, vol. viii. Photographs of the case are preserved in Series lvii., Nos. 699a, b, and c.

Presented by Samuel West, M.D.

SERIES XXXI.

DISEASES AND INJURIES OF THE SPINAL CORD AND ITS MEMBRANES.

2531a. A Spinal Cord, exhibiting in the dorsal region that condition of the membranes known as "Pachymeningitis." The membranes are fused to form a tough, white, leathery mass about a fifth of an inch in thickness. This thickening involves rather more than one-third of the circumference of the sheath, and is closely adherent to the cord along the posterior half of its circumference. The cord at this point is much flattened out, measuring rather more than a fifth of an inch antero-posteriorly. Here also the cord is twisted and distorted, being drawn round from right to left, so that the thickened mass, though it was adherent over the posterior segment, lay in its bony canal rather to the left side. The posterior roots are involved in the membranes on both sides. The anterior roots are natural. 1884

Sections of the cord are preserved in Series lv., No. 458.

The case is described, by Dr. Tooth, in *Brain*, for July, 1884, pp. 254-258.

SARCOMA OF THE SPINAL CORD.

2541a. The Spinal Cord, from a case of multiple sarcomata affecting the brain and cord. The cord appears to be healthy, and its membranes can readily be separated as far as the lumbar swelling. From this point down to the cauda equina a tumour has grown from the cord, implicating the membranes, and rendering them so adherent that they cannot be separated without lacerating the nerve substance. The tumour has spread down the nerves. It slightly eroded the bodies of the vertebræ. Microscopically, the tumour is a round-celled sarcoma. 1887

From a woman, aged 39, who became pregnant in the early part of November, 1885. In January, 1886, she began to suffer from anæsthesia of the legs, which was soon followed by pain in the back of the legs, extending, at a later period, to the hips and loins. In February, paraplegia set in, with paralysis of the sphincters. On June 24th, there was slight optic neuritis, and subsequently, pain in the head and delirium. The patient died on August 14th. From June 3rd to July 20th her temperature often rose to 100°, and was sometimes higher; after the latter date, however, it never exceeded 99°F., and during the last ten days of the patient's life it became subnormal. At the autopsy numerous sarcomatous tumours were found in the brain and dura mater.

The brain is preserved in Series xxx., No. 2499c.

See *Hope Ward Book* for 1886, s. v. S. Pelly, and *Transactions of the Pathological Society*, vol. xxxviii., p. 43.

INCISED WOUND OF CORD.

2548a. Sections of the upper part of a Spinal Column, with the Spinal Cord. A glass rod is passed between the laminae of the third and fourth cervical vertebræ on their left side, through the intervertebral cartilage, and into a hole in the membranes. Opposite this spot the cord has been externally injured. The anterior lateral columns on both sides, the whole of the grey matter, and the anterior part of the

left posterior column, have been cut through below the origin of the fourth nerve. A strand of fibres from the fifth nerve passes over the line of incision, and has escaped injury. On the right half of the spine the intervertebral cartilage has been partially divided. 1884

F., *et.* 21. Wounded by knife. Paralysis of motion of trunk, legs, and arms. Can shrug her shoulders. Breathing with diaphragm. Can localise on legs, trunk, and arms, but sensation is impaired. Died with T. of 107°, June 24th.

For details see *Stanley Ward Book*, vol. x., p. 324, June 24th, 1882.

DEGENERATIONS OF THE SPINAL CORD.

2550a. Sections of a Spinal Cord, preserved in celloidin, after hardening in bichromate of potassium. The areas of degeneration and the grey matter are of a lighter colour than the healthy white matter. One of the sections shows the tumour and the softened cord, whilst the other four are sections of the cord made at various levels in the cervical region above the seat of lesion. The highest section was carried through the cord at the level of the second pair of cervical nerves. The degenerate tracts are the posterior median, the direct cerebellar, and the ascending antero-lateral. 1889

From a boy, aged 18 years, who had a tumour of the spinal cord, which extended from the eighth to the tenth dorsal vertebrae.

Microscopical sections of the cord are preserved in Series lv., No. 452.

2550b. Sections of a Cord and Pons, which have been preserved in the same way as the preceding specimen. The posterior two-thirds of the right internal capsule were softened. The sections of the cord commence at the level of the first dorsal nerve. The left crossed pyramidal tract and the right direct cerebellar tract have degenerated. 1889

Microscopical sections are preserved in Series lv., No. 460.

2550c. A series of sections of the Spinal Cord, preserved in the same way as the preceding, from a case of fracture of the vertebra prominens and compression of the cord. They show ascending and descending degenerations, which are explained in detail in Series lv., No. 464. 1889

From a man, aged 54, who lived twenty weeks and four days after a fall which broke his back.

Microscopical sections are preserved in Series lv., No. 464.

2550d. Sections through the Spinal Cord of a Monkey, preserved in the same way as the preceding specimens. A semi-section of the cord had been performed between the seventh and eighth cervical nerves, upon the left side. The sections are arranged to show ascending and descending lesions on the left side. The direct cerebellar tract, the antero-lateral tract, and a small part of the posterior median tract are affected above the lesion. The crossed pyramidal tract is the part chiefly affected below the seat of the injury. 1889

2550e. Sections through the Spinal Cord of a Monkey, preserved in the same way as the preceding specimens. The left posterior roots of the last dorsal and the first three pairs of lumbar nerves were divided about four weeks before death. The resulting degeneration is situated in the posterior region, on the same side as the section. The degeneration is at first diffuse, but it becomes limited to the posterior median column as it ascends. 1889

The five preceding specimens were prepared and presented by Howard Tooth, M.D.

SERIES XXXII.

DISEASES AND INJURIES TO NERVES.

FIBROMA.

- 2555a. A Portion of a Median Nerve, in which there is a circumscribed oval tumour composed of firm fibrous tissue. The tumour is situated in the substance of the nerve, and is covered by its investing sheath. 1889

From a subject brought for dissection.

- 2559a. Section of a Tumour, composed of white, softish, fibro-cellular tissue, and containing a cyst about the size of an orange, which was filled with a gelatinous fluid and blood-clot. It occupied the popliteal space, and was connected with the nerve trunks. 1881

The tumour is composed of soft homogeneous or finely filamentous connective-tissue, containing abundant round or oval nuclei. In places the nuclei are very numerous, and separated by only a small amount of connective tissue.

The tumour was removed from a man, aged 67 years, and, during the operation, the peroneal and popliteal nerves were severed. It had been observed for two years.

See *Henry Ward Book*, vol. viii., p. 56.

- 2560a. A Portion of Fibro-Neuroma, removed from the peroneal nerve. The tumour was oval in outline; it is possessed of a firm capsule, and consists, microscopically, of fibrous tissue with numerous spindle cells. A few nerve-fibres were entangled in one part of the growth. 1889

From a man, aged 43 years, who for nine years had noticed a painful swelling on the outer side of his left leg. The tumour was situated two inches below the head of the fibula, in the line of the external popliteal nerve. It did not increase in size after the time when it was first noticed.

See *Male Surgical Register*, vol. iii. (1889), No. 354.

SARCOMA OF THE PERONEAL NERVE.

- 2561a. A section through the upper half of the Left Fibula, and of a Sarcoma arising in the Peroneal Nerve. The tumour, though closely adherent to the bone, is separated from it by the periosteum, while the nerve, which is seen at the upper and back part of the specimen, is intimately blended with the tumour. 1892

From a boy, aged 12. The operation was performed at the Royal Free Hospital, in December, 1889; there was no glandular enlargement, and the boy made a good recovery except for a kind of talipes consequent on paralysis of the muscles supplied by the affected nerve. In April, 1891, he began to feel pain in his loins and legs; he was re-admitted, and in May, 1891, laminectomy was performed for the removal of a secondary growth; this was found to be growing from the body of the first lumbar vertebra, and could not be removed. The boy lived for a year, but gradually got weaker, and died in April, 1892.

Presented by James Berry, Esq.

2566a. A Hand, deformed as the result of an injury to the median nerve. The fingers are doubled up and claw-like, the nails are curved longitudinally and transversely ; they are fibrous, ridged, and furrowed. The phalangeal joints are stiffened in a position of flexion ; their cartilages are thinned, and in the articulation between the second and third phalanges of the ring-finger there is true bony ankylosis. The muscles are not wasted, but, during life, the skin of the digits was smooth and glossy. About one inch above the wrist-joint the median nerve is enlarged, and embedded in its substance may be seen a small foreign body—a piece of metal.

1884

The patient was a soldier, aged 32, who received a *gunshot* wound on the front of the wrist by a splintered ramrod, two years before he came under notice. The hand had slowly assumed its present condition, and sensation in the median distribution was everywhere impaired. The forearm was wasted and hyperæsthetic.

2566b. Hand, showing a Cyst on the deep branch of Ulnar Nerve. The cyst contains synovial fluid ; it is connected with one of the carpal joints by a narrow process which runs up over the carpus.

1884

Presented by T. Swinford Edwards, Esq.

SERIES XXXIII.

DISEASES AND INJURIES OF THE EYE AND
ITS APPENDAGES.

SARCOMA.

- 2570a. Section through an Eye, embedded in a round-celled sarcoma, which appears to have sprung from the connective tissue lying in the lower and back part of the orbit. The pressure of the growth has compressed the eyeball until it is almost triangular in shape, whilst the sclerotic coat is atrophied. 1888

From a boy, aged eight years, who complained of a dimness in his left eye four months before his death. Ophthalmoscopic examination revealed the presence of yellow patches upon the retina. In a week or two the eyeball began to protrude, and the eye was removed. Two months after the first appearance of the symptoms in the left eye, the right eye became affected in the same manner, and the patient died after a severe hæmorrhage from the left orbit. At the autopsy sarcomatous growths were found in the falx cerebri and in the posterior portion of the brain. The glands of the neck were involved.

The boy had two severe falls, one on the crown of his head four years before his death, and the other on his forehead from the eaves of a house eighteen months later. The maternal grandmother died of cancer of the breast.

A photograph of the boy, as he appeared a month before his death, is preserved in Series lvii., No. 751.

Presented by H. C. Alderton, Esq.

SYMMETRICAL HYPERTROPHY OF THE LACRYMAL GLAND.

- 2571a. A Lacrymal Gland, removed from a boy, aged fourteen, in whom both the glands were excised. It retains its normal shape, but measures an inch in length by a third of an inch in width. The extirpation was performed through an incision in the eyelid. Upon microscopical examination, the enlargement was found to be due to an increase in the fibrous tissue, with little, if any, alteration of the glandular substance. 1887

From Francis C., aged 14, a boy of dark complexion. The swelling was first observed in April, 1886, but in August of the same year both glands were enlarged and tender. No cause was known, except that he had experienced one or two severe falls, in which he struck his head with some violence. In August, 1886, when the patient first came under observation, the left gland was considerably larger than the right; but the thin hard edge of each gland could be distinctly felt through the skin. There was troublesome laceration.

See *Transactions of the Ophthalmological Society*, vol. vii. (1887), p. 54.

Presented by Henry Power, Esq.

SARCOMA OF THE CONJUNCTIVA.

- 2578a. A section through an Eyeball, showing a tumour growing beneath the conjunctiva at the upper sclero-corneal margin. The growth spreads downwards towards the cornea, which it covers, but does not infiltrate. While it was fresh, the tumour was a roundish, lobulated, and vascular growth, protruding about half an inch beyond the orbit. It was firm to the touch, and was not tender. Microscopically, it is a round-celled sarcoma. 1888

From a woman, aged 67, who had suffered pain and gradual loss of vision in her right eye for a period of five years. For two months preceding the extirpation of the globe, the patient noticed that her eye protruded a good deal, and that an increased quantity of discharge came from it.

A drawing of the patient is preserved in Series lvii., No. 743, and a section of the growth in Series lv., No. 484.

See *Alexandra Ward Book* for 1887, No. 1597.

- 2588a. An Eye, from which the Cornea has been removed by the operation of abscission. The specimen has been cut through at right angles to the scar of the operation, which is still clearly seen, and shows that the lens and iris have also been removed. The retina has become partially detached, and the space between it and the choroid, together with the cavity of the vitreous, is occupied by a soft homogeneous material, probably the remains of decolourised blood-clot. 1891

Presented by Henry Power, Esq.

FIBROMA OF THE CORNEA.

- 2589a. An Eye, with a Fibrous Tumour growing from the anterior surface of the cornea. The growth extended over two-thirds of the cornea, and formed a large projecting tumour, which was covered with a network of blood-vessels. A similar but smaller growth extended from the lower margin of the right cornea to the centre of the pupil. Microscopically, the tumour is a pure fibroma. 1887

From a rickety child, aged five. The tumours were congenital.

A section is preserved in Series lv., No. 485, and a drawing in Series lvii., No. 742.

See *Ophthalmic Ward Book* for 1886, No. 2222.

- 2593a. A Right Globe, excised on account of an injury. The wound extends across the centre of the cornea, involving the ciliary region on either side, and dividing the sclerotic for some distance. 1889

From a man, aged 23 years, who was working at a circular saw when he was struck by a long splinter of wood, which entered the orbit an inch behind the external canthus. The wound was V-shaped, and the canthus was torn up; the lower lid was divided, and the globe was horizontally lacerated.

Presented by F. O'Kinealy, Esq.

- 2600a. An Eye, which shows the changes characteristic of old Glaucoma. The optic disc is considerably depressed at its centre, and in its immediate neighbourhood is a large posterior staphyloma; in many places the choroidal pigment has been removed and small opaque areas mark the seat of former inflammatory effusions, the lens is cataractous, and the uveal pigment is deficient around its margin. 1882

From an Italian woman, who had suffered from pain in the eyeball at intervals, for many years; the symptoms had been greatly aggravated for the week previous to her admission into the Hospital, the eye was blind, and intra-ocular tension greatly increased.

COREDIALYSIS.

- 2605a. One-half of an Eyeball, showing a detachment of a portion of the circumference of the iris (coredialysis). 1882

From a man who received a blow on the eye with a piece of wood; suppuration ensued, and the eyeball was removed.

TOTAL POSTERIOR SYNECHIA.

- 2605b. Section through the Globe of an Eye, showing a total posterior synechia, the results of chronic iritis, due to a traumatic cataract. The anterior chamber is so shallow as to be practically absent. The retina is completely detached, and forms a cone, of which the apex is the entrance of the optic nerve. The vitreous has shrivelled, and is seen as a yellowish mass immediately behind the lens. 1889

From a woman, aged 26, who received an injury to her right eye when she was five years old. The injury resulted in the formation of a cataract.

See *Alexandra Ward Book* for 1886, Nos. 341 and 502.

2613a. An Eyeball, part of which has become calcified. The sclerotic and cornea are normal, except that the latter is opaque; the choroid is separated from the subjacent calcified tissue, and the retina may be seen within, completely detached in its whole circumference, adherent at the anterior extremity to the atrophied lens, and at its posterior extremity continuous with the optic nerve by a small hole in the bony capsule. The latter is incomplete in front, not extending beyond the ciliary region, and appears to occupy a position midway between the retina and choroid. 1883

The patient was a man, aged 67, who had lost the sight of his eye fifty years previously from an injury by a cow's horn.

2613b. A similar specimen to that last described. 1883

From a man, aged 40, whose eye had been partially destroyed by lime twenty-four years previously.

2613c. A similar specimen. 1883

From a lady whose eyesight had been destroyed by an injury thirty years previously.

Presented by Henry Power, Esq.

2619a. The posterior portion of the Right Eyeball, showing the advanced degenerative changes which have resulted from intra-ocular hæmorrhage. The cavity of the eyeball is divided by the detached retina into two portions, each of which is filled with blood-clot. The hæmorrhage appears to have taken place between the sclerotic and the choroid. 1888

From a woman, aged 58, whose globe was extirpated on account of a severe attack of sympathetic iritis, set up by suppuration in the left eye. The suppuration followed upon an extraction of the lens.

See *Alexandra Ward Book* for 1887, No. 1745.

2621a. Portion of an Eyeball, in which may be seen an old decolourised blood-clot around the optic papilla. The various tunics of the eye are entirely disorganised. 1882

From a woman who had suffered much pain in the eye, and had become blind. Before removal the growth much resembled an intra-ocular sarcoma.

2621b. Posterior half of the Right Eye, showing tubercle of the choroid in the form of small white patches. 1884

The specimen comes from a child, aged seven, who was admitted to Mary Ward, July 4th, 1883, with tubercular meningitis. The diagnosis of tubercle of the choroid was made by means of the ophthalmoscope before death. There was optic neuritis. The other eye was free from deposits. A section of the eye is preserved in the Ophthalmic Histological Cabinet in the Eye Wards.

2631a. Section of an Eye, showing a Melanotic Sarcoma of the choroid. The growth occupies rather more than one-half of the chamber of the vitreous, and has detached the retina in front of it. The other half of the vitreous chamber is occupied by a whitish substance, which, on microscopical examination, was found to be homogenous and structureless, and is doubtless the consolidated vitreous. The growth has in several places invaded the sclerotic, forming several darkly pigmented patches, seen on the outer surface. The lens is displaced forwards, and is partially opaque, and the anterior chamber much flattened. 1890

From an elderly lady in whom symptoms had been noticed for some time. A microscopical section is preserved in Series lv., No. 492.

Presented by Henry Power, Esq.

2631b. The other half of the preceding specimen, mounted in glycerine. 1890

- 2634a. Posterior Half of the Right Eyeball, showing a dark-coloured tumour springing from the choroid, and pushing the retina in front of it. The growth arises from the posterior portion of the orbit. Microscopically, it consists of a round-celled melanotic sarcoma. 1888

From a woman, aged 52, whose globe was extirpated for the relief of chronic glaucoma. See *Alexandra Ward Book* for 1886, No. 1840, and for 1887, No. 2669.

- 2636a. Melanotic Sarcoma springing from the ciliary processes. 1884

- 2636b. An Eye, showing a Melanotic Sarcoma springing from the choroid, and involving the ciliary processes. 1884

Microscopic examination shows that it consists of small spindle cells. Details of the case will be found in the *Male Register Book* of the Ophthalmic Wards, case No. 403, 1884.

- 2637a. A Segment of the Posterior Half of the Eyeball, showing a small, round, and deeply pigmented melanotic sarcoma growing from the choroid. In its growth the tumour has detached and pushed forward the retina. Microscopically, the growth is a spindle-celled sarcoma, containing an unusually large amount of pigment. 1888

The growth of the tumour gave rise to chronic glaucoma, which culminated in an acute attack.

A section of the tumour is preserved in Series lv., No. 489.

Presented by Sir Henry Wentworth Acland, K.C.B.

- 2640a. A Calcareous Lens, removed from the anterior chamber. It had probably been dislocated for many years previous to its removal, but had only recently been displaced in front of the iris. 1887

From a boy, aged 16, who had been blind from birth with his right eye. Three days before admission to the Hospital a round yellow object appeared in his eye, and he suffered intense pain.

A drawing of the eye, before the removal of the lens, is preserved in Series lvii., No. 752.

See *Ophthalmic Ward Book* for 1886, No. 3090.

- 2641a. A Crystalline Lens of such an unusually dark colour that it may be classed as an example of the rare form of "black cataract." Chemical examination shows that it is free from iron pigment. 1886

It was removed from a woman, aged 43, who had always been myopic. She believed that she had received a blow upon her right eye sixteen years before admission to the Hospital. After the blow the eye gradually became dim. When seen, both eyeballs were prominent, and there was a dark striated opacity in the right. The right fundus could not be illuminated. The patient had cataract of the left eye. The right lens was removed without iridectomy.

See *Proceedings of the Ophthalmological Society*, vol. v. (1885), p. 111.

- 2641b. A Crystalline Lens, removed by operation. The nucleus is sufficiently dark in colour for it to be classed as a "black cataract." 1891

See *Albert Edward Ward Book*, 1890, No. 3111.

- 2642a. A Transverse Section through the Eye of a Dog, to show the lens in an advanced condition of cataract. It is densely opaque and nacreous. The opposite eye was equally affected, and the animal had been blind for some time before his death. 1889

Presented by Sir Dyce Duckworth, M.D.

- 2651a. A Human Eye, divided transversely to show a large flake of metal which is embedded in the outer side of the eyeball. All the structures of the eye are destroyed. 1886

On admission, the patient had a vertical wound of a quarter of an inch long on the outer side of the cornea, and extending into the ciliary region. There was prolapse of the iris. The eye was removed three weeks after the injury on account of the appearance of sympathetic irritation. The patient made a good recovery.

See *Albert Edward Ward Book*, 1885, No. 3210.

2651b. The Anterior Portion of the Left Eye, showing a piece of spectacle glass firmly lodged between the remains of the lens and the margin of the ciliary processes. The anterior chamber was filled with cholesterin. 1888

From a gentleman, aged 27, whose spectacles were broken by a blow from a stone seven years before removal of the eyeball. An iridectomy was performed one month after the injury, and after a traumatic cataract had formed. A year after the iridectomy the capsule of the lens was divided with two needles. For six years the eye gave no trouble, but it was then affected with repeated attacks of inflammation, and the right eye showed signs of sympathetic irritation. The patient made a good recovery.

A drawing is preserved in Series lvii., No. 754.

See *Albert Edward Ward Book* for 1887, No. 3773, and *St. Bartholomew's Hospital Reports* for 1889, vol. xxiv., p. 201.

2651c. A Section through an Eye, showing a wound in the cornea and a piece of metal embedded in the vitreous humour. The vitreous round the fragment has suppurated. 1889

From a wheelwright, aged 28. The metal was cold when it entered the eye. It had remained for nineteen days, giving rise to great pain and congestion.

Presented by Henry Power, Esq.

2660a. An Eye, in which the Retina is completely detached, forming a cord stretching from the entrance of the optic nerve to the cornea. The lens is dislocated downwards, and attached to the anterior termination of the detached retina. 1882

2663a. A Section through an Eye, showing a New Growth in the chamber of the vitreous. When the section was made, the tumour, which occupied the greater part of the vitreous, was seen to spring from the optic disc, and to be attached there by a narrow pedicle. This portion was removed for microscopical examination, and it was found that the tumour, which is seen to have extended forwards as far as the lens, was a small-celled sarcoma with branching villous processes, but with no inter-cellular stroma. 1890

From a child, aged one and a half, in whom the tumour had been noticed for some months. The eye was blind.

See *Alexandra Ward Female Register* (1889), No. 1965.

A microscopical section is preserved in Series lv., No. 499, and a drawing of the eye, before removal, in Series lvii., No. 744.

SERIES XXXIV.

DISEASES OF THE EAR AND ITS APPENDAGES.

2670a. An Epithelioma of the External Ear. 1884

2670b. An Epithelioma, involving the Right Auricle. The disease occupies a large portion of the external surface of the auricle, including the concha and anti-helix, but it does not penetrate through its whole thickness. The growth forms an irregular sprouting mass, which is, in parts, coloured black with blood. Microscopically, the growth is a typical epithelioma. 1888

From a man, aged 62, who noticed a small pimple on his ear eighteen months before the operation. The growth remained quiescent for fifteen months, and then rapidly increased in size, and began to ulcerate.

See *Male Surgical Register*, vol. ii. (1886), No. 2692.

2676a. A portion of the Left Temporal Bone, with the Cerebral Membranes, from a case of suppuration of the middle ear. The bone is not necrosed. The small puncture was made during life for purposes of exploration; it opens into the groove of the left lateral sinus. The sinus itself was filled with the breaking-down, adherent, and decolourised clot which is suspended over the top of the membranes. This clot extended as far as the Torcula Herophili, and thence into the inferior longitudinal sinus for a distance of two inches. In one part in the centre of the clot there was a distinct circumscribed collection of pus. The left internal jugular vein was filled with a similar clot down to its opening into the innominate vein. 1886

From a boy, aged 13, who was admitted with otorrhœa following upon an injury to the left ear three months previously. The patient was drowsy but conscious; he had pain on the left side of the head. The temperature rapidly rose, and he had a sudden attack of dyspnœa. He died with symptoms of pyæmia.

2682a. A Soft, Fibrous Polypus, removed from the external auditory meatus. 1884

2682b. A large Aural Polypus, removed by avulsion. Microscopical examination showed that it consisted of inflamed fibrous tissue covered with an epithelial coat. 1886

M., æt. 26. The polypus extended as far as the edge of the meatus. It had probably been growing for many years, as the patient had suffered from otorrhœa as long as he could remember.

2685a. An Aural Polypus. 1882

Microscopic examination showed that it was mainly composed of loose fibrillar tissue. Sections are preserved in Series lv., No. 501.

INJURIES OF, AND OPERATIONS UPON, THE EAR.

2686a. Portion of a Temporal Bone, with an opening made by the trephine above the mastoid process. The operation was performed to allow of the discharge of pus from the tympanum and mastoid cells. 1881

From a girl, aged 12 years, who had had a discharge from the ear for nine years. Four days before the operation was performed, she was seized with rigors, followed by coma, and death took place from cerebral meningitis.

SERIES XXXV.

DISEASES AND INJURIES OF THE SKIN AND
ITS APPENDAGES.

2689a. Portion of a Foot, including the first and second toes, with a perforating ulcer upon the sole. The ulcer is surrounded by thickened epidermis. A glass rod is inserted into a fistulous track, extending into the metatarso-phalangeal joint of the second toe; this joint, which was filled with pus, is completely destroyed. The great toe is deformed and retracted, owing to necrosis of the first phalanx. The bones of the fourth and fifth toes were also diseased. 1881

Two months before his admission to the Hospital he noticed a hard lump on the sole, which subsequently ulcerated and discharged. The foot was removed by Symes's amputation.

See *Pitcairn Ward Book*, vol. vii., p. 13; and *Pathological Society's Transactions*, vol. xxxiii., p. 283.

2689b. Portion of a Foot, with an oval ulcer one inch and a half in diameter, situated upon the sole, over the heads of the metatarsal bones. The ulcer is surrounded by heaped-up, thickened epidermis; the edges are clearly cut, and at its base, on the inner side, the carious heads of the third and fourth metatarsal bones are exposed. The great toe had been removed for a similar disease. 1881

2693a. A small, Horn-like Growth, removed from the skin of the lip. It consists of inspissated sebaceous material covered by hardened epithelium. 1883

2693b. A Horn-like Growth, which was removed from the Neck of a woman, aged fifty-seven. It began as a wart, and was first noticed four and a half years before removal. The peripheral half had been shed twice, at intervals of eighteen months. The growth is curved, and measures two inches in length. 1890

See *St. Bartholomew's Hospital Reports*, vol. xxv. (1889), p. 106.

Presented by A. G. R. Foulerton, Esq.

2693c. A Cutaneous Horn, which was removed from the side of the neck of a girl, aged eleven. It attained its present size in seven weeks. A small pimple was noticed before the horn began to grow. 1891

A photograph of the growth, before removal, is preserved in Series lvii., No. 823a.

2694a. A Hand, affected with congenital Elephantiasis. The thick and roughened appearance of the skin is well marked. Over the back of the metacarpal bone of the thumb is an irregular, deep ulcer, the edges of which are raised and very indurated, and at its base the necrosed metacarpal bone of the thumb is exposed. 1882

From a man, aged 34, who said that the affected hand had always been larger than the other. A year before admission it began to increase in size, and nine weeks before he came under notice, the ulceration over the thumb commenced.

See *Abernethy Ward Book*, vol. vii., p. 205.

Microscopic sections are preserved in Series lv., No. 508.

- 2695a. Portion of a Scrotum, with thickening of the skin and dilatation of the lymphatics ("lymph-scrotum"). A filaria was found in one of the dilated lymphatics. 1881

From a native of Amoy.

Presented by the Royal College of Surgeons.

- 2695b. Portion of a "Lymph-Scrotum," in the early stage of Elephantiasis. From a case in which filaria were found in the blood. 1881

From a native of Amoy.

Presented by the Royal College of Surgeons.

- 2695c. The Prepuce, from a Penis affected with Elephantiasis. 1881

From a Negro.

Presented by the Royal College of Surgeons.

- 2695d. Section of the hypertrophied Skin and subcutaneous tissue from a "Barbadoes Leg," Bucnemia Tropica. 1881

From a native of Mauritius.

ELEPHANTIASIS GRÆCORUM.

- 2695e. The left Hand of a Leper, dissected. The fingers have been entirely destroyed by interstitial absorption of the bones, only the bases of the first phalanges of the thumb, third, and little fingers remaining. 1881

From a female, aged 60 years, a native of Mauritius. When she first came under observation the disease had existed three years. The skin of the body generally was shrivelled and rough. The fingers and toes had gradually disappeared. The right hand, in the same condition as the left, is in the Museum of the Royal College of Surgeons.

Presented by the Royal College of Surgeons.

- 2695f. The Hand of a Leper, showing a shrivelled condition of the skin of the fingers. In parts the fingers and dorsum of the hand are mottled with greenish spots. 1881

From a male, a native of Mauritius, aged 20 years, in whom the disease had existed for ten years.

Presented by the Royal College of Surgeons.

SCLEREMA.

- 2700a. Sections through the buttock of a child, aged one month, who was born with a condition of the skin resembling Sclerema. The sections show the enormous thickening of the subcutaneous tissue. Under the microscope, the surface epithelium is seen to be normal; the muscular layer of the skin is much thickened, and the subcutaneous tissue shows some cell-proliferation. The capsules of the fat-cells are greatly thickened, and there are numerous fat-crystals. 1887

See *Male Surgical Register*, vol. iii. (1887), No. 61.

The specimen was exhibited before the Dermatological Society during the session 1886-87.

A drawing of the buttocks of the child is preserved in Series lvii., No. 833.

Histological sections of the skin will be found in Series lv., No. 511.

- 2701a. Numerous Scales of Epithelium, shed by a patient suffering from Pityriasis rubra (dermatitis exfoliativa). 1886

From a woman, aged 24, who had been attacked twice previously with pityriasis. On the present occasion the patient had been ailing for five months. The attack lasted eight months. She was discharged with a smooth skin.

See *Elizabeth Ward Notes* for 1885, s. v. F. Alexander.

- 2702a. Epithelial Cast of a Foot, in a case of scarlet fever. 1883

Presented by Dr. Gibson.

- 2702b. A similar Cast of a Hand. 1883

Presented by Dr. Gibson.

- 2702c. Two Epithelial Casts, which were shed from the heels of a patient recovering from an obscure form of skin disease. 1892

See *Matthew Ward Note-Book* (1891), No. 166.

SYPHILIS.

- 2703a. A Portion of Skin of the Leg, showing the marks of a squamous syphilide. 1888

From a man, aged 28, who died of œdema glottidis. The larynx is preserved in Series x., No. 1612a.

LUPUS.

- 2704a. A Piece of the skin of the thigh, showing superficial ulceration caused by Lupus. 1893

The affection commenced after a severe attack of small-pox, and was so extensive as to necessitate amputation above the knee. The leg is preserved in Series l., No. 3233a, to which refer for notes of the case.

Presented by Alfred Willett, Esq.

- 2707a. A Tumour, which had grown for seven years, from the scalp behind the ear of a girl. 1884

Sections are preserved in Series lv., No. 522.

For an account of the tumour see *Pathological Society's Transactions* for 1884, vol. xxxv., p. 340.

Presented by C. B. Lockwood, Esq.

HAIRY MOLE.

- 2707b. A Hairy Mole, removed from the left cheek of a girl, aged twenty-two. It is covered with numerous long silky hairs. 1888

See *Female Surgical Register*, vol. v. (1886), No. 384.

PAPILLOMA.

- 2708a. A Small Papilloma, which was removed from the chest-wall. The growth consists of a number of separate masses, forming a cauliflower-like tumour, which was attached by a short peduncle to the skin. 1889

- 2708b. Two small Compound Papillomata, which grew on the front abdominal wall. They were removed by operation. 1892

The patient was an elderly man, who also suffered from symptoms of papilloma of the bladder.

Presented by Guy Stephen, Esq.

- 2709a. A large, deeply-lobed Papilloma, springing from the skin around the entire circumference of the margin of the anus. 1881

Removed by operation. The papillary nature of the growth was verified by microscopic examination.

EPITHELIOMA.

- 2715a. An Epithelioma, removed from the back of the scalp of a man, aged sixty. There is a deeply excavated ulcer, more or less circular in shape, with raised edges, which were hard to the touch. For the most part hair has ceased to grow where the skin has become affected, but is not yet ulcerated. 1890

A microscopical examination showed that it was carcinomatous, resembling more nearly a rodent ulcer than a typical epithelioma, in that the infiltrating cells were of small size and that there were very few nest-cells.

See *Male Surgical Register*, vol. ii. (1890), No. 532.

- 2715b. An Epithelioma, removed from the Forehead of a man, aged fifty-two, where it had grown rather rapidly.

It is circular in shape, and projects from the surrounding skin uniformly for about one-third of an inch : the centre is pigmented and only slightly depressed. 1891

It corresponds both in situation and microscopical appearance (squamous-celled epithelioma) with the "crateriform ulcer" described by Mr. Jonathan Hutchinson in the *Transactions of the Pathological Society*, vol. xl., p. 275.

See *Male Surgical Register*, vol. iv. (1890), No. 3595*.

A microscopical section is preserved in Series lv., No. 535.

2717a. A Recurrent Tumour, removed from the Scalp. It is nodular, and has infiltrated the deep tissues. The section shows that it consists of a dense white tissue. Microscopically, it is an alveolar carcinoma. The stroma is exceedingly scanty ; the alveoli are large, and are packed with epithelial cells. The surface of the epithelium is not involved. The growth appears to have originated in some of the glandular structures of the skin. 1888

See *Male Surgical Register*, vol. iii. (1888), No. 1244.

Sections of the primary and recurrent growths are preserved in Series lv., No. 529.

2717b. A Portion of Skin, removed from the back of a woman, aged thirty-one, to which is attached a solid button-shaped growth with smooth surface, devoid of epithelium. Its cut surface is uniform in character. Microscopical examination showed it to be a fibro-sarcoma. The tumour had been slowly growing for six years. 1890

See *Female Surgical Register*, vol. v. (1890), No. 337.

2719a. A Melanotic Sarcoma, removed from the Scalp. The tumour consists of a rounded mass the size of a walnut, slightly lobulated on its surface, and attached to the skin by a broad pedicle ; at its base, and also in the surrounding skin, are a number of smaller sessile growths the size of large peas, some of which are distinctly pigmented. The principal growth does not show any pigmentation : it does not invade the deep layers of the scalp. 1891

From a man, aged 28. The growth was first noticed six years previously : it was then removed, but slowly recurred ; it occupied the situation of the bregma ; the occipital and deep glands of the neck were slightly enlarged.

A microscopical section of one of the smaller nodules showed the usual structure of a melanotic sarcoma.

See *Male Surgical Register*, vol. iii. (1889), No. 2556.

RODENT ULCER.

2720a. A Rodent Ulcer, removed from the face of a man, aged twenty-eight. It had been slowly growing for fourteen years : the lymphatic glands were not affected. 1891

See *Male Surgical Register*, vol. iv. (1890), No. 2657.

2720b. A Rodent Ulcer of the Scalp, removed from the top of the head of an old gentleman, aged seventy-five. The centre of the growth is greatly excavated, and the edges heaped up and indurated : it has penetrated through the whole thickness of the scalp as far as the pericranium. It had been slowly growing for three years : the lymphatic glands were not affected. 1891

Microscopical examination showed a large amount of cell ingrowth. The cells were much larger than is usual in rodent ulcer, being rather of an "encephaloid" type. There were no "nest cells."

Microscopical specimens are preserved in Series lv., No. 533.

Presented by Stephen Paget, Esq.

2720c. A Rodent Ulcer, removed by operation from the back of the neck, where it had existed for twenty-six years. The lower part of the growth is covered over by

thin scar tissue, showing where the ulcerated surface had partially, but imperfectly, healed. 1891

The patient was a woman, aged 52.

See *Female Surgical Register*, vol. iv. (1891), No. 681.

A drawing of the growth, before removal, is preserved in Series lvii., No. 1294.

2726a. A Carcinoma arising in a Sebaceous Gland of the Scalp. The tumour, which was not ulcerated on the surface, has been laid open, and to the naked eye appears to consist of a collection of cysts the size of small peas filled with gelatinous-looking material. Under the microscope, this was found to be composed of large flat epithelial cells arranged in masses: no "nest-cells" are to be seen, nor does the surface epithelium, which is somewhat thickened, dip into the masses of cells. The growth probably arose in the sebaceous glands of the scalp: it has assumed a carcinomatous character instead of that of a simple sebaceous cyst. 1891

From a woman, aged 44. The tumour had been slowly enlarging for seven or eight years in the site of a sebaceous cyst; the lymphatic glands were not affected.

See *Female Surgical Register*, vol. ii. (1889), No. 2255.

A microscopical section is preserved in Series lv., No. 532.

2732a. A Deformed and Hypertrophied Great-Toe Nail. It was removed from a woman, aged forty-five years, after a growth of twelve years. 1890

Presented by M. L. Trechman, Esq.

2732b. The Nail of the Little Finger, measuring six and a quarter inches in length, of a Chinese grandee, together with the bamboo shield, which was worn constantly as a protection to the nail. The nail of one finger is allowed to grow as long as possible, as a proof that its owner cannot have done any manual labour. 1893

The nail was shed during a severe illness, and only obtained with difficulty.

Presented by Surgeon-Captain P. C. H. Strickland.

2734a. Skin of Scalp, showing bullet-wound; the smaller aperture of entrance and the larger one of exit are well seen, as well as the blackening from the unburnt powder. The bullet is slung below the specimen. 1884

The skull is preserved in Series iii., No. 761a.

The preparation was obtained from a man who shot himself, holding the revolver within a few inches of his head.

ANTHRAX.

2734b. A Malignant Pustule, removed from the neck of a man suffering from wool-sorter's disease. 1884

Sections are preserved in Series lv., No. 835.

An account of the case, with a coloured illustration, will be found in the *British Medical Journal*, June 14th, 1884, p. 1134.

2734c. A Malignant Pustule, removed from the neck of a man suffering from wool-sorter's disease. Numerous anthrax bacilli were found in the clear fluid of the pustule. 1889

From a young man, aged 17 years, who was a dresser of horse-hair. He had noticed a pimple on the left side of his neck ten days before his admission to the Hospital. The pustule was excised freely and the patient made a good recovery.

See *Male Surgical Register*, vol. iv. (1888), No. 1479.

2734d. A Malignant Pustule, which was excised from the Forearm. 1892

The patient was a man, aged 41, who worked at loading and unloading hides. He had noticed a small pimple for a few days. This increased in size, and he was admitted into the Hospital and the growth was freely removed with the knife. Both the blood and the serous secretion from the neighbourhood contained large quantities of typical anthrax bacilli, of which microscopical specimens are preserved in Series lv., Nos. 836, 837 and 838. He made a good recovery.

See *Male Surgical Register*, vol. i. (1891), No. 1426.

SERIES XXXVI.

DISEASES OF THE TESTICLE, ITS COVERINGS, AND OF THE SPERMATIC CORD.

HYDROCELE.

- 2740a. A Testicle, with its Coverings. The walls of the tunica vaginalis are thickened and its cavity is much enlarged: the testicle, which is slightly flattened, lies behind and below the sac, the inner surface of which is in places covered with a fine shaggy membrane; elsewhere a few crystals of cholesterin can be seen adherent to its walls. Neither the vas deferens nor the spermatic vessels are materially altered. 1891

See *Male Surgical Register*, vol. iii. (1890), No. 3145.

- 2743a. Chylous Lymph, from a Hydrocele. Microscopical and chemical examination shows that the fluid consists of a fine emulsion of fat, in many points resembling true chyle. It has a specific gravity of 1029. 1887

The fluid was obtained from the servant of one of the Indian Princes who attended the Jubilee of Queen Victoria.

Presented by S. G. Shattock, Esq.

- 2745a. Hæmatocele of the left Tunica Vaginalis. The testicle appears to be healthy. The tunica vaginalis is greatly thickened. There is a small cyst just above the testis, under the tunica vaginalis. 1885

M., æt. 60. The swelling had existed many years, and had been thrice tapped. After the second tapping there was much pain; after the third tapping blood was drawn off.

Presented by Stephen Paget, Esq.

SUPPURATION AFTER INJECTION OF HYDROCELE WITH IODINE.

- 2753a. The Tunica Vaginalis and Testis of a man, on whom the operation for radical cure of a hydrocele had been performed ten years previous to removal. The sac of the tunica vaginalis is converted into an abscess cavity with walls about a quarter of an inch in thickness, tough and firm, and lined by a smooth membrane. It forms a cavity capable of holding an ounce of fluid, and in the recent state contained some thin oily pus in which were innumerable cholesterin crystals, but no cells. Behind this is the testis in a perfectly normal state, but closely adherent to the contiguous structures. The epididymis and cord are normal. Immediately beneath the skin, in front of, but not in connection with, the sac of the tunica vaginalis, is some broken-down inflammatory material, marking the site of a superficial abscess. 1884

From a man, aged 27 years, who said that there had been a swelling of the testis ever since the operation for radical cure. It had never caused him any pain until quite recently, when it had begun to increase in size. At the time he came under treatment there was evident suppuration in the subcutaneous structures, and this was supposed to be in connection with a chronically enlarged and inflamed testis, the latter being simulated by the thickened tunica vaginalis. Castration was therefore performed.

2754a. Part of the Sac of a Hydrocele, in which there were three nodules in a line above the epididymis. One of the nodules has been removed for examination, when it appeared to be of a bony nature. Throughout the sac are scattered numerous small and hard tubercles, and here and there are minute deep brown bodies firmly attached to the inner surface of the tunica vaginalis. Microscopically, the small growths consist of fibro-cartilage. 1887

Presented by C. B. Lockwood, Esq.

ABSCESS OF THE TESTIS.

2762a. A Section of the Left Testicle, with a Portion of the Cord. The body of the testis presents a large oval abscess cavity partially filled with caseating material. The abscess has a very thick wall, and has destroyed almost the whole of the glandular substance. The globus major has also a small abscess in its substance. 1888

From a man, aged 36, who noticed a swelling in his left testis for two years. The right testis began to swell eighteen months after he first observed the enlargement of the left. Before removal, the left testis was of the size of a lemon, and felt hard and uneven. There was no pain on pressure; the epididymis was hard and thickened, and the spermatic cord was thickened.

See *Male Surgical Register*, vol. v. (1888), No. 2227.

2764a. A Section through a Fungating Tubercular Testis, in which the tunica vaginalis is distended by a hæmatocele. The shrunken body of the testis is in direct connection with the fungating mass, which is closely adherent to the skin. The sinus which communicated with the testis was situated on the lower and inner side of the scrotum. The epididymis is separated from the testis by the whole width of the hæmatocele, a fact which can only be explained by supposing that there has been an unusual distension of the digital fossa of the tunica vaginalis. The hæmatocele is evidently of very long duration, for its walls are greatly thickened, and in some places are calcified. 1889

From a man, aged 20, who had been kicked on the left testicle four and a half years previously. He had symptoms of pulmonary phthisis.

See *Male Surgical Register*, vol. i. (1888), No. 2349.

2772a. A Testis, which contains a degenerating gumma in its substance. On the left side is a small testicular hydrocele. 1885

Sections are preserved in Series lv., No. 538.

Presented by C. B. Lockwood, Esq.

TUBERCULAR TESTIS.

2774a. The left half of a Testis, with the surrounding structures. The section shows that the body of the testis is adherent to, and partly protruding from, the skin of the scrotum; the larger mass behind, which is largely composed of fibrous tissue and contains a caseating mass at its posterior and lower part, is the altered and greatly enlarged epididymis. Above this the constituents of the cord are all enlarged; the vessels and lymphatics form one mass in front, while the greatly thickened vas deferens lies behind. In connection with this is an old abscess cavity, measuring nearly two inches in its long diameter. This has been laid open, displaying caseous material in its interior. 1892

The patient was a man, aged 29, who had suffered from an enlarged testis for one year. It was removed by operation.

See *Male Surgical Register*, vol. iii. (1890), No. 1984.

2774b. A Testis, which has been laid open. The section shows that the greater part of the body has been converted into a dense fibrous mass, embedded in which are six small nodules composed of caseous matter. At one part the skin has

become adherent, and from this a small abscess has been evacuated. Seen from behind, it is noticed that both the epididymis and cord are considerably thickened.

1892

Presented by John Langton, Esq.

2774c. A Testis, removed by operation on account of tubercular disease. It has been injected, and subsequently laid open from the front. The whole of the body is much enlarged, and extensively involved, showing on the cut surface numerous small caseous nodules. The epididymis is also much enlarged, and the upper part converted into a caseous mass. The cavity of the tunica vaginalis is filled with coagulated blood. Behind, a small piece of the skin of the scrotum, where a small abscess had burst, is still adherent to the gland.

1893

The patient was 40 years of age. The testis of the opposite side had been removed thirteen months previously for the same complaint.

Presented by Howard Marsh, Esq.

2778a. Section of a Testis, affected with tubercular disease. The gland is only slightly enlarged; the cut surface is firm and fibrous, but thickly dotted over with small caseous nodules; the tubules of the epididymis are filled with a similar material; the epididymis itself is not much enlarged. The cord is thickened, and the vas deferens has a diameter about three times as great as is natural. The tunica vaginalis is healthy.

1883

From a man, aged 52 years, who said that the tumour had followed a blow received twelve weeks previously. There was evidence of disease at the apices of the lungs, and some family history of consumption. Microscopical examination discovered the presence of the giant cells and reticulum characteristic of tubercle, the tubules being blocked with epithelial debris.

Microscopical sections are preserved in Series lv., No. 540. The other half of the testis is in the Museum of the Royal College of Surgeons.

See *Pitcairn Ward Book*, vol. viii., p. 118.

2778b. A Tubercular Testis. The gland is about the size of a hen's egg, somewhat granular on section, of a yellowish colour, unduly firm to the touch, and more than usually adherent to the surrounding tunica albuginea. The latter is thickened, and the tunica vaginalis is adherent. The epididymis is enlarged, though not greatly, filled with caseating, yellow material, and breaking down in parts into a soft, pulpy mass. The cord is thickened generally, but the vas deferens more especially so. The latter has been separated from the surrounding structures, and may be seen to be about the size of a crow-quill.

1884

From a healthy man, aged 54 years, who said that the swelling of the organ first made its appearance four months before castration was performed, after a severe strain. He suffered no pain.

2778c. One half of a Tubercular Testis. Its cut surface closely resembles that of the preceding specimen, but is rather smaller, and more firm and fibrous. The tunica albuginea is slightly thickened, and the tunica vaginalis partially adherent. The epididymis is very slightly, if at all, enlarged, and the vas deferens is scarcely thicker than natural.

1884

The patient was a healthy man, aged 33 years. He had noticed a swelling of the testis for eighteen months, gradually increasing in size, and painless.

2778d. Testis affected with strumous disease. The testis ulcerated out, and was found in the patient's bed.

1884

Presented by S. Paget, Esq.

2780a. The Right Testicle and Epididymis, laid open to show tubercular deposits. The epididymis is enlarged, and infiltrated with caseous material, which has broken

down into an abscess in the globus minor. The testis is not enlarged, but it contains several nodules of recent tubercle. The vas deferens has been dissected out. It is blocked with caseous material, but it is not greatly thickened. 1888

2780b. The Left Testicle, from the same case as the preceding. The tunica vaginalis has been laid open to show the position of a hydrocele which existed during life. The epididymis is very greatly enlarged, but the testis is not affected, so far as can be seen without laying it open. The vas deferens is slightly thickened, and is blocked by caseating material. 1888

From a man, aged 41, a valet by occupation, who died of general tuberculosis. Ten months before his death he observed a swelling on the inner side of his right knee. The swelling was said to have attained its maximum size in two or three days, and the patient was certain that it was not the result of an injury. The cyst was aspirated on two occasions, and synovial fluid, containing flakes of mucus, was removed.

See *Male Surgical Register*, vol. ii. (1886), Nos. 449, 1353, 2021, and 2868.

The knee is preserved in Series vi., No. 1205f.

2780c. A Section through a Tubercular Testis, showing the epididymis filled with caseous material, which extends into a part of the testis itself. 1889

From a man, aged 32 years, who had long suffered from general tuberculosis.

The rectum and bladder, with the urethra, are preserved in Series xix., No. 2056a.

See *Male Surgical Register*, vol v. (1888), No. 714.

2780d. A Tubercular Testis, showing the whole epididymis infiltrated with caseous material, which is just beginning to degenerate. The substance of the testicle is also the seat of a tubercular deposit. 1889

From the same case as the preceding.

CALCIFICATION OF THE EPIDIDYMIS.

2782a. A Testis and the Epididymis. The specimen has been cut through longitudinally from behind. The globus major of the epididymis is much enlarged, and has been converted into a hard calcareous mass, containing several small cysts. The body of the testis appears healthy, though the cord is somewhat thickened. The change in the epididymis is probably the result of old tubercular inflammation. 1893

See *Medical Post-Mortem Register*, vol. xvii., p. 350.

2795a. A Section through the Left Testis. The testis, as well as the epididymis, is greatly enlarged; on cutting through the gland, it was found to be tough, fibrous, and œdematous. Numerous irregular white masses are seen to be embedded in the gland substance. The tunica vaginalis is irregularly adherent to the testis, and portions of it are distended by fluid forming small hydroceles. Microscopically, the growth is composed of round connective tissue cells, of equal size throughout. In many places masses of these cells are undergoing caseation, but it is uncertain whether the growth is a gumma or a round-celled sarcoma. 1889

From a man, aged 34, who denied that he ever had syphilis. The swelling commenced six months before the gland was removed. The testicle was painless; it was uniformly enlarged; there was no testicular sensation. The cord was much thickened, but there were no enlarged glands. Five days before the testicle was removed, a hydrocele was tapped.

A section of the tumour is preserved in Series lv., No. 546.

See *Male Surgical Register*, vol., iii. (1888), No. 3033.

2796a. Sarcoma of Testis, with Hæmatocele. 1885

M., æt. 39. Patient received a blow from a cricket-ball upon his testis four and a half years before his death. The testis swelled, but subsequently appeared to get well. Six months later the organ again swelled, and slowly increased in size, but without pain or any impairment of the general health. Three and a half years after the injury the testis began to grow rapidly. It was tapped, and some chocolate-coloured blood was removed, leaving behind a solid mass. Four years after the injury castration was performed; at the time of

the operation the glands did not appear to be infiltrated, and the cord was not thickened. Two months later the left leg swelled, and the iliac glands became enlarged. A mass subsequently formed in the pelvis, and after exhibiting signs of intestinal obstruction for ten days, the patient died. Sections are preserved in Series lv., No. 547.

Presented by W. Harrison Cripps, Esq.

SARCOMA OF THE EPIDIDYMIS.

2797a. A Testis and Epididymis, from a child, aged four years. The epididymis is occupied by a tumour of an oval shape, about two inches in length and one inch in width; the cord is continuous with the tumour above, and the testis, which has been cut across, is in no way affected by the new growth. The cut section of the tumour is firm, white and homogeneous, but in places shows a faint fibrillation. A microscopic examination shows the structure to be a spindle-celled fibro-sarcoma. 1882

From a boy, aged four years, in whom a swelling had been observed a fortnight before he came under the notice of the surgeon. During the next six weeks the tumour increased in size, by about one-third of its bulk. It caused no pain, and the glands in the groin were not enlarged. There was no family history of syphilis or cancer. The patient made a good recovery after castration.

See account of case in the *Transactions of the Pathological Society*, vol. xxxiii., p. 334.

Microscopic sections are preserved in Series lv., No. 545.

Presented by F. S. Edwards, Esq.

2797b. Cystic Sarcoma of the Testis. The place of the testis is occupied by a soft, brown tumour the size of an orange, the cut surface of which shows numerous small cysts, none larger than a split pea, and many of much less size. In one or two places there are small, white specks of cartilage. The epididymis is but little increased in size, though evidently diseased. The cord is healthy. Most of the tunica vaginalis is readily separable from the tumour. 1883

From a man, aged 30, who had noticed a swelling of the testis for about eighteen months. No cause could be assigned by the patient, who stated that the tumour had increased in size somewhat rapidly during the week before he came under notice. A microscopical examination shows that the bulk of the tumour is composed of fibrous tissue in various stages of development, some parts being very rich in cells, while in others nothing but fibres can be seen. The little cartilage that is present is of the variety commonly known as fibro-cartilage. The cysts appear to be formed by dilatation of the tubules of the testis, being lined for the most part by long, columnar epithelial cells, the length of which, in the largest cysts, is notably diminished.

Microscopic sections are preserved in Series lv., No. 549.

Presented by F. Swinford Edwards, Esq.

2797c. A Testis, infiltrated with a round-celled sarcomatous growth. In many parts the sarcoma has undergone cystic degeneration. It has been partially injected. 1885

2797d. A Testicle, affected with Cystic Sarcoma. The new growth apparently proceeds from the rete testis, and extends upwards and anteriorly so as to involve a considerable part of the body of the organ. The lower and anterior portion of the testis, together with the greater part of the epididymis, is free from new growth. The section shows that the tumour consists of soft sarcomatous tissue containing numerous cysts, one of which is large enough to hold three ounces of fluid. Microscopically, the growth is a loose fibrous matrix containing numerous round cells. Many of the cysts are lined by columnar epithelium; the cysts contained a dark blood-stained fluid. 1887

From a man, aged 61, in whom the tumour had been growing for twelve months. There was no history of injury.

See *Male Surgical Register*, vol. i. (1886), No. 573.

2797e. A Testicle, with its Epididymis infiltrated with a chondro-cystic sarcoma. The gland is greatly enlarged, measuring four inches in length by two and a half inches in diameter. The testicular substance is replaced by cysts and nodules of cartilage. Externally, the tumour is hard and lobulated. Microscopically, the

nodules consist of hyaline cartilage with a slightly fibrillated matrix, whilst the softer parts consist of a fibrous and homogeneous stroma containing numerous round and oval connective tissue cells. The cysts are formed from the glandular substance of the testis; they are lined with a layer of columnar epithelial cells. 1888

From a clerk, aged 28, who first noticed a swelling in his left testicle five years before his admission to the Hospital. The swelling was painless, and only caused inconvenience by its weight. It was densely hard. There was no enlargement of the spermatic cord nor of the glands, and the skin over it was not adherent. The patient died ten months after the operation from a recurrence of the growth in the abdominal viscera.

See *Male Surgical Register*, vol. ii. (1886), No. 2487.

2797f. A Testicle, with the Epididymis and a portion of the Spermatic Cord. The epididymis is greatly thickened and enlarged by a new growth, which appears to have spread by continuity into the body of the testis. The new growth has not infiltrated the vessels, which are numerous. Microscopically, it is a round-celled sarcoma. 1889

From a gentleman, aged 58, who noticed a swelling in his left testicle for three months before it was removed. The enlargement gave him no pain, but there was a feeling of discomfort owing to the weight of the organ. The tumour was hard, and was accompanied by a hydrocele.

Presented by G. Lowe, Esq.

2797g. A Section of a Testicle and Epididymis, which was removed four months before the death of the patient, on account of a sarcomatous growth which infiltrated it. The testicle itself is comparatively little affected, but the epididymis is very greatly enlarged, and is converted into a solid mass of new growth. Microscopically, the tumour is a typical sarcoma, the cells being oval and short spindle-shaped. 1889

From a patient, aged 21 years, who had noticed a swelling for five months. Four months after the testis was removed the patient died from sarcoma of the omentum. The new growth appeared to have spread upward along the spermatic cord, and to have become diffused over the mesentery and omentum. There were no enlarged lymphatic glands.

A portion of the omentum is preserved in Series xvi., Nos. 1886b and 1886c.

See *Male Surgical Register*, vol. iv. (1888), No. 1294.

SARCOMA AFFECTING A RETAINED TESTIS.

2797h. Section of a Tumour, which involved a retained testis. The tumour is oval in shape, measuring three inches and a half in length by two and a half in breadth. It is of a white colour—grey when fresh—firm, bulging, and of one character throughout. It does not contain any cartilage. A septum of fibrous tissue appears to mark off what has been epididymis from what was the body of the testis. Microscopically, the growth is a mixed-celled sarcoma. 1889

From a married gentleman, aged 45. His right testis never came properly into the scrotum; he had worn a truss for many years, and appeared to have an interstitial hernia. A swelling had been suspected for two years, but its increase became obvious during the four months preceding the operation. On examination, a tumour was found in the right iliac and inguinal regions, having its centre above the internal ring, and a little lower than the umbilicus. The patient died five days after the operation.

Presented by Thomas Smith, Esq.

2797i. A Section through a Sarcoma, which has infiltrated an undescended testis. The new growth has a firm, white appearance, and has completely surrounded and infiltrated the testis, whose outline as an oval spongy mass is visible at the upper part and right-hand side of the preparation. Microscopical examination showed it to be a round-celled sarcoma. 1889

The tumour was removed from the right ilio-lumbar region of a man, aged 49. The right testicle had never fully descended, but until eight months before its removal it could be distinctly felt in the canal. Shortly after this time its presence was masked by the growth of

the tumour. The tumour was smooth and unattached in front, but it was adherent to a coil of small intestine and mesentery upon the inner side, and had infiltrated the pelvic fascia behind. Below it was a cord running down into the pelvis, which, on section, contained a structure resembling the vas deferens.

Presented by W. L. Woolcombe, Esq.

FUNGATING SARCOMA OF THE TESTIS.

2797k. A Testis, removed by operation on account of a rapidly-growing sarcoma, which has invaded and infiltrated the whole gland. It has been laid open by a longitudinal incision. The cut surface shows no trace of the original structure, nor can the separation between testis and epididymis be made out. The cord is very distinctly enlarged. The specimen shows, below and behind, a condition rarely seen in malignant disease of the testis, viz., fungation of the tumour through the skin of the scrotum. 1893

The patient was aged 35. He made a good recovery from the operation, but was re-admitted into the Hospital within six months, with extensive recurrence in the pelvis.

See *Male Surgical Register*, vol. iv. (1892), No. 1239.

SCIRRHOUS CARCINOMA.

2804a. Section of a Testis, infiltrated with a firm, white, dense tumour, occupying about equally the gland itself and the epididymis. The cord is much thickened and the tunica vaginalis adherent. 1883

From a man, aged 54, who had noticed a swelling of the testis for one year. A microscopical examination showed that the growth was a scirrhus cancer.

Microscopic sections are preserved in Series lv., No. 551.

Presented by J. Macready, Esq.

2805a. A Testicle, removed after death, which was found to contain a smooth-walled oval cyst, measuring about an inch in its longest diameter: it lies beneath the tunica albuginea, which is much thickened and partly calcified, and occupies the anterior half of the testis: both the epididymis and tunica vaginalis show signs of chronic inflammation: the vas deferens, still attached to the tunica vaginalis, is normal. The cyst, when opened, contained a clear fluid with abundant cholesterin crystals. 1891

From a patient, aged 63, who died from carcinoma of the common bile duct.

See *Medical Post-Mortem Register*, vol. xvi., p. 103.

DERMOID CYST OF THE TESTIS.

2810a. The Right Testicle, containing a Dermoid Cyst. The testicle measures two and a quarter inches in length by one and three-quarters of an inch in thickness. The spermatic cord is a little thickened. A black bristle has been passed into the cut end of the healthy vas deferens. The epididymis is present as a flattened band lying between the testis and the spermatic cord. The dermoid tumour occupies the whole of the body of the testis, and is enclosed by the smooth and somewhat thickened tunica vaginalis. The tumour consists of a number of cysts filled with a substance of gelatinous consistence; the cysts vary in size, from a small pin's-head to one which occupies the whole of the posterior border of the organ. In the recent state this large cyst contained a number of long and delicate hairs, which sprang from the membrane lining the cyst. The rest of the tumour consists of masses of dense fibrous tissue with fat, and in some cases, specks of calcified cartilage. Microscopical examination shows that the gland tissue has entirely disappeared from the body of the testis. The wall of the largest cyst consists of an epidermis and corium. The free edge of the epidermis is turned towards the interior of the cyst. The epidermis consists of a thick layer of stratified epithelium lying above a well-marked rete Malpighii. The corium consists of dense connective tissue containing in its deeper

layers a quantity of fat and a large number of hair follicles. Each follicle has well-developed sebaceous glands in connection with it, and each contains a non-medullated hair. 1887

From a healthy child, aged four, in whom the tumour had been noticed for three years. When first observed it was growing slowly, but during the eighteen months preceding removal it increased rapidly in size.

See *Transactions of the Pathological Society*, vol. xxxviii., p. 224.

Sections are preserved in Series lv., No. 552.

Presented by Dr. E. Stanley Wood and C. C. Harris, Esq.

2810b. A Section through a Tumour, involving the body of the right testicle. The tumour is large and oval, measuring five inches in length by three in breadth. In size it is about as large as a turkey's egg. It appears to be an old dermoid cyst, with its cheesy contents enclosed in a calcified wall. 1889

From a West Indian, aged 46, who had been employed for twelve years in England as a clerk. The enlarged testis had been observed for at least sixteen years.

See *Male Surgical Register*, vol. iv. (1887), No. 2009.

2811a. A Testicle, with a Cartilaginous Body the size of a pea attached to its surface, near the tail of the epididymis. 1881

From the dissecting-room.

FATTY TUMOURS OF THE SPERMATIC CORD.

2812a. Two specimens of Lipomata of the Spermatic Cord. The tumours are lobulated masses of fat, apparently derived from the sub-peritoneal tissue; they extend along the upper third of the cord in close relation with the spermatic artery. 1886

Both specimens were obtained from an old subject brought in for dissection.

2812b. A good example of a fatty Tumour of the Spermatic Cord. A lobulated mass of fat has passed through the inguinal canal, and extends along the whole length of the cord of the testis. 1886

From a subject brought for dissection.

2813a. A Tumour of the Spermatic Cord, situated immediately above the testicle, and connected at its lower part with the globus minor of the epididymis. The vas deferens passed through its posterior portion. 1881

On examination with the microscope, the tumour appeared to be composed of a number of tubules, and it was thought that it might have originated in the remains of some of the foetal ducts of the part.

It was removed, with the testicle, from a child, aged four years.

The case is described, by Mr. Walsham, in the *Pathological Society's Transactions*, vol. xxxi., 1880, p. 303.

Presented by W. J. Walsham, Esq.

VARICOCELE.

2816a. A Spermatic Cord, in which the veins of the pampiniform plexus have been dissected out after having been partially injected. Many of the veins are enlarged and tortuous, exhibiting the condition found in an early stage of varicocele. 1888

From a man, aged about 30 years.

2816b. A Spermatic Cord, which has been treated in the same way as the previous one. The spermatic veins are less numerous and tortuous. 1888

2816c. A Spermatic Cord, in which the veins of the spermatic plexus have been dissected out and painted blue. It will be seen that they are large, numerous, and tortuous. 1888

SERIES XXXVII.

DISEASES OF THE SCROTUM.

2818a. A Scrotum, affected with Elephantiasis: it was removed by operation on account of its size. All the tissues are greatly hypertrophied: the skin of each side is wrinkled and intersected by deep transverse furrows, while the median raphé is nearly half an inch in width. Scattered here and there over the sides are small rounded protuberances formed by dilated lymph-spaces. Microscopically, it consists, for the most part, of fibrous tissue. 1891

The patient was a lad, aged 16, who had always lived in England.

See *Male Surgical Register*, vol. iv. (1890), No. 2333.

A drawing is preserved in Series lvii., No. 938, and a microscopical section in Series lv., No. 554.

2819a. A Pedunculated Tumour, removed from the left side of the scrotum. It is about the size of a small orange, and when examined, microscopically, it was found to be a soft fibroma. 1886

From a boy, aged 17; the tumour had been noticed for a year before removal. It was painless, semi-translucent, tense, and elastic. It did not appear to be adherent either to the testis or skin.

See *Male Surgical Register*, vol. iv. (1885), No. 1964.

2819b. A Congenital Multilocular Cystic Tumour of the Scrotum. The tumour has been laid open longitudinally after having been hardened in alcohol, and is seen to be composed of a number of cysts, varying in size from that of a large hazel-nut to that of a small pea, which are more or less filled by a homogeneous material. When fresh, the cysts were quite soft and translucent. The testis was not affected, although it lay in close contact with the tumour, which was noticed shortly after birth, and had slowly increased. It occurred on the left side. 1892

From a boy, aged nine.

See *Male Surgical Register*, vol. ii. (1891), No. 749.

2819c. A Congenital Multilocular Cystic Tumour of the Scrotum, very similar to the preceding specimen. It has been laid open by a longitudinal incision, and is composed of a number of small cysts of various sizes, which are partially filled by a homogeneous substance. In places this is blood-stained. There is rather more fibrous tissue than in the preceding specimen. In this case, also, the testis, although closely connected, was not affected. It had slowly increased since birth, and occurred on the right side. 1892

From a boy, aged 11.

See *Male Surgical Register*, vol. v. (1892), No. 247.

2823a. An Epithelioma of the Scrotum. There is an ulcer with irregular surface, nearly circular in shape, about two and a half inches in diameter, and with numerous small protuberances; the edges are raised, and the whole mass stands out prominently from the pigmented skin of the scrotum. 1891

It was removed, by operation, from a man, aged 63, a coachman by occupation, and who had never had anything to do with soot or tar. He had noticed the growth for three years.

Microscopical examination showed it to be a typical squamous-celled epithelioma. A section is preserved in Series lv., No. 557.

For further particulars see *Male Surgical Register*, vol. ii. (1890), No. 3754*.

SERIES XXXIX.

DISEASES OF THE PROSTATE GLAND.

2837a. A Sagittal Section through a Bladder and Prostate Gland, to show the hypertrophy of the muscular fibres which lie between the orifices of the ureter. The third lobe of the prostate is much enlarged, and projects upwards into the bladder. The hypertrophy of the muscular fibres appears to be the result of this chronic prostatic enlargement. It has taken place secondarily to the elevation of the prostate, apparently for the purpose of doing away with the vesical pouch, which would otherwise be formed. The black rod is passed along the urethra ; below the rod is seen the track of a lithotomy wound made the day before the death of the patient. 1886

See *Male Surgical Register*, vol. ii. (1885), No. 2055.
A drawing is preserved in Series lvii., No. 649.

2842a. The Urinary Bladder, with great enlargement of all the lobes of the prostate gland. The bladder itself is hypertrophied and fasciculated, the mucous membrane being inflamed and slightly ulcerated round the prostate. Each lateral lobe of the prostate contains a small fibrous tumour, that in the left lobe being contained in a definite capsule. The middle lobe is pedunculated and tunnelled through its centre from the urethra. A glass rod has been passed along the channel. 1887

From a man, aged 78, who was admitted on account of retention of urine, resulting from an enlarged prostate. He was sent out of the Hospital in charge of a nephew, who had instructions to pass a soft rubber catheter ; but he was shortly afterwards admitted with severe hæmaturia, to which he quickly succumbed.

A kidney from the same case is preserved in Series xxviii., No. 2335b.
See *Male Surgical Register*, vol. i. (1886), Nos. 353 and 726.

2842b. A Bladder, in which senile enlargement of the prostate was treated by electrolysis. The bladder is hypertrophied and a little sacculated. The whole thickness of the bladder wall, and of the contiguous rectum in the region of the trigone, has completely sloughed, and a ragged opening, of the size of a shilling, unites the cavities of the rectum and bladder. The prostate gland is enlarged to about three times its natural size. The middle lobe is as large as a hazel nut ; it is detached on its left side, and is only united to the rest of the gland by a thin pedicle. It was sloughing. 1888

From a man, aged 70, who had suffered for two years from symptoms of enlarged prostate. After the performance of median cystotomy a current from ten cells of a Stohrer's battery was applied for half an hour to the middle lobe of the prostate. The patient died twelve days after the operation.

See *Male Surgical Register*, vol. v. (1885), No. 2477.

2844a. A Bladder and Prostate Gland. The bladder is hypertrophied, and at its upper part the mucous membrane is protruded to form a vesical hernia. The prostate is much enlarged, and encroaches upon the bladder. It contains a large

sacculated abscess cavity, capable of holding three ounces of pus. The abscess did not open into either the bladder or the rectum. In order to show this abscess, the bladder has been inverted. 1887

From a man, aged 63, who was admitted, three weeks before his death, with a fracture of the tibia and fibula. He developed symptoms of bladder-disease whilst he was in the Hospital, and the abscess could be clearly detected during life.

See *Male Surgical Register*, vol. ii. (1885), No. 2924.

2844b. A Section through a Bladder and Prostate Gland, from a case of acute prostatic abscess. The right lobe of the prostate is spongy, and contains a small abscess cavity; it is in a state of diffuse suppuration. The recto-vesical pouch has been completely obliterated by a smooth-walled abscess, which extends backwards from the floor of the urethra almost to the rectum. This abscess is in communication anteriorly with the urethra, and with an abscess cavity between the symphysis pubis and the wall of the bladder, and above with the floor of the bladder by a sinus, through which a glass rod has been passed. The mucous membrane of the bladder is superficially ulcerated. The right kidney was normal, whilst the left kidney was entirely absent. The urethra is normal, except at the point where the abscess opens. There was no stricture. 1889

From a man, aged 42 years, who for many years had a fistula in ano.

See *Male Surgical Register*, vol. ii. (1889), No. 2015.

ABSCESS.

2844c. A Bladder and Rectum, with the prostatic and membranous portions of the Urethra. The bladder and urethra are laid open from the front. There is extensive ulceration of the membranous portion of the urethra, with two fistulae opening in the perineum, resulting from urethral stricture. A large abscess formed in the prostate. During the attempted evacuation of urine by a catheter the instrument passed into the abscess, through its posterior wall, and thence into the recto-vesical pouch. Its track is marked by a glass rod. Acute general peritonitis ensued, which quickly proved fatal. 1891

See *Male Surgical Register*, vol. v. (1889), No. 2173.

EXCISION OF PORTIONS OF THE PROSTATE.

2848a. A Bladder, with the Membranous Urethra, from which large portions of the prostate were removed by operation ten months before death. The patient had been four times cut for stone. The urethra opens into a pouch, which, in the fresh state, was capable of containing two or three ounces of fluid. The walls of the pouch are formed anteriorly of condensed fibrous tissue, and nearer to the bladder of the remains of prostatic tissue. The pouch appears to have been formed within the prostate, and to represent the part from which the prostatic tissue had been removed. It communicates by a large opening with the bladder, which is thickened and contracted in the places where it is pouched. 1887

From a man, aged 66. During the performance of lithotomy for the second time, it was found that the middle lobe of the prostate was enlarged, and had been perforated by the previous use of instruments. The hypertrophied portion was therefore, removed through a median incision. A fortnight later, the lithotomy wound was dilated, and a growth was removed from the right side of the prostate.

The portions of the prostate and the calculi are preserved in the next specimen, No. 2848b.

See *Pitcairn Ward Book*, vol. viii., p. 395, and *Male Surgical Register*, vol. iii. (1884), No. 1442, and vol. iii. (1885), No. 840.

2848b. The Calculi and portions of the Prostate, removed from the patient mentioned in the preceding case. The total weight of the calculi is forty grains, whilst the portions of the prostate weigh one and a half ounces. 1887

See specimen No. 2848a.

2854a. A Bladder and Prostate. Occupying the whole of the latter is a large, soft sarcomatous tumour, parts of which project into the cavity of the bladder in the form of pedunculated growths of varying size. The bladder is somewhat hypertrophied. 1883

From a man, aged 21 years, who was admitted to the Royal Free Hospital for retention of urine. No tumour could at that time be felt per rectum, and his previous health had been good. He died in three weeks, after much hæmaturia. A post-mortem examination showed greatly dilated ureters, with numerous small abscesses in the kidneys, but no secondary growths. On microscopical examination, the tumour was found to consist of round and spindle cells.

See description of case in the *Pathological Society's Transactions*, vol. xxxiv., p. 145.

Presented by Dr. Samuel West.

2854b. A Section through the Bladder, Prostate, and Rectum, showing a primary cancer of the prostate which has invaded the bladder and rectum. The trigone of the bladder is ulcerated in its whole extent, and the ulceration has extended along the rectum as low as the anus. By the growth of the prostatic tumour in front, and by a large mass of new growth behind, the rectum is so narrowed as to be almost impervious. Microscopically, the growth in the prostate is a typical scirrhus carcinoma; some of the cells are columnar, and resemble those of Lieberkühn's follicles. 1889

From a gentleman, aged 70, who first consulted a surgeon, about two years before his death, on account of a large quantity of blood and pus which he passed in his urine.

Presented by F. S. Arnold, M.D.

SERIES XL.

DISEASES AND INJURIES OF THE URETHRA AND PENIS.

STRICTURE.

2872a. A portion of the Bladder and Urethra, laid open from behind. The mucous membrane of the bladder and urethra is thickened in its whole extent, whilst the muscular coat of the bladder is much hypertrophied. The lumen of the urethra is narrowed by a long stricture situated in its membranous portion, and extending forwards into the bulbous, and backwards into the prostatic portions of the tube. Immediately behind the stricture the upper wall of the urethra is irregularly ulcerated. The ulcers form two deep depressions lying on the long axis of the canal, whose sides and anterior borders are covered with a white deposit of phosphates. No urinary abscess has yet been formed. 1889

From a man, aged 68, who was admitted to the Hospital with retention of urine. Fifty years previously he had an attack of gonorrhœa, and he had suffered from stricture for five years.

The calvaria, containing a cyst of the arachnoid, is preserved in Series xxx., No. 2449a.
See *Male Surgical Register*, vol. ii. (1888), No. 2996.

2872b. A Portion of the Bladder and Urethra, showing the results of a long-standing stricture. The urethra is much dilated behind the seat of constriction which extends from the prostatic urethra, through the membranous, into the bulbous portion. The mucous membrane of the prostatic urethra is torn in various directions by false passages, through the largest of which a black bristle has been passed. The bladder is thickened by hypertrophy of its muscular coat. 1889

From a man, aged 46, who had long suffered from stricture of the urethra. Six months before his death, Wheelhouse's operation of external urethrotomy was successfully performed. The patient returned to the Hospital with suppression of urine and died.

The right kidney is preserved in Series xxviii., No. 2369b.
See *Male Surgical Register*, vol. iv. (1888), No. 4012*.

2872c. A Portion of the Bladder and Urethra. The mucous membrane of the bladder is thickened and corrugated, while its muscular wall is greatly hypertrophied. The lumen of the urethra is almost obliterated at the junction of the membranous with the bulbous portion by a stricture which extends for about half an inch. Behind the stricture the urethra is greatly dilated, and its mucous membrane is ulcerated and ploughed up in all directions. A glass rod has been placed in the opening of an urinary abscess which is situated in the upper wall of the urethra, close to the commencement of the bulb; this abscess communicated by a fistulous track with the exterior. Posteriorly, in the prostatic portion of the urethra, are openings of several other urinary abscesses. 1889

From a man, aged 57, who had suffered for some years from a stricture of the urethra.
See *Male Surgical Register*, vol. ii. (1888), No. 3785.

2874a. Part of a Bladder and a Penis, divided along its dorsum. The mucous surface of the membranous urethra is ragged and inflamed. Around the prostatic and

spongy portions of the canal is an abscess cavity, communicating with the urethra and bladder by several openings, extending for some distance on the under surface of the penis, and surrounded by a mass of sloughy tissue. The bladder is thickened and the ureters dilated, glass rods being passed into their vesical orifices. On the right side of the bladder is a large sacculus, capable of holding nearly half a pint, and communicating with the bladder by an orifice about the size of a split pea. There was another and smaller sacculus in the anterior half of the viscus. 1884

The patient was a man, aged 49, who had suffered from stricture of the urethra about four years. Symptoms increased; three weeks' incontinence. He died with symptoms of pyæmia; abscess in kidneys.

See *Colston Ward Book*, vol. vii., p. 371.

2886a. A Portion of the Penis, showing upon the glans the scar of a venereal sore, probably a chancre. 1887

From a dissecting-room subject.

2890a. A Prepuce, and part of the adjoining integument of the penis of a boy, aged fifteen years. The prepuce is greatly enlarged and thickened, the surface is rough and uneven, and the cut section firm, tough and fibrous. The increase in size is due to an overgrowth of the subcutaneous tissue, the epithelium not being thicker than normal. 1882

The swelling was said to have followed a blow which he sustained six months before admission into the Hospital. A microscopical examination showed a great increase of the tissues forming the derma, and, in some places, small areas of inflammation. In addition to these changes, the involuntary muscle fibre was greatly increased in quantity, and could be seen in bundles of varying size in all parts of the sections. The lymphatic spaces did not appear to be of unusual size.

See *Pitcairn Ward Book*, vol. vii., p. 247.

2890b. A Prepuce, removed from a child on account of Phymosis, and of two small Sebaceous Cysts situated on the under surface, and near the orifice of the meatus. The cysts have been emptied and slightly distended; they contained ordinary sebaceous material. They were noticed soon after birth, and had increased slowly. 1891

2894a. Portion of a Penis. The upper part of the glands and the prepuce are covered by a warty, ulcerated growth of an epitheliomatous nature. 1883

2894b. A similar specimen, but the amount of new growth is much greater than in the preceding preparation. 1883

2902k. A small Bony Plate, which was removed by operation from the dorsum of the penis. 1892

The patient was an elderly gentleman, who could give no cause from injury or previous inflammation for the origin of the specimen.

Presented by H. T. Butlin, Esq.

SERIES XLI.

DISEASES OF THE OVARIES.

INTERSTITIAL HYPERPLASIA OF THE OVARY.

2903a. A much Hypertrophied and Elongated Right Ovary, which contains a small unilocular cyst at its outer extremity. The Fallopian tube is enormously thickened and enlarged, the thickening being chiefly due to an increase in the muscular tissue contained in its wall. The specimen shows the changes in the ovary and Fallopian tube which are often found in cases where large myo-fibromata of the uterus have existed. 1888

From the preparation of uterine fibroid preserved in Series xliii., No. 2956a.

2903b. A greatly Enlarged Ovary, which is covered by old adhesions. There are numerous cysts on the surface, probably dilated Graafian follicles. 1888

2904a. Section of the wall of an Ovarian Cyst, showing the Fallopian tube stretched over the surface so as to have a length of fifteen inches. 1882

2904b. The Uterus, with the appendages. The left ovary is the seat of a simple cyst about the size of a large hen's egg. 1883

2904c. An Ovary, showing commencing cystic degeneration. 1885

2904d. A large and absolutely Unilocular Ovarian Cyst, removed from a patient at the Samaritan Hospital. The fluid was viscid, like that usually found in the multilocular variety. The interior of the cyst is free from any trace of septa. 1888

Presented by W. A. Meredith, Esq.

2904e. An Ovary, showing a Unilocular Cyst at its outer extremity. 1889

EARLY CYSTIC DISEASE OF THE OVARY.

2904f. An Ovary in an early stage of Cystic Degeneration. A portion of the cyst wall has been removed, showing that the whole gland has been transformed into a unilocular cyst of about the size and shape of a turkey's egg. 1892

2904g. An Ovary, removed by operation, showing an early stage of Cystic Disease. There are four small cysts, the largest of which is about the size of a walnut.

The Fallopian tube, which is still attached to the ovary, is a good deal enlarged in places. 1892

2904h. A Left Ovary, which has been laid open, and contains two small cysts in the deeper parts of its structure. It was removed by operation, together with a larger cyst of the opposite side. 1893

Presented by J. D. Malcolm, Esq.

2908a. Sections of an Ovary, the substance of which is occupied by four small cysts filled with colloid material. 1881

- 2908b. An Uterus and the Ovaries, with a cyst connected with each ovary. The situation of the right ovary is occupied by a large cyst, having the shape of a convoluted tube, expanded at one end, and gradually narrowing at the other. It contained a greenish, highly albuminous fluid. The left ovary is occupied by a single cyst about the size of a bantam's egg, which was filled with a fatty material. 1881

From a woman, aged 46 years, who died of morbus cordis.

- 2908c. An Ovary and part of a Fallopian Tube, removed for chronic inflammation. The ovary is somewhat enlarged by the dropsical dilatation of numerous Graafian follicles. The Fallopian tube is thickened to the size of a cedar pencil, and its fimbriae are retracted. 1887

Presented by J. Knowsley Thornton, Esq.

- 2908d. A Right Ovary and Fallopian Tube, removed from a woman, aged thirty-five. The ovary is considerably enlarged, and is much indurated. It contains in its substance a good-sized clot of blood. There are traces of old and tough adhesions upon the greater part of its surface. The Fallopian tube is adherent to the ovary, and its walls are much thickened by chronic inflammation. 1889

The patient had been married for fifteen years, but had never been pregnant. A year after her marriage, whilst carrying a sick child upstairs, she felt a sensation of something giving way in her body; this was followed by intense pain in the abdomen, constant vomiting, and extreme prostration of strength, which laid her up for six weeks. These symptoms constantly recurred afterwards whenever she underwent a very small amount of exertion. She also suffered from dysmenorrhœa and dyspareunia.

Oophorectomy was performed on October 22nd, 1888, when the right ovary was found to be fixed very firmly in Douglas' pouch by dense adhesions. The wound healed in a week, but convalescence was delayed by suppuration along the track of the sutures. She eventually made an excellent recovery, and when she was last seen, at the end of April, 1889, was able to perform her household duties with comfort. The dyspareunia had entirely disappeared.

Presented by Thomas Sympson, Esq.

- 2908e. An Ovary, showing a Corpus Luteum, into which hæmorrhage has occurred. It was removed by operation, together with a large parovarian cyst of the broad ligament. 1892

- 2909a. Section of the wall of an Ovarian Cyst, into the substance of which a hæmorrhage had taken place shortly before ovariectomy was performed. 1882

BLOOD CYST IN OVARY.

- 2910a. The Uterus, with the Right Ovary. The latter is occupied by a cyst the size of an egg, which, in the recent state, contained dark, fluid blood. The uterus is the seat of interstitial and subperitoneal fibroid tumours. 1883

- 2911a. A small Unilocular Cyst on the outer extremity of the left ovary. It contains several minute papillomatous outgrowths. 1890

- 2912a. A large Proliferating Cyst of the Ovary, removed by operation. The cyst has been turned inside out. On its walls are a number of small cysts containing clear fluid. There are also numerous bands of fibrous tissue attached to the walls and spreading from one point to another. 1892

See *Martha Ward Book* for 1890.

DERMOID CYSTS OF THE OVARIES.

- 2915a. A small Dermoid Cyst, situated in the position of the right ovary. It contains hairs matted together by a white caseous material. The Fallopian tube is normal. 1889

2915b. A portion of a Dermoid Cyst of the left Ovary, measuring five inches in its long diameter. It has been laid open, and the semi-fluid contents have been removed. Attached to the anterior wall of the interior of the sac are three smaller cysts, and lying among them are two well-formed teeth.

The distal end of the Fallopian tube is attached to the upper part of the cyst. Several of the fimbriæ have small cysts at their free extremities. 1892

From a young lady, aged 18. Abdominal enlargement had existed for three years, increasing rapidly during the three months previous to operation. The right ovary, which also contained a dermoid cyst, was removed with a large parovarian cyst at the same operation. It is preserved in Series xlii., No. 2942c.

Presented by F. H. Champneys, M.D., and W. A. Meredith, Esq.

2915c. An Uterus, with its Appendages. On each side the substance of the uterus is replaced by a cyst measuring almost three inches in diameter. Portions of the cyst-walls have been cut away, and the contents, which consisted of thick sebaceous material mixed with hairs, have been removed. Some of this material, with a few hairs, still remains adherent to the interior of the cysts. 1892

2916a. The Pelvic Organs of a woman, aged thirty-three years, who died from retention of urine, resulting from the impaction of a dermoid ovarian cyst in the pelvis. A sagittal section of the whole mass shows a small contracted bladder; the uterus is drawn upwards, and is displaced to the left of the median line by a cystic tumour, which is closely adherent to its posterior surface. A secondary cyst in the upper part of its anterior wall is filled with fat and hair. From the position of the tumour, it was presumably developed from the right ovary. The left Fallopian tube is greatly distended. The uterus measures five inches from the external os to the fundus. 1889

From an unmarried domestic servant, who woke up one morning to find that she was unable to pass her water. Three days later the retention was followed by incontinence of urine. The abdomen, when the patient was first seen, had the appearance of a seven months' pregnancy. A catheter was passed, and after the urine had been drawn off, a soft, rounded swelling was found to occupy the whole of the hypogastric region. Per vaginam the posterior vaginal wall was found to be bulged forwards by an elastic swelling which fully distended Douglas' pouch. The incontinence was followed by polyuria, the patient passing from seventy to ninety ounces of urine daily. Cystitis set in, and the mucous membrane of the bladder sloughed and was discharged. The patient eventually died of asthenia a month after the occurrence of the retention.

Presented by Dr. C. St. John Wright and Mr. H. E. Whitehead.

2917a. An Ovarian Cyst, with a plate of bone embedded in its wall, having somewhat the shape of one side of a lower jaw, and from which a tooth, resembling an incisor, projects. Two tufts of black hair spring from the inner surface of the cyst wall, near the plate of bone. 1881

Presented by Mr. Johnson.

2920a. A Multilocular Dermoid Cyst of the Ovary. Each loculus contains dermoid elements. 1887

Presented by W. A. Meredith, Esq.

2922a. A Left Ovary and Fallopian Tube, to which an enlarged Hydatid of Morgagni is attached. In the broad ligament is a cyst the size of a walnut, which contained a mass of sebaceous material. 1883

2923a. A similar specimen of a Parovarian Cyst. The cyst is of considerable size; the outline of its wall can be easily traced, quite distinct from the ovary and Fallopian tube. 1882

Presented by J. Matthews Duncan, M.D., F.R.S.

2923b. Some of the fluid from the preceding specimen. It is perfectly clear and translucent, and contains no albumen. 1882

TUBO-OVARIAN CYST.

2924a. A Tubo-Ovarian Cyst, from the body of a nulliparous single woman, aged twenty-seven. The uterus and left appendages are normal. The right ovary is converted into a thin-walled unilocular cyst, five inches in length, to which the ovarian ligament is attached. At the point of attachment traces of ovarian substance are seen. The Fallopian tube measures nine inches in length, the outer half is distended as in ordinary hydro-salpinx; it is adherent, and opens into the ovarian cyst, the opening having a diameter of two inches. No remains of the fimbriæ are visible. The adhesion of the tube to the cyst appears to be due to inflammation, a piece of omentum being attached to the right cornu of the uterus.

1886

See *Transactions of the Obstetrical Society* for 1887.

Presented by W. S. A. Griffith, M.D.

2924b. A Specimen illustrating the formation of a Tubo-Ovarian Cyst. It consists of the right Fallopian tube, which is adherent by its fimbriated extremity to the outer end of the ovary. The closure and dilatation of the fimbriated extremity of the tube has led to the formation of a small hydro-salpinx. There is a unilocular cyst of the size of a pigeon's egg at the outer side of the ovary, and between this cyst and the hydro-salpinx, *i.e.*, at the outer end of the hilum, is a small papillomatous cyst containing warty growths. No communication has, as yet, taken place between them.

1888

2924c. A Specimen showing the Formation of a Tubo-Ovarian Cyst. The uterus is anteflexed, and the pouch of Douglas is occupied by the distended Fallopian tubes, which, with the ovaries, are bound down by peritonitic adhesions of long standing. The left Fallopian tube, which encircles an otherwise healthy ovary, presents the usual characters of hydro-salpinx. Its uterine extremity appears to be obliterated at a point which is just external to the uterus. The right Fallopian tube is adherent to, and communicates with, a cyst which was originally bilocular. The cyst is of very small size, but it involves the whole of the ovary. No trace of the free ends of the fimbriæ can be found, but the tube is patent throughout its course. It is dilated up to the uterine extremity, its interstitial portion remaining normal.

1888

A drawing is preserved in Series lvii., No. 961.

2925a. One half of a Solid Tumour of the Ovary, which was removed from a woman, aged forty, who had dysmenorrhœa for a year, but without any definite symptoms of ovarian disease. The duration of the growth was quite uncertain. The patient was in good health a year after its removal. Microscopical examination shows that the structure of the tumour is exactly similar to that of a normal ovary.

1887

2925b. One half of a Solid Tumour of the Right Ovary.

1890

From a patient, aged 52. Eighteen months before operation she discovered a swelling in the right iliac fossa; it grew slowly for a year, then increased rapidly, forming a moveable solid mass, which filled the right iliac fossa and the hypogastrium, extending into the left iliac fossa. The tumour was removed by ovariectomy, and weighed two pounds thirteen ounces. The pedicle was broad, but not abnormal. One year after the operation there were no signs of recurrence.

Presented by Alban Doran, Esq.

CYSTIC FIBROMA OF THE OVARY.

2927a. One half of a Large Solid Tumour of the Ovary, removed by abdominal section. The tumour consists of connective tissue of the same type as the stroma of the ovary, but in every stage of development into pure connective tissue. Some

parts of the tissue are much less dense, and are of looser texture than others, which are hard and nodular. The less dense portions are undergoing mucoid degeneration, and are probably the first stages in the formation of the cysts. The cysts are simply cavities bounded by dense connective tissue; they have no epithelial lining; they contained a large quantity of thin greenish straw-coloured alkaline fluid, which coagulated spontaneously. 1888

From a woman, aged 47, who had been married fourteen years, and was the mother of three children, the youngest being seven years old. The tumour was first noticed five years before she applied for relief. It was situated in the lower part of the abdomen, and after remaining nearly stationary for two years, it began to increase rapidly in size. The patient developed, whilst she was in the Hospital, a large pelvic abscess, which caused an attack of acute intestinal obstruction, but the abscess eventually discharged itself per vaginam. A good recovery was made after the performance of ovariectomy.

See *Martha Ward Book* for 1888, No. 25.

2929a. Portions of the Ovaries, mounted in glycerine jelly. The ovaries present the appearance of a cystic chorion, being composed of translucent and pedunculated papillary growths, which, on microscopical examination, proved to be a myxosarcomatous growth, the peculiar cystic appearance being due to myxomatous degeneration, which is not truly cystic. 1887

From a woman, aged 48, who died with cancer of the abdominal wall and hydro-peritoneum.

See *Hope Ward Book* for 1885, No. 237; *Medical Post-Mortem Book*, vol. xii., p. 154; and *Transactions of the Obstetrical Society*, vol. xxviii., p. 180.

2930a. The Pedicle of an Ovarian Tumour, showing the manner in which the tissues, divided by a ligature, unite over it, as it cuts its way through; by this means the ligatured portion of the pedicle is vascularized, and sloughing is avoided. The situation of the ligature is indicated by a deep sulcus, opened at one part by a piece of glass rod; the distal portion of the pedicle was here, as elsewhere, adherent to the proximal portion. Another piece of glass rod is inserted beneath the silk ligature, where it passes through the pedicle. 1881

From a woman, who died on the third day after ovariectomy.

Presented by Alban Doran, Esq.

2930b. A portion of the anterior wall of the Abdomen, showing the wound made in the operation of laparotomy. The edges of the wound in the skin are firmly and evenly united, and the wound in the peritoneum is indicated only by a depressed line covered with a little lymph. 1881

From a woman, who died a few days after laparotomy.

Presented by Alban Doran, Esq.

2930c. The Uterus, and part of the Abdominal Wall, of a woman from whom the left ovary had been removed five years previously, the pedicle having been clamped outside the abdomen. The specimen shows a great elongation of the uterus, which was dragged up by the tension on the pedicle, so that its cavity measures four and a half inches in length, that of the cervix being two and a half. A bristle had been passed along the left Fallopian tube into an opening in the abdominal wall, through which blood was discharged at the menstrual periods. 1883

The patient died after an operation performed for a tumour of the right ovary.

Presented by A. Willett, Esq.

2930d. An Uterus, with its Appendages. The right Fallopian tube, ovary, and broad ligament show no abnormality or sign of disease. On the left side are seen the changes consequent on removal of a large cystic tumour of the left ovary eight

years before death. The pedicle, which lies immediately above a small red glass rod, is reduced to a small nodule of tissue about half an inch long. The groove formed by the ligature shows plainly. No trace of the ligature could be found after death. The sigmoid flexure is closely attached to the uterus, as its mesentery originally formed part of the ovarian pedicle; its calibre is slightly increased above the point of attachment. 1892

From a woman, aged 40. In 1883 the tumour was removed by Mr. Alban Doran. It was a large multilocular cyst with solid contents. The pedicle was very broad, involving externally the sigmoid mesocolon, so that the sigmoid flexure was closely attached to the tumour. The patient recovered, but in 1890 she began to suffer from tubercular pyelitis. An exploratory operation was made, but the removal of the kidney was found impracticable. She died of phthisis in July, 1891, in the Hospital. No obstruction of the left ureter in the pelvis or elsewhere could be detected.

See *Medical Post-Mortem Register*, vol. xviii., p. 210.

SERIES XLI.

DISEASES OF THE UTERINE APPENDAGES.

HÆMORRHAGE INTO THE FALLOPIAN TUBES AND UTERUS.

- 2934a. An Uterus and its Appendages. The uterine cavity contains a blood-clot, which extends along the Fallopian tubes, and on the right side projects beyond the fimbriated extremity. This projection of the clot is due to the narrowing of the calibre, owing to the action of the spirit, as it did not occur in the fresh specimen. The right ovary also contains a large blood-clot. 1886

From a single, nulliparous girl, aged 18 years, who died from uncontrollable epistaxis with menorrhagia. No history of hæmophilia could be obtained. The source of the hæmorrhage was not detected by the microscope. The epithelial lining of the Fallopian tubes appeared to be complete; whilst the mucous membrane of the uterus showed only such a denudation of the epithelium as might have resulted from changes occurring after death.

See *Medical Post-Mortem Book*, vol. xii., p. 10.

- 2934b. The Uterus and Appendages, from a virgin who died after a severe uterine hæmorrhage. The specimen presents the same characters as those which are described in the preceding specimen, No. 2934a. A small triangular clot occupies the cavity of the uterus, and extends into both Fallopian tubes. 1889

From a domestic servant, aged 20, who had not suffered from any illness. The catamenia commenced at fourteen, and were normal until six months before her death, when they stopped. Eleven days before her death flooding commenced, and continued until the day before she died, when the discharge of blood was replaced by a clear discharge, which smelt badly. The girl was not a bleeder, nor, as far as could be made out, were any of her relations.

Presented by W. C. Everley Taylor, Esq.

- 2937a. An Uterus, with the Fallopian tubes. The latter are distended with fluid, and form cysts about the size of a hen's egg. 1882

DOUBLE HYDRO-SALPINX.

- 2937b. The Female Pelvic Organs, of which the Uterus and Ovaries are normal, while the Fallopian tubes have become uniformly and symmetrically distended. The extremities of the distended tubes lie in Douglas' pouch, where a thin band of peritoneal adhesion, passing from the uterus to the rectum, forms a septum between the tubes. Another band fixes the end of the right tube to the rectum. The end of the left tube is free. The abdominal orifices are closed, but the uterine ends appear patent. On careful examination, the lumen of the left tube was throughout visible to the naked eye. Under the microscope the folds of the lining mucous membrane were found to be partially destroyed. 1891

From a woman, aged 44, who died of heart disease, with dropsy, after rheumatic fever, which occurred seven years previously. She had had two children. There were no symptoms, during life, pointing to any pelvic mischief. The unusual condition was discovered accidentally after death.

See *Faith Ward Book*, 1890, No. 229; also *Medical Post-Mortem Register*, vol. xvii., p. 307.

A drawing of the specimen and of the microscopical appearances of the left tube is preserved in Series lvii., No. 995.

TUBO-OVARIAN CYST.

2937c. The specimen consists of one half of a dilated Fallopian tube, and of a small Unilocular Cyst of the Ovary. The extremity of the tube has become adherent to the ovarian cyst, and communicates with it by means of a minute orifice, in which a small green glass rod has been placed. 1893

2938a. Two specimens of Tubercular disease of the Fallopian tubes. In the upper specimen, the right ovary, with its Fallopian tube and broad ligament, is alone preserved. The Fallopian tube is greatly thickened and enlarged for the outer three-quarters of its extent, and is filled with a caseating material. The ovary contains two well-marked blood-cysts.

From a woman, aged 22, who had symptoms of advanced pulmonary phthisis, with tubercular ulceration of the bowels.

In the lower specimen an uterus with its appendages are preserved. The Fallopian tubes are greatly distended and filled with fine caseating material, except at their fimbriated extremities, which are filled with a thick cheesy pus. The uterus is healthy. 1886

From a woman, aged 19, who died with pulmonary phthisis. Sections of the Fallopian tubes, showing tubercle bacilli, are preserved in Series lv., Nos. 587 and 588.

Presented by Percy Kidd, M.D.

CYSTIC TUMOURS CONNECTED WITH THE BROAD LIGAMENT.

2942a. A Cyst of the Broad Ligament (not parovarian), showing the thick septa which are often met with in multilocular ovarian cysts. 1886

Presented by W. S. A. Griffith, M.D.

2942b. Portion of a Parovarian Cyst, showing a secondary cyst which has developed upon its wall. The Fallopian tube has been laid open; its posterior fimbriæ are seen as streaks radiating towards the ovary. 1886

A drawing of the specimen is preserved in Series lviii., No. 967.

2942c. A large Parovarian Cyst of the right side, situated between the layers of the broad ligament, and measuring six inches in its long diameter. Its walls are rather thicker than usual. The Fallopian tube is elongated, and extends along the top of the cyst, which has been laid open. The ovary is the seat of a dermoid cyst, and contains hairs and sebaceous material. 1892

The left ovary also contained a dermoid cyst, and was removed at the same operation. See No. 2915b of this Series.

Presented by F. H. Champneys, M.D., and W. A. Meredith, Esq.

SERIES XLIII.

DISEASES OF THE UTERUS.

2943b. The right half of a congenitally anteflexed Uterus, with a portion of the bladder and vagina. The flexion, which causes the body to form nearly a right angle with the cervix, is situated about the junction of the cervix with the body. The uterus is rather small, the total length measuring two and a half inches. The cavity of the body measures one and three-eighths of an inch, and the cervix three-quarters of an inch in length. The anterior wall at the angle of flexion measures half an inch in thickness, whilst the posterior wall measures five-sixteenths of an inch. 1886

No clinical details could be obtained. The other half of the specimen is preserved in the Hunterian Collection, No. 4590a.

Presented by the Royal College of Surgeons of England.

2944a. Section of an Uterus, with a portion of the bladder and left appendages attached. The uterus is in a position of acute anteflexion, so that the fundus is in actual contact with the cervix, and maintained in this situation by adhesions, which pass between it and the bladder. The uterine cavity, which is of normal length, is roughened as if by ulceration, and greatly dilated above the internal os, which, however, is not contracted. The canal of the cervix presents a similar roughened appearance, but is not dilated. The bladder is empty, and in a state of systole. The uterine appendages are matted together by adhesions, the result of past perimetritis. The fimbriated extremity of the Fallopian tube, where it is adherent to the ovary, is dilated into a cyst, a bristle being passed into its orifice. 1883

From a servant-girl, aged 25 years, who died of acute abdominal obstruction. Her menstruation had been regular and painless, and her health good, with the exception of an attack of pelvic inflammation some years before death.

Presented by the Sussex County Hospital, in whose Museum is the other half of the specimen.

See description of case by W. S. A. Griffith, M.D., in vol. xxv. of the *Obstetrical Society's Transactions*. A drawing is preserved in Series lvii., No. 991.

2944b. An Anteflexed Uterus, from an old woman, aged sixty-three. The walls are very thin, and the whole organ much atrophied, though not diminished in length. The posterior surface is the seat of a subperitoneal fibroid as large as half an egg, while attached to the mucous membrane of the fundus uteri, close to the Fallopian tubes, are two small mucous polypi. 1883

2945a. Anterior Perimetritis. A large abscess cavity is situated behind and above the bladder in front of the uterus and right broad ligament. It extends above the right half of the fundus uteri; below, it passes between the bladder and vagina to within two inches of the orifice of the urethra, and two inches below the external os. It is bounded above by a pyogenic membrane, and by the right ovary, which is seen to be much enlarged. It was suppurating. The peritoneum, which normally lines these parts, has disappeared entirely, and has been replaced by a pyogenic membrane. Some of the structures of the broad ligament are thereby

exposed, to wit, the round ligament and a Fallopian tube, which form a band crossing the upper part of the cavity. The abscess cavity measures five and a half by four inches. It has no external openings, its walls being everywhere thick. The left ovary is cystic; it is situated above, and posterior to, the left cornu of the uterus. 1885

The patient had been ill since the birth of her last child, twenty months previously. At the examination after death, the patient was found to have general peritonitis, lardaceous spleen, and an early stage of suppuration of the left kidney, in addition to the condition of the generative organs above described.

For further details see *Martha Ward Book*, vol. vi., Case 172, and *President Ward Book*, vol. x., p. 118.

PROLAPSE OF DOUGLAS' POUCH.

2947a. The left half of the Female Pelvic Organs, which have been cut through longitudinally. The uterus is enlarged and greatly elongated, as also is the cervix; the external os, together with the posterior vaginal wall are prolapsed, and protrude from between the labia. The peritoneal lining of Douglas' pouch is thickened and covered with a layer of lymph and pus: the cervix uteri, and especially the bladder, are flattened from before backwards, owing to the pressure of the fluid which collected in the space behind them. The left Fallopian tube is also greatly distended, and contained pus (pyo-salpinx). A portion of the rectum, cut through longitudinally, can be seen at the back of the specimen. 1892

From a woman, aged 37, who died of "cancer of the peritoneum." For some months before her death, fluid, limited above by adhesions, had accumulated in the pelvis, for which she was tapped on several occasions; after each tapping the prolapse disappeared, and did not trouble her until another accumulation caused difficulty in micturition and partial retention of urine.

Presented by Joseph Griffiths, M.D.

2950a. An Inverted Uterus, with portions of the Fallopian tubes, removed by the écraseur. The fundus of the uterus is affected by a myxo-sarcoma. The organ was removed whilst extirpating the malignant growth. The mass was of a soft, gelatinous, and very vascular consistency. Microscopically, it is a round-celled myxo-sarcoma. 1888

From a woman, aged 48, who had not menstruated for four years. For eight months she had suffered from menorrhagia and offensive discharge. She died of acute peritonitis six days after the operation.

See *Martha Ward Book* for 1887, No. 96.

2951a. The Bladder and Uterus, with part of the vagina, rectum, and sigmoid flexure, from a case of perimetritis. In front is the bladder, bisected vertically and apparently healthy. The orifices of the urethra can be seen, one in each segment. Between the segments is the uterus, with its anterior wall divided vertically, exposing the cavity of the fundus, which is normal. The cavity of the cervix is two and a half times its natural length. The internal os is well marked, and in the middle of the posterior wall of the cervix is a large oval slough, almost perforating it, and forming one of the openings by which the perimetritic effusion, which occupied Douglas's pouch, would have escaped. In the anterior wall of the uterus are several small and nodular myomata. Below the cervix, and in the upper part of the vagina, just posterior and to the left of the external os, is another slough, not so large or so far advanced as the other, and leading into the apex of Douglas's pouch. Immediately behind the vagina is the rectum, which has been laid open, and part of its posterior wall removed. At first, it is in its normal relation to the vagina, but afterwards, it is deflected towards the right cornu of the uterus, being separated from it, and displaced to the right, by the perimetritic effusion. Its calibre is small. About three inches from its lower part, and six to seven inches from the anus, is a large irregular slough, also leading into the cavity of the effusion. The rectum,

having passed up to the right cornu of the uterus, suddenly becomes narrowed, and is bent at a right angle backwards, then directly downwards, and again to the left, forming three right angles in a course of as many inches. At each bend is a valvular fold of mucous membrane, which is best seen at the first angle, where the constriction is greatest. The bowel, which is probably the sigmoid flexure, passes upwards and to the left, forming the upper boundary of the cavity towards the left iliac fossa. From nearly the attached border of this fold of intestine to the upper border of the uterus and left broad ligament is a tough fold of membrane about two inches wide, which has been divided along its whole extent, so as to show the cavity of the effusion. This can only be organised lymph, which has entangled some of the masses of fat with which every part of the body was loaded. It forms part of the anterior wall of the cyst. It can be seen also that the left broad ligament forms part of the anterior wall, whilst the right is probably bent backwards, forming the right lateral margin, and, with the soft parts forming the wall of the pelvis, is adherent to the displaced rectum. Neither ovary can be distinguished, but the round ligament on both sides, and the Fallopian tube on the left, remain. In the lateral walls of the cavity may be seen, on the left side, the common iliac vessels, and on the right probably the external iliac artery and vein. The cavity is lined with lymph, ragged and shreddy in parts, and much resembles those containing pus. 1884

A drawing is preserved in Series lvii., No. 995.

For further details, see a paper by W. S. A. Griffith, M.D., in the *St. Bartholomew's Hospital Reports*, 1882, vol. xviii., pp. 291-296.

2951b. Retroversion of the Gravid Uterus. The uterus is lined by the decidua vera. 1885

From a woman, aged 41, married nineteen years, in the eleventh week of pregnancy. During life the retroversion was reduced by the hand in the vagina; but the patient had retention of urine. She aborted three days before death.

2951c. A vertical Section of the Bladder, Uterus, and Rectum. The uterus is retroverted by an ovarian tumour, which occupies the utero-vesical pouch. The pouch of Douglas has become obliterated as a result of adhesive perimetritis. 1886

2951d. A Sagittal Section of the Uterus and Bladder, from a case of parametric abscess of the right broad ligament and iliac fossa. The uterus and ovaries are displaced towards the left side of the pelvis. The abscess cavity is seen to extend into the cellular tissue between the uterus and the bladder. 1887

Details of the case, with a further description, will be found in the *Transactions of the Obstetrical Society*, vol. xxix., p. 147.

A drawing of the parts as they appeared *in situ* is preserved in Series lvii., No. 993.

PARAMETRITIS DEXTRA (PURULENT.)

2951e. The Uterus with its Appendages, and the lower portion of the Bladder, from a woman, aged twenty-four, who suffered from an irreducible retroversion of the uterus in the fourth month of her first pregnancy. The uterus is large but empty; the left appendages and broad ligament are healthy. The right broad ligament is distended with pus and sloughing cellular tissue, extending from the Fallopian tube above to the levator ani below, and from the side of the uterus to the side of the pelvis. The right ovary is adherent to the posterior surface of the broad ligament, it is suppurating, and communicates with the abscess in the broad ligament. The abscess opens into the peritoneal cavity by two large apertures, situated on its posterior and upper surfaces. These openings did not exist during life, though the tissues, which occupied their places, were gangrenous. The right Fallopian tube passes round the upper margin of the upper opening, its fimbriated extremity being

seen on the outer border. The bladder was black and gangrenous throughout its whole thickness, and the upper part of the urethra is greatly dilated. 1888

From a woman, aged 24, who was four months pregnant. A mass of adhesions, which was felt during life to the right of the uterus, prevented its replacement even after the induction of abortion, which was effected twelve days before the death of the patient. At the post-mortem examination these adhesions were found to be between the transverse colon, the great omentum, and some small intestines which were fixed to the bladder and to the upper and anterior surfaces of the right broad ligament.

See *Martha Ward Book* for 1887, and *Transactions of the Obstetrical Society* for 1888, vol. xxx., p. 5.

2952a. An Uterus and Douglas's Pouch. The latter is occupied by the two ovaries, which are prolapsed and adherent to each other; to the uterus in front, and the peritoneum behind. The right ovary appears the more extensively bound down by adhesions. It is, therefore, probable that the inflammation commenced in its neighbourhood; and the left ovary being prolapsed, became adherent at the point of contact. 1884

From a woman, aged 50, whose youngest child was aged fourteen years. No further history could be obtained.

HÆMATOMETRA.

2956a. A Vertical Section of a large Hæmatometra. The whole uterus, when empty, weighed fifteen pounds. Its vertical height, measured parallel to the broad ligaments, was ten inches. Its depth, antero-posteriorly, was twelve inches, and its transverse diameter was ten inches. The tumour was divided into two parts by the broad ligaments, the origins of the Fallopian tubes being seven inches apart. The posterior portion is the cavity of the uterus enormously enlarged; it was filled with retained blood, much of which was of the consistence of mortar. The anterior portion of the tumour is apparently solid; it forms about two-thirds of the whole mass. The surface of the posterior part resembles an uterus in an advanced stage of pregnancy. The surface of the anterior part is fibroid, and is covered with adhesions. The left Fallopian tube is much thickened, and it is dilated in its outer part. It measures twelve inches in length, and contained blood. The left ovary is much elongated; it measures three inches in length, and contains a single cyst at its outer extremity. The right ovary and a large portion of the Fallopian tube are absent, but they were apparently identical with the left. On making a section of the uterus, the anterior portion was seen to consist of a large tumour, measuring seven inches in its antero-posterior diameter. It is everywhere encapsuled by the wall of the uterus, except posteriorly, where the cavity of the tumour opens into the cavity of the uterus by an oval and well-marked aperture, measuring five inches in its vertical, and three and a half inches in its transverse diameter. This opening is formed by the wall of the uterus, which is two and a half inches in thickness at this part below, and one and a quarter inches above. It is crossed by a ridge of hard coagulated blood, half an inch in thickness. Immediately beneath the capsule is a layer of calcareous deposit. The tumour itself cannot apparently be separated from its muscular capsule at any point. The tumour is of a red fleshy appearance, and the whole of its central portion has broken down, forming a large irregular cavity completely filled with putty-like blood. The cavity of the uterus measures ten inches in length by four inches in depth. The tumour is a fibro-myoma, the external firmer parts containing more muscular tissue than the internal softening parts. The outer layers are calcified to a considerable extent. The cause of hæmorrhage was not discovered. The tumour presents the appearances found in ordinary mucoid softening. 1887

[In the first Gallery, in a flat case.]

From a woman, aged 46. The tumour had been growing for twelve years, and the patient had suffered from menorrhagia until three and a half years previous to removal, when the

catamenia ceased suddenly. She experienced irregular and severe contractile pains, which first came on two months after the menopause. The tumour had not increased in size since the cessation of the catamenia. After removal it weighed twenty-one lbs.

The other half of the specimen is in the Hunterian Museum.

See *Transactions of the Obstetrical Society* for 1887.

Presented by W. A. Meredith, Esq.

CYSTIC ADENOMA OF THE CERVIX UTERI.

2960a. The Anterior Lip of a Cervix Uteri, enlarged so as to form an oval tumour, which protruded through the vulva of a woman, aged thirty-two, who was believed to be in the third month of her third pregnancy. The tumour lay with its long axis horizontal and transverse, measuring two and a half inches. On section it was seen to be a spongy mass, which exuded large quantities of the tenacious mucus characteristic of the cervix. Microscopically, the cavities were lined with a single layer of columnar epithelium. 1887

See *Martha Ward Book* for 1886, s. v. Hannah Hogg.

ADENOMA OF THE MUCOUS MEMBRANE OF THE BODY OF THE UTERUS.

2962a. An Uterus, with its Appendages. The mucous membrane of the body is seen to be so greatly thickened as to form small masses, which project into the uterine cavity. The cavity of the uterus is filled with thick tenacious mucus similar to that which is secreted by the cervical glands. The cervix is normal. Microscopically, the mucous membrane of the body of the uterus consists of a mass of dilated glands lined by a single layer of goblet cells. Many of the gland ducts are occluded to form small retention cysts.

The Fallopian tubes present only senile changes.

The ovaries are small, hard, and white; a pedunculated cyst, as large as a marble, is in connection with the left ovary. 1888

From a woman, aged 63, who for fifteen or twenty years before her death had suffered from myxœdema, with atrophy of the thyroid gland. There was an effusion into the chief serous cavities of the body.

Presented by James Berry, Esq.

2963a. A portion of the Cervix Uteri, and upper part of the Vagina. A pedunculated mucous polypus grows from the cervix, and projects through the os tincae downwards into the vagina. 1886

CHANNELLED POLYPUS.

2967a. A Channelled and Pedunculated Polypus, removed from the uterus. The peduncle is solid, but the polypus itself is hollow, and is lined by a smooth membrane. The wall is deficient at one part, and presents a large oval aperture. 1888

FIBRINOUS POLYPUS.

2976a. An Uterus, enlarged to more than twice its natural size, and containing a large fibrinous polypus attached to the posterior wall over a surface measuring two and a half inches in length. The lower portion of the polypus lies free in the uterine cavity, and extends through the internal os, at which point it has a well-marked constriction, to within half an inch of the external os. The polypus has been bisected vertically, and its external portion may be seen to be of a much paler colour than the more central part, which appears to consist chiefly of recent blood-clot. 1883

From a woman, aged 27, who had been a widow for six years, and had borne three children, the youngest of whom was two and a half years old. She stated that she was certainly not pregnant, that her catamenia had been absent for the past five months, and that for the week previous to her admission to the Hospital she had suffered from hæmorrhage from the vagina, with bearing-down pains. For three months she had noticed swelling of the abdomen, and had had frequent attacks of pain in the loins. When admitted, she was in a dying condition.

A post-mortem showed that the cause of death was a large abscess in connection with a calculus impacted in the left ureter, the kidney on the same side having been converted into a large abscess-cavity. The rest of the viscera were normal.

A microscopical examination shows that the polypus consists entirely of clotted blood, the more external and decolourised parts of which are undergoing a process of organisation into a fibrillar structure, especially where the mass is in contact with the uterine wall, or contained in the uterine sinuses. There is no trace of any foetal or placental structure.

Microscopic sections are preserved, No. 599; also a drawing, No. 990.

For further particulars see account by Dr. Griffith in the *Transactions of the Obstetrical Society*, vol. xxv.; and *Martha Ward Book*, vol. viii., p. 34.

2976b. An Uterus, showing the site of a fibroid tumour, which had been removed two months previously. 1885

See *Martha Ward Book*, March, 1884 (s. v. J. Millard).

2976d. A Blood Polypus of the Uterus, three inches in length, which was removed by operation. It consists chiefly of blood-clot, but at one part there is to be seen a collapsed amniotic sac with chorionic villi. 1890

2983a. A Section of a large Tumour, which grew from the uterus. The tumour was a soft and rapidly growing myoma. Microscopic examination showed it to consist of the ordinary bands of a uterine fibroid with a large amount of adenoid tissue. It differs from the usual form of large fibroid in not consisting of a number of smaller tumours of similar structure. 1886

2987a. An Uterus, whose body is irregularly enlarged by the growth within its substance of numerous fibroids. Glass rods have been introduced in such a manner as to show the presence of at least three intra-mural tumours. The lower part of the cavity of the uterus is occupied by an intra-uterine growth, whilst from the postero-lateral aspect is suspended a pedunculated subperitoneal fibroid. 1886

From a woman who died as the result of an accident. No history of uterine trouble was obtainable.

Presented by A. J. Weakly, Esq.

2992a. Portion of a Fibroid of the Uterus, showing cysts which have developed in its substance. They are lined by a distinct membrane composed of degenerated products. There is no epithelium lining the cyst wall. 1884

2996a. An Uterine Fibroid, which has undergone calcification upon its outer surface. Its inner portion is degenerated and atrophied. 1886

From the dissecting-room.

3000a. Cystic Fibroid of the Uterus. 1884

Presented by Clement Godson, M.D.

3001a. A Fibroid Tumour in the partially developed right horn of a Bicornuate Uterus. 1891

For details of the case see *Obstetrical Society's Transactions*, vol. xxxix., p. 57.

A drawing of the specimen, when fresh, is preserved in Series lvii., No. 985.

3004a. A mesial section through the Female Generative Organs, showing, in addition to three distinct Fibroid Tumours (Myomata) in the walls of the uterus, the occurrence also of an extensive Epithelioma of the Cervix. The vesico-vaginal septum and the posterior and lower part of the bladder are both involved, and are much thickened. 1891

3005a. The Vaginal Portion of a Cervix Uteri, which is much enlarged, and has been divided mesially to expose the cervical canal. A large area of the surface is ulcerated, the limit of the healthy and ulcerated tissue being unusually clearly

defined. The disease is an early form of epithelial cancer, and is limited to the surface of the ulcerated portion, and to the lowest part of the cervical canal. 1890

From a woman, aged 37, who had never been pregnant. She had had no previous illness. Her first symptoms (hæmorrhage) commenced eighteen months before her admission into the Hospital.

A drawing is preserved in Series lvii., No. 1001.

See *Martha Ward Book* for 1888, s.v. Anne Kemp.

EXTIRPATION OF UTERUS.

- 3006a. The Bladder, Rectum, Vagina and surrounding parts of a woman from whom the uterus was removed by abdominal section, on account of cancer. The ligatures, which include the broad ligament, have been applied an inch from the fundus of the uterus, and are about the same distance from the ureters. The whole uterus has been removed, but no union has taken place between the cut surfaces of the upper part of the vagina. At the junction of the sigmoid flexure with the rectum, the calibre of the gut is much narrowed, but not by any cancerous growth. The vagina is free from disease. 1882

The patient died the second day after the operation.

See *Martha Ward Book*, December 29th, 1881.

- 3006b. The Uterus, from the same patient as the preceding specimen. The os uteri and posterior part of the cervix are the seat of epithelioma. The disease does not extend to the fundus. 1882

- 3006c. An Uterus, removed by abdominal section. It is more extensively diseased than the preceding specimen, the cancerous growth affecting the whole cervix, and part of the fundus, especially on the posterior surface. 1882

The patient died the third day after the operation.

See *Martha Ward Book*, February 2nd, 1882.

SCIRRHUS OF THE CERVIX UTERI.

- 3007a. The Right Half of the Uterus, Bladder, and Vagina, from a case of scirrhus cancer, obliterating the cervical canal. The disease, which chiefly affects the cervix, has spread to the vesico-vaginal, and urethro-vaginal septa. There is no intra-vaginal outgrowth. The cavity of the body of the uterus is greatly dilated, and contained pus. Its walls are thickened, partly by hypertrophy, and partly by the spread of the disease. In the other half of the preparation the disease extended as far as the ovarian ligament, where it formed a tumour. Microscopically, the growth consisted of spheroidal cells in dense connective tissue alveoli. 1888

From a woman, aged 51, who had suffered for eleven months from malignant disease of the uterus. In consequence of the growth pressing upon the rectum to such an extent as to cause obstruction to the passage of feces, colotomy was performed. Ten days before the death of the patient, a spontaneous fracture of the left femur occurred. At the autopsy, secondary deposits of cancer were found in the liver and in the femur at the seat of fracture.

See *Female Surgical Register*, vol. iv. (1886), No. 2157.

- 3008a. The Vaginal portion of a Cervix Uteri, which was removed by the écraseur from a lady. The specimen shows an extremely early stage of cancerous disease, as it is just beginning to be infiltrated with an epitheliomatous growth, which has apparently started from the external tissue. 1887

- 3010a. A Sagittal Section of the Uterus, with parts of the Rectum and Vagina. The rectum is the seat of advanced cancer, which has spread to the posterior wall of the uterus, obliterating Douglas' pouch. The cavity of the body of the organ is dilated, its greatest depth being a quarter of an inch. The dilatation extends for about a quarter of an inch into the interstitial portion of the Fallopian tube, the rest of the tube being undilated. The body of the uterus is anteflexed. 1888

3015a. A Myo-sarcoma of the Uterus. The upper part of the body of the uterus is much enlarged by a red, vascular, softened, and diffuse growth. 1885

F., æt. 23. Married four years; one child, seven months before her death. Menorrhagia, followed by dyspnoea and hæmoptysis, until the patient became very anæmic. She died suddenly. At the autopsy the lumbar glands and lungs were found to be studded with new growths. A small sarcomatous growth was attached to the anterior wall of the vagina, immediately behind the orifice of the urethra.

For further details see *Martha Ward Book*, November 21st, 1883, s. v. M. Church.

3015b. An Uterus, with the placenta *in situ*, removed by the utero-ovarian Cæsarian operation of Porro. The placenta is adherent to the posterior wall of the uterus. The rugæ of the contractions of the peritoneum over the contracted uterus are plainly visible. 1885

F., dwarf, æt. 24, whose pelvis had been smashed when she was four years of age. The conjugata vera measured about one and a quarter inches. Mother and child survived. Nine months after the operation the mother appeared to be in perfect health. She had not menstruated.

The case is published by Dr. C. Godson in the *British Medical Journal*, vol. i. (1884), p. 142.

3015c. A portion of an enlarged Anterior Lip of the Cervix of a nulliparous woman, aged seventeen. The growth returned within three months of the operation. Microscopical sections show that it consists of a sarcoma undergoing myxomatous degeneration, and containing minute masses of hyaline cartilage, which are not always separated from the surrounding tissue. 1887

The patient had suffered for six weeks from menorrhagia with mucous discharges. The tumour formed a soft lobulated mass, which bled freely on examination, and exuded a sticky fluid on section. The disease extended rapidly.

See *Transactions of the Obstetrical Society*, vol. xxviii., p. 178.

A section is preserved in Series lv., No. 607.

Presented by A. L. Galabin, M.D.

TUBERCLE OF THE MUCOUS MEMBRANE OF THE BODY OF THE UTERUS.

3015d. The Uterus and its Appendages, from a patient who died of tubercular phthisis. The lining membrane of the fundus shows caseous infiltration and thickening, with some irregular ulceration. The uterine cavity is dilated and was filled with a slightly gelatinous curdy fluid. The cervical canal is free from disease. The left Fallopian tube is thickened, and caseous nodules occur in its wall. Microscopical examination of the caseous lining of the fundus showed the presence of a small number of tubercle bacilli. 1887

From a girl, aged 14, who had never menstruated. In addition to phthisis, she suffered from tubercular meningitis and chronic peritonitis. She was only ill for three months. At the autopsy no tubercles were found in connection with the peritoneum.

Presented by Percy Kidd, M.D.

SERIES XLIV.

DISEASES OF THE VAGINA AND EXTERNAL
ORGANS OF GENERATION IN THE FEMALE.

3016a. The Urino-Generative Organs of a female infant, aged seven weeks. The large fibrous sac, which has been divided by a mesial section, is the vagina : it has been enormously distended by puriform fluid owing to an imperforate hymen : the uterus, the cavity of which is also distended, and the walls of which are quite thin, is situated at the upper part of the distended vagina : the bladder is enlarged, and has been completely drawn out of the pelvis, thereby causing great elongation of the urethra : the pressure has also acted on the ureters, causing obstruction to the flow of urine in them, with subsequent distension both of their walls and also of the calyces of both kidneys. 1892

The child was admitted on account of a soft fluctuating swelling presenting at the vulva (see drawing No. 972), which was thought to be possibly a vaginal hernia ; the child became very ill and died ; it was then found that the swelling was due to a distended imperforate hymen, and that the vagina contained pus.

Drawings are preserved in Series lvii., Nos. 972 and 973.

See also *Female Surgical Register*, vol. iii. (1892), No. 488.

Presented by W. McAdam Eccles, Esq.

HYPERTROPHY OF THE LABIA MAJORA.

3021a. The Labia Majora and Mons Veneris, showing an hypertrophied condition of the skin and subcutaneous tissue, for which the parts were removed. 1881

Presented by the Royal College of Surgeons.

3025a. A portion of a large Fibro-Cellular Tumour, removed from the Labium on the right side. The tumour was nearly spherical in shape and pendulous, being connected with the body by means of a broad pedicle : the skin contained many large vessels and was much thickened : there was little or no lobulation. When recently removed it weighed eight pounds ; it had been growing slowly for twenty years. 1891

From a patient, 50 years of age.

Presented by Thomas Smith, Esq.

3035b. A Cyst of the Labium, removed by operation. It was situated on the left side, and contained muco-gelatinous material. It had been noticed for three months. 1890

From a woman, aged 45.

See *Female Surgical Register*, vol. iv. (1889), No. 1651.

SERIES XLV.

DISEASES OF THE OVUM AND ITS
MEMBRANES.

- 3042a. An example of Hydatid degeneration of the Chorion, with cyst-like formations, which are somewhat larger than usual. 1886

Presented by Frank Oldfield, Esq.

HYPERPLASIA OF THE CHORION STEMS, WITH PARTIAL CYSTIC DEGENERATION (MYXOMA FIBROSUM OF VIRCHOW).

- 3043a. A Portion of a Kidney-shaped mass, which measured eight inches in length, and which had the appearance, when fresh, of a mixed fleshy and hydatid mole. It consists almost entirely of chorion. The amnion is collapsed and compressed, and measures four inches in length. No remains of a foetus or cord are visible. It is covered by a thin layer of decidua, and in parts by blood-clot, which has penetrated deeply between the bundles of chorion stems. The stems are branched, and appear as bundles of solid rods, which interlace. The rods vary in thickness from one-sixteenth to one-eighth, and in places even to three-sixteenths of an inch in thickness; they are not uniformly enlarged throughout their whole length, but vary in different parts. The thickening of the stems is due to an increase of the normal myxomatous core tissue. All the rods, examined microscopically, are devoid of blood-vessels, the exochorionic epithelium has in places disappeared, but in general appears to be normal. In some places cystic degeneration has occurred, but the cysts are not numerous. 1888

From a woman, aged 39, the mother of eight children, the last of whom was born in January, 1886. The patient believed that she again conceived, in March, 1886, the abdomen increasing in size until the following October. In June and July there was an occasional slight discharge of blood-stained fluid. After October the abdomen decreased, and, on January 25th, 1887, the mass was expelled without hæmorrhage, twenty-four hours after the commencement of pains.

See *Transactions of the Obstetrical Society*, vol. xxix. (1888), p. 82.

Presented by W. S. A. Griffith, M.D.

FIBROUS DEGENERATION OF PLACENTA.

- 3044a. A Portion of a Placenta, to which the Umbilical Cord is still attached. The uterine surface is broken up into irregular rounded masses, measuring from one to two inches in thickness. The largest of these has been cut across, and shows a solid white surface. Microscopical examination showed that it is composed of fibrous tissue. 1893

Presented by W. S. A. Griffith, M.D.

EARLY ABORTION (Third Month).

3056a. The whole mass is oval in shape : it has been cut through longitudinally, and consists of two easily distinguishable portions, viz. :—

- (a.) The developing placenta and shrunken amniotic sac, in which no embryo could be found : this is situated at the lower part of the specimen.
- (b.) The decidual cavity, greatly distended with blood : this is closed, preventing the escape of the effused blood.

From the shape of the specimen it appears probable that, if abortion had not taken place, the placenta would have been pierced. 1892

From a healthy woman, aged 30, who had borne two children ; this was the first miscarriage.

A drawing of the specimen, when fresh, is preserved in Series lvii., No. 1012.

Presented by W. S. A. Griffith, M.D.

3058a. A Foetus in its Membranes. It is less than half an inch in length, and imperfectly developed. Between the decidua reflexa and the chorion blood has been effused, and forms tuberos masses projecting into the amniotic cavity. 35.96

3058b. A Foetus and Decidua Serotina, at about the fifth week. On the surface are seen hæmorrhagic bosses beneath the chorion. The cord is atrophied at its placental end and also in the middle of its length by torsion or atrophy. 33.96

3058c. A specimen of early Abortion. The constriction of the cord and the hæmorrhagic bosses are very well shown. 1883

Presented by Dr. Gibson.

3058d. Decidua from a married woman, aged twenty-three years, who had suffered from menorrhagia for six months after missing one monthly period. 1883

3062a. Portion of an Umbilical Cord, very much enlarged, and containing many elongated cyst-like spaces filled with a gelatinous material, and probably produced by mucoid degeneration of its connective tissue. Some of these cysts are laid open or cut across ; their walls are smooth. 1881

SERIES XLVI.

DISEASES AND INJURIES INCIDENTAL TO GESTATION AND PARTURITION.

3066a. A Fœtus, about the third month of intra-uterine life, compressed and distorted, measuring two and a half inches in length. The attitude appears to be the result of prolonged pressure from repeated uterine contractions occurring after its death. The amnion is enormously thickened by a substance resembling the gelatine of Wharton. The placental portion of the membranes is of a pale yellow colour.

1888

Presented by W. S. A. Griffith, M.D.

3071a. An Uterus and its Appendages, from a case of Tubal pregnancy. The right Fallopian tube is distended at the outer extremity by the development of an embryo within it. The cyst containing the fœtus has a large ragged opening about one inch and a quarter long on its upper part, the surrounding tissues are stained with blood; the fœtus is of about five weeks growth. There is no marked enlargement of the uterus, and its lining membrane is not hypertrophied.

1882

From a woman, who thought herself four months' pregnant. She was seen at Stirling Infirmary, where she complained of losing blood, per rectum, for some time; she was very anæmic. Death ensued thirty-six hours after admission; a large quantity of clotted blood was found in the abdomen. The fœtus had probably died some months earlier, and the uterus had undergone the process of involution.

Presented by J. Matthews Duncan, M.D., F.R.S.

3072a. Tubal Fœtation of the right Fallopian Tube, which occasioned death by its rupture, and the formation of a pelvic hæmatocele. The uterus is enlarged, and the canal is occluded by a plug of gelatinous mucus. Both ovaries contain small cysts scattered throughout their substance.

1881

Presented by Clement Godson, M.D.

3072b. Uterus and Ovaries, showing an early tubal pregnancy. The right Fallopian tube is seen to be dilated at a point near to the uterus. The sac measures three quarters of an inch in length; it is thinner at its upper and anterior surface, thicker posteriorly. On its posterior surface is a small aperture marking the seat of rupture. The sac contains a little shreddy débris, which may be the remains of the chorionic villi. The uterus measures three and a quarter inches externally and two and three quarter inches internally. There is a decidua vera, and the cervix is plugged with mucus. No obstruction was found in the Fallopian tubes.

1885

F., æt. 28, who had missed one menstrual period. She was suddenly seized with great abdominal pain. When seen, she was pallid but conscious; the abdomen was slightly distended and tender; the vagina was inverted round the cervix. The patient died from hæmorrhage into the abdomen fifteen hours after the first symptoms.

Presented by F. W. Strugnell, Esq.

3072c. An Uterus, with the Ovaries and Fallopian Tubes, from a case of tubal pregnancy, which terminated fatally about the end of the second month. The cyst containing the foetus has formed in the ampulla of the right tube, so that it lies in the pouch of Douglas. The cyst has ruptured, and a hæmatocele has thus been formed in the recto-uterine cavity, which has pushed the uterus forwards. The hæmatocele was enclosed above by the adhesion of the intestines. The right ovary is seen intact. The right tube has been laid open; it is much dilated and convoluted for two inches beyond the cyst. A red glass rod has been pushed into its fimbriated extremity. The half of the cyst, which has been divided to show the included foetus, is seen lying by the side of the specimen. 1886

[In the first gallery, in a flat case.]

From a woman, aged 32, who had been married eleven years, but had borne no children and had had no miscarriages. Ten weeks before death she felt pain in the right side, with shivering and discharge of blood per vaginam, the latter lasting three weeks. A week before death a decidua was discharged, and two days later the cyst burst suddenly whilst at stool. The patient died collapsed.

See *Martha Ward Book* for 1885, No. 89.

3073a. A Secondary or Papyraceous Fœtus, of about eight weeks' development. It came with a mature living foetus. The mother was aged thirty-nine years, and it was her tenth pregnancy. 1888

3077a. An Embryo with the Amnion, at about the sixth week of gestation, from a case of extra-uterine foetation. 1881

Taken from the body of a tramp, who died from peritonitis, owing to the rupture of the cyst. Presented by Clement Godson, M.D.

3077b. An Extra-Uterine Fœtus, removed through a vaginal incision by Dr. Godson ten days after its supposed death. The gestation cyst was situated behind the uterus. Craniotomy and perforation of the thorax had to be performed before delivery could be effected. No hæmorrhage followed. The placenta was found detached on the sixth day, and was removed. The patient recovered. 1888

From a woman, aged 37, married at 16. She had two children, and became a widow at 22; married again at 25; had one child at 30; no miscarriages. The pregnancy was supposed to have arrived at the twenty-fifth week.

See *Martha Ward Book* for 1884, No. 216, and *Obstetrical Transactions*, vol. xxix., p. 499.

3077c. The contents of the pelvis, from a case of Extra-uterine Foetation, where abdominal section had been unsuccessfully performed. The right half of the bladder and of the vagina have been removed, and the sac has been opened, above which the foetus is suspended. The sac is situated in the right broad ligament, and occupies the right half of the pelvic cavity, pushing the uterus to the left side. The bladder maintains its central position. On the left side, the ovary, the round ligament, and the Fallopian tube are easily traced; the Fallopian tube is thickened, and its peritoneal orifice is closed. On section, its mucous membrane is seen to be partially destroyed by inflammation, and the lumen is occupied by the remains of this tissue and leucocytes. The round ligament on the right side can be traced, as also can the uterine end of the Fallopian tube: immediately behind this, rupture of the sac occurred. The sac has been divided mesially, and beneath it, in the line of section, is seen the left ovary enclosed in a pouch of peritoneum to which it is loosely adherent. It contains a corpus luteum. Masses of blood-clot are also seen in the loose connective tissue beneath the sac. 1890

From a patient, aged 32, who had been married eleven years without any previous pregnancy. This, the first, had reached the early part of the fourth month. Death occurred an hour after abdominal section had been performed.

See also *Transactions of the Obstetrical Society*, vol. xxxiii.

Presented by W. S. A. Griffith, M.D.

LABOUR OBSTRUCTED BY A LARGE FIBROMA OF THE OVARY.

3091a. One Half of a Pelvis, the cavity of which is occupied by a large solid tumour of the right ovary, which has displaced the uterus upwards. The tumour arises from the outer part of the right ovary. It occupies the utero-sacral pouch, the lower part of which was distended with serum.

The uterus and vagina, except for their position, present characters usually found at the end of the first week after parturition. The uterus measures six inches in length, five inches in its greatest width, and one inch and a half in thickness.

The placental site is represented by an area measuring four inches by two and a half. 1890

From a woman, aged 29, who was delivered by version after craniotomy at the end of her fourth pregnancy. The tumour, which was mistaken for the head of an extra-uterine foetus, prevented the descent of the presenting head. Death occurred on the eighth day, from septicæmia.

For more complete details see *Transactions of the Obstetrical Society*, vol. xxxiii.

A drawing is preserved in Series lvii., No. 964.

Presented by W. S. A. Griffith, M.D.

3093a. A Sagittal Section through an Uterus, showing a piece of placenta adherent to its wall. The uterus is greatly thickened, the os is dilated and somewhat torn. The right ovary contains a corpus luteum. 1889

From a woman, aged 32, who died with vomiting three days after delivery. At the autopsy she was found to have fatty disease of the heart, liver, and kidneys.

See *Martha Ward Book* for 1887, No. 215.

3094a. The Uterus of a woman, aged thirty-six, who died from pyæmia four weeks after the birth of her ninth child. A portion of the placenta is adherent to the posterior wall of the uterus close to the fundus, while floating free in the cavity is another small shred. 1883

3094b. The Uterus and surrounding structures of a woman who died from septicæmia after childbirth. The uterus, which has been laid open posteriorly, measures, with the cervix, four inches in length. When fresh, the body appeared spongy, and pus could be squeezed out of several of the sinuses. The endometrium is flocculent and suppurating, the cervix is normal, and the left ovary and tube show no inflammatory changes. On the right side the ovary and the blood-vessels supplying it are suppurating, and all the venous channels, from the uterus to the vena cava inferior, are indurated and thickened as if thrombosed; on section, it is seen that this is due to inflammation of the walls of the vessels. The right common iliac vein has been preserved, and contains a channelled coagulum, the end of which protrudes into the vena cava. 1892

From a primipara, whose mother and sister both suffered from phlegmasia dolens, who was delivered without assistance in Queen Charlotte's Hospital. Septic symptoms occurred early, but were not severe until the eleventh day. She died on the twenty-sixth day.

Presented by W. S. A. Griffith, M.D.

CYSTS OF THE PLACENTA.

3095a. A Placenta, showing numerous cysts beneath the amnion. 1890

A drawing is preserved in Series lvii., No. 1013.

3102b. The Parietal Bones of a child, aged two and a quarter years, showing a well-marked depression of the outer table of the left parietal. 1885

The child was delivered by forceps, and it is supposed that the indentation was caused by this means.

See *Mary Ward Book* (1885), p. 468, and *Post-Mortem Book*, vol. xi., p. 355.

SERIES XLVII.

DEFORMITIES AND TUMOURS OF THE PELVIS.

3104a. An Adult Female Pelvis, in which all the measurements are uniformly contracted. At the brim, the conjugate, the right and left oblique and the transverse all measure a little less than four inches.

3104b. Model, in Plaster, of a Pelvis, with wide separation of the symphysis pubis. The original was taken from a woman, aged thirty-nine, who had ectopion vesicæ.

1884

The cast is from No. 424 in the Teratological Series of the Royal College of Surgeons. An account of the pelvis occurs in the *Transactions of the Obstetrical Society* for 1884. Presented by W. S. A. Griffith, M.D.

3104c. The pelvis of a man, over sixty years of age, who had Extroversion of the Bladder. The most prominent feature is the wide separation between the two pubic bones; there are five and a half inches between the two angles of the pubes.

The sacrum, which is made up of six or seven vertebræ, has special characters. The lateral masses of the first, second, and third segments are curved backwards from the bodies, instead of arching forwards. The extreme width is slightly increased, four and three quarters as against four and a half. The coccyx is only partially ossified to the last bone of the sacrum. The junction of the sacrum with the two iliac bones seems to have been ligamentous only, and there probably was considerable movement at this situation.

The ossa innominata also have special characters. It should be noticed first that all the bony prominences are very much exaggerated; the iliac crests, the spines, crests, and angles of the pubes, the eminentiæ and the lineæ ilio-pectiniæ, and the spines of the ischia, are all unduly prominent. The grooves for the gluteal, obturator, and internal pudic arteries are deep and well marked.

The iliac fossa on the right side is very deep, while round the margin of the left acetabulum are numerous spiculæ of bone. Looked at from the front, nothing can be seen of the interior of the acetabula, whereas in a normal pelvis these cavities are clearly exposed.

From behind it is seen that the posterior superior spines of the ilia are much closer together than usual (one and three quarters inches apart, as against three inches), and that the sacral spines, instead of projecting from between the back part of the iliac crests, lie deeply in the groove formed between these eminences. 1890

The soft parts from the same patient, showing the extroversion of the bladder, are preserved in Series vii., No. 3668a, of the Teratological Catalogue, to which refer for details of the case. Presented by Lovell Drage, M.D.

3117a. Malacostean Pelvis. The left innominate bone was less affected by the disease than the right ; it is therefore less deformed. 1884

The specimen was obtained from the body of a woman, aged 67, who died without any symptoms of osteomalacia.

Presented by W. S. A. Griffith, M.D.

3122a. The Pelvis of an adult female, in which, as the result of increased curvature of the spine, the brim is inclined so as to form nearly a right angle with the horizon. 1886

3126a. An oblique Pelvis of Naegele, with the fourth and fifth lumbar vertebrae attached. The synostosis is on the right side of the pelvis, which is flattened, and the symphysis pubis is opposite the middle of the left ala of the sacrum. The right ala of the sacrum is imperfectly developed. The right ilium is united to the three upper segments of the sacrum corresponding to the normal articulation on the left side. There is no sign of a joint below or in front, but above and posteriorly the line of junction is distinct. 1886

Brim.			Outlet.		
Conjugate	3.75 inches.	Antero-posterior (to apex	...	5 inches.
Oblique right	...	4.25 "	of sacrum)	...	3.75 "
" left	...	3 "	Transverse	...	71 degrees.
Transverse...	...	3.75 "	Pubic angle	...	
Right sacro-cotyloid	...	1.5 "			
Left " "	...	3.75 "			

Sacro-sciatic notch, right, 2 inches.

" " " left, 4 "

External Measurements.

Right post. sup. spine to the left ant. sup. spine, 7.5 inches.

Left post. sup. spine to the right ant. sup. spine, 6.5 "

From a woman, aged 20, who had been married for three years ; she was three times delivered by perforation of the fetal head. In her last labour the vertex presented in the first position. She died of peritonitis on the eighteenth day after delivery. There was no history of any disease occurring during infancy or childhood, and she was not known by her friends to be in any way deformed.

See *Transactions of the Obstetrical Society*, vol. xxviii. (1886), p. 84. *Journal of Anatomy and Physiology*, vol. xxi., p. 163.

3129a. An Oblique Rachitic Pelvis, the sacrum being tilted to the left side. The following are the measurements :—

Exterior.		Brim.		Outlet.	
D. B....	6 inches.	C. V. ...	2½ inches.	Tr....	4½ inches.
Cr. ...	10½ "	R. Obl...	4½ "		
Sp. ...	10½ "	L. Obl...	4½ "		
		Trans. ...	5½ inches.		

The left iliac bone is smaller than the right, and measures a quarter of an inch less along its crest. 1884

The patient was a woman, aged 48. She had no lateral curvature, but the left leg was one inch shorter than the right, being the more curved and deformed. The obliquity of the pelvis is probably due to this condition.

See description of case by Dr. Griffith in the *Obstetrical Society's Transactions* for November 7th, 1883.

3129b. A slightly oblique, flattened, rachitic Pelvis, from a woman upon whom Porro's operation was performed. Diameters—Conjugate, 2 inches ; transverse, 5 inches ; right oblique, 4½ inches ; left oblique, 4¼ inches ; antero-posterior of outlet, 4¼ inches ; transverse of outlet, 4 inches ; posterior spines, 2 inches ; crests, 9½ inches ; spines, 10 inches. Angle, 100°. 1885

SERIES XLVIII.

DISEASES OF THE MAMMARY GLAND.

HYPERTROPHY.

- 3142a. A Section through a very greatly Hypertrophied Mammary Gland. The hypertrophy is due to an infiltration of the gland with fibro-cellular tissue. The section measures ten inches in length by four inches in depth. 1889

From an unmarried lady, aged 21 years, in whom the hypertrophy had been proceeding for a period of three years. Both breasts were amputated, and after removal the right was found to weigh forty-eight ounces, whilst the left, from which the above section was taken, weighed no less than eighty ounces.

Presented by Thomas Smith, Esq.

HYPERTROPHY OF THE MALE BREAST.

- 3142b. A Mammary Gland, removed, after death, from a Man. There is a well-marked nipple and a pigmented areola. The gland itself is flat and oval, measuring two and a half inches in its long diameter. 1893

CYSTIC DISEASE.

- 3146a. A Cyst, removed from the mammary gland, in the substance of which it was deeply situated. Its interior presents a partial division into separate cavities. Before removal it presented many of the signs of a solid tumour. 1882

Presented by W. Marrant Baker, Esq.

DUCT PAPILOMA.

- 3146b. A small Papillomatous Tumour growing within a cyst of the breast, to which it is attached by a single small pedicle. Microscopical examination proved that the growth was a simple papilloma. 1886

From a woman, aged 39. The tumour was first noticed seven months previously. Ten or twelve minute growths similar to the intra-cystic growth here shown were found attached to the cyst wall.

See *Female Surgical Register*, vol. v. (1886), No. 429.

- 3146c. A Portion of the Mammary Gland, containing two large and well-defined unilocular cysts. The breast tissue also contains numerous smaller cysts. Microscopical examination shows that the cyst wall resembles granulation tissue, being chiefly composed of leucocytes lying in a loose fibrous stroma. A section of the breast around the cyst shows a fibrous stroma in which is embedded normal gland tissue and cysts formed by the dilatation of the acini. The epithelium of the lactiferous ducts is proliferating. 1888

From a married woman, aged 44, who had sero-cystic disease of both breasts.

See *Female Surgical Register*, vol. iv. (1886), No. 2459.

SUPPURATION IN A CYSTIC FIBRO-ADENOMA.

- 3146d. One half of a Cystic Fibro-Adenoma of the Breast, in which suppuration has occurred in two or three places. The whole breast was in a condition of chronic inflammation. To the naked eye the specimen, when fresh, closely resembled scirrhus carcinoma, but microscopical examination showed the disease to be of an innocent character. 1893

The patient was a woman, aged 44, who had noticed a swelling in her breast for fourteen months. Microscopical sections of the breast are preserved in Series I., No. 634a.

See also *Female Surgical Register*, vol. iii. (1891), No. 2116.

CYSTIC FIBRO-ADENOMA.

- 3146e. A Breast, removed by operation on account of Cystic Disease. Near the centre of the gland, and a little above the nipple, is a cyst measuring nearly two inches in diameter. It contains no intra-cystic growths, and is lined by a smooth-walled membrane. It has caused absorption of the neighbouring parts, so that the breast tissue is quite thin beneath it. There are two other small cysts, one above and one below the large one. The nipple is not retracted. 1893

The patient was a woman, aged 46, who had borne one child. She had noticed the swelling for three months.

See *Female Surgical Register*, vol. i. (1891), No. 981.

- 3148a. Part of a Breast, containing a large, smooth-walled Cyst, into which protrudes a small growth, composed of glandular and fibrous tissue. 1882

Presented by A. Willett, Esq.

SERO-CYSTIC DISEASE.

- 3152a. Portions of a Sero-Cystic Tumour of the Breast. The tumour is hard, and appears gelatinous on section. It contains numerous small cysts, which are filled with a proliferating adenoid tissue. Microscopic examination showed that the growth was a fibro-sarcoma, the stroma being in parts fibrous and in parts myxomatous, with oval and spindle cells scattered through the matrix. The cysts were lined with spheroidal epithelium. A few ducts and acini of the mammary gland still remained. 1887

From a thin woman, aged 29, the mother of two children. The swelling had been observed for a year; it grew slowly, and with little pain.

See *Female Surgical Register*, vol. i. (1886), No. 2639*.

- 3152b. A Section through a Large Lobulated Sero-cystic Tumour of the Breast. The cysts are very large, and are filled with a firm growth. Microscopically, the tumour is a true sero-cystic growth, the intra-cystic tissue being fibro-adenomatous in character. 1889

From a married woman, aged 52, who first noticed a small lump in her breast ten years before the amputation was performed. Eight years previously it began to grow, but during the last three years its increase in size was very rapid.

See *Female Surgical Register*, vol. i. (1888), No. 1020.

- 3156a. Part of a Breast, containing a Cyst with an intra-cystic growth. The latter is of a dark brown colour with a mottled surface on section, firm to the touch (though when fresh it was rather friable), and not sharply defined from the surrounding tissues. 1882

From a married woman, aged 67, from whose breast a similar tumour, the size of a plover's egg, had been removed one year and eight months previously, having been noticed for seven months. The lymphatic glands were not affected, and there was no family history of importance.

On microscopic examination, the tumour was found to consist of a collection of large, round cells of a connective-tissue type, enclosed in alveoli, the walls of which were composed of loose connective tissue. In these were many large and thin-walled blood-vessels, from some of which small offshoots ran between the individual cells. (Alveolar sarcoma?)

Microscopic sections are preserved in Series lv., No. 651.

See *President Ward Book*, vol. viii., p. 434.

- 3159a.** An Adenoma of the Breast. The tumour measures three by two inches. It is a fine specimen of a true adenoma. It is completely encapsuled. Its anterior surface is roughly divided by a constriction into two lobes. The larger of these lobes is studded with nodules, as in a case of "hobnail liver," whilst the smaller is smooth. On making a section of the tumour whilst fresh, it appeared pearly white like a normal mammary gland. It did not contain any cysts. 1885

The tumour was removed from the pectoral border of the mammary gland of a lady who was four months pregnant. It had been noticed for five months. Three months before excision it was so soft that it appeared to be cystic; it was punctured, but no fluid was withdrawn. The father and father's mother died of cancer. Sections are preserved in Series lv., No. 643.

See *Transactions of the Pathological Society*, vol. xxxvi. (1885), p. 411.

Presented by A. Willett, Esq.

- 3159b.** Portion of a Cystic Adenoma of the Breast. It consists of a larger cyst, lying in the substance of the gland, on the wall of which a number of small cysts are growing. Upon microscopic examination the tumour was found to be composed of almost pure gland tissue. The cysts were lined with epithelium. 1886

From a married woman, aged 39. The tumour had only been noticed a week. It had a well-defined edge, and was freely moveable. The veins were not enlarged: the nipple was normal.

See *Female Surgical Register*, vol. iv. (1886), No. 1342.

LIPOMA.

- 3160a.** A Fatty Tumour, removed from the neighbourhood of the breast. It lay in close connection with a thin-walled simple cyst, filled with brownish serous fluid. The lipoma easily shelled out: it is circular in shape, and is of the usual structure. It measures an inch and a half in diameter. 1887

From a patient, aged 55, who had noticed a tumour on her left breast for about six months. It was hard, tense, and freely moveable. The distal portion felt somewhat softer than the main part of the tumour.

Presented by Thomas Smith, Esq.

ADENO-SARCOMA.

- 3161a.** A Tumour of the Breast, which was encapsuled and of softish consistence. The cut surface is traversed by bands of glistening connective tissue, and presents to view many loculi and elongated spaces. 1881

The tumour consisted of soft, ill-developed connective tissue containing many nuclei, and, for the most part, resembling mucous tissue; tubules and loculi, lined with small epithelial cells, are sparingly scattered in this tissue.

From a woman, aged 19 years, who had observed the tumour about seven months. It was freely moveable, and the lymphatic glands were not enlarged.

See *Sitwell Ward Book*, vol. vii., p. 179.

- 3161b.** Section of a large Tumour, occupying the mammary gland, largely lobulated on the surface, and readily separable from the surrounding structures. The section shows that it is composed of a softish gelatinous tissue, containing cysts and loculi filled with soft proliferous growths, and presenting to view trabeculae of fibrous tissue, which appear to have constituted the walls of cysts now filled up. 1881

Removed from a woman, aged 46 years. The tumour had been observed for three years. The skin over it was moveable, and the nipple not retracted; there was no enlargement of the axillary glands. Two aunts of her father had been operated upon for "cancer" of the breast; they lived thirty and thirty-five years respectively afterwards, and neither died of cancer, nor was there any return of the disease.

See *Lucas Ward Book*, vol. vii., p. 160.

3161c. A Lobulated Fibroma, removed from the breast. The tumour consists of a soft fibrous tissue, which is divided up into small lobules by septa of connective tissue. A fibrous capsule invests the whole mass. Microscopic examination showed that the tumour consisted of dense fibrous tissue without any trace of gland substance. 1886

From a woman, aged 28, in whom the tumour had been growing for two years. After removal she made a good recovery.

See *Female Surgical Register*, vol. ii. (1885), No. 563.

3161d. A Portion of a Mammary Gland, showing two large cysts filled with intra-cystic growth. The largest cyst is circular in outline, and measures two inches in circumference; it has a well-defined outline, and its lower part is occupied by a firm white intra-cystic growth. Microscopically, this growth is a nearly pure fibroma, containing in some parts an excess of connective tissue and myxoma cells. The free surface of the tumour is covered by a layer of flattened epithelial cells. Both cysts contained blood, which has been coagulated into a dense clot by the action of the spirit in which the specimen is preserved. 1888

From a married woman, aged 48, with no children. She fell upon the right breast three months previously.

See *Female Surgical Register*, vol. iv. (1887), No. 2697*.

MYXO-SARCOMA.

3162a. A portion of a Mammary Gland. Immediately below the nipple, which is much retracted, there is a tumour, affecting the greater part of the gland, and composed of a series of cysts with tough fibrous walls, which are mostly filled by irregular pedunculated growths. On microscopical examination these were found to be myxo-sarcomatous in character, and to contain no gland tissue. 1892

See *Female Surgical Register*, vol. ii. (1890), No. 2076.

Microscopical sections of the tumour are preserved in Series lv., No. 648a.

3163a. A portion of a large Sero-cystic Sarcoma of the female breast. The cyst wall has been separated from the intra-cystic growth, and rods have been placed between the two to show that for a greater part of their extent they are not fused. Microscopic examination showed that the growth was a fibro-sarcoma. 1886

From an unmarried lady, aged 49, who had one-tenth of albumin in her urine at the time of the operation. The tumour had been growing for seven years. After removal it weighed seven pounds. The patient made an excellent recovery.

Presented by J. Langton, Esq.

3163b. A portion of a very large Sero-cystic Tumour of the breast. The growth is encapsuled by firm fibrous investment, which sends trabeculae inwards. The cysts are numerous but small, and the whole tumour has a somewhat fibrous appearance. Microscopically, it consists of numerous cysts enclosed in a framework of connective tissue. 1888

3163c. One half of a large Fibro-Sarcoma of the Mammary Gland, which has undergone calcification through its greater part; it is so hard that it could only be cut with a saw. 1890

Removed by operation from a woman, aged 46, who had noticed the tumour for four years. See *Female Surgical Register*, vol. v. (1890), No. 234.

3164a. One half of a Breast, removed by operation. It contains a large rounded tumour, which is not encapsuled, and which has numerous extravasations of blood in its substance. The growth is situated in the lower segment of the breast, and has fungated; the upper part of the breast and the nipple appear to be healthy. Microscopically, the tumour was of a sarcomatous nature. 1889

From a woman, aged 54, who received a blow upon the left breast seven years previously. A swelling appeared shortly after the injury, but it was said to have disappeared under treatment. The present swelling had been observed for four months previous to the operation, and the patient had been losing flesh for two months. After the removal of the tumour she made a good recovery.

Obtained in exchange from the Museum of the Royal Free Hospital.

CARCINOMA.

- 3165a. Section through a Mammary Gland and the surrounding fat, in which a large mass of scirrhus cancer is embedded. The tissue presents a hard white basis, intersected by bands like fibres, which are best seen at the periphery of the growth. The nipple is much retracted. 1888

From a woman, aged 52, whose nipple became retracted about eight months before the breast was removed; shortly after the retraction of the nipple she noticed a lump in her breast.

See *Female Surgical Register*, vol. iii. (1888), No. 657.

- 3165b. A Breast, showing a scirrhus growing coincidently with a fibro-adenoma. The upper part of the tumour presents the appearance of a normal scirrhus carcinoma, whilst the lower part has the nodular shape of an adenoma. Microscopically, the growth is papillomatous in structure, the papillæ being composed of a fibrous stroma containing oval, round, and branched connective-tissue corpuscles. The surface of each papilla is covered with a layer of spherical or short columnar epithelium. Epithelial cells enclosing cavities and simulating glandular tissue are also embedded in the stroma. 1889

From a woman, aged 48, who had knocked her breast four years before it was removed. On admission she had a tumour, about the size of a walnut, situated in the right mammary gland. It was firm and lobulated, feeling like an indurated piece of breast tissue, or a fibro-adenoma. The skin was not adherent, nor was the nipple retracted. The patient made a good recovery.

See *Female Surgical Register*, vol. v. (1888), No. 2638.

- 3165c. A portion of a Breast, infiltrated with a scirrhus carcinoma. The nipple is retracted, and at one point in the substance of the gland the carcinoma appears to be undergoing degeneration. 1889

From a woman, aged 45 years, in whom the cancer had been growing for eighteen months. Eczema of the nipple had existed for three months before she first noticed the tumour.

A portion of an axillary lymphatic gland is preserved in Series xxiv., No. 2287a.

See *Female Surgical Register*, vol. ii. (1888), No. 1622.

- 3170a. A Section through a Scirrhus Carcinoma of the Breast, which has "broken down" and suppurated. The nipple is retracted, and is connected directly with a firm fibrous mass in the deeper part of the gland. In the centre of this is a cavity with ragged and uneven walls. There is a second smaller cavity of a similar kind near the skin. Both cavities contained pus. 1890

From a woman, aged 45. She had noticed the growth for three months. The axillary glands were not affected.

See *Female Surgical Register*, vol. i. (1889), No. 87.

- 3172a. An Ulcerated Carcinoma of the Male Mammary Gland. There is a secondary deposit in the skin above the ulcer, and at the upper part of the specimen is an enlarged axillary gland, which was found, on microscopical examination, to be carcinomatous. Only the centre of the primary growth is now ulcerated, and it is surrounded by healing scar-tissue. 1890

From a man, aged 41. Twelve months before the operation a pimple formed on the nipple, which ulcerated, and extended into the surrounding skin. He was first seen one month before operation, during which time he was treated with iodide of potassium, with the result that, although there was no evidence of syphilis, the ulcer considerably diminished by healing from the edges. The axillary glands, which were already affected, enlarged, and became much

more fixed to the deeper structures. These, with the tumour, were freely removed. The microscopical examination of the ulcer and of the lymphatic glands showed both to be typically carcinomatous. The patient made a good recovery, but underwent a second operation for two recurrent nodules in the skin at the end of twelve months.

Microscopical sections are preserved in Series lv., No. 663.

Presented by A. A. Bowlby, Esq.

- 3179a.** A Scirrhus Carcinoma of the Mammary Gland, which has ulcerated through the skin, and now forms a large fungating tumour. The mass is flattened, nearly circular in shape, and measures five inches across its longest diameter. Before removal it was diagnosed as a sarcoma from its general appearance, but subsequent microscopical examination showed that the structure was that of a scirrhus carcinoma. 1892

The patient was a woman, aged 67. The tumour had grown very rapidly, and had reached its present size in nine months. One gland in the axilla had become infiltrated, and was removed at the same time.

A drawing of the tumour, before removal, is preserved in Series lvii., No. 1040.

See *Female Surgical Register*, vol. iv. (1891), No. 918.

CANCER FOLLOWING ECZEMA OF THE NIPPLE.

- 3181a.** Section of a Breast. The nipple and the surrounding skin are excoriated and eczematous, the former being retracted to such an extent as to be almost below the level of the surrounding integument. Beneath the nipple the substance of the gland is indurated and hardened by chronic inflammation, while at the margin of the breast is situated a small mass of scirrhus cancer. 1882

From a woman, aged 36, who had had five children, all of whom she suckled. Both breasts had been frequently the seat of cracked nipples, and twelve months before coming under notice the eczematous condition seen in the specimen showed itself.

For account of case see *Lucas Ward Book*, vol. viii., p. 62.

Microscopical examination showed the nipple itself to be the seat of scirrhus cancer. The surrounding skin, and that part of the indurated breast immediately subjacent to the nipple, showed only the ordinary appearances of chronic inflammation, whilst the tumour of the margin of the gland was of a typically cancerous nature.

- 3181b.** Section of a Breast. The surface of the nipple is irregular, excoriated, and eczematous. It is deeply retracted below the level of the surrounding integument, and blends with a small, firm mass of scirrhus cancer, not larger than a walnut. The whole breast appears to have atrophied, for there is no trace of glandular structure, its place being taken by a quantity of fat. 1883

The patient was a woman, aged 49, who had suffered from eczema of the nipple for three years; the tumour in the breast had been noticed about twelve months. Two years after the operation, there had been no return of the growth.

Presented by W. C. Everley Taylor, Esq.

- 3181c.** A Female Mamma. The nipple is retracted; the areola eczematous. In the substance of the breast, immediately beneath the areola, is a small oval mass of scirrhus cancer. 1884

From a woman, aged 51, who had suckled nine children without any breast trouble. The eczema was of three years' duration; the tumour of four months. At the time of the operation the glands were enlarged.

For further details see *President Ward Book*, vol. ix., p. 384.

- 3181d.** A Female Mamma. The areola around the nipple is eczematous, the epidermis being removed, but there is no ulcerated surface. Beneath the nipple the breast tissue is indurated, though it is otherwise normal. At the margin of the gland is a firm scirrhus carcinoma rather larger than a walnut. 1884

From a woman, aged 45, mother of four children, the last of whom was born three years before the appearance of the cancer. After the birth of the third child, the nipple was sore,

and a thin fluid exuded from it. The last child would not take this breast. The tumour was noticed for four months; the eczema for seven years.

For further details see *President Ward Book*, vol. ix., p. 327.

- 3181e. A Female Mamma. The areola is ulcerated and continuous with a large mass of scirrhus cancer. 1884

From a woman, aged 51, who had suffered for two years from eczema of the nipple, and for nine months from a tumour in the breast. The axillary glands were enlarged.

For further details see *Lucas Ward Book*, vol. ix., p. 93.

- 3181f. Scirrhous of the Breast, removed as a slough after treatment by caustics. 1885

The skin was first destroyed by concentrated nitric acid, and a paste of zinc chloride was applied daily to the cancerous mass. The furrows in the slough are the result of incisions made to facilitate the action of the chloride of zinc. The slough came away five weeks after the first application of the nitric acid.

Presented by Howard Marsh, Esq.

- 3181g. Portion of a Breast infiltrated with scirrhus cancer, to show the sloughing which occurs after the application of a caustic. The first application was made three weeks before the removal of the gland. Almost the whole of the cancer is separating as a slough. 1888

- 3182a. A portion of the Left Mammary Gland, removed from a woman, aged sixty-four. The section shows a large number of cysts, which are for the most part filled with dark blood and broken-down intra-cystic growth. The cysts are enclosed in a dense fibrous stroma. Some of the ducts are dilated. In the fat surrounding the gland numerous smaller cysts are situated, and these peripheral cysts appear in some places to be continuous with the gland ducts. Microscopically, the growth is of a myxo-sarcomatous nature, into which considerable hæmorrhage has occurred.

1888

A small hard lump was first noticed in the breast for eighteen months before the operation; it grew rapidly. The mother of the patient died of cancer. Immediately before removal of the breast, the upper and inner portion of the gland was occupied by a large irregularly oval swelling, which was hard and irregular. The skin was not adherent, the veins were enlarged, and the nipple was slightly retracted. There were no enlarged glands in the axilla, or above the clavicle. The patient died of erysipelas. No secondary growths were found at the post-mortem examination.

See *Female Surgical Register*, vol. v. (1887), No. 1204.

HÆMORRHAGIC CARCINOMA.

- 3184a. One half of a Mammary Gland, removed on account of Scirrhus Carcinoma. The part affected, situated immediately beneath the nipple, is unusually well defined, and is separated from the surrounding tissue of the breast by a fibrous capsule. It is still of a much darker hue than the healthy gland, and, when fresh, was of a deep claret colour, due to the presence of a large quantity of blood. Microscopical examination showed its structure to be that of scirrhus carcinoma, into the fibrous tissue of which a great deal of blood had been effused. 1892

The patient was a woman, aged 54, who had noticed a lump in her breast for five weeks only, but had suffered pain there for eight weeks in all. She was married, but had not borne children.

A microscopical section of the tumour is preserved in Series lv., No. 659a.

A drawing of the appearances, when fresh, is preserved in Series lvii., No. 1041.

See *Female Surgical Register*, vol. ii. (1891), No. 1066.

- 3184b. One half of a large Scirrhus Carcinoma of the breast, into which considerable hæmorrhage has occurred. The cut surface shows three distinct masses, each with a well-marked limiting membrane, giving the appearance of cysts, and measuring from one and a half to two and a half inches in diameter. Hæmorrhage has

occurred in each of these cysts, the contents have largely undergone degenerative changes, and have fallen out from the two lower cysts when these were incised. There is flattening of the nipple. 1893

From a woman, aged 59. She had noticed the tumour for two years. The axillary glands were extensively involved.

Microscopical sections are preserved in Series lv., No. 659b.

See *Female Surgical Register*, vol. i. (1891), No. 1063.

3185a. Colloid Cancer of the Breast. 1884

From a woman, aged 55, the mother of one child. The tumour had been noticed for four months. The mother of the patient died of cancer of the breast; the father of stricture of the œsophagus. At the time of the operation the lymphatic glands were not definitely enlarged.

Sections are preserved in Series lv., No. 673.

3185b. A small Colloid Cancer of the Breast. 1884

The colloid cells are well marked; the matrix is undergoing hyaloid degeneration.

Sections are preserved in Series lv., No. 674.

3185c. Portion of a Breast, affected with colloid cancer. 1885

F., et. 35. Growth first noticed four years previously.

For further details see *Female Surgical Register*, vol. i. (1884), No. 1648.

A section is preserved in Series lv., No. 675.

3185d. A portion of a Breast, containing a small mass of a recurrent colloid cancer. The mass is circular in outline, and measures three-quarters of an inch in diameter. It is situated about a quarter of an inch below the nipple. It has a well-defined outline, and contains a considerable quantity of new growth, which has not yet undergone any colloid change. 1889

From a woman, aged 39, in whom the primary growth of colloid cancer was first noticed nine years previously. The recurrent growth was observed a year after the first operation.

See *Female Surgical Register*, vol. v. (1888), No. 1668.

3185e. A portion of a Mammary Gland, the seat of Scirrhus Carcinoma, showing two small areas of Colloid Degeneration. On the cut surface there are also seen numerous dilated ducts, some of which still contain caseous material. The nipple is much retracted. 1892

The patient was a woman, aged 56, who, on admission, was found to be suffering from tumours of both mammary glands, with a history of six months' duration. Both breasts were removed, and both were carcinomatous; one showed the simple encephaloid variety, the other colloid degeneration.

See *Female Surgical Register*, vol. i. (1891), No. 80.

3186a. Portion of a tumour of a female Breast, which had undergone colloid degeneration. It consists of loculi filled with colloid material and gelatinous, shreddy connective tissue. Its precise nature could not be ascertained. 1881

Presented by Sir William S. Savory, Bart., F.R.S.

DUCT CANCER.

3186b. Portion of a Breast, with two recurrent nodules of duct cancer, one of which is situated in the fat outside the breast tissue. The masses are circular, and measure a third of an inch in diameter; they are situated in a dense stroma of fibrous tissue. Each mass is dark-red in colour, and consists of soft and very friable new growth. Microscopically, the growth presented all the characters of a duct cancer. 1889

From a single woman, aged 43, who had noticed lumps in her breast for four or five months. There were no enlarged glands. The tumours were removed through incisions made into the breast. Three years later the patient returned to the Hospital, saying that a year previously the swellings had reappeared. The breast was at this time occupied by an irregular lobulated

tumour, with a bossy outline and a sense of elasticity, or almost of fluctuation, in parts. There was no glandular affection, and the skin was not implicated. The whole breast was amputated. The patient made a good recovery, but ten months after the operation a small nodule had reappeared at the inner end of the scar. This was also removed, but there was still no implication of the glands.

A section of the growth, from the first recurrence, is preserved in Series lv., No. 676.

See *Female Surgical Register*, vol. v. (1887), No. 902.

See also *St. Bartholomew's Hospital Reports*, vol. xxiv. (1888), p. 266, Case 5.

- 3186c. A Cystic Tumour, removed from the breast. The cyst is formed by the dilatation of one of the milk-ducts; a small pedunculated papillomatous growth sprouts into its cavity. This growth, when it was fresh, resembled a ripe raspberry, being bright-red in colour. On the surface of the cyst are ten or twelve smaller growths, none larger than a pin's head, and all sessile. The wall of the cyst was quite thin and membranous. Microscopically, the growth presented all the appearances of a duct cancer. 1889

From a woman, aged 39, mother of five children. Sixteen months before her admission into the Hospital she had a miscarriage. For seven months, she stated, she had noticed a small lump in her right breast, and for six months there had been a discharge from her nipple. On examination of the right breast, a tumour, as large as a hazel nut, was found to exist just beneath the nipple. It was globular in shape, and elastic. Whilst it was being examined to detect fluctuation, about half a drachm of slightly blood-stained serous fluid escaped, and the tumour at once diminished in size.

A microscopical section of the growth is preserved in Series lv., No. 678.

This specimen was formerly described as 3159b.

See *Female Surgical Register*, vol. iv. (1886), No. 1342.

See also *St. Bartholomew's Hospital Reports*, vol. xxiv. (1888), p. 263, Case 1.

- 3186d. A portion of the Left Mammary Gland, containing a cyst with thickened walls. A papillated growth springs from the inner side of one wall of the cyst. Microscopically, the growth has the characters of a duct papilloma. 1889

From a married lady, aged 55. Three months before removal she had sudden swelling of both breasts, with heat and pain after exposure to cold. Two very hard nodular lumps were noticed in the left breast. The breasts were large and well developed.

Presented by G. Lowe, Esq., per Sir James Paget, Bart., F.R.S.

- 3186e. A Small Cyst, containing a Duct Papilloma, removed from the mammary gland; it is very similar to No. 3186c. There is a small lobulated growth, the size of a small bean, attached by a narrow stalk to the cyst wall. It consists principally of laminated blood-clot covering a small papilloma. 1890

From a boy, aged five, in whom it had been noticed for three months.

See *Male Surgical Register*, vol. v. (1889), No. 3276.

A drawing of the specimen, when fresh, is preserved in Series lvii., No. 1049.

- 3187a. A small Papillomatous Tumour, removed from the nipple of a woman, aged thirty-five, who had noticed the growth for many years. It was attached by a very narrow pedicle. 1882

SERIES XLIX.

ANATOMY OF STUMPS AFTER AMPUTATION OF LIMBS.

3189a. A Section through a portion of the Stump of the Right Thigh, to show the changes which have taken place as the result of an amputation through the lower third of the femur twenty days before death. The wound has completely healed, and the artery is occupied by a narrow conical clot, whilst the end of the femur is covered by a layer of fibrous tissue which blocks the medullary canal. 1888

From a man, aged 43, whose leg was amputated on account of tubercular disease of the knee-joint.

See *Male Surgical Register*, vol. i. (1887), No. 1406.

3189b. A Section through a Stump where the Amputation has been done immediately below the Knee. The cavity of the joint was not opened, but only a thin slice of the tibia has been left: the head of the fibula was removed. The stump is soundly healed. 1891

The limb, which was amputated, is preserved in Series I., No. 3294b.

For the history of the patient see *Female Surgical Register*, vol. v. (1891), No. 2545*.

3194a. The Head of a Humerus, showing an extreme degree of rarefying osteitis. 1885

From a man, aged 34, whose arm had been amputated sixteen months previously on account of gangrene. The gangrene followed a Colles' fracture. It was found after amputation that the radial artery had been obliterated owing to a stab received ten years previously.

See *Surgical Registrar's Report* (1883), Appendix, p. 73.

3195a. The Head and Neck, with the upper third of the Shaft of the Femur, from a patient, aged sixty-two, whose leg had been amputated forty years previously at the London Hospital. The shaft is atrophied, and is bent upwards upon itself; its lower extremity has numerous spiculæ of bone developed upon it. The medullary canal is completely closed. 1888

See *Male Surgical Register*, vol. ii. (1887), No. 2620.

3199a. A Section through the Stump of a Leg, which had to be re-amputated after Syme's operation. The original operation was performed nine years previously for a fracture. The stump remained sound for four or five years, and then discharging sinuses were formed. The ends of the bones are carious. 1889

From a man, aged 53 years.

See *Male Surgical Register*, vol. i. (1888), No. 1182.

3202a. Section of the Stump of a Leg, amputated through the lower third, showing a small cavity in the lower extremity of the medullary canal, lined with granulations. 1881

It was removed by re-amputation from a woman, aged 47 years ; a short time before, a sequestrum had been taken from the extremity of the bone. A discharging sinus had existed at the end of the stump since the amputation, which was three years before her admission to the Hospital.

See *Lucas Ward Book*, vol. vii., p. 135.

3202b. The other half of the Stump after maceration. 1881

3205a. A small Ring of Necrosed Bone, which separated from the femur of a child two months after amputation. 1884

SERIES L.

GENERAL PATHOLOGY.

3216a. Sections of the Fore Feet of a Horse, used upon a farm until it was killed. The hoofs are immensely overgrown in a forward direction, measuring in one eleven and three quarters inches from tip to heel, in the other nine and a quarter inches; the frog is also considerably overgrown. It resulted from this hypertrophy of the hoof that the plantar surface was carried forwards, and that the horse walked upon the heel. In consequence of the alteration of the pressure upon the articular surfaces of the bones of the foot, a certain amount of displacement has taken place, the proximal extremity of the first pastern bone is displaced backwards so that the distal extremity of the cannon bone is thrown forwards. The opposing articulating surfaces of the first and second pastern bones are displaced backwards, so as to form an angle projecting posteriorly. In one foot osseous ankylosis of the articulation has taken place; in the other, in which the deformity is not so extreme, ankylosis has commenced. These changes appear to be entirely due to the alteration of the positions of the base upon which the weight of the body rested; for, on account of the growth of the hoof forwards, the weight of the body was transmitted along a line anterior to the axis of the limbs, from which it resulted that the first and second pastern bones pressed backward. Other sections from the same animal are in the Museum of the Royal College of Surgeons. 1882

Presented by F. S. Eve, Esq.

3216b. The outer half of a left Foot, with extreme enlargement of the sole from hypertrophy of the skin and subcutaneous tissue, which is thrown into prominent transverse folds, with intervening fissures. The hypertrophy is limited to the sole, and the altered skin projects in ridges around the sides of the foot. The toes are turned upwards, and the skin at their extremities is hypertrophied. 1882

On microscopic examination, the hypertrophy was found to be mainly due to thickening of the corium, which was made up of irregularly arranged bands of dense fibrous tissue, with intervening spaces into which the lymphatics opened. The cuticle was also thicker than normal, the lymphatic channels were not dilated.

From a girl, aged 24. The left foot had been hypertrophied from birth, but during the six months previous to removal it had increased rapidly in size: two months later the right foot also became affected, and rapidly increased in size up to the time of her death, though at no time was it so large as the left. A large exostosis grew from the left patella, there were several osteophytes on the dura mater, a fibrous epulis grew from the left upper jaw, and a fibrous tumour on the left sclerotic, the uterine mucous membrane was covered by a thick villous growth. The patient was rather deficient in intellect, and the right half of the encephalon was smaller than the left. The left leg was amputated by Mr. Macnamara, of the Westminster Hospital, at the patient's request, on account of the difficulty experienced in walking, the result of the abnormal condition of the left foot and patella. The patient died on the second day after the operation. Other specimens from this patient are in the Museum of the Royal College of Surgeons.

Presented by F. S. Eve, Esq.

SPURIOUS ELEPHANTIASIS.

3216c. Section of a Leg, which has undergone an unusual hypertrophy of the fibrous tissue in all its parts. It is, therefore, an example of spurious elephantiasis. 1886

From a woman, aged 28, who had never been out of London. The leg began to increase in size three and a half years before admission. The swelling commenced in the big toe, and gradually extended as high as the knee. There was a good deal of eczema. The limb was subsequently amputated. Microscopic examination only showed a general increase in the fibrous tissue of all parts.

See *Female Surgical Register*, vol. iii. (1885), No. 2080.

3216d. A Foot and Lower Part of the Leg, where, as the result of a large chronic ulcer, situated just above the ankle, and which has almost invaded the circumference of the limb, complete lymphatic obstruction has supervened. As a result, the whole foot has immensely increased in size, owing to the very extensive deposit of fibrous tissue in the deeper layers of the skin. The ulcer is now healed, but the scar is of large size, and there has apparently been much loss of substance during the prolonged suppuration. The whole of the affected skin is considerably pigmented. 1892

The patient was a man, aged 64, who had suffered from the ulcer for sixteen years. As the limb was quite useless, it was amputated.

See *Male Surgical Register*, vol. iv. (1891), No. 1449.

3225a. Portion of the Abdominal Wall, from a case of umbilical hernia, in which the sac was excised and its neck sewn up. 1884

The patient died of peritonitis three days after the operation. The wound in the peritoneum is seen to be almost completely healed.

3226a. Section of the Hand and Forearm of an old woman. She had sustained a very severe burn forty-seven years previously, and the resulting cicatrix had produced the deformity seen in the specimen. The fingers and thumb are bent backwards, and partially dislocated, the hand is extended at the wrist so that its back nearly touches the dorsal surface of the forearm, and the whole hand is of a claw-like shape. The bones are extremely atrophied, and some of those forming the carpus are very friable. Notwithstanding the amount and duration of the displacement, none of the joints are ankylosed, the wrist, carpal, metacarpal, and those phalangeal joints which have been opened, are still covered with cartilage. The forearm is the seat of a foul ulcer, which first made its appearance six months before amputation was performed. 1882

3226b. Section of the Elbow-joint, from the same patient as the preceding specimen. It shows the articular surface still intact, and not ankylosed. 1882

PLASTIC OPERATION.

3226c. The third Finger of the Right Hand, upon which a plastic operation, for the cure of contraction, was successfully performed a year before the death of the patient. As a result of an accident, the top of the finger was tightly bound down to within a quarter of an inch of the palm of the hand by a dense and unyielding cicatrix. The cicatrix was dissected out, and a graft, taken from the skin covering the second and third intercostal space, was introduced in its place, the graft being left attached to the thorax by a thick pedicle. A week later, the graft was separated from the trunk, and the wound was found to be healing satisfactorily. 1888

From a country boy, aged 14, who subsequently died of acute meningitis.

For details of the case, with illustrations, see the *Lancet*, vol. ii. (1881), p. 948.

Presented by James Adams, M.D.

3226d. A Foot, in a condition of Talipes Varus, removed by amputation on account of deformity, caused by the contraction of scar-tissue, following a severe burn of the skin and deeper structures. The scar is seen on the inner side of the foot, just

below the inner malleolus. As a result of the extreme inversion, the sole has been tilted upwards, so that the patient walked on the outer edge of the foot. This has caused the formation of a patch of greatly thickened skin, which is placed partly over the dorsal surface of the fifth metatarsal bone. It is to be noticed that this form of talipes differs in other respects from congenital or other kinds following infantile paralysis, &c., in that there is no contraction of the flexors of the toes. Both the tibia and fibula are much atrophied. 1890

From a patient, aged 11, to whom the original injury happened during infancy.
See *Female Surgical Register*, vol. iii. (1888), No. 14.

PLEURISY.

3228a. Portions of Ribs and Lung, showing the organisation of lymph to form adhesion. From a case of recent pleurisy. 1884

3228b. A similar specimen, showing the effects of a pleurisy many years previously; the adhesions are denser than in the preceding specimen, the fibrous tissue having contracted so as to form a tough membrane. 1884

LUPUS.

3233a. The lower two-thirds of a Right Leg, removed by amputation just above the knee, on account of very extreme lupus ulceration of the skin. There is an area of scar tissue, six inches wide, encircling the leg. Dotted irregularly over this are patches of exuberant granulations, with an ulcerated surface. These are particularly numerous in the neighbourhood of the inner ankle and inner side of the heel. The limb has been partially injected. 1893

The patient was a lady, aged 68. As a child, she suffered from tubercular disease of the tarsus, from which she quite recovered. In 1870, after an attack of small-pox, a nodule of lupus occurred in the calf of the leg; this gradually spread. Two small patches were scraped in 1889 with good effect, but she refused to allow the whole affected area to be treated in this way. The limb was amputated in March, 1892.

Microscopical sections are preserved in Series lv., No. 690b.
Presented by Alfred Willett, Esq.

CHRONIC ULCER.

3233b. A Right Foot, removed by Syme's operation on account of chronic ulceration affecting the skin of the sole over the heads of the metatarsal bones. In this region the whole thickness of the skin has been completely destroyed. The edges of the ulcer are much thickened.

There has also been extensive disease of several bones of the metatarsus, causing shortening and distortion of the toes. The great and fourth toes are the most affected. 1893

A drawing of the foot, before the operation, is preserved in Series lvii., No. 1071.
See also *Male Surgical Register*, vol. iv. (1891), No. 3390*.

3234a. The Lower Extremity of a Child, exhibiting burns of various degrees. In the upper part of the thigh the muscles are partially charred, while on some parts of the foot there is nothing more than a peeling off of the integument. 1884

GANGRENE.

3235a. Dry Gangrene of the Foot, after ligature of the femoral artery. 1881

3235b. Gangrene of the Foot, showing the commencement of the line of separation of the living from the dead tissues. 1881

3235c. A Hand, affected with dry Gangrene, as a result of idiopathic plugging of the arteries of the forearm and arm. The plug extended from the origin of the subclavian. 1884

The arteries of the arm are preserved, with the arch of the aorta, in Series viii., No. 1571c.

- 3235d. A Hand, affected with dry gangrene, resulting from embolism of the arteries. 1885

The heart and arteries are preserved in Series viii., No. 1571d.
See *Male Surgical Register*, vol. i. (1884), No. 3637.

- 3235e. A Foot, with the Lower Third of the Leg, which has been affected with dry gangrene. The dead soft textures had separated from the living, and the foot was apparently removed by sawing through the bone. 1888

From a lady, aged 42, who had nursed her son through a mild attack of scarlet fever. During his convalescence, and when the desquamation was nearly completed, she was taken ill with sudden pyrexia and sore throat, but she had no rash. In a day or two she was attacked with pneumonia, affecting both lungs. This was attended with great cardiac depression, and death appeared certain, with all the symptoms of cardiac clot. She continued in this condition for a few days, and then symptoms of blocking of both popliteal arteries supervened, and both feet became gangrenous. She made a good recovery. There were no symptoms of ulcerative endocarditis.

The other leg is in the Museum of the Royal College of Surgeons, No. 223a.
Presented by Thomas P. Greenwood, Esq.

- 3235f. The Anterior Part of a Foot, removed after death from a man, aged sixty-three, who had senile gangrene.

The whole of the skin is discoloured, but unevenly and in irregular patches; that over the dorsum of the great and little toes has lost its epidermis, is much darker than the rest, and has become gangrenous; there is a well-marked line of demarcation. Both the anterior and posterior tibial arteries were filled with old white adherent clot. Symptoms commenced one year before death. 1890

See *Male Surgical Register*, vol. iii. (1888), No. 2747.

- 3235g. The Middle Finger of the Right Hand, removed by operation for Gangrene. The whole of the unguis phalanx and the distal half of the second phalanx is discoloured and of a dusky ashen-grey colour, and the line of demarcation is clearly seen. Linear incisions were made into the affected part before removal, but to no purpose. 1891

The patient was a woman, aged 39.

See *Female Surgical Register*, vol. v. (1889), No. 368.

- 3238a. The Phalanges of the Toes of the Right Foot, which mortified owing to an embolus lodging in the common femoral artery. 1888

A woman, aged 37, had a sudden onset of pain nine days after an abortion. The pain occurred whilst walking across the room. It was felt in the left groin, and was followed by a burning sensation and numbness in the foot.

See *Female Surgical Register*, vol. v. (1888), Nos. 254 and 1099.

INJURY.

- 3238k. The Right Carpus of an Adult, removed by amputation through the wrist-joint on account of a severe compound comminuted fracture of the metacarpal bones, caused by the hand having been caught in the cog-wheels of machinery in motion. The ends of the first and third metacarpal bones, together with the deep flexor tendons, lie exposed in the wound, while the muscles and surrounding skin are discoloured from the dirt and oil introduced at the time of the accident. 1892

- 3239a. The Tip of a Finger, removed by operation on account of a tubercular ulcer which is situated near the base of the nail. 1891

A microscopical section, showing "giant cells," is preserved in Series lv., No. 696a.

See also *Female Surgical Register*, vol. i. (1891), No. 911.

- 3250a. A portion of a Large Fatty Tumour, removed from the front of the thigh. At the time of the operation it was found that the tumour was not encapsuled, but

had infiltrated the muscles, and had grown in and among the bundles of muscular tissue. This is clearly seen in the cut surface of the specimen, where long thin strips of muscle occur, separated from each other by fat. 1892

A drawing of the tumour, when fresh, is preserved in Series lvii., No. 1190.
See *Male Surgical Register*, vol. iii. (1890), No. 1284.

3251a. A Fatty Tumour, removed from the sole of the foot of a child, aged thirteen months, in whom it had been growing since birth. The tumour is not encapsuled, and consists of ordinary fatty tissue enclosed in a fibrous framework. A similar tumour was removed from the sole of the opposite foot. 1886

Casts of the feet are preserved in Series lvi., No. 211a.
See *Pathological Society's Transactions*, vol. xxxvii., p. 450.
Presented by C. B. Lockwood, Esq.

3261a. A Cartilaginous Tumour, removed from the neighbourhood of the knee-joint. The tumour is oval in shape, and has a rough, irregular contour. It is covered by a layer of dense connective tissue, and measures one and three quarter inches in length by an inch in breadth at its widest part. The section shows that it consists of several masses of hyaline cartilage, united together by connective tissue. The largest of these masses is the most central; it is completely calcified, except at its circumference, which still remains cartilaginous. A pad of fat is attached to the posterior surface of the tumour by the fibrous-tissue coat which invests the entire mass. 1888

From a blacksmith, aged 53, who stated that he had noticed a small flat lump growing for two months immediately below the patella, and almost in the middle line. At the time of removal it appeared as if the mass sprang from the sub-synovial membrane of the knee-joint. A cast of the knee, made before the operation, is preserved in Series lvi., No. 71c.
See *Male Surgical Register*, vol. i. (1888), No. 1503.

3264a. A Tumour, removed from the scalp over the left parietal bone by a series of ligatures. The operation of removal occupied over four months. After removal it weighed two and a half pounds. 1885

The tumour consists of fibrous tissue. It is very vascular.
Presented by F. F. Andrews, M.D.

3266a. A Congenital Tumour, removed from the pinna of the ear of a boy, aged fourteen years. The tumour measures three and a half inches in length by two inches in diameter. It is shining, and is of a dense and uniform consistency, smooth externally, but growing into large processes internally. Microscopically, the tumour is a pure fibroma. 1889

A drawing of the patient, from whom the growth was removed, is preserved in the collection of drawings of congenital malformations, Series lvii., No. 1341.
See *Male Surgical Register*, vol. iii. (1887), No. 3264.

3276a. A Fibromatous Tumour of the Skin, which was removed by operation from the subclavicular region of the neck. It consists of a number of tuberculated masses, rounded in shape and connected with each other by the deeper portions of the skin from which they spring. The largest mass is about one and a half inches in diameter: the subcutaneous tissue is thickened.

In its general characters it closely resembles the "recurrent fibroid" tumour described by Sir James Paget: its structure is that of a spindle-celled sarcoma. 1891

From a lady, aged 44, who, as a child, was liable to warts, which disappeared of their own accord. The tumour began to grow at the age of twelve; various methods of treatment by caustics were tried without avail: it was, therefore, removed freely with the knife, but small nodules appeared in the scar in a few months.

A microscopical section of the tumour is preserved in Series lv., No. 730.
See *St. Bartholomew's Hospital Reports*, vol. xxvi., p. 147.

- 3278a. A Pendulous Growth attached to the inner side of the thigh. The tumour is nodular, and is covered with normal skin ; it is attached to the skin by a narrow pedicle. On section, it is seen to consist of a homogeneous tissue, which, on microscopical examination, is a soft fibroma. 1889

From a woman, aged 55, in whom the tumour had been growing for ten years.
See *Female Surgical Register*, vol. iv. (1887), No. 2702^o.

- 3280a. A Pedunculated Fibro-cellular Tumour, which had been growing for more than five years from the right ischio-rectal region. The tumour is of the size of a small orange, with a complete covering of skin, except where the pedicle has been divided. On section, it presents the usual appearance of a yellowish matrix intersected by white fibrous bands. 1886

From a married woman, aged 25. The tumour was inconvenient, but not painful.
See *Female Surgical Register*, vol. iv. (1886), No. 27.

- 3284a. A large Fibrous Tumour. 1885

- 3284b. A Section through a Fibrous Tumour growing from the abdominal wall. The tumour measures one and a half inches in length by one inch in breadth. The section has the characteristic appearance of a fibroma. It grew from the fascia of the external oblique muscle. 1888

From a married woman, aged 35, who had noticed a swelling in the right anterior iliac region for eight months. The tumour was hard and tense, freely moveable, but not tender.
See *Female Surgical Register*, vol. i. (1888), No. 2789*.

- 3294a. A Sarcoma of somewhat unusual shape, which grew beneath the skin of the left side of the neck. 1885

F., æt. 36. First noticed six months previously. Recurrence took place before the wound healed.

A drawing is preserved in Series lvii., No. 1220, and a cast in Series lvi., No. 212a.
For further details see *Female Surgical Register*, vol. iv. (1885), No. 2362.

- 3294b. A Circular Growth which was situated over the left malar bone. The tumour measures two inches in diameter. It presented a reddish, smooth, flattened and somewhat shiny appearance, except at its centre, where there is a small patch of ulceration. The skin is implicated and discoloured on the surface, but not around the edge of the swelling. Microscopically, it is a mixed-celled sarcoma. 1889

From a married woman, aged 23, in whom the swelling had been growing for eight months. It was said to have originated in a gnat-bite. The growth was freely moveable on the subjacent tissue.

A microscopical section is preserved in Series lv., No. 524.

A drawing is preserved in Series lvii., No. 1214.

See *Female Surgical Register*, vol. v. (1888), No. 2512.

SARCOMA OCCURRING IN A CHRONIC ULCER OF THE LEG.

- 3294c. A portion of a Left Leg, extending from just below the Knee to just above the Ankle, which was removed by amputation on account of a malignant disease which occurred in the site of a chronic ulcer of the leg, which had existed for many years. The inner side of the leg is the part most extensively affected. Here the ulcer measures eight inches across. Its edges are raised, and there is considerable increase of tissue all round the margin. The back of the calf and front of the leg are also involved, and except for a space of rather more than one inch in breadth, the ulcer extends completely round the limb.

Microscopical examination of the margin showed that it was a round-celled sarcoma. 1893

The patient was an old woman. Amputation was performed just below the knee (see Series xlix., No. 3189b), from which she recovered, but died not long afterwards from secondary deposits in the thorax.

Microscopical sections are preserved in Series lv., No. 741.

See *Female Surgical Register*, vol. v. (1891), No. 2545*.

- 3295a.** Portion of a Foot, with a mixed round and spindle-celled sarcoma occupying the sole; its section has a fibrous appearance. The epidermis covering the tumour is thinned and penetrated by a small aperture; beneath this, blood is effused into the substance of the tumour. 1881

The foot was removed by amputation.

- 3299a.** A Tumour, removed from the Leg, which is said to have occurred at the seat of a recent fracture. It is composed of a number of small rounded bodies the size of small peas, held together by fibrous tissue. Under the microscope these bodies show the appearance of a fibro-sarcoma. 1890

Presented by Dr. Palmer, of Newbury.

- 3300a.** A Rounded Tumour enclosed in a strong capsule, which was removed from the pectoral region of an old man. On section, the tumour is seen to be of a soft gelatinous consistency, which is in parts hæmorrhagic. In parts, too, there are large degenerative cysts, which, in the fresh state, were filled with a blood-stained fluid. Microscopically, the growth is a fibro-sarcoma. (*Cf.* 1174b.) 1888

From a man, aged 71. The tumour had only been noticed for three or four months before its removal. It formed a solid elastic swelling beneath the right pectoral muscle. The tumour was moveable on the ribs, and the skin was not adherent over it. There were no enlarged glands. When it was exposed, it was seen to grow from the deep fascia beneath the pectoralis major. It was surrounded by a strong capsule, and, after removal, the ribs were not found to be bare. The patient had no family history of tumour. There were no enlarged glands.

See *Transactions of the Pathological Society*, vol. xxxix., p. 305.

Presented by S. Paget, Esq.

“WITHERING SARCOMA.”

- 3302a.** One Half of a Tumour, removed from the Scalp of a Young Man. Similar tumours had appeared and subsequently disappeared without operation; its structure is that of a fibro-sarcoma. 1891

A wax model of a similar tumour, growing near the scar from which this one was taken, is preserved in Series lvi., No. 212b, to which refer for further details.

Drawings are preserved in Series lvii., Nos. 1232 and 1232a.

See also *Male Surgical Register*, vol. v. (1890), No. 972.

- 3318a.** Melanotic Epithelioma on the tip of the middle finger. 1883

From a woman, aged 54 years, who said she had noticed, what she called, a corn on her middle finger for four years; it was always black, and had grown more rapidly for the eighteen months previous to the time she came under notice. A small nodule, the size of a pea, of a similar nature, was situated under the skin of the back of the hand, where she had noticed it one month. The axillary glands were enlarged. The patient died with disseminated growths ten months later.

On microscopical examination the growth was found to be composed of round and oval cells of a connective tissue type, amongst which granules of pigment were thickly scattered.

Microscopical sections are preserved, No. 759; also a drawing in Series lvii., No. 1281.

- 3318b.** A Portion of a Melanotic Growth, removed from the sole of the foot of a Hindu. The growth is circular in outline and is flat. It has the appearance of having burst through the cuticle, which it slightly overlaps at its edges. It measures about two inches in diameter. The surface is smooth, shining, and coal-black in colour. Microscopically, it presents the appearance of a melanotic alveolar sarcoma. The alveoli, as well as the stroma, contain spindle and round cells. Most

of the cells enclose granules of pigment, which in many cases are so numerous as to obscure the nuclei. Besides the pigment contained in the cells, there are masses of free pigment throughout the stroma. 1887

From a man, aged 75 years, who stated that the growth commenced eight months before its removal as a crack in the sole of the foot. There was neither pain nor induration in the surrounding tissues, but scattered over the sole were a number of pigmented patches. The lymphatic glands of the groin were considerably enlarged, and somewhat hard.

A section is preserved in Series lv., No. 525.

See *Transactions of the South Indian Branch of the British Medical Association for June, 1886*, p. 25.

Presented by Dr. Maitland.

- 3318c. A Melanotic Epithelioma of the Great Toe. The specimen has been divided longitudinally. The growth appears to have originated in the bed of the nail, which is itself much thickened and darkly pigmented. It is now seen to have involved the unguis phalanx for the greater part of its thickness, and to have extended into the surrounding skin. 1890

From a woman, aged 55. She had noticed the growth for some considerable time. The lymphatic glands were not affected.

A microscopic section is preserved in Series lv., No. 760.

See *Female Surgical Register*, vol. iii. (1889), No. 2428*.

- 3321a. A Pedunculated, Warty Growth, removed from the skin round the margin of the anus. Microscopic examination showed it to be a typical example of a simple papilloma. 1886

Removed from a woman in the surgery; no further history could be obtained.

RODENT ULCER.

- 3324a. A Rodent Ulcer, removed from the face of a man. It extended down the side of the nose almost to the mouth. The irregular and rounded edges present many of the features of an epithelioma. Upon microscopic examination, however, it was found to be a true rodent ulcer, with a small-celled growth, but no cell nests.

From a man, aged 54; a small pimple was first noticed sixteen years previously. 1886

Sections are preserved in Series lv., No. 771.

See *Male Surgical Register*, vol. i. (1885), No. 1085.

- 3324b. A Large Warty Mass, which grew round the anus of a man, aged thirty-one. It is sessile, and has very much the appearance of a cauliflower. Microscopically, it consists of simple papillomatous tissue. 1887

A growth was first noticed in this position twenty months previous to the admission of the patient to the Hospital. It was removed, but in four months the present growth appeared. After removal it measured nine inches by six. There was much offensive discharge from the growth, and the inguinal glands were inflamed.

A drawing is preserved in Series lvii., No. 455.

See *Male Surgical Register*, vol. i. (1886), No. 3791*.

- 3325a. Vertical section of an Ankle injected, with a very vascular, warty, ulcerated epithelioma springing from the posterior surface of the leg, immediately above the heel. 1881

- 3325b. The lower third of the leg, and the posterior part of the foot of a patient, who had an Epithelioma growing on the site of a long-standing syphilitic sore. The cancerous growth is situated in the skin covering the right side of the tendo-achillis, immediately above its insertion into the os calcis. It measures three inches in diameter, and has the papillated appearance which is characteristic of epithelioma. 1889

From a gentleman, aged 58 years, who had suffered for thirty years from tertiary syphilitic eruptions. The sore on his leg first appeared about thirty years before amputation, and frequently recurred, being at times healed. He had had as many as seventy sores on his body. Four years ago the sore on his leg was pronounced to be cancerous.

Presented by Thomas Smith, Esq.

3325c. A Section through the Phalanges of a Toe, showing a large fungating mass of new growth, which springs from the skin covering the plantar surface of the second phalanx. The growth has invaded the deeper tissues, and is beginning to attack the bone. 1889

From a man, aged 49, who first noticed a small spot on the under surface of the last phalanx of his second toe two years before its removal. Six months later the glands in his groin began to be enlarged.

See *Male Surgical Register*, vol. iii. (1888), No. 1173.

3325d. The Ring-Finger of a Left Hand, removed by operation on account of an ulcer of two years' duration, situated over the inner and dorsal surfaces of the first phalanx. The ulceration has not extended deeply, but the edges, especially on the dorsum of the finger, are raised. A piece has been removed from the palmar surface for microscopical examination. This showed the ulcer to be an epithelioma. 1890

From a woman, aged 65. She had had multiple warts on her hand (as also had her father) for about fifteen years. One of these ulcerated, would not heal, and finally became malignant. There were no enlarged glands.

See *Female Surgical Register*, vol. v. (1890), No. 175.

3325e. The Two Distal Phalanges of a Great Toe, removed by operation on account of an epithelioma involving the greater part of the extensor surface. The growth is ulcerated in the centre, and its edges are raised, and greatly thickened. 1890

CARCINOMA ARISING IN THE BED OF THE THUMB NAIL.

3325f. One-half of a Large Cauliflower-like Tumour, growing from the extremity of the right thumb. The section (longitudinal) shows that the growth is intimately connected with the ungual phalanx, and is more or less globular in shape, with a superficially ulcerated surface. The nail is displaced, and partially protrudes from the tumour above and rather behind its proper position. Microscopical examination showed that the growth is distinctly carcinomatous in character, its structure consisting of irregular masses of nucleated cells contained in a meshwork of fibrous tissue. 1893

The patient was a lady, over 80 years of age. The tumour had existed for seven years, but had increased rapidly during the six months previous to its removal; it had been treated by the injection of methel-violet into the tumour on alternate days for three weeks without effect. There was no glandular enlargement. One year after the operation she was in excellent health, without any return of the disease.

A drawing of the tumour is preserved in Series lviii., No. 1260, and microscopical sections in Series lv., No. 765b.

Presented by John Scott, M.D.

CHRONIC ULCER WHICH HAS BECOME EPITHELIOMATOUS.

3327a. The specimen consists of the lower half of the right thigh and upper part of the leg. The whole of the popliteal space, and the surrounding skin for some distance, is occupied by a large irregular ulcer, with exuberant and fungating edges. There is a good deal of loss of substance in the centre of the affected area, but neither the bones nor the main vessels of the limb are exposed. Microscopical examination showed the ulcer to be a squamous-celled epithelioma. 1893

The patient was a man, aged 35. Twenty-five years previously he had been knocked down and trampled on by a horse, when the skin and subcutaneous tissues were severely damaged. The wound did not heal for seventeen years. It remained healed for one and a half years only, when the scar tissue "broke down," and a chronic ulcer formed; it had increased slowly since; there were no enlarged glands, and he made a good recovery.

Microscopical sections are preserved in Series lv., No. 763a.

See *Male Surgical Register*, vol. iv. (1891), No. 990.

3329a. A Horny Tumour, removed from the dorsum of the left hand of a labouring man in whom it had been growing for twelve months. It was central in position,

and very tender to the touch. There was pain in the shoulder and axilla, but no enlarged glands could be felt. 1886

Upon microscopic examination it was found to present the characters of an epithelioma.
Presented by Dr. George Wilks.

3330a. A Section through a mammary gland, showing a large Scirrhus Carcinoma. The tumour involved the whole breast, and extended outwards towards the axilla, as is seen in that part which now hangs lowest. The nipple is retracted, and the ducts leading from the gland-tissue are enlarged and thickened. Under the microscope, the tumour was found to be rather of the encephaloid than of the simply scirrhus type, *i.e.*, the cells were large and round, and the stroma thin. Several glands in the axilla were infiltrated, and were removed at the same time. These showed a structure similar to that of the tumour. 1890

From a woman, aged 35. The tumour had been noticed for two years.
Presented by Howard Marsh, Esq.

CARCINOMA ARISING IN THE SKIN.

3332a. One half of a tumour, removed by operation from the inner side of the arm. The tumour was nearly spherical in shape, and its cut surface presents a more or less lobulated appearance, irregularly stained by hæmorrhage. Microscopical examination showed its structure to be that of a typical glandular-celled carcinoma. Its probable origin was in the sebaceous glands of the skin. 1893

See *Male Surgical Register*, vol. ii. (1891), No. 2666.

SUPPURATION OF MALIGNANT TUMOURS.

3335a. Part of a large Scirrhus Cancer of the Breast, in the centre of which is an irregular ragged abscess cavity, which, in the recent state, contained some foul-smelling but well-formed pus. There was no history of an injury to the diseased breast. 1883

3335b. A Sarcomatous Tumour of the Testis, at the lower part of which is an abscess cavity, which contained about two ounces of healthy pus. 1883

From a man, aged 50. Some weeks before castration was performed the tumour had several times been punctured, under the impression that it was a hæmatocele

3339a. One half of a Small Tumour, removed by operation from the Umbilicus. Microscopical examination proved it to be a colloid carcinoma. 1892

NÆVUS.

3343a. A Cutaneous Nævus, removed from the tip of the nose of a child. It was congenital, and had increased since birth. 1891

3347a. A Thumb, on the dorsal surface of whose first phalanx is a large Nævoid growth. The surface is warty, the epithelium is increased to the thickness of about half an inch, and is covered by old blood-clot and disintegrating epithelium. On section the growth is seen to be composed of a fine reticulum of fibrous tissue, the spaces of which, in the recent state, contained fluid blood. 1884

The patient was a girl, aged 12 years. The swelling had been noticed at birth, and had increased during the two years before removal. It had frequently bled, and occasionally discharged pus.

Presented by J. Lucas Worship, Esq.

CYSTS.

3364b. A small sebaceous Cyst, removed from the dorsal surface of the index-finger of a woman, aged sixty-two years. The skin covering the cyst had given way, and presented an ulcerated unhealthy surface. 1884

The patient attributed the growth to frequently pricking the finger with a sewing needle; she had noticed it five months. A microscopic examination shows that the cyst wall is composed of numerous layers of epithelial cells, continuous with the rete.

3364c. A Sebaceous Cyst, which was removed from the scalp over the occipital region. It formed a fluctuating swelling as large as an orange, and it had a short pedicle. 1889

From a woman, aged 44, in whom it had been growing for twenty years.
See *Female Surgical Register*, vol. iii. (1888), No. 795.

3366a. A Cystic Tumour, in connection with an enlarged and thickened vein. The cyst is about the size of a walnut, is covered by, and adherent to, the neighbouring skin, and contains some fine fibrinous material, which surrounds a central mass of softened pulpy matter. At the back of the cyst is about half an inch of thickened vein, a small orifice in which leads towards the tumour. 1883

From a woman, who said she had noticed the cyst for eighteen years. It lay in the course of the internal saphena vein.

3371a. A Dermoid Cyst, removed from the forehead of a young man, aged twenty. It was extremely adherent to the bone, and was situated below the corrugator supercillii muscle. It contained the fatty substance preserved in the next specimen, with a few hairs. Before removal it was described as a round translucent swelling, measuring half an inch in diameter, the skin being moveable over it. It was congenital. 1886

See *Male Surgical Register*, vol. iv. (1886), No. 850.

3371b. The contents of the preceding Congenital Cyst, situated on the bridge of the nose. It consists of fat containing a large quantity of stearates and margarates. It is solid at ordinary temperatures, but becomes fluid at 98.6° F. 1886

3371c. A Tumour of cystic nature, which was removed from the forehead of a child, aged five weeks. It was found, upon microscopic examination, to be a rapidly growing fibroma. 1886

See *Female Surgical Register*, vol. i. (1885), No. 1091.

3371d. A small Dermoid Cyst, with well-defined walls, which was removed from the hyoid region. The cyst has been turned inside out to show that it is lined by skin consisting of epithelium and corium. 1889

From a man, aged 32, in whom the tumour was first noticed eighteen months before its removal.

See *Male Surgical Register*, vol. v. (1888), No. 3141.

3371e. A small Dermoid Cyst, removed from the hyoid region. The cyst has been turned inside out, and shows several long hairs attached to its inner cutaneous lining. 1889

From a man, aged 19 years, in whom the tumour was congenital.

See *Male Surgical Register*, vol. v. (1889), No. 1358.

3373a. A Portion of the Spinal Cord, with the Pelvis and Genito-Urinary organs of a newly-born female child. A cyst measuring five inches in its transverse diameter is attached to the lower part of the sacrum. The skin covering the tumour was normal, and was easily separated from the subjacent tissues. The pedicle of the cyst is broad and fibrous: it is attached to the lateral margins of the coccygeal and the three lowest sacral vertebræ, and it extends into the pelvis, where it is attached to the anterior surface of the bodies of the vertebræ. It passes behind the rectum, from which it has been partially separated by dissection. The cyst contained blood-stained fluid; the walls around the pedicle are thickly covered with a growth of soft myxomatous masses resembling mucous polypi. 1889

A Drawing of the case is preserved in Series lvii., No. 1336.

Presented by Clement Godson, M.D.

3375a. A Congenital Tumour, removed from the neck of a girl, aged nineteen. It consists of a number of small cysts with smooth lining membrane, and of one

large cyst of a similar nature. The latter contained a clear yellowish fluid; the former, sebaceous matter and fluid. 1883

3375b. A multilocular cystic Tumour of Finger. It consists of soft fibrous tissue containing one or two small cysts. 1885

J. W., æt. 7. The tumour extended over the first phalanx and over half the second phalanx of the left ring-finger on its dorsal aspect. It measured an inch in length by half an inch across. It rose about three-quarters of an inch above the finger. It presented an ill-marked sense of fluctuation. It was painless, and had been noticed from birth.

Presented by Stephen Paget, Esq.

3375c. A Congenital Barren Cyst or Hygroma, which was removed from the neck of a child. The walls are thin, and in parts but little thicker than tissue paper. 1886

Presented by C. Brook, Esq., Lincoln.

3375d. A small Barren Cyst or Hygroma, removed from the palpebral conjunctiva of a child, aged one month. The cyst measures three-quarters of an inch in its long diameter. 1887

See *Male Ophthalmic Register* for 1887, No. 350.

DISEASES OF PARASITIC ORIGIN.

3382a. A Portion of the Foot of a native of India, affected with mycetoma, the so-called Madura foot. The foot is enlarged, and its normal outline is lost. Scattered over the dorsum, and less abundantly on the plantar surface, are rounded patches from which the cuticle has separated. Within these are the orifices of one or more fistulous tracks, some of which are filled up by the fungus which is said to cause the disease (the *Chiomphæ Carteri*). On examining the section, the anterior portion of the foot is seen to be converted into a fleshy structure, having a fibro-cystic appearance. This appearance is produced by the presence of numerous small and large intercommunicating spaces in which the fungus is lodged. The metatarsal bones are unrecognisable. The os calcis, astragalus, and scaphoid are almost unaffected; the anterior portion of the cuneiform bone shows the absorptive process by which the bones are destroyed. Sparsely scattered over the section are black dots about the size of a pin's head, which are small masses of the fungus. 1884

3382b. The foot of a native of India, showing the disease called mycetoma—Madura, or fungus foot. The foot is greatly enlarged. The swelling involves chiefly the sole, which is convex in outline. Scattered over the foot, most thickly on the sole, are loose elevated masses of cuticle. The orifices of fistulous tracks exist beneath, or are seen in the centre of, some of these elevations. 1884

3382c. Some of the Bones of Foot shown in the preceding specimen. 1884

MADURA DISEASE OF HAND.

3382d. The Radial Half of a Right Hand, divided by a longitudinal incision. The whole hand is much increased in size, and swollen. The cut surface shows that the bones of the carpus are the most affected. These are enlarged, and have a spongy appearance, with here and there a few small sinuous cavities. The tendons and muscles are affected in the same way. On the skin are a few small superficial ulcers, which communicate by means of sinuses with small cavities in the subcutaneous tissue. The cavities, when examined after a fresh section, are found to contain numerous small pale yellow roe-like masses, which are composed of pus and the special fungus. The fungus closely resembles that of *Actinomyces*, if the two are not identical. 1893

The patient was a middle-aged native of Madura, a cultivator by occupation; he had suffered from the disease in one hand and one foot for many years; the hand was removed by amputation.

Presented by A. A. Kanthack, M.D.

SERIES LI.

VARIOUS INSTRUMENTS AND SUBSTANCES PRODUCING INJURIES.

3383a. Cast of a Stone, removed from an abdominal cavity. 1886

A sailor, aged 45, of good health, had suffered from stricture of the urethra for some years, and for the consequent retention had been in the habit of passing a glass bottle, three inches in diameter, up the rectum, and usually gained relief from it. One day (June 13th) retention of urine came on, and not having his bottle at hand, a belying pin was passed into the bowel without having the desired effect. He then went on shore, and picking up a pebble the size of the cast, he oiled it and passed it into his bowel. He relieved his distress by riding; but next day he began to feel inconvenience, and a physician was called in, who made ineffectual attempts to remove the stone. One of the many measures was the bending of a piece of flat iron into the shape of a pair of forceps, with which attempts at extraction were made. During this operation it is supposed that the intestine was ruptured, and he now began to suffer acute pain. On the 15th the vessel sailed for Boston, and at 2 p.m. on the 17th, Dr. William Thorndike, of the City Hospital, saw the patient. His general appearance was at that time one of intense suffering. The abdomen was quite tumid and painful, with vomiting and hiccough. The rectum was considerably dilated, and on passing the hand into it a laceration was felt some six inches from the anus. By passing in the hand as far as the elbow the stone could be touched, but it could not be felt by the hand externally. Abdominal section was immediately performed, and the stone most easily removed through an incision to the left of the median line. It lay loose amongst the coils of intestine, and some ounces of a bloody serum were removed at the same time. The vessel sailed on June 19th, and the patient was removed to the City Hospital, where he remained till July 15th. He then discharged himself without leave. He was heard of to the effect that the last stitch came away from the wound about the middle of August, and he subsequently recovered so far that he was able to work in a factory.

Vide *Pathological Catalogue*, R. C. S., vol. i., pp. 55, 56.

Presented by the Royal College of Surgeons of England.

3384a. A Percussion Cap, enclosed in a capsule of connective tissue. 1887

The cap was removed from the palmar surface of the left middle finger of a girl, aged 19, a maker of ammunition. It had remained *in situ* for two months. As soon as an incision was made into the tumour, the foreign body was expelled with considerable violence.

3384b. A small Piece of Drainage Tube, which was removed from a sinus in the neck, where it had remained for three years and a quarter. The wound healed for eighteen months, but it then suppurated, and continued to discharge until the time of removal of the foreign body. 1888

From a tailoress, aged 28.

See *Female Surgical Register*, vol. iii. (1888), No. 555.

3384c. A Piece of Slate-Pencil, removed from the calf of the leg of a girl, aged eighteen. Seven years previously the patient ran the piece of slate-pencil into her leg, and it was not extracted. Three months before she came under observation a small abscess formed over the point of entrance, but it subsequently healed. 1889

- 3385a. A stick, which was driven through the left orbit, fracturing the right lesser wing of the sphenoid and passing into the right lateral ventricle of the brain. 1885

See also *Surgical Registrar's Report* for 1883, Appendix, p. 78.

- 3386a. A Halfpenny, which was passed per anum after being swallowed. 1885

J. S., æt. nine, swallowed the coin at 5.30 p.m. on July 27th, passed it at 9 p.m. on July 29th; he was fed on figs and porridge.

Presented by W. T. Strugnell, Esq.

- 3391a. Portion of a Pipe Stem, removed from the interior of a child's mouth, where it had been embedded for two years. 1886

M., æt. four. Two years ago the boy fell on his face while holding the stem of a pipe in his mouth. His father, noticing the pipe sticking out of the boy's mouth, drew it out, but did not notice at the time that the pipe was broken. He observed a wound on the right side of the mouth, just about the junction of the upper alveolar arch with the palate; this bled profusely, and the parts around became swollen. He took him to the Great Northern Hospital, where the wound was probed, but no foreign body discovered. He could hardly eat anything for a week, and for some time after that had to live on slop food. There was profuse salivation, and the wound discharged pus for about a month. A fortnight after the accident he was taken to the Royal Free Hospital. Poultices were applied behind the jaw, where a swelling had appeared. The mouth in the situation of the wound had remained red and swollen ever since, but there had been no discharge of pus after the first month.

On May 13th, his father noticed the stem of a pipe projecting about a quarter of an inch from the site of the old wound. He was brought to the Hospital on May 20th, when the pipe-stem was found to be projecting freely and quite loose. It was easily removed.

- 3391b. Portion of a Graving Tool, removed from the knee-joint of a man, aged fifty-six. 1888

A free incision was made after the part had been frozen with ether spray, and the instrument was withdrawn by a pair of forceps. The patient made a good recovery.

See *Male Surgical Register*, vol. iii. (1887), No. 3628.

- 3391c. A Portion of an Ivory Peg, which remained for ten months in the knee of a girl, aged six years. It has not undergone any appreciable amount of absorption. 1888

From a case in which the knee was excised for long-standing disease of the joint, with rectangular ankylosis. The cut ends of the tibia and femur were pinned together by the peg.

See *Female Surgical Register*, vol. iii. (1887), Nos. 2151* and 840.

- 3391c¹. A Steel Peg, which remained between the ends of a fractured patella for three months. The surface in places is considerably eroded. 1891

- 3391d. A Metallic Cap, covering the end of a pencil, removed by tracheotomy from the left bronchus, which it had occluded. 1888

From a child, aged nine years. Urgent choking and dyspnoea occurred immediately after the foreign body had been drawn into the throat; this was relieved by the passage of a probang down the œsophagus, and the foreign body was believed to have entered the stomach. There was great pain at the time, and violent cough. Four days later dulness on percussion and imperfect entry of air were first noted on the left side of the chest. Eleven days after the accident, there was marked dulness over the whole of the left side, absence of respiratory murmur, except over a limited portion of the upper part in front, displacement of the stomach upwards to the nipple line, and great retraction of that half of the thorax, indicating almost complete collapse of the left lung. The respirations were 30, the pulse 92. The temperature was subnormal—97.8°. There was no dyspnoea, but occasional short cough, aggravated by exertion. The conclusion arrived at was that the pencil cap, which was about one inch long and a quarter of an inch in diameter, had lodged in the extreme end of the left bronchus. The child made a good recovery.

See *Transactions of the Royal Medico-Chirurgical Society*, vol. lxxi., p. 112.

Presented by Thomas Smith, Esq.

3391e. A Bullet, which had remained in the back of a man for fourteen years. 1889

From a seaman, aged 40, who was shot in the left side of his back, at Ammapoul, during the Ashanti expedition. For seven or eight years he had pain in the front and upper part of his abdomen. Four days before he was seen, a raw surface appeared at the place where he felt the pain, and the surface of the bullet then presented itself. It was removed without difficulty.

3391f. A Fragment of a Bullet, weighing eight and a half grains, extracted from an eye, in which it had lodged for more than three years. 1889

From a seaman, aged 22 years, who was struck in the left eye by the fragment, whilst acting as marker at the rifle butts, on August 14th, 1885. The injured eye was painful for some time, but eventually quieted down. In January, 1888, the right eye became red and painful, and in the following March the patient first noticed the piece of metal in front of his left eye. In October of the same year the globe was found to be shrunken, hard, and painful, and the end of the piece of lead was seen to be projecting through the cornea. The right eye showed signs of sympathetic ophthalmia. The patient refused to have enucleation performed, and the foreign body was, therefore, seized with a pair of forceps, and withdrawn through the cornea. The patient was not seen again.

Presented by A. G. R. Foulerton, Esq.

3391g. Two Masses of Silver Ore, removed from the Rectum of Men working in the silver-mines of Chili. The larger mass weighs thirty ounces, and measures five and a half inches in its longest diameter and eight and a half inches in circumference; the smaller one weighs eight ounces. The larger one still retains a covering of rag; the smaller one has been unwrapped. 1891

A gentleman, living at Iquique, Chili, who sent the specimens to England, writes:—"In our silver-mines here the men, on coming out of the mine, are stripped naked and well searched. Among other habits, some of them accustom themselves to pushing pieces of ore into the rectum, leaving a short piece of string to pull it out by, and some of these miners are able by this means to steal during the year a large amount of silver ore. I was present the other day, when the men were leaving the mine, and saw the searching; the two specimens I send were taken from the rectum of two of the miners. I have seen even larger pieces removed than these."

Presented by Howard Marsh, Esq.

SERIES LII.

URINARY CALCULI.

CALCULI CONSISTING MAINLY OF URIC ACID.

- 1a. The half of a black Calculus, about the size of a walnut. The bulk of the calculus is composed of uric acid with a slight admixture of urates. The nucleus is black and the external surface is coated with a layer of similar material. 1882

From a man, aged 47, who had suffered from the symptoms of calculus for two years. His urine presented no unusual characters. The stone was removed by lithotomy. No special colouring matter could be detected.

See *Henry Ward Book*, vol. viii., p. 148.

Lithotomy by T. Smith, Esq.

- 5c. A Section of a Uric Acid Calculus, which weighed, when complete, 1,090 grains, its length was two and three-eighths inches, its width one inch and five-eighths, its thickness one inch and a quarter, and its girth four and five-eighths inches. 1889

It was removed by lateral lithotomy from a man, aged 63, who had symptoms of vesical irritation for about five years. Before he had the pain in his bladder he used to suffer from attacks of pain in his lumbar region, which extended to his groin and down his thigh on the right side. He did not remember to have passed any calculus, though his urine frequently contained "gravel." He had not suffered any lumbar pain for the last five years, that is to say, since his bladder troubles began. The patient made a good recovery.

Presented by W. Wood Cuthbert, Esq.

- 41a. Six Calculi, removed by Supra-pubic Cystotomy. They all have flattened surfaces and are of a more or less pyramidal shape. The largest calculus has been cut in two, and is seen to have a dark-coloured nucleus of uric acid, while the remainder is composed of a pale outer covering of earthy phosphates. 1892

The patient was an old man, aged 61, who had suffered from symptoms of stone in the bladder for twenty years.

See *Male Surgical Register*, vol. v. (1892), No. 388.

- 42a. Four Small Flat Calculi, composed of Uric Acid with an outer covering of Phosphates, which were removed by supra-pubic cystotomy. 1891

The patient was an old gentleman, aged 78. He had had symptoms for seven years, during which time, on two occasions, lithotripsy had been performed. On this occasion, owing to the greatly hypertrophied prostate, no lithotrite could be introduced, and the bladder was accordingly opened above the pubes. He made a good recovery.

Presented by Howard Marsh, Esq.

- 46a. Two oval flattened Calculi, of almost exactly the same size and shape, consisting of uric acid surrounded by a very thin layer of earthy phosphates. They show no trace of being faceted. 1883

- 46b. A flattened Calculus, composed almost entirely of uric acid. 1883

- 46c. Portions of a Calculus, removed from the kidney by the operation of nephrolithotomy. The fragments consist of uric acid encrusted with phosphates. 1886

The kidney is preserved in Series xxviii., No. 2392a.

- 52d. Portions of a Branched Calculus, removed, with a kidney, by the operation of nephrectomy. It weighed 414 grains, and consists chiefly of phosphates. 1886

From Series xxviii., No. 2372d.

- 54a. A very large Calculus, removed from the bladder by the supra-pubic operation. The stone is irregularly oval. It measured eleven and a half inches in circumference in its long diameter and nine and a half inches in its short diameter. It weighed twenty-four and a half ounces immediately after removal. The lower portion of the stone on its under surface is tuberculated, perhaps from the flow of urine over it, whilst the upper part of the under surface was attached to the bladder wall by a calcareous deposit. An analysis made by Dr. Lapraik shows that it consists of a nucleus of oxalate of lime surrounded by uric acid and oxalate of lime, the outer layers consisting of earthy phosphates with a small quantity of calcium carbonate. 1886

From a soldier, aged 43, who had only suffered from active symptoms of bladder trouble for ten weeks before admission. For some time previously, however, he had noticed that when his bowels were constipated or when he had to undergo prolonged exertion, he passed water of a brighter colour than usual, with slight pain. He never had any hæmaturia. Per rectum a large and hard tumour could be felt in the bladder. After the removal of the stone the patient made a good recovery, but died eighteen months later from suppression of urine: see below.

See *Male Surgical Register*, vol. ii. (1886), No. 1041, and also (1887) No. 2200; and the *Lancet*, vol. ii. (1886), p. 244.

A cast of the stone is preserved in Series lvi., No. 213a, and the bladder and kidneys are preserved in Series xxix., No. 2443b.

- 59a. Sections of a Calculus. The nucleus is composed of uric acid and urate of ammonia, surrounded by a thin layer of phosphate of lime. The next layer, which comprises the bulk of the calculus, is composed of oxalate of lime, the whole being surrounded by a layer of the triple phosphate. 1883

- 79a. Section of a small Calculus, composed mainly of urate of ammonia, and surrounded by a thin layer of phosphate of lime. 1882

- 94a. Section of a Calculus. Nucleus, urate of ammonia; middle zone, uric acid; coated by urate of ammonia and phosphate of lime. 1882

- 118a. A large Mulberry Calculus (oxalate of lime) weighing nearly two ounces. A small fragment is suspended above the stone. This was detached during the operation, and was passed per urethram the next day. 1891

It was removed by the supra-pubic operation from a patient, aged 19, who stated that he had been sounded ten years previously, and that a stone had been detected at that time. He made a good recovery.

Presented by Stephen Paget, Esq.

- 135a. A large Mulberry Calculus, weighing 1 oz. 2 drs. 50 grs., removed from a boy, aged ten years. 1888

Presented by T. Odling, Esq.

- 140a. A Mass of Calculous Material, removed by lithotripsy and subsequent washing out from the bladder of a lady. The mass consists of a large number of small round calculi, which vary in size from a small pea to the finest shot. The total weight is 1,500 grains, and the calculi consist of uric acid with a little oxalate of lime. 1889

Presented by Thomas Smith, Esq.

- 161a. One half of an Urinary Calculus containing a double excentric nucleus, composed for the most part of uric acid with some calcium phosphate. The outer part, of a reticulated appearance, is composed of phosphate and oxalate of calcium. It weighed 230 grains. 1891

The calculus was removed, by supra-pubic cystotomy, from a little boy, aged five, who had had symptoms of stone in the bladder for several months. He made a good recovery.

See *Male Surgical Register*, vol. iii. (1890), No. 3413.

- 165a. Section of a large Circular Stone, thickly and irregularly encrusted with phosphates intermixed with a little calcium oxalate. It weighed 4 oz. 6 drs., and was removed from a Mussulman, aged sixty-five years. The nucleus consists of oxalate of lime surrounded by urate of ammonia, which is succeeded by another layer of oxalate of lime surrounded by urates, the whole being invested by a deposit of phosphates intermixed with a little oxalate of lime. 1888

Presented by T. Odling, Esq.

- 169a. One half of a cystic Oxide Calculus, removed from a boy, aged four years. The calculus is oval in shape, and measures one inch and an eighth in length by an inch in breadth; it weighed 159 grains. The surface of the stone is crystalline, and has a remarkable translucent and waxy appearance, but it has not the green colour which characterises the other specimens of cystin preserved in the Museum. It is of the colour of light honey. 1889

The patient had symptoms of urinary trouble for nine months. He made a good recovery after the operation.

- 169b. The Opposite Half of the preceding specimen. 1889

Presented by A. A. Bowlby, Esq.

CALCULI CONSISTING OF OXALATE OF LIME AND PHOSPHATE OF LIME.

- 172a. Portion of a Small Calculus, consisting of phosphate of lime with a small proportion of uric acid. The calculus is crystalline in structure, and is very brittle. The portion which is preserved weighs six grains. 1888

From a boy, aged 18, who had suffered with symptoms of renal calculus for about two years. The calculus was removed by the operation of nephro-lithotomy from the pelvis of the kidney, where it lay near a large and hard phosphatic stone.

See *Male Surgical Register*, vol. iii. (1888), No. 3643.

- 172b. A Small Crystalline Urinary Concretion, weighing four grains. It consists of crystals of oxalate of lime and calcium-phosphate. 1888

From a gentleman, aged 43, whose urine had often been loaded with lithates. The concretion gave no evidence of its presence until it became impacted in the urethra.

Presented by H. W. Gell, M.D.

- 188a. A Collection of Calculi.

In the majority of cases the stones were removed by the operation of lateral lithotomy.

Presented by T. F. Odling, Esq., resident in Shiraz, Persia.

- (a.) An Oval Stone, weighing 23 grammes.

It was removed by lateral lithotomy, from Kherrim, aged 19, who had symptoms of stone for twelve years. On passing the staff previous to the commencement of the operation, a small flattened calculus, weighing a gramme, was found lying in a pouch of the urethra. The operation was performed on August 26th, and the patient was discharged cured on September 25th.

- (b.) Four Calculi, weighing 70.7 grammes.

Removed by lateral lithotomy from a boy, aged 17, who recovered from the effects of the operation in twenty-five days.

(c.) A Round, Light-Coloured Stone, weighing 12 grammes.

Removed by lateral lithotomy from a boy, aged six years, the son of Saffir Kowaree. Two days later the patient was doing well.

(d.) A Large Oval Calculus, weighing 57 grammes.

It was removed by lateral lithotomy from a patient, aged 18, who died on the fifth day after the operation.

(e.) Fragments of a Calculus, weighing 8 grammes.

They were removed by lithotrity, from Hassan Ali, at five sittings, between November 24th and December 15th, 1880. The patient was quite well two years after the operation.

(f.) An Irregular Black and White Calculus, weighing 23 grammes.

It was removed by lateral lithotomy from a boy, aged 12 years, who had suffered for two years from symptoms of stone.

(g.) An Oval Stone, weighing 18 grammes.

It was removed from a boy, aged 16, who had suffered from symptoms of stone for four years. The calculus was removed by the operation of lateral lithotomy on August 26th, 1884. An abscess subsequently formed in the track of the wound, but the patient was eventually discharged cured, on October 26th of the same year.

(h.) A Circular Calculus, weighing 8 grammes.

It was removed from a boy, aged nine years, who had suffered from symptoms of stone ever since he was two years old. The operation was performed on August 12th, and the patient was discharged on August 24th, 1885.

(i.) An Oval Calculus, weighing 7 grammes.

From a boy, aged six. It was removed on April 9th, and the patient was discharged on May 5th, 1880.

(j.) A Nodulated Oval Calculus, weighing 10 grammes.

From a boy, aged 11 years, who had suffered for nine years from symptoms of stone. It was removed on April 15th, 1880, but the patient was not discharged until May 31st, as an abscess formed in the track of the wound.

(k.) A Rounded Calculus, weighing 27 grammes.

Removed by lateral lithotomy, from a boy, aged 12 years. The patient was well nourished and healthy, and had suffered from symptoms of calculus for six or seven years. During the three months preceding the operation, the pain had been very severe. He died fifty-one hours after the operation.

(l.) A Calculus, measuring $1\frac{5}{16}$ inch in length, and weighing 8 grammes.

The stone was removed from a pale, ill-nourished boy, aged five years, who had suffered from symptoms of it for two and a half years. He completely recovered in twenty days.

(m.) An Oval Calculus, measuring $1\frac{3}{8}$ inches in length, and weighing 11 grammes.

The stone was removed by lateral lithotomy, from an insufficiently fed boy, aged three and a half years, who had symptoms of a vesical calculus for two years. The wound healed in eighteen days.

(n.) A Stone, measuring $1\frac{1}{4}$ inches in length, and weighing 10 grammes.

It was removed from a boy, aged six years, on July 6th, 1883, and the patient was discharged cured, on July 25th of the same year.

(o.) A nearly Circular Calculus, weighing 12 grammes.

Removed by lateral lithotomy, from a boy, aged six years. All the urine was passed by the urethra on the day following the operation, and the wound was completely healed ten days later.

(p.) A Smooth Oval Calculus, weighing 14 grammes.

Removed by lateral lithotomy, on September 20th, 1886, from a boy, aged nine years. The child was discharged on October 11th. The symptoms had existed for three years, during which time the child was constantly pulling at his penis and inserting his fingers into the rectum.

(r.) An Oval Calculus, weighing 11 grammes.

Removed from a boy, aged 14 years. The operation was performed on October 3rd, and the patient was discharged on October 20th, 1884.

(s.) An Oval Smooth Calculus, weighing 22.5 grammes.

It was removed by lithotomy, from Md. Hassan, aged 16 years, Keziroonce, but at present resident in Shiraz. Profuse secondary hæmorrhage succeeded the operation. The bladder was filled with clotted blood, which was removed by syringing with ice-cold water. The patient eventually made a good recovery.

(t.) A Large Rough and Irregularly Circular Stone, weighing 31.5 grammes.

Removed by lithotomy, from Mashallah, aged 17 years, son of Ali Morad Shirazee, bath attendant. The operation was performed on June 8th, and the patient was discharged on July 3rd, 1885. There was some hæmorrhage on the night following the operation, but it was arrested by plugging the wound, and the application of ice to the rectum. The boy had some tendency to hæmophilia.

(u.) A Mulberry Calculus, stained of a deep brown colour, and weighing 13 grammes.

It was removed by lithotomy from a boy, aged 20, who had suffered for eleven years from symptoms of stone. He also had phthisis. The operation was performed on August 12th, 1885, and the patient was discharged cured on August 31st.

(v.) A Calculus, weighing 0.27 grammes.

Removed from the urethra of a child, aged two years. The orifice of the urethra had to be slightly enlarged before the stone could be removed.

(w.) A Small Discoid Calculus, weighing 1 decigramme.

Removed from the urethra of a boy, aged seven years. The patient had been circumcised the week previously.

(x.) A Stone, weighing 3.8 grammes.

Removed from a boy, aged three years. The operation was performed on September 4th, 1881. The patient had an attack of intermittent fever, which lasted from September 18th to September 26th, but was discharged cured on October 6th.

(y.) A Calculus, weighing 7.7 grammes.

Removed by lateral lithotomy from a boy, aged eight years. The operation was performed October 23rd, and the wound had healed on November 20th, 1879.

(z.) A Stone, weighing 11.4 grammes.

Removed from an ill-nourished, and small-pox-marked boy, aged five years. The symptoms had lasted for eighteen months. The stone was removed on May 6th, and the patient was discharged cured on June 27th, 1881.

(aa.) A Calculus, weighing 0.15 grammes, and measuring $\frac{7}{16}$ th inch in length.

It was removed by incision from the urethra of a boy, aged 19 months. It was situated immediately behind the glans penis.

(bb.) A Large Smooth and Oval Calculus, weighing 93.07 grammes. It measures $2\frac{3}{8}$ th inches in length, $1\frac{3}{4}$ inches in width, and $1\frac{3}{8}$ inches in depth.

It was removed from a man, aged 23 years. The wound healed in twenty days.

(cc.) Two Uric Acid Calculi, weighing together 57.7 grammes. The larger stone is oval, and measures $2\frac{1}{4}$ inches in length, whilst the smaller faceted stone measures $1\frac{1}{2}$ inches in length.

Removed by lateral lithotomy from a man, aged 39 years. The operation was performed on May 17th, and the wound was healed on June 20th, 1875.

(*dd.*) An Elongated Oval Phosphatic Calculus, measuring $2\frac{1}{8}$ inches in length, and weighing 36.4 grammes.

It was removed by lateral lithotomy, from a patient, aged 13 years, on October 3rd, and the wound was healed on November 6th, 1877.

(*ee.*) A Uric Acid Calculus, weighing 62.3 grammes, and measuring in its greatest diameter $1\frac{3}{8}$ inches.

It was removed by lateral lithotomy from a boy, aged 17 years, on August 18th, 1879, and the wound was healed on September 17th.

(*ff.*) A Portion of Calculus, removed by lateral lithotomy from a boy, aged eighteen years. The stone was crushed by the forceps during removal from the bladder, but so much of it as has been preserved weighs 31.6 grammes.

The operation was performed on June 9th, and the wound was healed on June 27th, 1879.

(*gg.*) A Phosphatic Calculus, weighing 14.1 grammes.

Removed by lateral lithotomy from a boy, aged 12 years. The operation was performed on December 21st, 1879, and the wound was quite healed on January 14th, 1880.

(*hh.*) A Pyramidal Calculus, weighing 17.1 grammes.

Removed by lateral lithotomy from a boy, aged 17 years. The stone was removed on July 10th, 1878, and the patient was discharged cured on August 4th.

(*ii.*) A Calculus, weighing 13 grammes.

Removed from a boy, aged 13 years. The operation was performed on April 11th, and the patient was well on May 4th, 1878.

(*jj.*) A Calculus, weighing 21.51 grammes.

Removed by lateral lithotomy from a man, aged 22. The patient died five days after the operation.

(*kk.*) A Calculus, weighing 23.8 grammes.

Removed by lateral lithotomy from a patient, aged 19 years, on December 14th, 1877. The patient was discharged cured on December 31st of the same year.

(*ll.*) A Calculus, weighing 34.1 grammes.

Removed by lateral lithotomy from a man, aged 24 years. The operation was performed on December 14th, 1877, and the patient had recovered on January 5th, 1878.

(*mm.*) A Smooth Circular Calculus, weighing 30.3 grammes.

Removed by lateral lithotomy from a patient, aged 19 years, on February 9th, 1879. The patient was discharged cured on March 4th.

(*nn.*) A Smooth Calculus, weighing 15.9 grammes.

Removed by lateral lithotomy from a patient, aged 14 years. The operation was performed on October 7th, and the patient had recovered on November 21st, 1879.

(*oo.*) A Mulberry Calculus, weighing 4.1 grammes.

Removed by lateral lithotomy from a boy, aged three years. The patient was discharged cured on the twentieth day after the operation.

(*pp.*) A Calculus, weighing 14 grammes.

It was removed by lateral lithotomy from a boy, aged 14 years, on December 31st, 1877, and the patient had recovered on January 31st, 1878.

(*qq.*) An Oval flattened Calculus, weighing 13.2 grammes.

It was removed by lateral lithotomy from a dervish, aged 28, on June 4th. The patient was cured on June 27th, 1875.

(*rr.*) A Mulberry Calculus, weighing 10.9 grammes.

It was removed by lateral lithotomy from a boy, aged 14 years, on April 22nd, 1875. The patient was discharged cured on July 12th of the same year.

(ss.) A Flattened Oval Calculus, weighing 11.3 grammes.

Removed by lateral lithotomy from a man, aged 63 years, on April 16th, 1875. The patient was discharged cured on May 20th.

(tt.) A Small Smooth Stone, weighing 3.3 grammes.

Removed from a patient, three and a half years of age. For six months after recovery he was free from symptoms of vesical calculus, but he then began to suffer, and a second stone, weighing 6.7 grammes, was removed by lateral lithotomy. The symptoms experienced on the second occasion were severe pain on micturition with the passage of blood and pus.

(uu.) A Mulberry Calculus, weighing 4.6 grammes.

Removed by lateral lithotomy from a boy, aged 13, on October 3rd. The patient was discharged cured on November 3rd, 1877.

(vv.) Four Fragments of a faceted stone, weighing 5.7 grammes.

Removed by dilatation of the urethra from a woman, aged 40. Five days after the operation all pain and swelling had subsided, and three weeks later she was able to retain her water.

(ww.) A Flattened Stone with irregular extremities, weighing 8.3 grammes.

The calculus was removed from a boy, aged 11 years, on June 4th, and the patient was discharged cured on June 21st, 1879.

(xx.) A Mulberry Calculus, weighing 5.9 grammes, and consisting chiefly of oxalate of lime.

It was removed from a boy, aged 10 years. The operation was performed on July 5th, 1878, and the patient had recovered on July 28th.

(yy.) A Mulberry Calculus, weighing 4.7 grammes. It is somewhat darker in colour than the preceding.

From a boy, aged seven years. Lateral lithotomy was performed on October 4th, and the boy had recovered on October 27th, 1877.

(zz.) An Oval Calculus, which lay in a pouch in the bladder in such a manner that it was only once felt by the sound. It weighs 9.9 grammes. Previous to its removal by lateral lithotomy an attempt was made to crush it as it lay in the bladder.

From a man, aged 55 years, who died of exhaustion on the seventh day after the lithotomy.

(aaa.) Two Calculi, removed from a boy, aged eleven years. One is friable, weighing 5.7 grammes; the other is an oxalate of lime mulberry calculus, which weighs 5.1 grammes.

The calculi were removed on November 30th, and the patient had recovered on December 21st, 1878.

(bbb.) A Small Calculus, weighing 0.3 gramme.

Removed from the urethra of a boy, aged six years. It was impacted near the orifice, and a slight incision was necessary to remove it.

(ccc.) A Spherical Light-Coloured Calculus, weighing 11.5 grammes.

It was removed from Hashem, aged six years, the son of Saffir Kowaree, by the operation of lateral lithotomy.

(ddd.) An Oval Calculus, weighing 11.5 grammes.

Removed from a boy, aged six years, who had experienced the symptoms of stone for fifteen months.

URIC ACID CALCULUS DEPOSITED ON AN IMMATURE BILHARZIA.

189a. A small Vesical Calculus, passed by a patient who subsequently suffered from parasitic hæmaturia. The stone weighs three grains; it consists chiefly of uric acid. 1886

From a man, aged 61. The calculi were passed nearly seven years before the first attack of hæmaturia. The patient was subsequently found to be infested with the *Bilharzia hæmatobia*. It appears possible that the nucleus in this case may consist of an embryo case of the *Bilharzia*.

For further details of the case see *St. Bartholomew's Hospital Reports*, vol. xxi. (1885), p. 89.

202a. Uric Acid Gravel in a somewhat unusual form. It is granular, the grains being of the size and shape of small shot. 1884

The gravel was passed by an out-patient, who had never suffered from gout and who had no stone. The symptoms had continued for twelve months.

209a. A Calculus, removed from the Kidney by the operation of nephro-lithotomy. It measures one and a half inches in length, and weighs sixty-eight grains. Chemical examination shows that it consists of urate of ammonium. The calculus is faceted at one extremity, and has evidently been formed in one of the renal calyces. 1888

209b. A Calculus, removed from the Left Kidney by the operation of nephro-lithotomy. It weighed twenty-four grains, and consists principally of oxalate of calcium, but contains also a small amount of phosphate of calcium. 1890

From a woman, aged 22, who had had symptoms of renal calculus for about eighteen months.

See *Female Surgical Register*, vol. ii. (1890), No. 104.

CALCULI FROM THE URETER.

218a. An Irregular-shaped Calculus, removed after death from the ureter. It is composed chiefly of phosphate and carbonate of lime. 1883

From a woman, aged 27. The kidney on the left side was dilated into a large cyst filled with pus, which caused death by rupturing into the peritoneum.

218b. A Calculus, which lay unsuspected in the upper part of the right ureter. The stone measures half an inch in length by a quarter in breadth, and consists of a thin shell of uric acid surrounding a dark mass which appears to be a blood-clot. The kidney was much disorganised. 1887

From a man who was brought to the Hospital on account of severe hæmorrhage from a cancerous ulcer of the tongue. He died on the day following his admission.

See *Male Surgical Register*, vol. iv. (1887), No. 139.

219a. Six Calculi of various sizes, removed from the prostate gland. The largest is as big as a nut, the smallest about the size of a pea; all are faceted. They are composed of about equal parts of phosphate and carbonate of lime. 1883

Presented by A. Willett, Esq.

219b. A large number of small Calculi, which were removed from the bladder at a single sitting by means of a Bigelow's evacuator. The calculi vary in size from a small shot to mere sand grains. They are all rounded, and in some cases are distinctly faceted. Chemical examination shows that they consist of calcium phosphate, magnesia, and a trace of uric acid. The entire mass weighs sixty grains. 1889

From a healthy man, aged 70 years. The patient was of a gouty diathesis, and for nine months had been under medical treatment on account of slight vesical symptoms, resulting from an inability to completely empty his bladder. Small calculi suddenly began to be passed in large numbers.

Presented by Alfred Willett, Esq.

226a. A large number of small Calculi and Calculous Detritus, weighing seven hundred and sixty-four grains, removed from the bladder by median lithotomy, subsequent to a former operation of lithotripsy. They are composed mainly of urate of ammonium. 1893

From a gentleman, aged 60. Lithotrity had been performed seven years previously ; three years later vesical irritation and cystitis set in, which continued until the lithotomy : a good recovery ensued.

Presented by John Langton, Esq.

FRAGMENTS OF CALCULI REMOVED BY LITHOLAPAXY.

- 227a. Fragments of a Calculus, removed by Bigelow's operation from a child, aged fifteen months. The fragments together weigh, when dry, one grain. They consist of phosphates and uric acid. 1887

From a child who was admitted with retention of urine. On sounding, a stone was found in the bladder.

See *Male Surgical Register*, vol. iii. (1887), s. v. Andrew Lohoar.

- 227b. Fragments of a Calculus, removed by Bigelow's operation of litholapaxy from a boy, aged six years, who had complained for one month of hypogastric pain with frequent micturition. The meatus was incised at the time of the operation, which lasted fifty-five minutes. The lithotrite was introduced twice, and the patient was discharged two days afterwards. 1887

See *Male Surgical Register*, vol. iii. (1887), No. 2086.

- 227c. Fragments of a Calculus, which weigh seven grains. They were removed by Bigelow's method, from a boy, aged eleven years. The calculus was composed of uric acid with a coating of phosphates. The patient made a good recovery, and was discharged ten days after the operation. 1887

See *Male Surgical Register*, vol. iii. (1886), No. 3316.

- 227d. Fragments of a Calculus, removed by Bigelow's operation, and weighing together 2,430 grains (five and a half ounces) after drying. They consist principally of uric acid, with a small amount of magnesia and a trace of calcium phosphate. 1890

The patient was a Hindoo, aged 63, who had suffered from symptoms of stone in the bladder for twelve years. As he refused to allow supra-pubic lithotomy to be performed, the stone was removed by crushing. The operation lasted four hours and a quarter, during which time the lithotrite was introduced seventeen times. He made an excellent recovery, and left the Hospital at Jhansi, N.W.P., India, on the seventeenth day after the operation. Three months later he was in good health.

Presented by C. P. Lukis, M.D.

- 228a. A small oval Uric Acid Calculus, which was removed by incision from the urethra of an adult. It was firmly impacted at the anterior attachment of the scrotum to the penis, and could not be extracted by forceps. The stone had caused retention of urine for three days, the bladder at the time of the operation being distended as high as the umbilicus. 1888

Presented by T. Odling, Esq.

- 228b. A small Urinary Calculus, removed from the urethra of a boy, aged three years, where it so completely blocked the passage as to cause retention of urine. 1890

- 231a. A Calculus, passed per urethram by an old man, aged seventy, who had had symptoms of stone in the bladder for two years. 1891

Presented by A. Maude, Esq.

- 234a. Seven small Uric Acid Calculi, passed at different times per urethram. The calculi are round, with a curiously spiked appearance. They are hollow, and weigh together seven grains. 1887

From a gentleman, aged 77, who, until a year before their passage, had no reason to suspect that he had either renal or vesical malady. A catheter was passed on account of senile enlargement of the prostate; cystitis was set up, and in a few days the calculi were passed per urethram. He had no renal colic.

Presented by Dr. Gripper.

235a. An Oval Uric Acid Calculus, measuring one and a quarter inches in its long diameter, and three-quarters of an inch across. It was removed by urethral dilatation from a girl, aged three years. There was some bleeding from laceration. 1888

Presented by T. Odling, Esq.

237a. A Calculus, removed after death from the Bladder of a Horse, aged seventeen years. The surface is indented and slightly irregular (resembling somewhat the convolutions on the surface of the brain). On section it shows a well-marked concentric arrangement of its layers; it is apparently composed of the same material throughout. It is light and porous in structure. Its transverse diameter measures five inches and three-quarters, and its weight, when fresh, was five pounds and three-quarters.

The chemical composition was found to be mainly ammonio-magnesium phosphate. It also contains a little calcium phosphate and some undetermined organic substance.

1891

Presented by J. F. Steedman, Esq.

SERIES LIII.

CALCULI AND OTHER CONCRETIONS FORMED
IN THE DIGESTIVE ORGANS.

244a. A Salivary Calculus, weighing twenty-two grains, removed from the parotid duct. 1884

244b. A Salivary Calculus, removed from Steno's duct. It measures one inch in length and weighs twelve grains. The patient had only felt pain and noticed a swelling in the region of the parotid gland for three weeks before its removal. 1886

245a. A very Large Salivary Calculus, removed, with the submaxillary gland, from a gentleman, aged fifty-two. The calculus weighs 4.4 grammes, and measures an inch in its long axis, and one and a half inches in circumference at its thickest part. 1887

The submaxillary gland and calculus were removed through an incision in the neck. The presence of the calculus was suspected, but was not discovered until the gland was removed, for it lay deeply embedded in the commencement of Wharton's duct. The patient had been subject to occasional swelling of the submaxillary region for more than forty years, and for some time past there had been permanent enlargement and suppuration of the salivary gland.

The gland is preserved in Series xiv., No. 1826a, and a cast of the stone in Series lvi., No. 117a.

Presented by H. T. Butlin, Esq.

245b. A large Salivary Calculus, removed from the duct of the submaxillary gland. The calculus measures seven-eighths of an inch in length by five-eighths of an inch in diameter at its thickest part. 1887

245c. A Salivary Calculus, removed from the left submaxillary gland. The stone is irregularly oval in shape, and lay just at the junction of the gland with its duct. It weighs seven grains. The smaller portion of calculus which lies above it was passed by the same patient four years previously. 1887

The stone was first observed in January, 1886, but the patient experienced no inconvenience from it until April, when it caused pain in eating. At the beginning of May the gland became swollen and painful. The patient was of a gouty family, and was subject to asthma and prurigo. He had once passed a renal calculus consisting of calcium oxalate.

Presented by J. Bywater Ward, Esq.

245d. A small oval Salivary Calculus, weighing one grain. It was removed through an incision in the floor of the mouth from the right duct of Wharton. 1887

The patient was a young gentleman, aged 18, who for two days previously had complained of great pain and swelling in the submaxillary region, occurring a few minutes after eating solid food. For six months he had suffered from occasional slight pain, and there had been an ill-defined swelling in the submaxillary region.

Presented by L. A. Lawrence, Esq.

- 245e. A small Salivary Calculus, weighing nine grains, and enclosed in a portion of Wharton's duct. 1889

From a woman, aged 26 years, who had a throbbing pain under her tongue for six months. See *Female Surgical Register*, vol. ii. (1889), No. 109.

- 266a. A section through a portion of a Gall-Stone. The cut surface has been rubbed smooth, and a thin piece of glass has been fixed to it by means of Canada Balsam, showing clearly the manner of formation by concentric deposits round a nucleus. 1891

Presented by Philip Hensley, M.D.

- 269a. Two Gall-Stones of irregular shape. They were discovered in the Gall-bladder after death. 1891

See *Medical Post-Mortem Register*, vol. xviii., p. 86.

- 274a. Biliary Calculi. The larger of the two is one and a half inches long and one inch in thickness; it is cylindrical, and is faceted at both ends. The smaller one is broken; its rounded extremity fits into the facet in the previous one. 1885

These calculi were passed, per anum, by a woman who had suffered for ten days previously from constipation. A year before passing these stones the patient had an attack of "congestion of the liver" with intense jaundice, but in the interval she had been free from hepatic trouble. Weight 3 drachms and 28 grains.

Presented by G. H. Fosbroke, Esq., and Montague Smith, Esq.

BILIARY CALCULUS IMPACTED IN THE INTESTINE AND REMOVED BY OPERATION.

- 274b. A Gall-Stone, removed from the small intestine, where, by its impaction, it had given rise to acute obstruction. The calculus is cylindrical in shape, and stained of a deep brown colour, which approaches to black at its extremities. One end is rounded, but the other is flattened, and has evidently lain in contact with a second calculus. The surface of the stone is tuberculated, and it has the soapy feel of cholesterin. It measures one and three-quarters inches in length, and three and three-quarters inches in circumference, and weighs 20.34 grammes. 1887

A drawing is preserved in Series lvii., No. 1353.

See also the *Lancet*, vol. ii. (1887), p. 1103.

Presented by T. Smith, Esq.

- 274c. A portion of a Gall-Stone, removed by operation from the gall-bladder. It lay in a small sac with thickened walls, of very little larger size than the gall-stone. A section has been taken through the middle of the concretion, which is apparently composed of cholesterin. 1891

The patient was a gentleman, aged 65. He first had symptoms thirteen years previously, but these were ill-defined and vague. Latterly they had been acute. He died two days after the operation from hæmorrhage. At the post-mortem examination it was found that the gall-bladder and cystic duct had become obliterated. The hepatic duct was patent and stained with bile.

Presented by Alfred Willett, Esq.

- 281a. A Calculus, weighing sixty-eight grains, which was found, post-mortem, in the pancreas of a man, aged sixty. 1891

Presented by W. Malden, M.D.

- 282a. A Fæcal Concretion, passed per anum. It has been sawn through, and shows numerous more or less concentric laminae. 1890

The patient, an elderly man, had suffered severe pain every time he went to stool for some months. The pain ceased after the passage of the concretion.

Presented by the Rev. James Beck.

285a. A Cast, in hair, of the Stomach of a patient suffering from melancholia. The tape had passed through the pyloric orifice, and lay in the duodenum with the calcareous nodule at its end. The entire mass weighs twelve and a half ounces.

1885

The specimen was found post-mortem ; it was not known that the patient swallowed her hair.

Presented by M. Johnston, Esq.

287a. A Hair Ball, removed from the Stomach of a Calf. 1892

Presented by E. R. Evans, Esq.

296a. Calculus, weighing seventeen and three-quarter ounces, obtained from the cæcum of a horse. The calculus consists chiefly of phosphates. 1884

Presented by W. T. Strugnell, Esq.

296b. Section of a very large spherical Calculus, from the intestines of a horse. 37. 47. 1889

296c. A similar Specimen. 37. 48. 1889

296d. A large polyhedral Calculus, from the intestines of a horse. 37. 49. 1889

Presented by Dr. Jenner.

296e. Section of a Calculus, from the intestines of a horse. It is composed of phosphates with much animal matter. Its nucleus is a brass pin. 37. 30. 1889

296f. A large Calculus of a cubic form, from the intestine of a horse. Composition: phosphates with much animal matter ; fusible. 37. 31. 1889

296g. Section of a large thin disc-shaped Calculus, of similar composition with the preceding. 37. 32. 1889

296h. A similar Specimen, but of polyhedral form. 37. 35. 1889

296i. A Specimen exactly similar to the preceding. 37. 36. 1889

296j. A large Calculus, with a very rough surface, which was taken from the intestines of a horse. At its centre is a piece of flint, around which is a quantity of hair. 37. 38. 1889

Presented by Thomas Ilott, Esq.

296k. A spherical Hair Ball, with a very smooth hard surface, from a cow. 37. 51. 1889

296l. A numerous collection of small Calculi, from the intestines of a horse. 37. 53. 1889

Presented by the Council of the Royal College of Surgeons of England.

299a. A Crystalline Concretion, weighing fifty-seven grains, which was obtained from the colon of a cod-fish. Chemical analysis showed it to consist of phosphate of magnesium with a little organic material. 1886

Presented by P. S. Abraham, M.D.

299b. Section of a Hair Ball, coated by earthy matter, from the stomach of a goat. 37. 45. 1889

Presented by the Council of the Royal College of Surgeons.

UMBILICAL CALCULI.

299c. A small Concretion, which was removed from the navel of a woman, aged twenty-four years. It had caused irritation and suppuration in the umbilicus. 1889

Presented by Charles J. Heath, Esq.

SERIES LIV.

CONCRETIONS FROM THE CIRCULATORY AND
OTHER ORGANS.

NASAL CALCULUS.

- 303a. An irregularly square Rhinolith, measuring nearly an inch across. Chemical examination shows that it consists of a mixture of calcium carbonate and phosphate. It weighs thirty-three grains, and appears to have been formed round a piece of rag, which has served as a nucleus. 1887

The concretion was removed from the inferior nasal meatus of a girl, aged 24, who gave an indistinct history of having had a foreign body in her nose for twenty years.

See *Transactions of the Pathological Society*, vol. xxxviii., p. 321.

- 303b. A Piece of Rag, removed from the nostril of a child, aged six years. The fragment had been *in situ* for about eighteen months, during which time the child constantly suffered from a foetid discharge through its nose. It is coated with a deposit of earthy salts, and would, no doubt, in time, have become a rhinolith. 1889

- 303c. Two Foreign Bodies, consisting of a metal shirt stud and a piece of cotton fringe, removed from the nostril of a child, where they are stated to have remained for six years. When first removed, they were matted together by dried secretion, and, when touched with a probe, gave the sensation of a piece of necrosed bone. 1890

See *St. Bartholomew's Hospital Reports*, vol. xxvi., p. 271.

SERIES LVI.

CASTS AND MODELS OF DISEASED AND INJURED PARTS.

- 1a. Cast of the Right Leg of a Woman who had alcoholic neuritis. There is great muscular atrophy, especially of the flexors of the ankle-joint. 1888
From a married woman, aged 31, who had been a heavy drinker. Faradaic and galvanic irritability was impaired in both legs.
See *Mary Ward Book* for 1888, s. v. K. Tailor.
- 1b. Cast of the Right Hand of a patient affected with Acromegaly. 1890
From a man, who was 39 years of age, a native of Westphalia. He had been of enormous proportions since childhood, but there was no period of his life at which he had noticed any unusual rapidity of growth. His muscular development was very great, and he could lift so heavy a weight as half a ton with tolerable ease. His height was $73\frac{1}{2}$ inches, circumference of head $26\frac{1}{2}$ inches, length $9\frac{1}{2}$ inches, breadth $6\frac{7}{10}$ inches. Thumb circumference, 4 inches; middle finger, first phalanx, $4\frac{7}{10}$ inches; second phalanx, $3\frac{1}{4}$ inches. The thyroid body was small, and there was no evidence of persistent thymus. The urine contained sugar.
Presented by A. A. Kanthack, M.D.
- 2b. Cast of a Leg, showing the outward and forward curvature of the tibia which is typical of rickets. 1882
- 2c. Cast of the Pelvis and Lower Extremities of a child, presenting very severe rachitic deformities. 1883
- 2d. Cast of a Pelvis and Lower Extremities of a girl, showing the deformities resulting from rickets. 1885
See *Female Surgical Register*, vol. ii. (1885), No. 1292.
- 2e. Cast of the Leg and Foot, showing the effects of rickets. 1885
See *Male Surgical Register*, vol. iii. (1885), No. 1967a.
- 2f. Casts of the Legs and Feet of a boy, aged eleven, who had congenital syphilis. The left leg is bowed and thickened as a result of periostitis. It is one inch longer than the right. 1888
A drawing of the patient's teeth is preserved in Series lvii., No. 348
See *Male Surgical Register*, vol. iii. (1888), No. 1311.
- 2g. Cast of the Right Leg and Foot of a boy, aged thirteen, the subject of congenital syphilis. The leg is bowed and the foot turned inwards by the greatly thickened and elongated fibula, the seat of chronic osteitis and periostitis. In this case the tibia is not affected. 1890
Compare the cast 2f. (left leg); it will be seen that the foot is everted, the tibia being the bone affected in that case.
See *Male Surgical Register*, vol. v. (1889), No. 3397.

- 2h. Casts of the lower extremities of a child, aged eleven, showing great deformity of the bones, due to rickets. In each limb there is marked anterior curvature of the femur and tibia, with flattening of the latter bone. 1891
 A photograph of the boy is preserved in Series lviii., No. 25.
 See *Male Surgical Register*, vol. iii. (1891), No. 855.
- 2i. Casts of the hands of a child, aged two years, showing to an extreme degree enlargement of the lower ends of the radius and ulna, due to rickets. 1893
- 4b. Cast of the right leg of a man, who had a large osseous growth springing from the seat of a fracture of the tibia. 1889
 From a man, aged 29. The tumour had been observed for eight years.
 See *Male Surgical Register*, vol. iii. (1889), No. 2967.
- 5a. Cast of the Right Hand of a patient, aged forty, in which the thumb and index finger are enormously enlarged. The middle finger was removed during childhood. The fourth and fifth fingers are similarly affected, but to a smaller extent. There was reason to suppose that the deformity was due to the growth of cartilaginous tumours, which appeared to have ossified. 1888
 From an out-patient.
- 6b. Cast of the Right Arm and Hand, from a patient, aged eighteen, who had multiple exostoses on his femora, ribs, and right ulna. The radius is greatly widened and bent to its ulnar side, whilst the ulna has a circumscribed exostosis about the centre of its shaft. 1888
 See *Darker Ward Book*, vol. iv. (1888), No. 332.
- 6c. A Cast of the Arm of a patient who had a large sarcoma involving his right elbow. The swelling is large and irregular, and is situated at the back of the joint. The movements of the joint were free, and were unattended by pain. 1889
 From a man, aged 66, who had noticed a swelling for four years.
 See *Male Surgical Register*, vol. v. (1889), No. 196.
- 7a. Cast of part of a Right Lower Extremity, showing a very large tumour growing from the neighbourhood of the inner condyle of the femur. 1890
 From a man, aged 30. The tumour had been slowly growing for eight years. It gave him little or no inconvenience. Its growth was said to have followed immediately on a blow caused by falling from a horse. It was very hard, and presumably cartilaginous. There was fair movement at the joint.
 Amputation through the thigh was performed one year later: the tumour is preserved in Series i., No. 431a.
 See *Male Surgical Register*, vol. ii. (1890), No. 1735.
- 11a. Cast of a Knee, showing an endosteal sarcoma of the femur. The tumour was first noticed after a fall five years previously. 1889
 See *Female Surgical Register*, vol. v. (1889), No. 958.
- 13a. Cast of the under surface of the Diaphragm, from a case of rickets, with transverse constriction of the thorax, showing the small protrusions caused by the beaded extremities of the ribs. 1882
- 13b. Cast of the Trunk of a child, showing a "pigeon-breast" thorax. 1882
- 13c. Cast of the Pelvis and Lower Extremities of a child, who suffered from an extreme degree of rickets. The femora are bent at an angle, whilst the tibiae are curved laterally. 1884
- 13d. Casts of the front of the Right and Left Legs from a case of periostitis following typhoid fever. The nodes appeared on recovery from the fever, five weeks before

- admission ; they were accompanied by shooting pain in the legs. Rest and diet reduced them somewhat in three weeks, and the patient was discharged. A week of poor diet brought the nodes back almost larger than before, and these casts were taken on re-admission. There was no history of syphilis. Large doses of iodide of potassium had no effect on the tumours. 1885
- 13e. Hand of a child, aged five years, modelled in wax to show the enlargement of the lower radial epiphysis characteristic of rickets. 1888
Presented by H. Davidson, M.B.
- 16b. Cast of the right Knee-Joint, Leg, and Foot of a boy, aged eleven, showing very marked dislocation backwards, and rotation outwards of the leg, with great atrophy of the bones and muscles, resulting from long-standing disease of the knee-joint. 1891
See *Male Surgical Register*, vol. iii. (1891), No. 1235.
- 19a. Casts of Two Knees with severe Genu Valgum. 1883
- 19b. Cast of the Legs of a Child suffering from rickets and genu valgum. 1884
- 19c. Cast of the Right Knee of a chimney-sweep, aged twenty-four years. He had well-marked genu valgum, and as a result apparently the patella was completely dislocated to the outer side of the leg. The internal condyle is seen as a large projecting mass. 1889
See *Male Surgical Register*, vol. iii. (1889), No. 3614*.
- 20b. Cast of a Foot, showing changes characteristic of rheumatoid-arthritis. 1882
The patient was a sailor, who had been obliged to give up his occupation on account of the difficulty he experienced in walking. The other foot was similarly affected, but no other part of the body ; the progress of the disease had been very gradual.
- 20b¹. Cast of an Elbow, affected with chronic rheumatoid arthritis, in a woman who had tabetic symptoms. 1884
- 20c. Cast of Knee, from a case of osteo-arthritis in a patient who had tabetic symptoms (Charcot's disease). 1885
The knee itself is preserved in Series ii., No. 691b.
- 20d. Cast of a Hand, affected with chronic rheumatism. 1884
- 20e. Cast of Knee, from a case of Charcot's disease. 1885
The knee itself is preserved in Series ii., No. 691c.
- 20f. Cast of Knee, affected with Charcot's disease. 1885
See *Female Surgical Register*, vol. ii. (1885), No. 1823.
- 20g. Cast of the Knee of a patient suffering from chronic osteo-arthritis. 1885
See *Male Surgical Register*, vol. v. (1885), No. 1004.
- 20h. Casts of the Hands, from a Woman who had chronic arthritis deformans. The casts show almost typically the various changes of position which occur in this affection. There is a considerable amount of ulnar deviation, with enlargement of the knuckles and hyper-extension of the two distal phalanges. In some of the fingers there is flexion of the same phalanges, due to muscular contraction. (*Cf.* 144g and 172d.) 1888
From a female out-patient.

- 20i.** Casts of the Two Hands of a Middle-aged Woman, showing the effect of a nerve lesion in modifying the deformity accompanying osteo-arthritis. The right median nerve was divided at the wrist nine years previously ; the joints were affected for five years. 1888
From an out-patient.
- 20j.** Casts of the Hands of a Patient showing rheumatic nodules. In the right hand the nodules are situated in the extensor tendons over the second, third, and fourth metacarpo-phalangeal articulations, whilst in the left hand they lie over the third, fourth, and fifth joints. They were neither red nor painful. 1888
From a youth, aged 18, who had rheumatic fever when he was seven years old. Similar nodules appeared during his stay in the Hospital over the right olecranon and patella, and on the anterior portion of the right temporal ridge.
See *Luke Ward Book* for 1888, s. v. Thomas Clarke.
- 20k.** Casts of the Elbows of a patient with rheumatic nodules. The nodules are situated upon the outer side of the joints and a little above the external condyles. 1889
From a boy, aged 14 years, who had double mitral disease of the heart. The nodules developed with only slight pain in the joint. He had rheumatic fever some months previously.
- 20l.** Casts of the Knees of a patient who had Charcot's disease. The right knee was enlarged, and there was some fluctuation in it. The right leg was œdematous. The left knee was also enlarged and bowed. It was nodular in all directions as if from osteophytes. The movement of flexion was greatly limited. 1889
From a man, aged 47, who had well-marked symptoms of locomotor ataxy for five years. He stated that his knee gave way laterally when he walked.
See *Male Surgical Register*, vol. iv. (1888), No. 3411.
- 20m.** Cast of the Left Leg of a Woman, aged forty-seven, who had well-marked Charcot's disease of both knee-joints. She had also suffered from the spontaneous fracture of various bones. The cast shows the deformity following Pott's fracture, which occurred several years previously, while she was standing at the wash-tub. 1890
For further particulars see *Female Surgical Register*, vol. iii. (1889), No. 3383.
- 20n¹ and n².** Casts of the Hands of a Child, aged twelve, who had rheumatoid arthritis. The fingers, especially of the right hand, were slightly flexed, and could not be fully extended. There is also considerable thickening of the thenar and hypothenar eminences. 1890
See *Faith Ward Book* (1890), s. v. A. Abrahams ; also *Clinical Society's Transactions*, vol. xxii., p. 328.
A drawing of the left hand is preserved in Series lviii., No. 67.
- 20o.** Casts of the Hands of a Woman, aged thirty-two, showing marked deformity, due to rheumatoid arthritis. 1890
See *Female Surgical Register*, vol. iii. (1890), No. 704.
- 20p.** Cast of the Right Hand of a Girl, aged eighteen, showing very markedly the usual deformity due to rheumatoid arthritis. 1891
See *Elizabeth Ward Book* for January, 1891, sub. Ellen Hurley.
- 23b.** Casts of the Hands, exhibiting Heberden's nodes. 1884
One hand is preserved in Series ii., No. 645a, and a drawing of it in Series lvii., No. 877.
- 23c.** Cast of Right Hand of a patient affected with gout. 1885
- 23d.** Cast of the Hands of a patient affected with gout. 1885

- 23e.** Cast of the External Genital Organs of a Man who was affected with gout. He had numerous tophi on his ears, eyelids, limbs, and penis. 1888
 From a patient, aged 59, employed in the Inland Revenue Department, who had his first attack of gout in 1865. The disease affected his toe and the first metacarpo-phalangeal joint. There was no history of gout in his family.
 A drawing of the parts, as they appeared six months before the cast was made, is preserved in Series lvii., No. 935.
 See *John Ward Book* for 1888, s. v. John Luck.
- 23f.** Cast of the Middle Portion of the Calf of the Right Leg of a Patient who had gouty tophi along the crest of his tibia. 1888
 From the same case as the preceding.
- 23g.** Casts of the Hands of a man, aged sixty-three, showing extreme deformity resulting from gout. The skin was glossy, and the patient had in his possession several large chalk-stones, which had been formed at different times. He was first attacked by gout in the ankles and knees at the age of twenty-three. 1889
 From an out-patient.
- 23h.** Casts of the Hands of a patient who had well-marked Heberden's nodes. 1889
 From a woman, aged 63, who was admitted to the Hospital suffering from pains in her back and limbs, due to an obscure cause. She had never had gout.
 See *Female Surgical Register*, vol. ii. (1889), No. 1191.
- 23i.** Casts of the Hands of a patient whose left wrist had been excised five years previously. The wrist had slightly dropped forward, but the patient had good use in the joint, except that there was slight difficulty in making extension of the hand. 1889
 From an out-patient.
- 27a.** Cast of the Right Knee of a Man, aged twenty-eight, whose patella was fractured transversely by a kick from a horse, fifteen years previously. For thirteen years he was able to work as an agricultural labourer, but after a fall upon his knee the joint became weak. There was fibrous union with two and a half inches separation between the fragments. 1888
 See *Male Surgical Register*, vol. ii. (1888), No. 484.
- 28a.** Cast of the Right Leg of a Man, aged fifty-nine, who had suffered for two years from an un-united fracture of the tibia at its upper third. 1888
 See *Male Surgical Register*, vol. iii. (1888), No. 875.
- 29a.** Cast of the Surface of a Knee. The femur has sustained a T-fracture into the joint. The depression in the skin was caused by the sinking backwards of the lower fragment. 1884
- 31a.** Cast of a Right Foot and Leg. The seat of an old Pott's fracture. The tendo-Achillis was divided, and osteotomy of the external malleolus was performed. The astragalus was also excised, and the internal malleolus was separated. 1885
 See *Male Surgical Register*, vol. iii. (1885), No. 1044.
- 31b.** Cast of a Pott's Fracture, taken four months after the injury. The foot is shifted outwards, but without eversion, and is at the same time displaced backwards, thereby making the inner malleolus appear prominent, whilst the external malleolus is less prominent than on the right side. 1887
 See *Male Surgical Register*, vol. i. (1887), No. 754.
- 32a.** Cast of a Foot and Leg, showing an unreduced dislocation of the foot inwards. 1884

- 33a. Cast of the Knee of a man, in whom the tibia and fibula could be completely dislocated backwards. The convexity of the cast, which was made while the man threw some of his weight on the limb, corresponds to the popliteal space. 1882

From a man, who, three years previously, met with an accident to his knee (? dislocation), for which he was kept in splints for six weeks. The joint was subsequently stiff, and only commenced to yield six months before he came under notice, at which time he was completely unable to walk, on account of the leg bowing backwards. After amputation, from which he recovered, it was found that the knee was extremely affected with rheumatoid-arthritis. It is preserved in Series ii., No. 691a.

- 33b. Cast of a Foot and Leg, exhibiting the deformity which has resulted from a badly-set Pott's fracture. The foot is displaced outwards and backwards. 1883

- 33c. Cast of the Left Foot of a man, aged forty-eight, who sustained a Pott's fracture fourteen months previously. The foot is extended and somewhat everted, as well as slightly displaced backwards. 1888

See *Male Surgical Register*, vol. iii. (1888), No. 1246.

- 33d. Cast of a Foot, showing the deformity occurring from a Pott's fracture, which has united in a faulty position. 1891

See *Female Surgical Register*, vol. i. (1891), No. 859.

- 33e. Cast of the same Foot, after forcible wrenching under an anæsthetic. 1891

- 35a. Cast of a Foot, showing the result of a successful excision of the os calcis. 1883

- 35b. Cast of a Hand, exhibiting the failure of development, which has resulted from the excision of the metacarpo-phalangeal joint of the middle finger. 1883

- 35c. Cast of the Right Leg of a man whose foot had been amputated by Chopart's operation seventeen months previously. 1887

See *Male Surgical Register*, vol. iii. (1884), No. 2715.

- 35d. Cast of the Left Leg, showing the stump formed after Pirogoff's amputation through the ankle. 1887

See *Female Surgical Register*, vol. iii. (1886), No. 2435*.

- 36a. Torso of a man who had many dislocations. The acromial end of either clavicle is dislocated. 1884

Photograph of this patient is preserved, Series lvii., No. 120.

- 36b. Cast of the Two Hands of same patient, showing various dislocations. 1884

For an account of the case, see the *Clinical Society's Transactions*, vol. lxvi., p. 264, and vol. xvii., p. 220.

- 37a. Cast of the Bust of a feeble man, aged sixty-eight years, who had a double dislocation of his shoulders. The heads of the humeri lay beneath the coracoid processes. The dislocations were of twenty-six weeks' duration, and were produced by a man taking his arms from behind and suddenly wrenching them inwards. 1889

A photograph of this patient is preserved in Series lvii., No. 116.

See *Male Surgical Register*, vol. i. (1889), No. 1348.

- 40a. Cast of the Right Side of a Man's Chest, showing a dislocation of the Shoulder-Joint. 1892

- 41a. Cast of the Right Arm of a boy, showing an unreduced dislocation forwards of the head of the radius. The accident occurred about three years before the cast was taken. 1888

From a patient at the Foundling Hospital.

- 41b. Cast of the Left Elbow of a boy, showing a dislocation backwards of the radius and ulna. 1888
 From a boy, aged 10 years, who fell on his elbow three months before the cast was taken, fracturing his coronoid process, and dislocating his radius and ulna. The dislocation was reduced at once, but it subsequently recurred.
 See *Male Surgical Register*, vol. i. (1887), No. 3257.
- 41c. Cast of the Left Elbow of a man, aged twenty-one, who had sustained a dislocation of the Radius two years previously. The head of the radius is extremely prominent, and is covered by skin only : there was free rotation. 1892
- 43a. Cast of the Right Hand and Wrist of a woman, aged sixty-two, who had dislocated her hand forwards fifty-five years previously. The lower end of the ulna is very prominent. 1890
 There was fair movement. The hand could be supinated through about 45°. Flexion was good, but extension was much restricted. The grasp of the hand was much less than that of the other.
 See *Female Surgical Register*, vol. v. (1890), No. 58.
- 45a. Cast of the Wrist of a patient whose ulna was dislocated, and whose radius was fractured an inch above its carpal extremity. 1885
- 47a. Cast of the Pelvis, from a patient with double congenital dislocation of the hip. 1885
 M., æt. 24. The cast was taken whilst the patient was in a recumbent posture.
- 47b. Cast of the Body of a woman who had congenital dislocation of both femora, with resulting lateral curvature of the spine. The cast shows the characteristic "saddle-back" which is due to the deformity. 1889
- 49a. Two Casts of the Right Knee-Joint, showing dislocation of the Patella outwards. One of the casts is taken in the extended, the other in the flexed position of the limb. In the latter the displacement is the more marked. 1891
 The patient, a lad, aged 18, was run over eight years previously. The limb was treated for three months in a plaster of Paris case. When this was removed, the dislocation became apparent, and had remained so. He could walk fairly well, provided that he kept the knee-joint stiff.
- 54a. Cast of the Left Foot, to show the deformity occurring immediately after a fracture of the fibula, with dislocation of the tibia forwards. 1886
 See *Male Surgical Register*, vol. v. (1885), No. 3033.
- 55a. Cast of the Left Leg and Foot of a patient who had an unusual form of tubercular syphilitide on the right leg. The foot, as a result of long-standing syphilitic disease, was dislocated forwards. 1887
 See *Female Surgical Register*, vol. iii. (1887), No. 65.
- 57a. Cast of a Left Foot, in which the internal cuneiform bone has been dislocated upwards, so that the anterior articular surface lies immediately beneath the skin. 1892
 See *Surgical Post-Mortem Register* (1892), p. 71.
- 58a. Casts of the Feet of a man who had dislocation of the first phalanx of each great-toe, with the development of a bursa over the head of the metatarsal bones. 1888
 From a butcher, aged 24, who had suffered from bunions for several years.
 See *Male Surgical Register*, vol. i. (1888), No. 1746.
- 58b. Casts of the Feet of the same patient, after excision of the heads of the metatarsal bones of the great-toe. 1888

- 66a. Cast of the Head and Neck of a child. She had suffered from a severe burn in infancy, and the resulting scar has, by its contraction, produced a considerable deformity of the right side of the face and neck. 1882
- 66b. Casts of the front of the Neck and upper part of the Chest of a young woman who suffered from "Wry-neck." Both of the lower attachments of the right sterno-mastoid muscle stand out as firm fibrous cords, causing the chin to be tilted towards the left shoulder. The lower margin of the lobule of the left ear is on a level with the top of the right ear. 1891
 Photographs of the same case are preserved in Series lvii., No. 141.
 See *Female Surgical Register*, vol. iii. (1881), No. 140.
- 66c. Cast of the Chest and Left Arm of a man who suffered from Myositis Ossificans. In various places, viz., the region of the right scapula, the extensor surface of the left upper arm, and the back of the left hand, there are extensive deposits, partly subcutaneous and partly in the substance of the muscles, of hard, bony, or calcareous plates. The left arm is fixed in the position shown, and the elbow cannot be raised from the side. Neither can the hand be extended. 1891
 The man was a drover, aged about 50. The cast was taken in 1891. He had been in the Hospital five years previously, at which time careful notes were taken of his condition (see *Male Surgical Register*, vol. iii. (1885), No. 1287), from which it appeared that during the interval no material change in his condition had occurred.
 Drawings are preserved in Series lvii., Nos. 1324a and b, and photographs Nos. 1324, c, d, and e.
- 66d. Cast of the Right Arm of the same man from which the preceding cast was taken. There is a large bony plate extending down the inner side of the upper arm. 1891
- 66e. Casts of the Hands of the same patient as that from which cast No. 83a in this series was taken. The whole hands are everted towards the ulnar, so that the carpus is at a right angle with the bones of the forearm. 1892
 See *Male Surgical Register*, vol. ii. (1892), No. 1178.
- 67a. Cast of the Arm of a man, in whom the long head of the biceps had been ruptured at its junction with the upper part of the belly of the muscle. The injury occurred a fortnight before the cast was taken, whilst the patient was lifting a block of stone from a barge to a stage above his head. 1887
 See *Male Surgical Register*, vol. iii. (1886), No. 632.
- 68a. Casts of the Hands of a gouty man, exhibiting the condition known as "Dupuytren's contraction of the palmar fascia." In the right hand the middle and ring fingers are bent towards the palm; in the left, the ring and little fingers. 1883
- 68b. A similar specimen to that last described, the little finger alone being affected. 1883
 The hand is preserved in Series xi., No. 1203b.
- 68c. Casts of the Hands of a woman who had a collection of fluid in the sheaths of the flexor and extensor tendons. 1885
 See *Female Surgical Register*, vol. i. (1885), No. 849.
- 68d. Casts of the Hands of a patient who had a contraction of the palmar fascia leading to flexion of the little finger. 1887
- 68e. Cast of the Right Foot of a patient, aged seventeen, who for days had noticed a lump on the outer side of his ankle. The tumour was fluctuating, and was

- situated in the course of the peronei tendons. It was painful. There was no history of a blow or other injury. 1888
 See *Male Surgical Register*, vol. i. (1887), No. 3547.
- 69a. Cast of a Leg, from a man who had a large intermuscular cyst in the calf connected with the knee-joint. 1885
 See *Male Surgical Register*, vol. iv. (1884), No. 2247, and *Transactions of the Pathological Society*, vol. xxxvi. (1885), p. 340.
- 69b. Cast of the Left Knee, showing the situation of an intermuscular synovial cyst. 1886
 See *Male Surgical Register*, vol. v. (1886), No. 239.
- 69b¹. Cast of a Synovial Cyst, situated upon the outer side of the left knee, immediately above the condyles of the femur. The cast was taken two years and eight months after No. 69b was taken. The knee was affected with osteo-arthritis. 1889
 From a man, aged 50, who had a severe injury to his left knee thirty-five years previously. Three years ago the cyst first appeared, but was cured by pressure. The present swelling was of three months' duration.
 See *Male Surgical Register*, vol. ii. (1889), No. 1288.
- 69c. Cast of the Right Hand of a woman, showing a large cystic tumour springing from the back of the carpus immediately below the annular ligament. It appeared to be in connection with the carpal articulation. 1888
 From a married woman, aged 46. The swelling had been observed for twelve months. She had been the subject of hip-joint disease when a child.
 See *Female Surgical Register*, vol. iii. (1887), No. 2002.
- 69d. Cast of the front of a man's Chest, showing two swellings, one in the left mammary gland and the other immediately above it. They both fluctuated, and an incision showed that they contained pus. 1892
 See *Male Surgical Register*, vol. ii. (1892), No. 1136.
- 70a. Cast of a Knee, showing a greatly enlarged bursa patellæ. 1885
- 71a. Casts of Two Knees, from the same patient, showing Enlarged Bursæ, the one situated over the patella, the other over the ligamentum patellæ. 1883
- 71b. A Cast of the Left Knee, showing a bilobed enlargement of the bursa patellæ. 1888
 From a slater, aged 42, who had observed the swelling on his knee for twelve months.
 See *Male Surgical Register*, vol. iii. (1888), No. 1572.
- 71c. Cast of the Left Knee of a blacksmith, aged fifty-three, who had noticed a small flat lump growing for ten months immediately below the patella, and almost in the middle line. The mass, after removal, was found to contain calcified cartilage. It sprang from the subsynovial membrane. 1888
 The tumour is preserved in Series I., No. 3261a.
 See *Male Surgical Register*, vol. i. (1888), No. 1503.
- 72a. Cast of a Child's Hand, showing the clubbing of the finger ends which accompanies congenital morbus cordis. 1882
- 72b. Casts of the Hands and Feet of a boy who suffered from morbus cordis. All the fingers and toes are clubbed. 1883
- 72c. Cast of the Right Hand of a patient, showing to an extreme degree the clubbing of the distal phalanges. The patient had suffered from an empyema for ten years. 1887
 See *Mark Ward Book* for 1886, s. v. M. Matteoni.

- 72d. Casts of the Hands of a patient, showing clubbing of the distal phalanges. 1888
 From a boy, aged 12, who had chronic pleurisy with fibrosis of the right lung.
 See *John Ward Book* for 1887, No. 40.
- 72e. Casts of the Hands of a patient, aged thirty-nine, showing marked clubbing of the fingers. There was no evidence of pulmonary or cardiac disease. The thumb and index finger of the right hand had been amputated some time previously. 1888
 See *Male Surgical Register*, vol. i. (1888), No. 960.
- 73a. Cast of the back of a man, aged forty-three, who suffered from Progressive Muscular Atrophy. The trapezius, latissimus dorsi, and muscles attached to the posterior border of the scapula are those most affected. 1891
 For notes of the case see *Matthew Ward Case Book* for 1891, *sub.* Alexander Bell.
- 73b. Cast of the right upper extremity of a girl, aged eleven, showing in a marked degree the results of old Infantile Paralysis. All the muscles of the arm, including the deltoid, were completely paralysed, and beyond slight movement of some of the fingers she had no power of movement in the limb. 1892
 When one and a half years old she was struck by a falling door, after which loss of power in the right arm was noticed. She was treated by bandaging at a Hospital for four weeks, at the end of which time wasting of the arm was noticed.
 See *Report Book of the Electrical Department*, vol. xi., p. 180, and vol. xv., p. 74.
- 73c. Cast of the Left Hand and Forearm of the patient from which the preceding cast was taken. 1892
- 73d. Cast of the back of the neck and shoulders of a boy, aged thirteen, showing wasting of the left trapezius following old Infantile Paralysis. 1893
 A photograph is preserved in Series lvii., No. 144, to which refer.
- 75a. Cast of a Foot, with talipes calcaneus. 1885
 See *Female Surgical Register*, vol. iii. (1884), No. 1811.
- 75c. Cast of the Left Foot, from a case of congenital talipes varus. A wedge-shaped piece of the tarsus was removed, the patient subsequently suffering from gangrene of the toes. 1887
 See *Male Surgical Register*, vol. iii. (1887), No. 588.
- 78a. Cast of the right foot of a child, showing a marked condition of Talipes Equino-Varus. 1892
 See *Male Surgical Register*, vol. iii. (1892), No. 430.
- 83a. Cast of the lower part of the trunk, legs, and feet of a boy who had Talipes Equino-Varus, with very great inversion of the toes. 1892
 See *Male Surgical Register*, vol. ii. (1892), No. 1178.
 The hands were also greatly deformed. See No. 66e in this Series.
- 83b. Cast of the Left Foot of the same patient as the preceding cast, taken two months subsequently, and after the astragalus had been excised for the cure of the deformity. 1892
- 84a. Casts of the Hands of a Young Lady, aged fifteen. The left thumb is hypertrophied, and is considerably larger than the right. The increase in size was first noticed during infancy. 1892
- 85a. Two casts of a foot with Talipes Equino-Varus, showing the improvement which resulted from excision of part of the tarsal arch. 1883

- 85b. Cast of a Foot from which the astragalus has been excised for the cure of talipes equino-varus. 1883
- 85c. Cast of a case of Talipes Equino-Varus. A part of the tarsal arch was subsequently removed. 1884
See *Teratological Catalogue*, Series ii., No. 3512a.
- 85d. Cast of a case of Talipes Equino-Varus. A portion of the tarsal arch was subsequently removed. 1885
- 85e. Cast of the Feet of a boy, aged four years, who had talipes equino-varus of both feet to an extreme degree. A wedge-shaped piece of bone was removed from either tarsus. 1886
See *Male Surgical Register*, vol. iii. (1886), No. 3705*.
- 85f. Cast of the Left Foot, from a boy, aged three years, showing an extreme condition of talipes varus, resulting from infantile paralysis. As division of the plantar fascia produced no material effect, a wedge-shaped piece of the tarsus was removed, and the bones of the foot were pegged together. 1887
See *Male Surgical Register*, vol. iii. (1887), No. 3254*.
- 85g. Cast of the Right Foot, from a case of talipes equinus. 1887
See *Male Surgical Register*, vol. iii. (1887), No. 427.
- 85h. Cast of the Left Foot of a girl, aged eight years, who had congenital talipes varus. Tenotomy had been performed soon after birth, but the foot relapsed into its former condition in spite of the persistent use of instruments. 1889
See *Female Surgical Register*, vol. iii. (1889), No. 280.
- 85i. Cast of the Left Foot of the girl from whom the preceding cast was taken, four months after the operation of tarsotomy had been performed. 1889
- 85k. Casts of the Feet of a girl, from whom, in each foot, the astragalus had been excised for the cure of Talipes Equino-Varus. 1891
See *Female Surgical Register*, vol. iii. (1890), No. 1630.
- 87a. Cast of a Foot, showing the deformity characteristic of Talipes Equino-Varus. 1882
From a girl, aged 14 years, who was admitted to Mary Ward for hysteria. The deformity of the foot was due to spasmodic action of the affected muscles, and was completely removed under chloroform. She had partial anæsthesia of one leg and arm and diminished tendon-reflex.
The deformity had existed six weeks, and ensued on an attack of scarlet fever followed by acute rheumatism. She was discharged much improved.
See *Mary Ward Book*, November 2nd, 1881.
- 87b. Cast of the Foot and Leg of a girl, aged fourteen years, showing the deformity characteristic of talipes equino-varus; the muscles of the calf are much wasted. 1883
The deformity was not congenital, but followed an attack of scarlet fever, and at first disappeared under the influence of an anæsthetic. The muscles had wasted during the year previous to this cast being taken, as may be seen by reference to Cast No. 87a, which shows the condition of the limb six weeks after the deformity first appeared.
- 87c. Cast of a Leg in a condition of spastic rigidity, the hamstring and calf muscles being especially contracted, though not at all atrophied. 1883
From a man who had symptoms pointing to lateral sclerosis of the cord.

87d. Casts of the Feet of a girl who had congenital talipes equino-varus. The foot is flexed, and the deformity appears to be in front of the ankle-joint. The astragalus is easily felt. The foot is so curved in front of this bone that the great toe points downwards and inwards, and the arch of the foot is increased. The weight of the body was borne, when the patient stood, chiefly on the outer side of the sole, but the heads of the metacarpal bones and the os calcis did not come into contact with the ground. 1889

From a girl, aged nine years, who had been under treatment all her life. The movement of the ankle and knee were greatly impaired.

See *Sitwell Ward Book*, vol. vi., p. 350, and vol. vii., p. 41.

See also *Female Surgical Register*, vol. iii. (1889), No. 292.

90a. Casts of the Feet of a Patient who had double flat-foot (pes planus). The patient had hallux valgus of the toes of the left foot. The peronei tendons are much contracted. The outer side of the left os calcis is almost approximated to the outer malleolus. The movements of the left ankle-joint were good. 1888

From a man, aged 42 years, who was a goodsman on a railway. His left foot had been run over by a wagon some years before the cast was taken.

See *Orthopædic Out-Patient Register* for 1888, No. 158.

93a. Casts of two Feet, with very marked Talipes Valgus. 1882

93b. Cast of the Right Foot of a milkman, aged eighteen years, who had talipes valgus of eighteen months' duration. The foot is turned outwards, making an angle of forty degrees with the median line. The foot is flat, the arch collapsing as the patient walks. The foot was wrenched under an anæsthetic, and was subsequently put up in a plaster of Paris case. 1889

See *Male Surgical Register*, vol. iii. (1889), No. 2688.

94a. Cast of Foot of a patient affected with Talipes cavus. 1885

See *Male Surgical Register*, vol. iii. (1885), No. 3739.

94b. Casts of the Feet of a patient who had pes cavus of both feet. The plantar fascia was divided, and subsequently the tendo-Achillis in each foot. 1887

See *Male Surgical Register*, vol. iii. (1886), No. 1364.

94c. Cast of the Right Foot of a young man, aged twenty, showing a condition of pes cavus and hammer-toe, due to Friedreich's disease (congenital locomotor ataxia). Symptoms had been noticed for seven years. 1890

See a paper by Dr. J. A. Ormerod in vol. lxxviii. of the *Medico-Chirurgical Society's Transactions*.

96a. Casts of the Feet of a boy, aged eighteen, a paper-stainer by occupation. There is a marked swelling of the metatarso-phalangeal joint of the hallux. The right hallux is in a condition of valgus, and the left is in a condition of varus. There is commencing flat-foot. 1888

From an out-patient in the Orthopædic Department, No. 538 (1887).

96b. Casts of the Feet of a Patient showing a condition of flat-foot, with hallux varus on the left side. In the left foot there is a slight amount of eversion. 1888

HAMMER-TOES.

96c. Cast of the Left Foot, showing a "Hammer-Toe." The second metatarso-phalangeal joint is in a position of extension, the extensor tendon being fully stretched. The first phalangeal joint is flexed to its full extent, whilst the second

- is normal. Over the top of the first phalangeal joint is a small bursa. The great-toe is in a condition of hallux valgus. 1888
 From a boy, aged 16 years. The hammer-toe was hereditary in the family of the patient. See *Male Surgical Register*, vol. iii. (1888), No. 882.
- 97a. Cast of the Left Foot of a boy, aged eight, suffering from pseudo-hypertrophic paralysis. The foot shows talipes equinus, due to the contraction of the calf muscles in the advanced stage of the disease. 1884
 The child always had thick calves; he did not sit up till he was eight months old, and could not walk until he had attained the age of three. He never walked well. The characteristic stiffness of the calves was very marked in August, 1882.
 See *Luke Ward Book*, 1883, sub. Henry Humphry.
- 97b. Casts of the Feet of a patient with Talipes Calcaneus before and after section and suturing of the Tendo-Achillis. 1885
- 97c. Casts of the Feet of a child, in a condition of Talipes Calcaneus. 1892
- 97d. Cast of the Left Foot of a child, showing congenital Talipes Calcaneus. 1892
- 97e. Casts of the Feet of a child, aged nine months. Both feet are in a condition of congenital Talipes Calcaneus. 1892
- 97f. Cast of the Left Foot of a boy, aged eight, in a condition of Talipes Calcaneus. It had existed since infancy. All the muscles of the limb, which was two inches longer than the right leg, were wasted. 1892
- 98a. Cast of a case of Aortic Aneurysm pointing through the thoracic wall. 1885
 The aneurysm is preserved in Series viii., 1487a, and a drawing in Series lvii., No. 186.
- 98b. A series of nine Casts, illustrating, through a period of two years, the growth of an aneurysm of the first and second parts of the arch of the aorta, which eventually caused death by rupturing externally. 1887
 From a man, aged 38, who had syphilis fifteen years previously. On admission, he had a prominent swelling extending along the sternal end of the clavicle to the cartilage of the fourth rib, with the left border of the sternum as an axis. In the swelling was well-marked expansile pulsation. The pulse was equal in both wrists; the pupils were equal. The aneurysm gradually pointed, the first drop of blood oozing out four weeks before his death. The casts were made by the patient himself.
 The specimen is preserved in Series viii., No. 1487b.
 See *John Ward Book*, 1887, Case xi.
- 98c. A series of six Casts, taken at intervals to show the gradual increase in size of an aortic aneurysm. The tumour was situated on the right side of the thorax, and at first extended from the second to the fifth rib. The swelling was composed of two parts, of which the upper was the smaller and softer. 1889
 From a man, aged 44 years, who had suffered from syphilis, and had always been a drunkard.
 See *Matthew Ward Book* for 1889, No. 125.
- 98d. Cast of the front of a man's chest, showing at the upper part of the left side a large ill-defined swelling due to an Aneurysm of the arch of the aorta. 1892
 See *John Ward Book*, 1891, sub. Samuel Olley.
- 100a. Cast of an Ear, which has become thickened and malformed by inclusion in a naevoid growth. 1883
- 101a. Cast of the Abdomen of a man, aged thirty-seven, who had an obstructed vena cava. The enormous distension of the cutaneous veins is well shown. 1888
 See *Mr. Marsh's Out-Patient Letter* for 1888, No. 373.

- 101b. Cast of the Abdomen of a man, aged thirty, who had the lateral subcutaneous veins very greatly enlarged. The distension was probably the result of thrombosis of the inferior vena cava. 1889

A drawing of the abdomen is also preserved in Series lvii., No. 204.

DEFORMITIES OF THE CHEST RESULTING FROM PULMONARY DISEASE.

- 101c. Cast of an Alar, or Pterygoid Chest. The thorax is narrow and shallow, its antero-posterior diameter is reduced, and its length is increased. The shoulders fall, and the scapulæ project like wings. 1889

From a boy, aged 16, who had all the physical signs of advanced pulmonary phthisis. See *Dr. Brunton's Out-Patient Register* for 1888, No. 1402.

- 101d. Cast of the Thorax of a man who had chronic bronchitis and emphysema. The thorax is large and barrel-shaped, whilst the ribs and sternum are raised, as is usual in advanced cases of emphysema. In the transverse section the increased space occupied by the lungs is well seen. 1889

From a man, aged 31, who for three months had been confined to his bed with cough and shortness of breath. He had been ill for the three preceding winters, though he was able to work in summer. Physical examination showed that the cardiac dulness was absent. There was well-marked epigastric pulsation.

See *Matthew Ward Book* for 1889, s. v. A. J. Topolski.

- 101e. Cast of the Chest of a boy, aged eleven years, whose ribs on the left side had been resected for the cure of an empyema. The operation had been performed sixteen months previously. 1889

- 101f. Cast of the Chest of a girl, aged eleven years, whose ribs had been resected on the right side for the cure of an empyema. The operation had been performed four years previously. 1889

The two preceding casts were taken from out-patients attending the Royal Hospital for Diseases of the Chest, City Road.

- 101g. Cast of the right side of the Chest of a man, aged nineteen, showing much falling in of the three or four upper ribs, due to collapse of the lung following empyema. 1890

For notes of the case see *Matthew Ward Book*, s. v. William Little.

- 101h. Cast of the right side of the Chest of the same man, taken ten weeks later. 1890

- 102c. Cast of the Face of a man, showing a lateral deviation of the septum of the nose. 1885

- 102d. A Cast of a Face, showing a lateral deviation of the septum nasi. 1888

- 102e. Cast of the Face of a woman, in whom, as a result of syphilitic necrosis, the whole of the nasal cartilages have disappeared. Cicatrisation subsequently occurred, and the anterior nares have been totally obliterated, leaving a smooth scar. (*Cf.* Series lvii., No. 1152.) 1888

See *Magdalen Ward Book* for 1888, No. 639.

- 104a. The following Casts of Teeth were presented by Alfred Coleman, Esq. :—

1. Excess in Teeth, temporary series.
2. Deficiency in Teeth, do.
3. Early eruption of a low front Central Incisor, age four years seven months.
4. Supernumerary Teeth.
5. Geminated or United Teeth (inherited syphilis).

6. Supernumerary Teeth in a patient with inherited syphilis.
 7. Honeycombed Teeth.
 8. Large Teeth.
 9. Teeth erupted in unusual positions.
 10. Case of supernumerary Teeth, for which left supernumerary was removed, and into its socket left central was inserted. This case of transplantation, done by Mr. Coleman, succeeded well.
 11. Hypertrophy of Gums. These cases were either cured or much relieved by the removal of the teeth, which were loose and diseased at their roots.
 12. Irregularity in the Teeth brought about by an obscure growth in the gums or inferior maxilla.
 13. Exostosis of inferior maxilla.
 14. Cast of inferior maxilla to show treatment of fractured Lower Jaw with Hammond's splint.
 15. Casts from Elephant's (female, India) Tusk in Museum of the Royal College of Surgeons, Edinburgh, showing erosion (?) at neck, and larvæ of a dipterous insect.
 16. Erosion on the Canine of a Sea-Lion, also from Royal College of Surgeons, Edinburgh. 1884
- 105a. Cast of a Lower Jaw, with an interdental splint *in situ*, to show Hammond's method of treatment of fracture of the inferior maxilla. 1887
Presented by H. G. Read, Esq.
- 117a. Cast of an unusually large Salivary Calculus. 1887
The original is preserved in Series liii., No. 245a.
- 123b. Cast of the Lower Part of the Abdomen of a man, aged fifty-seven years, who had double scrotal hernia of forty-one years' duration. The scrotum measured twenty-five inches in its greatest diameter, and reached nearly down to the knees when the patient was standing. On the left side there was a hydrocele in addition to the hernia. 1889
See *Male Surgical Register*, vol. iii. (1889), No. 2720.
- 131a. Cast of the Left Groin of a man, showing a large femoral hernia, which was easily reducible. The hernia had existed for forty-two years. The crural ring admitted three fingers. 1886
See *Male Surgical Register*, vol. iii. (1886), No. 3706*.
- 137a. Cast of an Interstitial Hernia. 1887
A drawing is preserved in Series lvii., No. 468.
- DISEASES OF THE THYROID GLAND.**
- 138a. Cast of a Simple Parenchymatous Goitre in a woman, aged thirty-nine. It had existed at least three years, and often caused severe dyspnœa. The whole gland is uniformly enlarged. 1888
From an out-patient.
- 138a¹. Cast of the Liver, from a woman, aged forty-six, showing the indentations in the curve and surface of the right lobe made by the ribs as a result of tight-lacing. 1889
See *Surgical Post-Mortem Register* for 1889, No. 90.
- 138a². Cast of the Front of the Abdomen of a woman, aged fifty-two, showing, just below the cartilage of the ninth rib on the right side, a swelling due to the distended gall-bladder. 1890

The patient died ten days after the cast was taken. At the post-mortem examination a small malignant growth was found at the junction of the hepatic and common bile ducts.

Presented by James Berry, Esq.

- 138a³. Papier-maché cast of an enormously distended Gall-Bladder and Bile Ducts. A soft cancerous growth in the duodenum had caused the obstruction. The bile ducts in the liver were proportionately dilated. 1892

Prepared and presented by C. W. Cathcart, Esq.

- 138a⁴. Papier-maché cast of the under surface of the Liver, greatly enlarged from rapidly-growing malignant disease. 1892

Prepared and presented by C. W. Cathcart, Esq.

- 138b. Cast of a Cystic-Parenchymatous Goitre, involving the right lobe of the thyroid gland. The tumour is of the size and shape of a hen's egg. It had existed for at least five years, but had never caused any dyspnoea. 1888

The patient was a married woman, aged 36.
From an out-patient.

- 138c. Cast of Small Cystic Adenoma of the Isthmus of the Thyroid Gland. It was successfully removed by operation. 1888

See *Lucas Ward Book* for 1888, s. v. Caroline Cook.

- 138d. Cast of a Tumour of the Thyroid Gland, probably a cyst. 1889

From an elderly woman.

See *Sitwell Ward Book*, s. v. Eliza Warnett, May, 1887.

- 138e. Cast of a Cystic Goitre, involving the left lobe of the thyroid gland, and causing some deviation of the trachea and flattening of its left side. The latter was plainly seen during life with the laryngoscope. 1889

See *Mary Ward Book* for 1887, s. v. Caroline Wedlock.

- 138f. Cast of a Large Cyst of the Thyroid Gland, situated exactly in the middle line of the neck, an unusual situation for such cysts. 1889

From an out-patient, aged 54. The tumour had existed seventeen years, but had never caused any dyspnoea.

- 138g. Cast of the Neck of a patient, from whom a large cystic adenomatous goitre was removed. The cast was taken previous to the removal of the bronchocele. 1889

One half of the tumour is preserved in Series xxvi., No. 2310c.

- 138h. Cast of a Cystic Bronchocele. The cyst originated in the middle line of the neck four months before the cast was taken. The scar of a former operation is seen in the skin covering the tumour. 1889

From a stableman, aged 28. Some years previously the cyst was drained, and after discharging a yellow matter for three months it healed soundly.

From an out-patient.

- 138i. Cast of the Neck of a patient, who had a cystic enlargement of the left lobe of the thyroid gland. The growth had been observed for eight years. 1889

From a man, aged 25, who had lived the first seventeen years of his life at Stow-on-the-Wold, in Gloucestershire. He knew of three women with goitre who lived in his native town

See *Male Surgical Register*, vol. i. (1889), No. 350.

- 138k. Cast of the front of the neck of a young man, aged twenty-one, showing a rounded swelling just above the sternum, and slightly to the right of the middle line. 1891

The tumour was found to be a cyst, and was dissected out. It moved slightly with the larynx in deglutition, but was considered to be unconnected with the thyroid gland.

A photograph is preserved in Series lvii., No. 1303.

See *Male Surgical Register*, vol. v. (1891), No. 695.

- 138l. Casts of the Hands of a woman, aged forty-seven, suffering from Myxœdema. 1893

- 138m. Casts of the Hands of the same woman as the preceding, taken seven weeks subsequently, after she had undergone treatment by the subcutaneous injection of thyroid juice. 1893

Photographs are preserved in Series lvii., Nos. 1175 and 1176.

- 142a. Cast of the Cerebral Hemispheres of a patient, who died with effusion of blood, resulting from rupture of the middle meningeal artery accompanying a fracture of the base of the skull. The frontal lobe on the left side is very considerably flattened, the flattening being best marked upon its superior surface. 1889

See *Male Surgical Register*, vol. iii. (1889), No. 124.

- 143a. Cast of the Head of a boy, in whom, after fracture of the skull, a hernia cerebri resulted. The surface has not yet completely healed over, but up to the time the cast was taken (ten months after the accident) no bad results had followed. 1882

- 143b. Cast of a portion of the right side of the Face of a man, aged twenty-four, showing the situation of a hernia cerebri. 1889

Seven years before the cast was taken the patient fell down and cut his head just above the external angle of the orbital plate of the right frontal bone. The injury was followed by epileptic attacks, for the relief of which he was trephined. A hernia cerebri subsequently appeared at the seat of operation. Ten months after the operation the cast preserved in Series lvi., No. 143a, was taken. The patient was re-admitted to the Hospital seven years afterwards for epilepsy.

See *Male Surgical Register*, vol. iii. (1889), No. 3826*.

- 143c. Cast of the Face of the same patient from whom the preceding cast was taken. This, the third cast, was made after an interval of eleven months. It shows that the distance from the centre of the bridge of the nose to the tip of the lobule of the ear is half an inch less on the affected than on the sound side. 1889

- 144a. Cast of a Hand, from a patient, the fingers of whose right hand were contracted after inflammation. An old wound of the median nerve had been followed by partial ankylosis of the phalangeal joints, with trophic changes in the skin of the nails and muscles. 1885

See *Male Surgical Register*, vol. i. (1884), No. 3336.

- 144b. Cast of a Hand, from a patient whose ulnar nerve had been divided eight months previously. 1885

See *Male Surgical Register*, vol. iii. (1884), No. 570.

- 144c. Cast of the Left Hand of a patient seven months after section of the ulnar nerve. The muscles are extremely atrophied and the fingers are somewhat "clawed." 1886

- 144c¹. Cast of the Left Hand of the same patient a year after the operation of secondary suture. The muscles are almost completely regenerated. 1886

See *Darker Ward Book*, vol. viii., p. 380.

- 144d. Cast of the Right Hand of a patient, eighteen months after division of the ulnar nerve. The muscles are wasted and the hand is typically clawed. 1886

See *Male Surgical Register*, vol. iii. (1884), No. 3156, and vol. iii. (1885), No. 3332.

- 144e. Cast of the Right Hand, four years after section of the ulnar nerve, from a case in which the median nerve was also wounded. The fingers are spasmodically flexed. 1886

See *Male Surgical Register*, vol. iv. (1885), No. 3480.

- 144f. Cast of the Left Hand of patient, nine months after division of the median nerve. The opponens and abductor pollicis are completely wasted, and the ball of the thumb is much flattened. 1886

See *Female Surgical Register*, vol. iii. (1885), No. 1332.

- 144g. Cast of the Left Hand of a Woman who had infantile paralysis of long standing. There is slight ulnar deflection, with some hyper-extension of the second phalanges, with slight flexion of the terminal phalanges. (*Cf.* 20h.) 1888

See *Elizabeth Ward Book* for 1887, *s. v.* Rebecca Gent.

- 144h. Cast of the Left Hand of a Patient who had gout, with chronic nephritis and lead-palsy. 1888

From a man, aged 35, a looking-glass silverer by occupation.

See *John Ward Book* for 1888, *s. v.* O. Bullock.

- 144j. Casts of the Hands of a female patient, aged twenty-five, who had cut her left median nerve three years previously. She was the subject of pulmonary phthisis. The right hand has long tapering fingers, the nails are curved, and the thumb is slightly bulbous. In the left hand there is a scar between the tendons of the flexor carpi ulnaris and flexor sublimis digitorum, situated just above the annular ligament, and marking the site of the division of the median nerve. It is situated on the long axis of the forearm. The abductor and part of the flexor brevis pollicis muscles are wasted. The little finger is contracted and flexed at the joint of the first and second phalanges, but this was congenital. The index and middle fingers are wasted and their movement is impaired. The fingers themselves are glossy, and their nails are all too much curved. Sensation was unimpaired. 1889

See *Faith Ward Book* for 1889, *s. v.* M. Dayman.

Drawings of the hands are preserved in Series lvii., No. 730.

- 147a. Cast of the Right Leg of a patient, aged twenty-one years, who had an advanced condition of ichthyosis. The skin of the thigh presents a remarkably papillated appearance. At the line of flexion of the knee and ankle the papillæ are replaced by smooth integument. The knee was capable of considerable hyper-extension, so that it could be brought into the condition known as "back-knee." 1889

From an unmarried woman, whose hip had been excised eight and a half years previously. The ichthyotic condition had been gradually increasing for five years. The opposite limb was healthy, and there was no evidence of xeroderma in other parts of her body.

A drawing is preserved in Series lvii., No. 822.

See *Female Surgical Register*, vol. iii. (1889), *s. v.* Ada Chown.

- 149a. Cast of a Hand and Foot, from a patient who suffered from anæsthetic leprosy. 1884

- 149b. Cast of the Left Hand of a patient who suffered from lepra anæsthetica. The terminal phalanges of the first and second fingers are rigidly flexed; the third and fourth fingers are flexed at the second phalangeal joints. 1887

- 149c. Casts of the Feet of the same patient. The left hallux has undergone spontaneous amputation. 1887

See *Matthew Ward Book* for 1886, No. 39.

- 153a and b. Casts of the two hands and Forearms of a Woman, aged thirty-six, showing a keloid condition of the scars following a burn. The accident happened twelve months before she came under observation. As the wounds healed the keloid condition developed. 1890

(The casts were painted by Mr. Leonard Mark.)

See *Female Surgical Register*, vol. i. (1890), No. 820a.

A drawing of the right hand and forearm is preserved in Series lvii., No. 854.

- 153c. Cast of the front of the Chest of a man, showing a true Keloid of Alibert over the centre of the sternum. 1892

A drawing of the same case is preserved in Series lvii., No. 848, to which refer.

See *Male Surgical Register*, vol. iii. (1891), No. 2901.

- 159a. Cast of a foot with Eczema Verrucosa. 1883

- 159b. Cast of the Left Foot of a child, who had lupus of the sole. The diseased part is rough and tuberculated; it is somewhat raised above the level of the skin and was covered by a dry exudation. There are a few outlying patches of disease which looked red and inflamed. 1889

From a girl, aged 13 years, who had suffered for eight years from a bad foot.

See *Female Surgical Register*, vol. iii. (1889), No. 402.

- 161a. Cast of a Forearm, with simple Psoriasis. 1882

- 171a. Cast of the Forearm of a man, aged sixty-seven, who had been employed in working in tar. The opposite arm and other parts of the body were affected with warts similar to those which are seen in the cast, varying in size and of slow growth. On the scrotum one of these had taken on an epitheliomatous action, having much the appearance of sweep's cancer. The new growth was successfully removed. Other workmen in the same manufactory were similarly affected. 1882

See *Pitcairn Ward Book*, vol. vii., p. 391.

RHEUMATIC NODULES.

- 172a. Cast of a Hand, showing small rheumatic nodules in the subcutaneous tissue over the first phalangeal articulations. 1882

From a girl, aged 24, who had suffered from rheumatism.

- 172b. Cast of the Knee of the same patient. Similar nodules occur over the patella. 1882

- 172c. Similar specimens of Knee and Elbow Joints. 1882

From a girl, aged 14.

- 172d. Cast of the Hands of a patient suffering from chronic rheumatism. 1885

- 173a. Cast of the Face of a Man, showing the destruction caused by a rodent ulcer. The disease had lasted many years. 1890

A drawing is preserved in Series lvii., No. 1292.

See *Male Surgical Register*, vol. iii. (1889), No. 746.

- 173b. Papier-maché cast of the Head and Neck, showing Sebaceous Cysts. One of these has become epitheliomatous, and has caused infiltration of the tissues of the neck. 1892

The patient was a woman, aged 60, and had observed the cysts for more than thirty years. A few months before the cast was taken one of these had begun to extend rapidly. This was followed by the enlargement of the lymphatic glands in the neck and behind the ear, and by infiltration of the surrounding parts.

Prepared and presented by C. W. Cathcart, Esq.

- 178a. Cast of the Left Foot, from a patient who had a perforating ulcer in connection with tabes dorsalis. 1886
See *Male Surgical Register*, vol. v. (1885), No. 3017.
- 182b. Papier-maché cast of Condylomata on the Vulva of a young woman. 1892
Prepared and presented by C. W. Cathcart, Esq.
- 187a. Cast of the Abdomen of a woman who suffered from an ovarian cyst. At the level of the umbilicus the girth was sixty-two inches. 1885
Sixty-four pints of dense ovarian fluid were drawn off: the cyst refilled, and forty-five pints were withdrawn; at a third tapping fifty pints were removed. Death resulted from supuration of the sac.
- 209a. Cast of the front of the pelvis of a man, aged thirty-six, showing a large Osteo-Sarcoma growing from the left pubic bone. 1892
See *Male Surgical Register*, vol. v. (1891), No. 3259.
- 211a. Casts of the Feet of a Child, who had symmetrical fatty tumours upon the soles over the inferior surface of the calcanean tuberosity. 1886
One of the tumours is preserved in Series I., No. 3251a.
- 212a. Painted Cast of a Round-cell Sarcoma growing immediately below the lobule of the ear in a young woman. 1885
The sarcoma is preserved in Series I., No. 3294a. A drawing is preserved in Series lvii., No. 1220.
- 212b. A wax model of the top of the head, showing a large flattened, irregularly-lobed tumour of the scalp ("Withering Sarcoma"), situated over the inter-parietal suture. Running along the left parietal and frontal regions is an area two inches wide and six inches long, devoid of hair. From this situation a similar tumour was removed by operation. There are now seen two flattened swellings near the scar, and a third lies over the right frontal region.
Under the microscope the tumour was found to be a Fibro-Sarcoma. 1891
One half of the tumour which was removed is preserved in Series I., No. 3302a, and a microscopical section in Series lv., No. 738a.
The patient was a young man, aged 24, who, at the time of his admission into the Hospital, in March, 1890, gave the following history:—About six years ago he received a blow on the top of his head from the fly-wheel of an engine, but of this he took no notice. A few months later a tumour began to grow in this place, and reached the size of a sparrow's egg, and then disappeared in about six months. Six or eight similar tumours subsequently appeared in different parts of the head, and then diminished in size. A large tumour, ten inches in circumference (see Series I., No. 3302a), the scar of which is seen over the left parietal bone, appeared in September, 1889, and grew steadily until its removal in March, 1890. It caused him no pain.
For further details see as above, and also *Male Surgical Register*, vol. v. (1890), No. 972.
A drawing of the appearance of the head, before the removal of the tumour, is preserved in Series lvii., No. 1232, and one taken in March, 1893, in No. 1232a.
- 213a. Cast of a very large Oval Calculus, removed from the bladder of a man, aged forty-three, by the high operation. 1886
The calculus is preserved in Series lii., No. 54a.

TERATOLOGICAL CATALOGUE.

SERIES I.

ABNORMAL CONDITIONS OF THE AXIS.

- 3400a. The Decidua Vera and Foetal Membranes enclosing an Embryo, in which, as a result of non-development of the placental stalk, the embryo remains attached by a broad base to the placenta. The condition illustrates the normal condition seen in the rabbit's embryo at the tenth day. 1888

CLASS II.—DUPLICITY.

- 3402a. The Articulated Skeleton of a Two-headed Calf, with lateral curvature of the lumbar spine, and a spina bifida of the lumbo-sacral and caudal regions. 1889
Presented by Ernest Noad, Esq.

POSTERIOR DICHOTOMY.

- 3408a. A Monstrous Pig. The head and neck, and the thoracic organs are single. Two forelegs are normally situated, the other two project upwards from the scapular region. The abdominal organs are double, and there are two backbones. The hind-quarters are distinct. 1885
Presented by Crawford Duncan, Esq.

SUB-CLASS II.—HOMOLOGOUS UNION.

(a.) *Prozygosis.*

- 3410a. Female Twin Foetuses united by their faces along the median line, and by their thoracic laminae above the umbilicus. They constitute the variety of homologous union known as Iniops. 1886

The faces are fused in such a manner that two lateral faces are formed out of four halves. Of these faces, one differs from that of an ordinary infant only in its greater breadth, whilst the other is a mere rudiment. The less-developed face has a single median eye, above which is a kind of proboscis measuring two-thirds of an inch in length. Beneath the eye is a papilla of skin, with a small central aperture, through which a probe can be passed into the mouth of the opposite face. Beneath this papilla and aperture are two ears, fused by their lobes, but otherwise distinct. The other two ears are separate, and bear their normal relation to the well-formed face.

The brains, like the faces, were fused, but they were not in a condition to admit of a detailed examination.

The skulls are fused in the basi-sphenoidal region, so that the anterior cerebral fossæ are absent.

In the thorax are two pairs of lungs situated laterally, one pair in each thoracic cavity. They appear to be normal, and have the ordinary blood supply.

There are two hearts, one situated in each thoracic cavity, each being enclosed in its own pericardium.

The heart belonging to the left fœtus (the monster being looked at from the side of its more developed face) is imperfect. It consists of a single large left ventricle with a complete auricle and a small ill-developed right ventricle with a minute right auricle. The larger ventricle gives off the pulmonary artery and the aorta. From the aorta three large branches arise, the first at the junction of the ascending with the transverse portion. This branch is the right subclavian for the right fœtus. The second branch comes off from the transverse portion of the arch. It soon divides into the two common carotids for the right and left sides of this aspect of the monster; whilst the third branch is given off immediately beyond the ductus arteriosus. It forms the left subclavian artery of the left fœtus.

The heart lying in the thorax, corresponding with the less-developed face chiefly supplies the right fœtus. It is normal, consisting of two ventricles and two auricles, with the aorta and pulmonary artery arising from it as usual. The arch of the aorta gives off two branches, of which the first almost immediately divides into a right and left common carotid, whilst the second, given off immediately beyond the point where the recurrent laryngeal nerve winds round the aorta, is the left subclavian artery of the left fœtus.

In the abdomen the two kidneys are partially fused on either side.

The upper portions of the small intestines are united as far as a point twelve inches above the ileo-cæcal valve. This point of union is situated immediately above the persistent omphalo-mesaraic duct.

The stomach is single.

The spleens and adrenals are double and not fused.

Presented by Alfred Robinson, Esq.

3412a. Portions of an "attached fœtus."

1885

The mass was attached to the child so that it lay with its long axis in the same direction as that of the child. It contains plenty of cartilage and bone, which appear to have grown from the spinous processes of two of the lumbar vertebræ of the child.

When the specimen was fresh, it presented a rounded mass of skin, which appeared to be a head. On each border of this rounded mass was a row of tubercles arranged longitudinally, one set appearing to represent the face, whilst a mass of tissue below the neck might be the lungs.

Presented by J. Mason, M.D.

CLASS V.—ARREST OF DEVELOPMENT.

SUB-CLASS I.—CRANIAL ARREST.

ACEPHALOUS AND ACARDIAC MONSTER.

3435a. The monster measures eleven inches in length, and is one of female twins. It was born with much hæmorrhage at the seventh month. The skin, as low as the knees, is remarkably corrugated, and has beneath it a very thick layer of gelatinous connective tissue, which forms a firm pad above the thorax. The monster is phocamelous, the left hand, consisting of the thumb and two fingers, protrudes through the integument; it has no bony connection with the thorax. The right hand is chiefly subcutaneous, and only part of two fingers protrude; a rudimentary clavicle exists beneath the skin, and is in contact with the anterior surface of the scapula. Immediately below the right hand are two small and red masses of tissue, which protrude from a short wide canal leading downwards towards the thorax.

The thorax is rudimentary, and is occupied by cellular tissue, in which no traces of lung or heart are found. The diaphragm is rudimentary. The intestine begins with a blind extremity, which is situated to the right of the middle line, and apparently corresponds to a part of the duodenum.

The cæcum and vermiform appendix are found in a corresponding position on the left side. The alimentary canal terminates in a large cloaca, which occupies the

whole space between the sacrum and the ischial tuberosities, but it is separated from the posterior orifice of the vulva and the symphysis pubis by a fold of skin, which represents the perineum. There is no stomach, spleen, liver, or uterus.

The kidney is single, and is situated on the right side; two ureters are derived from it, and pass into a well-developed bladder. The left ovary is alone visible; it is well developed, and is situated in the left iliac fossa.

The spinal column is fairly developed; it terminates by a rounded extremity immediately above the thorax, and it contains a rudimentary cord surrounded by well-developed membranes.

The axis of the whole of the upper part of the body appears to have undergone considerable rotation. The intestines are filled with a substance resembling meconium, except in colour; it is yellowish brown, and contained cholesterin and other fatty crystals, with much granular debris and epithelium.

The orifice of the urethra is visible in the bladder, and there is also an opening below the clitoris, but no connection can be traced between the two. 1889

Presented by W. S. A. Griffith, M.D.

3435b. An Acephalous Acardiac Monster, measuring seven inches in length. It was one of male twins born at the sixth month. The skin over the whole body was smooth when it was first born, though it has become corrugated owing to the action of the spirit. Beneath the skin is a layer of gelatinous tissue half an inch in thickness. The connective tissue forms a thick pad above the thorax. The monster has well-developed legs and feet, except that the toes are only four in number on the left side, and two on the right. The upper limbs are entirely absent, and do not seem to be represented by even a cartilaginous rudiment. The umbilicus is well formed, and has projecting from it the remains of a normal umbilical cord. An inch above the umbilicus are two apertures, situated symmetrically on either side of the linea alba, and about half an inch from it. The aperture on the right side is small, and appears to end blindly, as a bristle can only be passed along it for about one-tenth of an inch. On the left side the aperture is larger, and contains a foliaceous mass of tissue, which projects from it.

On reflecting the skin and subcutaneous tissue, the thorax is found to consist of six ribs on either side, but the sternum is absent, and there are no thoracic organs *in situ*. The heart is situated in the gelatinous tissue forming the body-wall on the right side. It lies in a cavity which is hollowed out of the tissues surrounding the organ, and consists of a solid mass rudely fashioned into the semblance of two rudimentary auricles and a single ventricle. A small and bent canal leads from the upper part of the pericardial cavity into the surrounding tissues. This channel has no connection with the heart. A delicate band of fibrous tissue passes across the pericardial sac.

The diaphragm is absent. The abdominal cavity is of considerable size, and contains many of the normal organs. The intestine begins blindly, the extremity being attached by a ligament to the long axis of the fetus. It appears to commence at the duodenum. There is a normal mesentery. The small intestine is well developed; there is a vermiform appendix and a caecum, which are, as usual, situated on the right side. The large intestine is of the ordinary length, and terminates in an anus. The intestines are filled with epithelial cells, fat, and a large number of kreatin crystals. A single fixed kidney, with two ureters placed laterally, occupies the upper and back part of the abdominal cavity. The testes are situated in the abdomen, immediately above the internal abdominal rings. The bladder is present, and is prolonged upwards into the urachus. There is a well-developed penis and scrotum. The spleen is extremely small, and lies above and to the left side of the kidney. The supra-renal bodies, the stomach, the liver, and the pancreas are absent. Lying in a cleft in the median line of the kidney is an elongated and

apparently solid gland, which does not seem to have any duct. This gland is one inch in length, and lies in the long axis of the abdominal cavity.

The spinal column is well developed, and terminates in a rounded extremity, situated at the upper limit of the thorax. Its cavity encloses a spinal cord enveloped in membranes. 1889

From a Jewess, aged 33 years. The third pregnancy, the preceding children being healthy and well formed. The monster was first expelled; it presented by the breech. The cord was remarkably short. A quarter of an hour later the other twin was born, also with a breech presentation. It was hydrocephalic, but was otherwise well formed. It was born dead. There was a single placenta, to which both cords were separately attached.

See *Transactions of the Obstetrical Society* for 1890.

Presented by Woodley Slyman, Esq.

SUB-CLASS II.—IMPERFECT DEVELOPMENT OF THE BRAIN AND ITS MEMBRANES.

3443a. Microscopical Sections of an Early Human Embryo, in which there was retroflexion, associated with absence of the spinal medulla and imperfection of the vertebral column. The embryo had probably reached the fiftieth day of intra-uterine life. It measured eight millimetres in length, of which the head alone measured five millimetres. 1887

The sections are fully described, with plates, in the *Transactions of the Obstetrical Society*, vol. xxix. (1887).

Prepared and presented by C. B. Lockwood, Esq.

3445a. The Skeleton of a Siren Fœtus. The lower extremities were contained in a single sheath integument. The cartilages representing the tarsus are fused, but the bones of the legs and thighs are separate. The femora are in a condition of complete external rotation. The pubes are fused together at an acute angle. There is some lateral curvature in the lumbar region, and the lumbar and sacral vertebrae are deformed. 1888

Presented by Florio St. Quintin Bond, Esq.

SUB-CLASS IV.—DEFECTIVE CLOSURE OF THE THORACIC AND ABDOMINAL CAVITIES.

A FŒTUS WITH ADHERENCE OF THE MEMBRANES TO THE SKULL AND MANY OTHER ABNORMALITIES.

3451a. A Male Fœtus, in which the placenta and membranes have become adherent to the skull. The fœtus is well developed, and was born at term. The placenta is of the ordinary size, but the umbilical cord is short. Microscopical examination of the cord did not show any change in its structure or in the arrangement of its vessels. The fœtus is anencephalic, and has a large meningocele in the right side of the lambdoidal suture. It has also a double hair-lip and cleft palate with macrostomia; both eyes are defective, and the eye-slits are very small. A portion of the amnion with the umbilical cord at the point where it is inserted into the placenta is attached to the upper aspect of the base of the skull by a broad and firm band of membrane, the line of attachment running along the upper part of the hard palate. There is well-marked lateral curvature of the spine. The heart is partly ectopic, and it is tricœlian; it consists of a large left auricle, a rudimentary right auricle, and a common ventricle. The apex is prolonged upwards through a fissure in the sternum, to be attached to the base of the skull immediately to the right of the common nostril. The portion of the heart thus prolonged is hollow, and con-

tains columnæ carneæ ; it is completely covered by skin derived from the thoracic walls, and formed a pulsating rod lying in front of, and parallel with, the sternum, attached by its two ends, and free in the middle. On the inner side of the right arm is a small fleshy papilla, situated half an inch above the bend of the elbow ; from the apex of this papilla a thin membranous band passes upwards to be inserted into the right gum of the upper jaw.

The abdominal viscera and the remaining thoracic organs appear to be normal. There is a conus arteriosus, but the aorta gives off the usual number of branches in the proper order.

1889

The mother had previously borne a healthy living child. The second pregnancy, resulting in the birth of this monster, was normal ; the labour lasted six hours.

Presented by Dr. C. R. Walker.

SUB-CLASS V.—DEFECTIVE CLOSURE OF THE AXIAL CANAL OF THE CEREBRO-SPINAL SYSTEM.

- 3472a. A section through the Head of a newly-born child, who has an occipital encephalocele. The sac of the tumour is formed by the scalp and pericranium externally, and by the cerebral membranes internally, and a thin layer of brain substance. The swelling is situated in the middle line between the occipital protuberance and the foramen magnum. It is connected by a narrow neck, which passes above the transverse fissure in the brain, with the greatly expanded lateral ventricle. The child also had a cleft palate.

1889

Presented by Stephen Paget, Esq.

(c.) *Spina Bifida.*

- 3474a. The First Cervical Vertebra (Atlas) of an adult. There is a congenital absence of the tubercle at the summit of the posterior arch, causing an interval of nearly a quarter of an inch between the posterior ends of the laminae. The deformity is not quite symmetrical, the end of the right lamina being rather shorter than the left.

On the right side the groove for the vertebral artery has been converted into a foramen by a spicule of bone.

1893

From the dissecting rooms.

- 3479a. The dorsal, lumbar, and sacral regions from the spine of a child, showing that variety of spina bifida known as a meningo-myelocele. The neural arches are unclosed from the fifth lumbar vertebra to the end of the spinal column. The bodies of the vertebrae are well developed, and the spinal nerves are normal. The wall of the sac is formed by skin and dura mater. The latter, which is continued uninterruptedly from the theca surrounding the spinal cord within the intact part of the neural canal, has been partially separated from the superjacent skin. The arachnoid is continued over the interior of the sac, the cavity of which corresponds to the sub-arachnoid space. The spinal cord is readily traced across the sac to its posterior wall, where the two become inseparably blended. The skin covering the posterior portion of the sac is softened, and appears to be sloughing.

1887

From a child who lived four days. The sac was ruptured during labour.

- 3479b. The dorsal, lumbar, and sacral regions, with the pelvis and femora of a child who had a meningo-myelocele. The sac, which was of the size of a small Tangerine orange, has been cut away upon either side to show the spinal cord. The wall of the sac is very thin. It contained some serous fluid and much recent lymph.

The spinal cord enters the sac and passes over its posterior part in the middle line, and terminates by again entering the spinal canal. The filum terminale can be traced into the lowest part of the sacrum. Several of the nerves originating from that part of the cord which lay within the sac passed across the cavity. A glass rod has been passed into the central canal of the spinal cord. 1889

From a male child, aged two weeks, in whom the spina bifida had been injected with Morton's fluid two days before death. During life the femora could not be extended beyond a right angle, and this condition is seen in the specimen to persist even after removal of all the muscles and division of the ligaments. The heads of the femora point almost directly forwards instead of inwards, and by locking against the acetabula, extension is prevented.

See *Male Surgical Register*, vol. iii. (1888), No. 2684.

3480. The lumbar and sacral spine of an infant with a Spina Bifida. The centre of the membranous portion of the sac-wall has been destroyed by sloughing, the result of treatment. The lower portion of the spinal cord projects backwards from the vertebral canal and presents with some of the nerve roots within the opened sac. With the exception of the failure in the arches, the vertebræ appear in other respects to be normal. 1886

See *Sitwell Ward Book*, vol. v., p. 147; and Report of the Committee on spina bifida in the *Clinical Society's Transactions*, vol. xviii., Case No. 19.

SPINA BIFIDA AND CONGENITAL TALIPES.

- 3480a. The lower half of the body of a foetus at full term, with a sloughing spina bifida in the lumbo-sacral region and extreme varus of both feet. The astragalus of the right foot has been exposed in such a manner as to show that its articulating surfaces have become considerably modified. 1885

The dissection was made by S. G. Shattock, Esq., who has described the specimen in the *Transactions of the Pathological Society*, 1884, Case 6, vol. xxxv., p. 423.

- 3480b. The dorsal, lumbar, and sacral vertebræ of a child who had a spina bifida. The laminæ and spinal processes of the vertebræ between the tenth dorsal and lower sacral are wanting. The skin over this region has sloughed, and the lumbar portion of the cord, together with the cauda equina is exposed. This occurred some time before death, and the different structures have become adherent to one another as a result of inflammation. The child lived for three weeks. Both feet were in a condition of talipes equino-varus. 1890

See *Female Surgical Register*, vol. v. (1889), No. 2391.

3483. The parts concerned in a Sacro-coccygeal Meningocele after loss of the sac-wall. From a child about six years old. The extremity of the cord and the cauda equina, occupying the lower portion of the neural canal, are completely exposed: the conus medullaris terminates in a filament, which presents a gangliform enlargement two millimetres in its shorter diameter near its lower end. The lowest nerve-roots are furnished with "ganglia aberrantia." The aperture is bounded by an irregular ulcerated margin of skin. 1886

See the Report of the Committee on spina bifida. *Transactions of the Clinical Society*, vol. xviii., No. 6.

3485. A specimen of Spina Bifida in the lumbo-sacral region with considerable distortion of the pelvis and lumbar spine. A process of bone extends from before backwards completely across the vertebral canal immediately above the deficiency. This process of bone perforates the spinal cord, which appears to re-unite below. The cord terminates in a flattened expansion which rests upon a mass of fat on the inner aspect of the dura mater. The nerves come off irregularly from the front of the expansion. Above its perforation the cord presents a greatly dilated central

canal. A thin smooth membrane lines the dura mater forming the sac. The sacrum and coccyx are exceedingly irregular in form; their whole direction is altered, the upper part of the sacrum lying on the left side of the middle line, the coccyx and lower part of the sacrum pointing towards the right side. The right iliac bone is attached to the sacro-lumbar vertebræ by fibrous tissue. 1886

See *Lucas Ward Book*, vol. iv., p. 70, for clinical details. The case is referred to in the Report of the Committee on spina bifida in the *Clinical Society's Transactions*, vol. xviii., No. 23.

3488a. An adult Sacrum in which the spinal canal is open in its whole extent.

1885

Presented by E. V. Hugo, Esq.

SERIES II.

ABNORMAL CONDITIONS OF THE LIMBS.

CLASS I.—VARIATION.

(b.) *In the Digits.*

3499a. A Supernumerary Fifth Toe. The base presents three articular facets, each covered with cartilage. 1885

Presented by A. Lyndon, Esq.

3499b. Two Symmetrical Supernumerary Little Fingers, removed from a child, five days old. Each finger was attached by a slender pedicle, and each is provided with a rudimentary finger-nail. Both fingers are malformed. There was no history of any other member of the family having an extra digit. 1886

Presented by A. M. Gledden, Esq.

3499c. A Supernumerary Little Finger, removed from a newly-born child. It was attached by a slender pedicle to the junction of the second and third phalanges. As a result of placing the preparation in spirit, the epidermis has shrunk away from the corium. A section into the mass shows the three small masses of cartilage which represent the phalanges. 1887

Presented by E. Evans, Esq.

3499d. The Hands and Feet of a child, with supernumerary Digits. Each of the hands has five fingers in addition to the thumb, the nail of which in both hands is bifid. A partial division can also be traced down the whole length of the thumb; this is most marked in the left hand. The fifth finger appears to have a metacarpal bone, and a proper and separate articulation with the carpus.

A similar deformity also exists in the feet, there being a well-formed and well-articulated fifth toe in addition to the hallux. This digit, like the thumb, shows a partial division through its whole length, especially on the right side, and has a bifid nail. 1891

From a full-time well-grown child, who only lived thirty hours. In addition to a hair-lip, it had some deformity of the tongue which prevented the child from sucking. No history of extra digits in other members of the family could be obtained.

Presented by J. H. Gilbertson, Esq.

(c.) In the Pelvic Girdle.

- 3500a. An Os Innominatum. No round ligament existed in either hip-joint; and in place of the usual attachment of the ligament to the head of the femur an elevation of bone existed; in all other respects the bones appear natural. It is believed that the absence of the ligaments was congenital.

A. 155. 1885

[Case in top gallery.]

CLASS V.—ARREST OF DEVELOPMENT.

- 3508a. A Leg and Foot. The tibia is congenitally absent. The fibula articulates with the outer and anterior aspect of the external condyle of the femur, its head being received into a depression lined by articular cartilage and provided with a distinct synovial cavity which was continuous with that extending between the condyles beneath the patella. Both the external and internal semilunar cartilages were present, and were invested with synovial membrane. The foot is in a condition of extreme talipes equino-valgus.

1885

See *Darker Ward Book*, vol. ix. (1883), p. 108.*(b.) Talipes.*

- 3509a. The Right Foot of a New-born Infant, disarticulated to show the modifications undergone by the bones in a case of congenital talipes varus. In the astragalus the trochlear surface is extended backwards nearly as far as the posterior edge of the lower articular surface, whilst its neck is lengthened and directed inwards with an unnatural obliquity. The articular surface of its head is prolonged on its inner side, and instead of being uniformly convex, it is divided into two parts, the planes of which meet at an obtuse angle. The inner and larger corresponds with the scaphoid, whilst the outer portion, which looks forwards, is unopposed, owing to the displacement which the bone has undergone. The internal malleolar facet is much smaller than usual. In the calcaneum a considerable portion of the upper posterior facet was uncovered, and was marked off from the rest by a low ridge. It articulated with the posterior border of the external malleolus. The inner portion of the posterior facet was continuous with that of the sustentaculum tali. The plane of the cuboidal facet is directed unnaturally inwards, and its outer border is less prominent than usual.

1887

- 3509b. The Left Foot of the Fœtus from which the preceding specimen was obtained. It has not been disarticulated, but, so far as can be seen, the tarsal bones show the same modifications as in the last specimen.

1887

- 3509c. The Right Foot from a case of Talipes Equino-varus. The bones are disarticulated, to show the various changes which they have undergone. These changes are nearly identical with those already described as occurring in No. 3509a.

1887

- 3509d. The Left Foot, from the same case as the preceding. The tendon of the tibialis posticus is seen to occupy the position which is common in this deformity.

1887

- 3509e. The Left Foot and Leg of a child affected with congenital talipes varus. When the body is placed in the erect position, the inner side of the foot is drawn

up, so that the outer border of the fifth metatarsal bone along its whole extent is in contact with the ground. The muscles appear to be well developed and of normal size. The tendon of the tibialis anticus is unduly prominent, and is shorter than natural; it raises the anterior annular ligament into a ridge at the point where it passes beneath it. The tendons of the peronei muscles are displaced slightly backwards from their natural groove on the outer surface of the os calcis. The tendon of the extensor proprius pollicis is somewhat more prominent than usual, as it passes over the dorsum of the foot, but the extensor longus is natural. 1889

From a child, aged four weeks, who had congenital talipes calcaneus of the right foot and a spina bifida.

- 3509f. The Right Foot and Leg of a child affected with congenital talipes calcaneus. The foot forms an acute angle with the leg, and in the fullest extension cannot be carried beyond a right angle. When the body is placed in a standing position, the heel alone comes into contact with the ground, the toes being raised, and the sole pointed somewhat forwards. There is, however, no flattening of the back of the os calcis, owing, no doubt, to the fact that the child had never learnt to walk. All the toes are flexed upon themselves at their metatarso-phalangeal joints. On extending the foot, the tendons of the tibialis anticus and extensor proprius pollicis become more tense than the tendon of the extensor longus digitorum. The tendo-achillis is well developed, but the gastrocnemius and soleus muscles are so small that the back of the leg has a flattened or almost concave appearance. The peronei muscles and tendons are large. 1889

From the same patient as the preceding.

- 3512a. A Wedge-shaped Piece of Bone, removed from the tarsus in a case of confirmed talipes equino varus. 1884

A cast of the foot before the operation is preserved in No. 85c.

- 3512b. The Head and a Portion of the Neck of the Right Astragalus, removed for the relief of talipes equino-varus. The bone has the deformity which is usual in such cases. 1888

From a girl, aged nine, who had congenital talipes equino-varus. The bones were pegged together after the removal of the astragalus, and the patient made a good recovery.

See *Female Surgical Register*, vol. iii. (1888), No. 2440*.

CLASS VI.—MALFORMATION FROM DISEASE (NOT CONGENITAL).

- 3514a. The Right Foot and Leg, affected with talipes equino-varus, cavus, and hammer-toes. The foot is drawn upwards, and is turned somewhat inwards, whilst the toes are bent in a characteristic manner. The extensor muscles appear to be well developed, and have not undergone any degenerative changes. The tendons of the extensor longus digitorum, of the extensor proprius hallucis, and of the tibialis anticus are, however, somewhat tightly stretched, as if these muscles had been shortened. The first phalanx of each toe is drawn towards the dorsum of the foot, whilst the distal phalanges are strongly flexed. In the hallux, as is usual in these cases, the unguis phalanx is alone bent. The tendo-achillis is much shortened, and stands out sharply defined at a considerable distance from the back of the tibia. The heel is dragged upwards by the shortening of the tendo-achillis, so as to draw the foot into a condition of talipes equinus. The plantar fascia was so thin as to be practically absent, but all the muscles, including the interossei, are well developed.

The twist of the foot inwards has caused the abductor hallucis to assume a more lateral attachment, so that its main origin is from the external annular ligament, a slip of muscle only passing backwards to the inner tuberosity of the os calcis. This alteration in the axis of the foot leaves a gap between the contiguous sides of the abductor pollicis and the flexor brevis digitorum, in which can be seen the flexor longus pollicis tendon as far back as the point where it is crossed by the flexor longus digitorum. Microscopical examination of the anterior and posterior tibial nerves failed to show that they had undergone any degenerative changes. 1888

From a boy, aged 14, who had old disease of the right knee, with double talipes equinovarus, cavus, and clawed toes. The trouble with his feet was said to have begun when he was six years old. He then went to Charing Cross Hospital, where the plantar fascia was divided, the feet being put up in splints. On admission to the Hospital, both feet were in a condition of talipes cavus, flexed slightly inwards, with some equinus. The flexion of both feet inwards at the mid-tarsal joint is accompanied by partial dislocation backwards of all the toes at the metatarsal-phalangeal joints. This dislocation is especially marked in the great-toes. There was much wasting of the right leg.

See *Male Surgical Register*, vol. iii. (1887), No. 1538.

3514b. Portion of a Foot in which the fourth toe is in a condition of "hammer-toe." The muscles and tendons have all been dissected away, to show that the deformity is dependent upon alterations in the glenoid ligament, and in the fibres of the lateral ligaments which approach the glenoid. 1889

Presented by W. J. Walsham, Esq.

SERIES III.

ABNORMAL CONDITIONS OF THE OSSEOUS AND MUSCULAR SYSTEMS.

CLASS I.—VARIATION.

3518b. The Hyoid and portions of the Temporal Bones from a human skull, showing the almost complete ossification of the stylo-hyoid ligaments on both sides. The ossified ligaments are divided into segments, the segments being united by joints enclosed in synovial membranes. 1886

Presented by S. T. Pruen, M.D.

3519a. Two Contiguous Vertebrae from the mid-dorsal region of an adult female. The vertebrae are united by the bony ankylosis of their bodies, laminae and transverse processes. The union is so smooth and complete, that it probably occurred during infancy or intra-uterine life. 1887

3522a. Skull of an adult European. The right half of the atlas is firmly ossified to the occipital condyle. 1885

[Case in top gallery.]

Presented by E. J. Woodward, Esq., per Sir Dyce Duckworth, M.D.

3522b. An adult Skull, to which the first cervical vertebra is inseparably united. The union is bony at every part, except at a small space in the median line anteriorly, and at the apertures through which passed the vertebral arteries and sub-occipital nerves. The bone uniting them is so healthy and smoothly continuous with the adjacent surfaces that it may be assumed the union was accomplished before birth. The sutures between the pre-maxillary and superior maxillary bones are not closed. A. 152. 1886

3524a. Bony nodules in the lineae transversae. The small nodules appear to represent rudimentary abdominal ribs. 1885

For further details see a paper by C. B. Lockwood, Esq., in the *Transactions of the Pathological Society*, vol. xxxvi. (1885), p. 359.

3524b. A Congenital Tumour, removed from the back of a boy, aged nine years. It was situated over the spine of the seventh dorsal vertebra, and was firmly connected with it and with the spines of the two neighbouring vertebrae. It measures two inches in length, and is divided into lobes corresponding with the vertebrae to which it was attached. It is apparently mesoblastic in origin, for it contains cartilage, gelatinous tissue, fibrous tissue, and muscle. 1886

A section is preserved in Series lv., No. 703.

See *Male Surgical Register*, vol. iii. (1886), No. 952.

A HIP-JOINT WITH ABSENCE OF THE ACETABULAR MARGIN.

- 3524c. A Microcephalic Fœtus. In addition to the diminution in size of the brain, the spinal cord is small, and the specimen presents the following abnormalities :— The hands and feet are clubbed and the spine is curved ; there is a defect of the right eye, stiffness of both knees, and an absence of the margin of the acetabulum. 1887

See *Transactions of the Pathological Society*, vol. xxxviii., p. 303, Case i.

Presented by C. B. Lockwood, Esq.

- 3524d. Absence of the Margin of the Acetabulum, with displacement of the head of the femur.

A fœtus, presenting the above deformity, and, in addition, ectopion of the abdomen and an abnormality of the hands. The elbows are dislocated and the knees are over-extended. The fœtus lay with its legs firmly flexed upon the abdomen. 1887

See *Transactions of the Pathological Society*, vol. xxxviii., p. 305, Case ii.

Presented by C. B. Lockwood, Esq.

- 3524e. A Hand Dissected, to show certain Abnormalities of the Muscles. The flexor sublimis digitorum divides as usual into four tendons ; of these, the outermost again becomes muscular, and from the muscular portion a slip is given off to be inserted into the base of the first metacarpal bone upon its flexor aspect. The first lumbrical muscle is well developed, and has its usual attachments. 1888

From the Dissecting-rooms.

Presented by E. W. Gurney Masterman, Esq.

SERIES IV.

ABNORMAL CONDITIONS OF THE VASCULAR SYSTEM.

(I.) OF THE BLOOD-VESSELS.

CLASS I.—VARIATION.

3525a. The Arch of the Aorta, giving off its branches in the following order—(1) The right common carotid, (2) the left common carotid, (3) the left subclavian, and (4) the right subclavian. The right common carotid passes obliquely across the trachea immediately above its bifurcation, whilst the right subclavian arises from the back part of the descending portion of the arch, and passes behind the two large bronchi just after the trachea has bifurcated. 1888

3528a. The Arch of the Aorta, giving off an extra branch, viz., the left vertebral. The vessels arise in the following order—(1) The innominate artery, dividing as usual into the right subclavian and right common carotid arteries, (2) the left common carotid, (3) the left vertebral, and (4) the left subclavian artery. 1886

From the Dissecting-rooms.

Presented by H. E. Knight, Esq.

3528b. The Arch of the Aorta, from which four main trunks are given off. The abnormal vessel is the left vertebral, which arises from the transverse part of the aorta between the left common carotid and the left subclavian arteries. It passed through the foramen in the sixth cervical vertebra, and pursued the usual course. The arch of the aorta is somewhat more abruptly curved than usual. 1888

From the Dissecting-rooms.

RIGHT AORTIC ARCH.

3535a. Dissection of a Fœtus, showing a right aorta given off from a heart naturally placed and of apparently normal formation. The several branches given off from the arch are as follows :—1st, The left carotid, which follows the usual course ; 2nd, right carotid, so closely applied to the former that they almost arise from a common trunk ; 3rd, the right subclavian ; 4th, the left subclavian, which is given off from the third portion of the aortic arch, and passes behind the trachea and œsophagus to get to its natural position on the first rib behind the scalenus anticus muscle. The veins in relation to these parts are quite normal. On the left side, the recurrent laryngeal nerve is looped around the ductus arteriosus from behind forwards, and passes to its usual supply. On the right side the recurrent laryngeal passes

around the arch of the aorta, and also passes up in its usual course with regard to the muscle supply of the larynx. All other structures in this part seem to be fairly normal. The aorta descends, gradually inclining to the middle line of the spine, and enters the abdomen upon the second lumbar vertebra. Of the branches of the abdominal aorta, the renal supply upon the right side is made up of four distinct large vessels. Upon the left there are three large branches given off from the cœliac axis. The aorta divides into the common iliacs upon the fourth lumbar vertebra. 1884

Dissected and presented by Reginald H. Combes and Cecil Christopherson.

A more complete description and comments upon this case is to be found in the *Hospital Reports* for 1884, vol. xx., p. 269.

3537a. A Portion of the Abdominal Aorta, with the Right Kidney. The vessel gives off two large arteries to the kidney, of which the lower divides into two before it enters the organ. 1888

From a subject brought for dissection.

Presented by C. S. Woodd, Esq.

CLASS II.—OF THE HEART.

(A.)—IN THE VALVES OF THE HEART.

SUB-CLASS II.—ABNORMAL NUMBER OF THE VALVES.

ACCESSORY AORTIC CUSP.

3585a. A Portion of the Heart and Aorta of a woman, aged sixty-two. The aortic valves are thickened, but competent. There are four cusps, the additional one being very small, but perfect, as it possesses a lunule and its own corpus Arantii. 1889

See *Medical Post-Mortem Register*, vol. xiv., p. 330.

3586b. A Similar Specimen, in which the cusps are of nearly equal size, each being somewhat smaller than usual. The lunule of the third cusp is fenestrated on one side. The coronary arteries are given off at the back of two contiguous cusps. 1889

Presented by W. H. B. Brook, M.D., of Lincoln.

3592a. The Heart of a child. It presents an abnormal fibrous band, measuring one inch and three eighths in length. The band commences at the superior vena cava, and passing behind the left auricle, terminates in front of the left auricular appendix. In the vena cava inferior and in the left auricle are depressions corresponding to the external attachments of the band. 1886

See also *Transactions of the Pathological Society*, vol. xxxvii., p. 147.

Presented by C. B. Lockwood, Esq.

CLASS V.—ARREST OF DEVELOPMENT.

3601a. The Heart of a child, aged three years. The right ventricle is greatly hypertrophied, the left being of normal size. The tricuspid and mitral valves are natural. The pulmonary artery is given off normally. At its root the external measurement is barely a quarter of an inch. Internally, the valves are represented by a small cone projecting into the artery, with a perforation at its apex no larger than a

medium-sized pin. The aorta is larger than natural, and measures three-quarters of an inch across at its origin. The valves are normal. The orifice of the aorta communicates freely with both ventricles; it is exactly over a circular orifice at the top of the ventricular septum, about three-quarters of an inch in diameter. The foramen ovale is widely open. 1885

From a child, who, during life, was deeply cyanosed, with general dilatation of the superficial veins. When the heart's action was irregular no murmur could be heard, but when it was beating quietly a systolic murmur was audible, which was most distinct between the left nipple and the sternum. The child died with necrosis of all the tissues of the right cheek, including a small piece of the superior maxilla. The fingers and toes were clubbed.

A drawing is preserved in Series lvii., No. 178, showing the rash of measles modified by cyanosis.

See *Transactions of the Pathological Society*, vol. xxxvi. (1885), p. 176.

3612a. A Malformed Heart, the aorta communicating with both ventricles. The ventricular septum is deficient in its upper part, and the aorta arises over the aperture which is common to both the cavities, chiefly, however, from the right, which, with its auricle, is larger than the left. The pulmonary artery is reduced to a narrow tube, which has no connection with the ventricles, but immediately below its bifurcation it received blood through the enlarged and patent ductus arteriosus. The foramen ovale is incompletely closed; a glass rod has been passed through it. 1887

From a male child, aged sixteen months, who had been cyanosed from birth, the colour becoming deeper when he was cold. On admission, his face, lips, palate and tongue were of a deep blue colour, and a loud systolic murmur was heard over the left base of his heart. The murmur varied greatly in intensity, and was sometimes almost inaudible. Death occurred after removal from the Hospital in a sudden attack of dyspnoea.

Presented by E. P. Furber, Esq.

SERIES V.

ABNORMAL CONDITIONS OF THE BLOOD
GLANDS.

CLASS I.—VARIATION.

3623a. The Liver of a child, aged nine months, which is without any trace of a gall-bladder. The fossa for the gall-bladder is occupied by a rounded ligament. The infant was jaundiced from its birth, and never passed any bile-stained fæces. 1887

Presented by C. A. James, Esq.

SERIES VI.

ABNORMAL CONDITIONS OF THE DIGESTIVE ORGANS.

CLASS I.—VARIATION.

3624a.

(a.) Upper temporary Canine with two fangs.

(b.) Upper temporary second Molar with four fangs.

(c.) Lower temporary second Molar with three fangs.

1884

3624b. A Rudimentary Supernumerary Incisor Tooth, removed from the Pre-maxilla of a child, aged fourteen days, who had a Hare-Lip. 1891

(d.) *Of the Intestines.*

3632a. A case of Undescended Cæcum, from an Anencephalic Fœtus. The sigmoid flexure with the left colon and transverse colon are in their usual position, but the right colon is firmly attached by strong fibrous adhesions to the under-surface of the right lobe of the liver. In other respects the abdominal viscera are normal. The processûs vaginales of the testes have been laid open to show that, although the cæcum has not descended, the testicles are in their proper position. 1887

Presented by C. B. Lockwood, Esq.

3632b. A Congenital Cæcocele, from an infant. The cæcum and vermiform appendix lay in a large funicular peritoneal sac, which descended as far as, but did not communicate with, the tunica vaginalis. The cæcum is entirely covered with peritoneum. There is a strong band of muscular fibres ascending from the back of the testis along the posterior wall of the sac to the cæcum and peritoneum. There is also a considerable band of muscular fibres in the perinæum, running from the external sphincter to the epididymis and back of the testis. 1890

See *Transactions of the Royal Medico-Chirurgical Society*, vol. lxix., p. 479.

Presented by C. B. Lockwood, Esq.

3632c. A Cæcum, with a Portion of the Ileum, to which is attached an abnormally long Vermiform Appendix. This is fixed by a mesentery of its own to the back part of the ileum, and when unravelled measures rather over eight and a half inches in length. It is not dilated at any point, and is pervious throughout. 1892

CLASS V.—ARREST OF DEVELOPMENT.

CONGENITAL INTERRUPTION OF THE ALIMENTARY CANAL AT THE COMMENCEMENT OF THE JEJUNUM.

- 3635b. The Stomach and Intestines of a Newly Born Infant. The stomach is enlarged and considerably distended; the duodenum is much lengthened and enormously distended. At this point the bowel, instead of being continued onwards as the jejunum, is suddenly arrested, and the hypertrophied duodenum, as a result of the great distension to which it has been submitted, passes downwards behind the ascending colon and cæcum into the right iliac fossa, where there is a small opening made before death. At its commencement (marked by a small white rod) the jejunum is very small and collapsed, not being larger than a piece of whipcord; it gradually assumes its usual calibre, and the bowel shows no other abnormality.

1893

The child (a female) was born at about the eighth month. It was fairly well nourished, but there was great hydramnios. It took the breast freely, but as nothing passed per anum the abdomen was opened on the third day. The distended duodenum was opened and stitched to the skin, and a large quantity of partly digested milk, faintly stained by bile, escaped from the opening. The vomiting ceased, but the child died about ten hours after the operation.

Presented by Edward Little, M.D.

CONGENITAL INTERRUPTION OF ALIMENTARY CANAL AT THE COMMENCEMENT OF THE ILEUM.

- 3635c. The Stomach and Intestines of an Infant, in which there is a Congenital Interruption of the Alimentary Canal at about the commencement of the Ileum. As a result, the last six inches of the small intestine above the closed end has become enormously dilated, so that its calibre is considerably greater than that of the stomach. The continuation of the gut after the interruption is marked by a small blue glass-rod.

1893

Presented by C. B. Lockwood, Esq.

- 3638a. Intestines with diverticula. 1884

- 3638b. Diverticulum in small intestine, about three feet from the ileo-cæcal valve. The diverticulum is of unusual size, measuring nearly two inches in length. 1885

- 3638c. A Meckel's Diverticulum. It occurred twenty-five inches from the ileo-cæcal valve. There is a rudimentary mesentery with separate vessels attached to the diverticulum. 1890

From the Dissecting-rooms.

Presented by C. Buttar, M.B.

- 3638d. A Meckel's Diverticulum. It is over three inches in length, but has no mesentery. 1890

- 3638e. A Meckel's Diverticulum of the small intestine of a child who was born with an imperforate rectum. 1891

The rectum is preserved in Series xix., No. 2079c.

Presented by Stephen Paget, Esq.

(b.) Imperforate Anus.

- 3639a. The Rectum and Bladder of a male child with imperforate anus. The rectum terminates about a quarter of an inch above the anus, and is dilated into a sac of considerable size. 1889

From a child, aged five days, upon whom the operation of Littré's colotomy had been performed.

See *Surgical Post-Mortem Book* for 1888, p. 41.

CONGENITAL DEFICIENCY OF ŒSOPHAGUS WITH IMPERFORATE RECTUM.

3639b. The Alimentary Canal of a full-term Male Infant, in which there is a congenital deficiency of the Œsophagus. The pharynx, which is laid open from behind, ends blindly in a pouch of greater calibre than a normal Œsophagus at a point one inch below the opening of the larynx. The stomach and intestines are well developed. That part of the Œsophagus immediately above the stomach is also well developed, and measures two inches in length. Above this point it is attached to, and communicates directly with, the trachea at the bifurcation. In addition, the rectum is imperforate; it lies on the right side of the pelvis, and together with the sigmoid flexure and the rest of the large intestine is greatly distended with meconium. The kidneys have been laid open; the pelves and ureters of both are dilated, due, no doubt, to the pressure of the distended rectum. (*Cf.* specimen No. 2373a). 1893

The child lived two days. He was the subject of other congenital deformities, viz., a patent septum ventriculorum and absence of the right radius.

See *Surgical Post-Mortem Register*, 1890, p. 114.

3640a. The Rectum and Urino-genital Organs of a male infant. The anus is imperforate. The rectum opens by a small aperture, through which a black bristle has been passed, into the prostatic portion of the urethra immediately upon the left side of the verumontanum. The situation of the anus is marked by a small papilla in front of the upper portion of the bristle. 1886

From a child, aged 23 days. Lumbar colotomy was performed three weeks before death.

Presented by Lovell Drage, M.D.

3640b. The Rectum and Urino-genital Organs, from a newly-born female child. The anus is imperforate; the rectum opens by a large aperture into the posterior wall of the vagina below the situation of the hymen. Through this opening a glass rod has been passed. The other organs are natural. 1886

The two preceding specimens were shown before the Pathological Society during the Session 1886-87.

3647a. Imperforate Anus. 1884

3648a. The Dried Rectum and Sigmoid Flexure from a Girl, aged ten years, who had an imperforate anus. Colotomy had been performed on the left side immediately after birth. The whole intestine is greatly dilated, but below the colotomy wound it is distended into an enormous *cul de sac*, which, in the fresh condition, held a quart of fluid. At the end of the *cul de sac* is a small shrivelled portion which represents the connective tissue which intervened between the termination of the intestine and the anus. 1888

[In the wall case in the north side of the top gallery.]

Presented by W. Marrant Baker, Esq.

SERIES VII.

ABNORMAL CONDITIONS OF THE URINARY ORGANS.

CLASS I.—VARIATION.

(a.) *Of the Kidney.*

FLOATING KIDNEY.

- 3649a. The Kidney and Supra-renal Capsule connected by a very long and wide mesentery ; the position of the abdominal aorta shows the extent of its attachment. 1889

From a man, aged 68, who was admitted to the Hospital with a strangulated femoral hernia.

See *Male Surgical Register*, vol. v. (1887), No. 3858*.

- 3651a. A Horse-shoe Kidney. 1885

- 3651b. Kidneys united at their lower ends by a broad band of renal substance, so as to form a continuous mass, shaped like a horse-shoe. Each lateral half has a pelvis ; the median portion has none. There are two ureters, which empty themselves into an unusually small bladder. The aorta gives off three renal arteries, two of which supply the left side of the renal mass, whilst one enters the right ; there are two renal veins. 1889

From a man, aged 19 years, who died of phthisis.

See *Medical Post-Mortem Register*, vol. xiv., p. 105.

- 3660a. A Malformed Kidney, resulting from the fusion of the two organs. The arterial supply remains distinct, and there are two ureters. 1885

- 3660b. A single Kidney, situated lower than the usual position, as it lies between the two common iliac arteries. The kidney possesses two ureters. It derives its arterial supply from a branch of the arteria sacra media. The aorta is extensively diseased. 1885

- 3660c. A Congenitally Misplaced Kidney. It was situated in front of the promontory of the sacrum, where it lay embedded in cellular tissue. The inter-vertebral cartilage, which separated the sacrum from the last lumbar vertebra, was laid bare when the organ was removed after death. The kidney is shorter and thicker than natural, and is curved to adapt itself to its position. The hilum is situated on its abdominal surface. 1888

From a medical man, aged 25, who had long noticed a mass in the lower part of his abdomen, which caused pain, and gave rise, as he thought, to severe constipation. The mass was supposed to be a collection of tubercular mesenteric glands. The presence of the tumour so preyed upon the patient's mind that he committed suicide. At the post-mortem examination the left kidney occupied the normal position. It was decidedly larger than usual, but had every appearance of being perfectly healthy.

Presented by T. S. Ellis, Esq.

3661a. A Bladder, with the Ureters and Kidney. The right kidney has two complete ureters, which open into the bladder by separate orifices. The left kidney and ureter were normal. A longitudinal section of the right kidney shows that the upper ureter is connected with a portion of the renal substance, which is separated by a thin layer of fibrous tissue from the inferior part of the gland. It, therefore, appears probable that the apparently single kidney is composed of two separate parts which have not completely fused. 1888

3663b. A Kidney with five ureters. After a short course the ureters converge and unite to form a single tube of the normal size. 1884

Presented by W. S. Richmond, Esq.

CLASS V.—ARREST OF DEVELOPMENT.

3666a. The Kidneys, from a woman, aged thirty. The right kidney is congenitally atrophied. It measures two inches in length, and only weighs 160 grains, whilst the left kidney is larger and heavier than usual. From the size of the pelvis and ureter, however, and from the healthy condition of the parenchyma of the atrophied kidney, it appears as if the organ had never been entirely functionless. 1887

(b.) *Of the Bladder. Extroversion of the Bladder.*

3668a. The Soft Parts, consisting of the mucous membrane of the bladder, the penis, scrotum, anus, and surrounding skin of a man, over sixty years of age, who had extroversion of the bladder.

On the anterior aspect, and near the centre of the specimen, is a fungating villous mass, consisting of the hypertrophied mucous membrane of the bladder. It is roughly oval in shape, and measures three inches in a transverse, and two inches in its vertical diameter; at the lower part of this mass, and rather to the right of the middle line, two green glass rods mark the opening of the ureters. Below this is a short and stumpy penis in a condition of complete epispadias. The mucous membrane of the glans is normal, but the skin of the rest of the penis is thickened, and the papillæ are hypertrophied from the constant irritation of the decomposing urine. The skin immediately below the penis is in a similar condition, as is also that of the flattened and divided scrotum, but to a less extent. The scrotum is ill-defined, and consists of two oval eminences, each of which contains a well-formed testis, but these, as can be seen from behind, are widely separated. There is an inguinal hernia on each side, the sac on the right side descending only into the upper or funicular portion of the tunica vaginalis, that on the left descending into the cavity of the tunica vaginalis itself.

The following structures are seen from behind. The edge of the great omentum is adherent to the front abdominal wall at the point where the peritoneum is reflected backwards. The two kidneys and ureters (A) are normal. Below the termination of the latter is an eminence, which is the misplaced prostate. On it the vasa deferentia (B) terminate, and below, and to the outer side of these, are the vesiculæ seminales (C). The last two or three inches of the rectum, which was large and capacious, show great hypertrophy of the special muscles, viz., the external sphincter and levator ani. The end of the descending colon and commencement of the sigmoid flexure are also seen. 1890

From a man of whom the following history was obtained. That he was admitted into a workhouse infirmary when he was 21 years of age, and that he lived there for over forty years. Owing to the extreme unpleasantness caused by the decomposition of the urine, he lived alone in a small cottage, which was specially built for him within the workhouse grounds. He had complete control over the sphincter ani. He suffered much from muscular rheumatism, especially during the latter part of his life.

The pelvis is preserved in Series xlvii., No. 3104c.

Presented by Lovell Drage, M.D.

SERIES VIII.

ABNORMAL CONDITIONS OF THE GENERATIVE ORGANS.

CLASS V.—ARREST OF DEVELOPMENT.

3670a. The Testes, Scrotum, and Perineum from a Cryptorchid. In the left testicle there is a failure of attachment of the gubernaculum to the testicle and epididymis. The muscle, instead of being attached to these organs, spreads out, and terminates in a broad layer of peritoneum, which lay free in the peritoneal sac. The right testicle, which forms the upper specimen, is normal, except that the gland and epididymis seem longer than usual. The fibres of the gubernaculum pass up behind the testicle into the plica vascularis. The penis and scrotum show the undeveloped state of the latter, and the great apparent length of the perineum, which results from this condition. So far as could be ascertained, the lower attachments of the gubernaculum were normal, and on each side the processus vaginalis was about half an inch in length. 1887

Presented by C. B. Lockwood, Esq.

CONGENITAL ABSENCE OF THE EXTERNAL GENITAL ORGANS AND ANUS.

3670b. A Three Months' Embryo, showing the small intestine and colon contained in an omental sac which has been slit open. The lower end of the sac is adherent to the anterior abdominal wall, just above the bladder, close to the umbilicus. One of the intestinal coils seems to blend with the abdominal wall in the same place. The testicles lie immediately above the inguinal ring, and appear to be normal. There is no trace of a penis, but there are two slight elevations marking the site of the two halves of the scrotum. The anus is completely absent, and it is uncertain whether there are any apertures which could give exit to the urine or fæces. 1887

Prepared and presented by C. B. Lockwood, Esq.

3670c. An Undescended Testicle, from a youth, aged eighteen years. The processus vaginalis had advanced three and a half inches beyond the testicle, which lay on the iliacus, and an inch beyond the external ring. The vas deferens has been dragged down to within an inch of the lower end of the processus vaginalis, and loops back again to the epididymis. A strong band of muscular fibres, under which a brown rod has been passed, is attached to the extremity of the loop, and can be traced upwards beyond the epididymis to the peritoneum lining the iliac fossa. Other striped muscular fibres, which represent the ascending cremaster, pass upwards from the abdominal wall along the processus vaginalis to the epididymis. A thin blue rod is placed under these fibres. 1888

Presented by C. B. Lockwood, Esq.

- 3671a. Testis, showing a fibrous body attached to the middle and under surface of the hydatid of Morgagni; it is white and glistening, hard to the touch, and firmly fixed. Some of its fibres can be traced to the root of the corpus Morgagni. The body appears to be the remains of that part of the Wolffian body which, in the embryo, lies between Müller's duct and the upper body of the testis. To the other testicle a similar body was attached. 1884

For an account of this specimen see also the *Journal of Anatomy and Physiology*, vol. xvii., p. 538.

Presented by W. S. Richmond, Esq.

(b.) *In the Female.*

- 3673a. An Uterus Bicorporeus, with single cervix. 1885

From a patient, aged 40, mother of ten children.

Further details and plate will be found in the *Obstetrical Society's Transactions*, vol. xxvi. (1884), p. 184.

Presented by J. Matthews Duncan, M.D., F.R.S.

- 3673b. Deciduous fleshy substance, whole at the time of expulsion, which took place thirty hours after delivery of the patient whose uterus is preserved in the preceding specimen. 1885

A similar substance had been voided at each of the eight previous labours.

UTERUS UNICORPOREUS ET VAGINA DUPLEX.

- 3673c. An Uterus, with its Appendages. The upper part of the vagina is divided by an antero-posterior septum into two channels of nearly equal capacity. The mucous membrane is continuous on both sides of the septum with that lining the rest of the two vaginae. At the upper part of the vaginal cavities the septum stops abruptly; there is only one cervix and one os.

Both sides of the broad ligament are studded with small nodular, more or less pedunculated growths, and the ovaries are involved and affected in a similar way. Microscopical examination showed these to be carcinomatous in character, probably arising in the ovaries. Other portions of the peritoneum, especially that covering the under surface of the liver (see Series xvi., No. 1886d) were also extensively involved. 1892

The patient was a girl, aged 15.

Microscopical sections of the carcinomatous nodules are preserved in Series lv., No. 241a.

See *Medical Post-Mortem Register*, vol. xvii., p. 280.

UTERUS WITH RUDIMENTARY RIGHT CORNU.

- 3674a. An Uterus, the right cornu of which is rudimentary and solid, and is united to the middle of the right border of the well-developed left cornu. The right round ligament, ovarian ligament, and Fallopian tube are attached to the apex of the ill-developed cornu. The left Fallopian tube, ovary, and round ligament are attached to the apex of the left cornu. 1890

SERIES IX.

ABNORMAL CONDITIONS OF THE ORGANS OF SPECIAL SENSE.

CLASS I.—VARIATION.

(a.) *The Ear.*

3682a. Super-numerary Auricles, removed from a male child, aged six months. The auricles appear to be developed round the mandibular and hyo-mandibular clefts. They were arranged as follows:—In a line from the angle of the mouth to the external auditory meatus was (A) a small nodule of the size of a pea; it had a narrow peduncle and was soft, and so far as could be ascertained, without making a microscopical examination, it did not contain any cartilage. (B) A firmer and rather larger growth, globular in shape and with a longer peduncle than (A). These growths appeared to be mandibular in origin.

The other three growths were hyo-mandibular, and were situated in the neighbourhood of the tragus. (i.) The first was in the position of a normal tragus; it had a long rounded cartilaginous and ridge-like stalk. It extended along the anterior wall of, and projected into, the external auditory meatus. Its extremity was globular, freely projecting, smooth, rounded, and cartilage-containing. (ii.) and (iii.) These two auricles were confluent, the upper globular and the more prominent, the lower ridge-like, very prominent, and extending towards (i.). Both these growths are a little above the level of the tragus; both contain cartilage, and possess in common a laterally flattened ridge-like base.

The rest of the right pinna was well formed. There were no deformities of the left pinna, and no fistulae through either. There were no branchial clefts, and no deformities were found. 1889

From a first-born child, aged six months. No deformities were known to occur congenitally in the family on either side. He made a good recovery after the removal of the super-numerary auricles.

A photograph is preserved in Series xxxviii., No. 1339.

See *Male Surgical Register*, vol. v. (1889), No. 1008.

ANATOMICAL AND PHYSIOLOGICAL CATALOGUE.

SERIES I.

- 3a. Two masses of impure Cholesterin obtained from the mammary gland of a bitch. 1884

Presented by W. S. Church, M.D.

SERIES II.

THE BLOOD.

- 10a. A specimen of Frog's Blood, mounted for microscopical examination, to show the characteristic features of the blood of the Ichthyopsida. 1886
- 10b. A microscopical preparation of the oval nucleated Blood Corpuscles of a reptile. 1886

THE BLOOD AND OTHER FLUIDS.

- 18a. A Clot of Blood, in the formation of which the red corpuscles sank below the surface before the fibrin coagulated. A layer of fibrin has thus coagulated on the surface of the clot without any admixture of red corpuscles, forming a white or "buffy" coat on the top of the dark clot. The contraction of this portion of the coagulated fibrin not being hindered, as that in the dark part of the clot was, by red corpuscles embedded in it, its margins are drawn towards its centre, puckered, and incurved, giving a "cupped" appearance to the clot. 1889
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SERIES VII.

THE TEETH.

- 135a. The Skull of a young Calf, to show the deciduous dentition. 1885
- Presented by Norman Moore, M.D.

SERIES VIII.

THE OSSEOUS SYSTEM.

(A) HUMAN OSTEOLOGY.

- 155a. The Skull of an Adult European woman, upon whose surface is marked out the position of the various convolutions and fissures of the cerebral hemispheres. 1889
Prepared by Edgar Willett, Esq.
- 180a. Calvaria from a dolicho-cephalic skull. 1884
- 197a. A Skull from the Sumali Country, East Africa. It was picked up on a battlefield. 1888
Presented by Archdeacon Fowler, per Norman Moore, M.D.
- 204a. Dried Skull of a New Zealand chief, tattooed. 1885
Presented by George Dunn, Esq.
- 206a. A Papuan Skull, from Friday River, New Guinea. The body from which it was obtained is stated to have formed part of a cannibal feast. 1887
Brought from Australasia, and presented by C. J. Heath, Esq.
- 295a. The First Rib of the Left Side. The costal cartilage has become ossified, and at its point of union with the spinal extremity of the rib the bone has become heaped up in such a manner as to suggest that there had been a fracture at this point. No such fracture, however, had taken place. 1886
- 295b. Section of a Rib in a condition similar to the preceding. The remains of the cartilage are seen to be enclosed in a calcareous coating. 1886
The two preceding specimens were presented by C. B. Lockwood, Esq.
- 296a. Hyoid bone, with the muscles attached to it, viz. :—1. Geniohyoid. 2. Mylohyoid. 3. Omohyoid. 4. Sternohyoid. 5. Thyrohyoid. 6. Stylohyoid. 7. Hyoglossus. 8. Middle constrictor. 9. Geniohyoid. 10. Niticoglossus. 1884
- 321a. Lower portion of the Femur, with the synovial membrane covering it, to show the insertion of the subcrureus muscle. 1884
Prepared and dissected by J. W. Cockerill, Esq.

(B.) OSTEOLOGY OF ANIMALS.

I.—SKELETONS.

GROUP I.

ICHTHYOPSIDA.

CLASS I.—PISCES.

- 323a. Rock-Fish (*Chætodon*). c. 64. 1886
- 323b. Skin and Dermal Bones of a Porcupine Fish (*Diodon punctatus*). c. 13. 1886
Presented by Lucas Hooper, Esq.
- 326a. Sun-Fish (*Ostracion bicaudalis*). c. 18. 1886
Presented by Mr. Delamotte and Dr. Furnell.
- 331a. Disarticulated Skull of a Cod (*Gadus morrhua*). 1885
[In Comparative Osteology Case, first gallery.]
Presented by the Rev. E. C. Russell, M.A.

CLASS II.—AMPHIBIA.

- 339a. Disarticulated Skeleton of a Frog (*Rana esculenta*), stained in carmine to differentiate the bones developed in membrane from those developed in cartilage. 1884
Prepared and presented by D'Arcy Power, Esq.

GROUP II.

SAUROPSIDA.

CLASS I.—REPTILIA.

- 344a. Chameleon (*Chamæleon Vulgaris*). c. 57. 1886
- 350a. Skeleton of a West Indian Crocodile (*Crocodilus acutus*). 28, 294. 1886

CLASS II.—AVES.

- 355a. Half the Skeleton of a Pigeon. 1885
[In Comparative Osteology Case, first gallery.]
Presented by the Rev. E. C. Russell, M.A.

II.—SKULLS.

GROUP III.

MAMMALIA.

- 386a. The Skull of an adult Hippopotamus. 1816
The characteristic features are: (1). The almost complete and tubular orbits. (2). The union, for a considerable extent, of the nasals and premaxillæ. (3). The long bony palate. (4). The massive mandible with its angle produced backwards.
Presented by F. A. Arnold, Esq.

386b. The Skull and Skeleton of an adult Hippopotamus (disarticulated).

[In the drawers of the first gallery].

Presented by E. P. Paton, M.D.

397a. The Os Penis of a Walrus. 28, 173. 1885

397b. Sections of the Os Penis of a Walrus (*Trichecus Rosmarus*). 28, 174. 1885

GROUP II.—SAUROPSIDA. CLASS II.—AVES.

451a. Head of an Australian Lorie (*Platycercus scapulatus*), showing the moveable upper jaw. 1889

Presented by D'Arcy Power, Esq.

GROUP III.—MAMMALIA. CLASS III.—MONODELPHIA.

482a. Skull of a Sheep with horns. 1884

Presented by S. C. K. Moberly, Esq.

487a. The Skull and Hyoid of a Fœtal Calf, about two and a half months from impregnation of the ovum. 1887

Presented by Mr. Whitehead.

534a. Transverse Sections through the Skull of a Rabbit. 1885

Presented by the Rev. E. C. Russell, M.A.

III.—LIMBS AND LIMB-ARCHES.

GROUP III.—MAMMALIA.

615a. The Right Humerus of a Rhinoceros, found in a cave in North Wales. 1886

Presented by Mrs. G. C. Haseler, per H. E. Whitehead, Esq.

SUB-KINGDOM VII.—THE VERTEBRATA.

BRANCH A.—UROCHORDA.—TUNICATA.

CLASS II.—SACCATA. ORDER I.—ASCIDIÆ.

625a. A Simple Ascidian, whose external tunic or test has been laid open to show the body lying in its interior. (*Cf.* Nos. 1565-1568a.) 1888

BRANCH B.—CEPHALOCHORDA.

CLASS III.—LEPTOCARDIA.

625b. *Amphioxus Lanceolatus*, obtained from Naples. (*Cf.* No. 1388). 1888

625c. Transverse Sections through a Lancelet (*Amphioxus lanceolatus*). 1888

[In the Histological Cabinet.]

The three preceding specimens were presented by T. W. Shore, M.D.

GROUP I.—ICHTHYOPSIDA. CLASS I.—PISCES.

625d. A Transverse Section through the Tail of *Petromyzon*, prepared for microscopical examination. 1889

625e. A Transverse Section through the Abdominal Region of *Petromyzon*, prepared for microscopical examination. 1889

The two preceding sections were prepared and presented by T. W. Shore, M.D.

SERIES XIII.

THE STOMACH.

701a. The Stomach of a full-grown *Macropus Paryii*, one of the smaller species of kangaroo. It shows the organ complicated by sacculi, which is characteristic of the poephagous marsupials, and which closely resembles the human colon both in its longitudinal extent, structure, and disposition in the abdomen. 1889

Obtained by purchase.

SERIES XIV.

THE INTESTINAL CANAL.

725a. Intestine of a Spotted Dog-Fish (*Scyllium*), to show the spiral arrangement in its interior. 1884

SERIES XV.

THE LIVER AND GALL-BLADDER.

750a. A Normal Gall-Bladder (Human), which has been turned inside out and distended. It shows well the honeycombed appearance of the mucous membrane.

1890

SERIES XX.

THE ARTERIES AND VEINS.

- 864a. A Right Lower Extremity, with all its principal arteries and veins injected. 18, 61. 1886
- 870a. A Portion of the Sigmoid Flexure and Peritoneum, showing the recurrent branches of the spermatic artery. 1887
Cf. Pathological Series xx., No. 2140e.

SERIES XXIII.

THE BRAIN AND SPINAL CORD.

- 922a. A Horizontal Section through the whole of the Right Cerebral Hemisphere of an adult. The section was taken from a point above the level of the corpus callosum. 1888
- 922b. A Horizontal Section through the Cerebellum. 1888
The two preceding specimens were prepared and presented by Vincent Harris, M.D.
They are preserved in the Cabinet for Microscopical Specimens.

SERIES XXVI.

THE EYE.

1020a. A collection of Histological Preparations of the Lacrymal and Harderian glands of various animals. 1886

[In the Histological Cabinet on the ground floor of the Museum.]
Presented by Henry Power, Esq.

1028a. The Eye of a Greenland Whale (*Balæna mysticetus*). A longitudinal section has been made through the eye and shows the optic nerve as it passes through the numerous layers of the very thick sclerotic. 1892

The whale was taken in lat. $78^{\circ} 40'$ N. and long. 1° E., on May 18th, 1891, by the crew of the s.s. "Hope," of Peterhead.

Presented by A. C. Lindsay, Esq.

SERIES XXVIII.

THE SKIN.

1100a. A Microscopical Section through the Hoof of a Fœtal Calf, six weeks after impregnation of the cow. 1888

Presented by H. E. Whitehead, Esq.

SERIES XXIX.

ORGANS OF GENERATION IN THE MALE: THE TESTICLE, ITS COVERINGS, AND DUCT.

1121a. Transverse Sections of Portions of the Left Spermatic Cord, to show the extent of the pampiniform plexus of veins. The sections were made through the spermatic cord of a seven months' foetus. 1888

No. 1 was cut through the cord just above the testis.

No. 2 was cut on a level with the upper part of the epididymis.

No. 3 was taken through the middle of the spermatic cord.

1121b. A Transverse Section through the Veins of the Left Spermatic Cord, to show the extent of the pampiniform plexus. From a male, aged thirty-five years, who had no varicocele during life. 1888

The two preceding specimens are in the Microscopical Cabinet.

Presented by W. G. Spencer, Esq.

1124a. The Testis and Vas Deferens. The spermatic cord has been dissected in such a manner as to show that four vasa aberrantia are present. 1887

Prepared and presented by H. Stanley, Esq.

1125a. The Os Penis of a Badger. 1890

Presented by G. H. R. Holden, M.D.

1125b. The Os Penis of a Himalayan Bear. 1892

Presented by B. W. Gowing, Esq.

SERIES XXXI.

ORGANS OF GENERATION IN THE FEMALE IN AN UNIMPREGNATED CONDITION.

1159a. One half of a mesial section through the Pelvic Organs of a female child, aged one month. Owing to the small size of the pelvis the bladder is practically an abdominal viscus; the urethra is relatively much longer than normal. 1892

1165a. Uterus and Ovaries with the broad ligaments, to show the parovaria, which are stained with carmine. 1885

1177a. A Vertical Section through the Generative Organs, Bladder, and Rectum of a young female porpoise. 1888

SERIES XXXII.

ORGANS OF GENERATION IN THE FEMALE
DURING OR SHORTLY AFTER PREGNANCY,
WITH SPECIMENS ILLUSTRATING THE
DEVELOPMENT OF THE OVUM.

1196a. An Early Human Ovum, probably of the first month, mounted in glycerine jelly. It consists externally of a thin translucent chorion having villi upon its external surface. They are nearly evenly distributed, the largest measuring about three-sixteenths of an inch in length. A portion of the chorion has been removed, exhibiting a thin translucent membrane within it, which is very much smaller, and is separated from the inner surface of the chorion by a space which was filled with thin fluid. Within the amnion is a small opaque spot, which is less than one-sixteenth of an inch in length, and is presumably the embryo. 1889

Presented by Clement Godson, M.D.

1196b. Two Small Human Ova of the first month. The layer consists of a villous chorion; the smaller one is also covered by chorion, but the villi are extremely minute. The smaller ovum has been laid open. 1889

Presented by Clement Godson, M.D.

1207a. Decidua from the Uterus in the second month of pregnancy. 1884

From a woman who had missed one menstrual period.

Presented by W. S. A. Griffith, M.D.

RUPTURE OF THE UTERUS.

1234a. A Portion of the Posterior Wall of the Uterus of a Primipara, who died on the fourth day after Cæsarian section had been performed in Queen Charlotte's Hospital. The operation was rendered necessary by the contracted condition of the pelvis, and it was done twelve hours after the commencement of active labour. The section is made through the whole length of the uterus, from the fundus to the external os, and is nine inches in length: half an inch above the external os is seen the vaginal insertion. The different characters of the upper thickened portion, measuring six inches in length, and of the lower thin portion, three inches in length, are well seen. The upper retracted portion, measuring from three-quarters to an inch in thickness, is about four times as thick as the lower portion; the line of junction of the two—known as Bandl's ring, or the contraction-ring—is well marked. The internal surface of the upper part is shaggy, with fragments of placenta, whilst the lower part is smooth, and presents, both to the naked eye and under the microscope, all the characters of the cervix, the transition being abrupt at

the ring. In this specimen the contraction ring is identical with the internal os, and the cervix has been stretched to a length of three inches. There is no circular or large sinus at the internal os. 1887

A drawing is preserved in Series xxxviii., No. 1004.

Presented by W. S. A. Griffith, M.D.

1237a. The Cervix and Upper Portion of the Vagina, showing the usual condition of the vaginal portion of the uterus a few days after delivery. It is divided into two parts, the upper of which is the anterior.

The cervical canal is a flattened channel, one inch and a quarter wide. There are numerous small lacerations, one at each end extending to the vaginal attachment.

Death occurred on the seventh day after parturition. 1890

See *Medical Post-Mortem Register*, vol. xvii., p. 6.

1238a. A Section through an Uterus, which is in a condition of subinvolution. 1890

1251a. Umbilical Cord, with an unusually complex knot or series of knots. 1885

Presented by C. B. Gabb, Esq.

1293a. A Portion of a Placenta and of the Membranes. Near the junction of the two is a small raised oval white patch. This is the remains of the umbilical vesicle. There is a slender filament attached to one extremity. 1891

1299a. A Portion of the Placenta and Membranes, showing a velamentous insertion of the cord. About five inches of the cord traverses the membranes before it reaches the edge of the placenta. The vessels of the cord have the usual twisted arrangement in this portion as well as in the free part. The membranes have ruptured by the side of the cord. 1888

Presented by W. S. A. Griffith, M.D.

1299b. A Battledore Placenta. On the foetal surface, near the centre, are two thin-walled flattened oval cysts. 1890

1299c. A Placenta, the vessels of which have been injected, the umbilical arteries with blue, and the vein with red material. The cord is attached at the margin, forming a battledore placenta. The injection, which is seen easily through the three vessels on the foetal surface, is not seen at all on the uterine side. 1891

1307a. An Umbilical Cord of unusual length, but of normal structure. Before it was put into spirit it measured sixty-three inches from the umbilicus to its insertion into the placenta. 1886

Presented by W. Woolcombe, Esq.

1307b. An Umbilical Cord, showing irregular twisting, from a child born at full time. The foetal half of the cord is seen to be much more twisted than the placental portion. The placental extremity is indicated by three styles, which are inserted into the arteries, one of which has already bifurcated. 1887

1308a. The Egg-Case, or Nidamental Capsule of a Shark. 1886

1308b. The Ovisac and Egg of the Common Dogfish (*Scyllium canicula*). The germinal vesicle is just beginning to segment. 1887

Presented by T. W. Shore, M.D.

1311a. The Egg of an Ostrich. c. 50. 1886

1317a. Portion of the Amnion of a Foetal Horse, dried after the injection of its blood-vessels with mercury. 35, 35. 1886

SERIES XXXIV.

DISSECTIONS OF VARIOUS REGIONS OF THE
HUMAN BODY.

1334a. Four frozen sections made through the orbit.

- A. Suspensory ligament of the eye seen from above. The red rod is placed in the lachrymal duct. The section was made a little below the level of the canthi.
- B. Vertical section made through the centre of the cornea and the optic foramen. The wedge-shaped process, which consists of the upper part of the sheath of the rectus and the underneath part of the sheath of the levator palpebræ, is indicated by a blue rod placed between its layers. A red rod is placed inside the capsule of Tenon just above the suspensory ligament. The process which the inferior rectus sends to the inferior oblique is pinned down.
- C. Horizontal section, a little above the level of the canthi. The globe is pulled forward to show the interior of the capsule of Tenon, and the loose areolar tissue, "tunica adventitia," has been left. The blue rods are placed beneath the check ligaments of the internal and external recti.
- D. A vertical section through the centre of the cornea and apex of the orbit. The eye has been pulled out of the capsule of Tenon. The "tunica adventitia" has been removed to show the band of fibres, "intracapsular ligament," which holds the rectus to the wall of the orbit; the muscle, owing to the displacement of the sclerotic, is bent as it passes over the ligament. A blue rod has been placed beneath the slip which the inferior rectus sends to the inferior oblique muscle. 1885

1334b. Two Specimens in long bottle.

Upper.—Part of a frozen section of the orbit. The blue rod is placed beneath the tendinous origin of the external, superior, and internal rectus.

Lower.—Part of an orbit. The red rod is placed beneath the tendon of Zinn.

1885

These specimens illustrate a paper by C. B. Lockwood, Esq., upon "The Anatomy of the Orbit" in the *Journal of Anatomy and Physiology*, vol. xx. (1885), p. 1.

Prepared and presented by C. B. Lockwood, Esq.

1334e. The Back of the Orbit in Coronal Section. The remains of the sclerotic has been pulled out of the capsule of Tenon, to show its relation to the optic nerve.

1887

1334f. A Coronal Section of a Right Orbit. The conjunctiva and capsule of Tenon have been incised round the margin of the cornea, and a piece of blue paper put into the sac of the conjunctiva. The outer attachment of the capsule of Tenon and suspensory ligament may be seen, but the section does not quite divide the inner attachment. The lower part of the capsule of Tenon is thickened by the transverse fibres of the suspensory ligament, and is pierced by the inferior oblique. 1887

1334g. A Sagittal Section through the Right Orbit. The sclerotic has been pulled out of the capsule of Tenon, and the internal rectus and its intra-capsular ligament have been brought into view. The loose cellular tissue about the sclerotic is a portion of the tunica adventitia. 1887

1334h. A Horizontal Section through the Left Orbit. The remains of the eye has been drawn out of the capsule of Tenon to show the intra-capsular ligament of the superior rectus, and also the bend which the muscle makes towards the nose inside the capsule of Tenon. 1887

The four preceding specimens were prepared and presented by C. B. Lockwood, Esq.

1336a. The External and Internal Surface of the Right Hemisphere of a Brain, on which the various centres and motor areas are indicated in different colours. Thus, a black line surrounds the centres for complex movements of the arms and legs. A red line surrounds the centres for movements of the hand and forearm. A blue line surrounds the centre for movements of the face. A green line surrounds the centre for speech. Red crosses indicate the centres for sight. Black crosses indicate the centres for hearing. Blue crosses indicate the centres for smell. 1891

1336b. Dissection of the Left Hemisphere of a Brain on which the motor areas and other localities are indicated. 1892

The numbers and areas are taken, as far as possible, from the diagrams of Professor Ferrier (*Functions of the Brain*, 2nd edition, p. 478).

The Brains of a Monkey, Dog, and Cat are added for comparison.

The explanation of the numbers taken from Professor Ferrier's book is as follows :—

Human Brain (p. 480).

1. Movements of opposite leg and foot, such as are concerned in locomotion.
- 2, 3, and 4. Complex movements of arms and legs (climbing, swimming, &c.).
5. Extension forwards of arm and hand.
6. Movements of hand and forearm in which the biceps is particularly concerned, viz., supination of hand and flexion of forearm.
- 7 and 8. Elevators and depressors of angle of mouth.
- 9 and 10. Movements of lips and tongue (Broca's convolution).
11. Platysma and retraction of angle of mouth.
12. Lateral movements of head and eyes, elevation of eyelids, and dilatation of pupils.
- a, b, c, d.* Movements of fingers and wrist.
- 13 and 13'. Vision.
14. Hearing.

Brain of Monkey (p. 240).

1. Advancement of opposite hind-limb, as in walking.
2. Flexion and outward rotation of the thigh, rotation inwards of the leg, with flexion of the toes.
3. Movements of tail.
4. Adduction, extension, and retraction of opposite arm, and pronation of hand.
5. Extension forwards of the opposite arm.
- a, b, c, d.* Clenching of the fist.
6. Flexion and supination of forearm.
7. Retraction and elevation of angle of the mouth.
8. Elevation of ala of nose and upper lip.
- 9 and 10. Opening of the mouth, with protrusion (9) and retraction (10) of the tongue.
11. Retraction of angles of the mouth.
12. Eyes open widely, pupils dilate, head and eyes turn to opposite side.
- 13 and 13'. Eyes move to opposite side.
14. Pricking of the opposite ear, head and eyes turn to the opposite side, pupils dilate widely.
15. Torsion of the lips and semi-closure of the nostril on the same side.

Brain of Dog (p. 250).

1. Opposite hind-leg advanced.
3. Wagging of the tail.
4. Retraction and adduction of the opposite fore-limb.

5. Elevation of shoulder and extension forwards of the opposite fore-limb.
7. Closure of opposite eye.
8. Retraction and elevation of opposite angle of mouth.
9. Opening of mouth and movements of the tongue.
11. Retraction of angle of mouth.
12. Wide opening of eye, dilatation of pupils with movements of eyeballs and head to opposite side.
13. Movement of eyeballs to opposite side.
14. Sudden retraction of opposite ear.
15. Torsion of nostril on the same side.

Brain of Cat (p. 257).

1. Advance of opposite hind-leg as in walking.
4. Retraction and adduction of the opposite fore-leg.
5. Elevation of shoulder, with flexion of the forearm and paw, and clutching or grasping action of the paw, with protrusion of claws.
7. Elevation of angle of mouth and cheek, with closure of the eye.
8. Retraction and elevation of angle of mouth, with drawing downward and forward of the ear.
9. Opening of mouth and movements of the tongue.
13. Movements of eyeball to opposite side.
14. Pricking of ear, and head and eyes turn to opposite side.
15. Elevation of lip and torsion of the nostril on the same side.
16. Divergence of the lips.

Prepared by Edgar Willett, Esq.

- 1350a. A Dissection of the Human Face, to show the various muscles. 1889

Prepared and presented by Edgar Willett, Esq.

- 1374a. A Dissection of the Dorsal Surface of the Forearm. 1887

Prepared by Edgar Willett, Esq.

- 1382a. A Dissection of the Dorsum of the Foot, showing the Tendons, Vessels, and Nerves. 1892

Dissected by A. E. Cumberbatch, Esq.

- 1387a. A Preparation, to show the parts exposed by Lisfranc's operation of removing the foot at the tarso-metatarsal articulation. Glass rods have been placed in the blood-vessels. 1886

- 1387b. A Preparation to show the parts exposed by Chopart's amputation of the foot at the mid-tarsal joint. Glass rods are placed in the blood-vessels. 1886

- 1387c. A Preparation to show the parts exposed by Pirogoff's amputation of the foot through the calcaneum. Glass rods are placed in the blood-vessels. 1886

- 1387d. A Preparation to show the parts exposed by Syme's amputation of the foot at the ankle. 1886

- 1387e. A Preparation to show the parts exposed in amputating through the leg by Teale's method of rectangular flaps. 1886

The five preceding specimens were prepared and presented by James Berry, Esq.

SERIES XXXV.

MISCELLANEA.

- 1428a. Specimen of Sargasso Weed, from the Atlantic, with its fauna. 1884
Presented by D. Astley Gresswell, Esq.
- 1428b. Horn of a Rhinoceros. c. 28, 1886
Presented by J. Howard, Esq.
- 1428c. Nest of the Manyar Weaver-bird.—*Ploceus manyar* (India). 1886
- 1428d. A Letter, written to Robert Still, Esq., by Mr. Abernethy, detailing some of the symptoms of his dyspeptic attacks. It was found amongst the papers of Dr. Anderson, who died in Hampton in 1859, aged ninety-seven. 1888
Presented by Alfred Willett, Esq.

SERIES XXXVI.

INVERTEBRATA.

SUB-KINGDOM II.—CŒLEENTERATA.

1433a. A specimen of Turkey Sponge, to show the exhalent and inhalent apertures. 1886

From Smyrna.

Presented by W. J. Wordsworth, Esq.

1440a. A Microscopic Specimen of *Campanularia angulata*. 1889

1440b. A Microscopic Specimen of *Plumularia*. 1889

The two preceding specimens were prepared and presented by T. W. Shore, M.D.

1445a. Sections through *Actinia*, a sea-anemone, prepared for microscopical examination. 1889

Presented by T. W. Shore, M.D.

CLASS III.—LUCERNARIDA.

1448a. A Specimen of *Lucernaria*, showing the cup-shaped body, which is attached proximally at its smaller extremity by a hydrorhiza resembling a sucker. The animal is not permanently fixed. Around the margin of the umbrella are tufts of short tentacular processes, and in its centre is a polypite with a quadrangular four-lobed mouth. 1888

Presented by T. W. Shore, M.D.

SUB-KINGDOM III.—ANNULOIDA.

CLASS I.—ECHINODERMATA.

GROUP C.—ASTERIDEA.

1457a. A Specimen of a *Solaster*. The disc is large, and well-marked, and the rays are twelve in number. They are narrow and short, as they are not more than half the diameter of the body in length. 1888

Presented by T. W. Shore, M.D.

GROUP E.—ECHINIDEA.

- 1466a. A Specimen of *Spatangus*. The mouth and anus are both eccentric. The ambulacral regions are not very obvious in the ventral region, but are continued into a well-marked star on the dorsal region. 1889

Presented by T. W. Shore, M.D.

HOLOTHUROIDEA.

- 1468a. An Adult *Synapta*. The animal has a vermiform body, a row of tentacles about the mouth, and five ambulacral lines without pedicles. 1889

- 1468b. Skin of *Synapta*, showing the skeletal elements, consisting of anchor-like bodies attached to perforated plates. 1889

[In the Microscopical Cabinet.]

Presented by T. W. Shore, M.D.

CLASS II.—SCOLECIDA.

VERMES.

- 1469a. Sections of *Distoma hepaticum*, showing the intestinal caeca and the generative glands embedded in the general parenchyma, surrounded by the muscular and ectodermic layers. 1889

[In the Microscopical Cabinet.]

Presented by T. W. Shore, M.D.

- 1470a. Liver Flukes from a Sheep. 1884

- 1471a. A specimen of *Aspidogaster Conchicola*, obtained from the freshwater mussel. 1887

[In the Microscopical Cabinet.]

Presented by D'Arcy Power, Esq.

- 1473a. The Head and a Portion of the Strobila of a *Tænia mediocanellata*. The portion of the worm here preserved measures eight feet in length. It was obtained from the body of a man who died of volvulus, and in whose intestine were found the *Ascaris lumbricoides*, 1488a, and the *Trichocephalus dispar* preserved in 1491a.

- 1474a. *Tænia Solium* (the common tape-worm). The head is supported by pins. By the aid of a simple magnifying-glass two of the suckers can be distinctly seen. The entire scolex measures nineteen feet. It was expelled after a single dose of filix mas. 1888

- 1476a. A Microscopical Preparation of a fertilised Proglottis of *Tænia Solium*, to show the great size of the ovary. 1886

- 1476b. Two Proglottides of the *Tænia Mediocanellata* in the unimpregnated condition, prepared for microscopic examination. 1888

Presented by T. W. Shore, M.D.

- 1479a. Head and Proximal Segments of *Bothriocephalus latus*. The head has a chink-like aperture on either side; there are no hooks or suckers. 1885

- 1483a. Acephalocyst hydatids, rolled up and compressed in the cyst which was formed around them. Between their membranes are half-dried portions of the

secretions of the walls of the cyst. The changes here shown are such as are commonly observed in connection with inflammation of the adventitious cysts formed around hydatids in the liver and other organs. B. 4 A. 1885

- 1483b. A Preparation to show Echinococci, obtained from a hydatid cyst growing in a human liver. 1886

[In the Microscopical Cabinet.]

- 1483c. A Preparation showing Echinococci, obtained from a hydatid cyst occurring in the liver of a pig. The crowns of hooklets are well seen. 1886

[In the Microscopical Cabinet.]

- 1487a. A Series of Transverse Sections through the anterior, middle, and posterior regions of the body of Tetrastemma, a Nemertean worm. 1889

[In the Microscopical Cabinet.]

Presented by T. W. Shore, M.D.

NEMATOIDEA.

- 1488a. An Adult Female *Ascaris lumbricoides*. It was obtained from the body of a man who died of volvulus, and in whose intestines were found the *Tænia mediocanellata* preserved in 1473a, and the *Trichocephalus dispar* 1491a. 1889

- 1488b. Specimens of *Oxyuris vermicularis*, the common thread worm which infests the rectum in children. 1889

- 1490b. *Ascaris Megalocephala*, from the intestines of a horse. 1888

Presented by T. W. Shore, M.D.

- 1490c. Transverse Sections of *Ascaris megalcephala*, stained to show the thickened epidermis and other histological details. The cœlom, or body-cavity, is full of ova. 1889

[In the Microscopical Cabinet.]

Presented by T. W. Shore, M.D.

- 1491a. A Microscopical Preparation of the *Anchylostoma Duodenale*. 1888

A portion of the intestine containing the parasites is preserved in Series xviii., No. 1956a.

- 1491b. The *Trichocephalus dispar*. From the cæcum of a man who died of volvulus. The specimen of *Tænia mediocanellata* preserved in No. 1473a, and a fully developed female *Ascaris lumbricoides*, 1488a, were found in the intestine of the same patient. 1889

[In the Microscopical Cabinet.]

- 1492a. *Filaria Medinensis* (Guinea-worm). The nematoid was extracted entire from the calf of the leg. 1888

Presented by T. Odling, Esq.

- 1493b. A Guinea-worm, *Filaria (Dracunculus) medinensis*, extracted from the leg of a young Hindoo. 1890

The patient was a native of Bombay, which he left seven months before any symptoms were noticed. A brawny swelling then occurred in the calf of his leg, which was poulticed. Suppuration followed, and an incision was made, from which a portion of a guinea-worm, six inches long, was extracted. The wound partially healed, but swelling again occurred, and the present specimen was gradually extracted by being wound round a quill three weeks after the first portion had been removed. No further symptoms occurred.

Presented by F. Claude Evill, Esq.

- 1494a. An unstained Preparation of the Human Biceps, showing the *trichina spiralis* encapsuled, and lying between the muscle fibres. 1886

[In the Microscopical Cabinet.]

SUB-KINGDOM IV.—ANNULOSA.

CLASS I.—GEPHYREA.

- 1495a. A Small Specimen of *Sipunculus*. The worm-like body is seen to be unsegmented, and it has no locomotor appendages. The proboscis is papillated and retractile. The anus is situated quite anteriorly, and on the lateral aspect. 1888
Presented by T. W. Shore, M.D.

CLASS II.—CHÆTOGNATHA.

- 1495b. A Microscopic Preparation of *Sagitta Tricuspidata*, measuring a little more than a quarter of an inch in length. 1888
Presented by T. W. Shore, M.D.
- 1495c. Transverse Sections through the middle region of a *Sipunculus*, prepared for microscopic examination. Numerous ova are seen in the cœlom, or body-cavity. 1889
- 1495d. Transverse Sections through the posterior region of *Sipunculus*, prepared for microscopic examination. 1889
- 1497a. Transverse Sections of *Hirudo Medicinalis*, prepared for examination by the microscope. 1888
- 1500a. Transverse Sections of *Lumbricus Terrestris*, prepared for microscopic examination by staining in cochineal. 1888
- 1501a. Section through the Posterior Portion of *Serpula*, prepared for microscopic examination. 1889
- 1507a. A Parapodium of *Nereis*, showing the tufts of setæ. It is prepared for microscopic examination. 1888

The five preceding specimens were presented by T. W. Shore, M.D.

SUB-KINGDOM ARTHROPODA.

CLASS I.—CRUSTACEA.

- 1515a. *Lepas anatifera*. 1884
Presented by James Andrew, M.D.
- 1519a. *Nebalia*, mounted as a transparent microscopical object. 1889
Presented by T. W. Shore, M.D.
- 1524a. Crayfish (*Astacus fluviatilis*) dissected to show the vascular and sympathetic systems. The somewhat quadrilateral heart is seen lying in its pericardium, and a piece of blue paper is placed beneath the right ophthalmic and antennary arteries. A second piece of blue paper is placed beneath the superior abdominal vessel. Upon the stomach is the azygos nerve, branching at the lower part to form the lateral azygos trunks. 1884
- 1524b. A Crayfish, dissected to show its alimentary and reproductive systems. The stomach, with its muscular cardiac and thinner pyloric portion is seen, and lying

- upon it the median azygos nerve, beneath which a black bristle is placed. The straight intestine terminating at the anus. Beneath the intestine is a piece of black paper; upon it lies the superior abdominal vessel, and into the anus a glass rod has been thrust. Between the pylorus and the heart are seen the tufted hepatic cæca lying upon each side of the intestine so as to conceal it. The coiled tubes are the vasa deferentia, which open on the last pair of walking legs; into the reproductive orifices bristles have been placed; a small portion of one testis is seen on the left-hand side immediately above the coiled tubes. 1884
- 1524c. Mouth-parts of a Crayfish (*Astacus fluviatilis*). 1884
- 1524d. Disarticulated Lobster (*Homarus vulgaris*). 1885
 [In Comparative Anatomy Case on ground floor.]
 Presented by the Rev. E. C. Russell, M.A.
- 1524e. The Chelæ of a Lobster, prepared to show the chitinised tendons of the muscles. 1885
 Presented by the Rev. E. C. Russell, M.A.
- 1528a. A Specimen of Cancer pagurus and its Exuvia, showing the manner in which the exuvial skeleton opens, and the amount of growth at an ecdysis. The ectoderm covering the gills is shed with the whole exoskeleton. 1859
 Presented by T. W. Shore, M.D.
- 1531a. A Brazilian Prawn (*Palæmon Serratus*). 1892
 Presented by J. K. K. Benjamin, Esq.
- 1535b. A Microscopical Preparation of *Acarus scabiei*, the itch insect. 1886

CLASS III.—MYRIAPODA.

- 1537a. *Julus*, mounted as a transparent microscopical object. 1889
 Presented by T. W. Shore, M.D.

CLASS IV.—INSECTA.

- 1538a. A Male and Female Specimen of *Locusta Dux*, preserved in spirit. A black bristle has been inserted into the female genital orifice. 1887
 Presented by S. C. K. Moberly, Esq.
- 1540a. *Locusta Migratorius*, a series of preparations to show the various changes undergone during the development of an ametabolic insect. 1886
 Collected and presented by S. C. K. Moberly, Esq.
- 1540b. *Locusta Migratorius*, in the act of shedding its skin. 1888
 Presented by S. C. K. Moberly, Esq.
- 1541a. A specimen of the Locust *Saga serrata*. 1886
- 1541b. A specimen of an adult female *Locusta caudata* or *viridissima*. 1886
- 1541c. *Thamnotrizon apterus*. 1886
- 1541d. Two specimens of the *Decticus vittatus*. 1886
- 1541e. Two specimens of *Stetheophyma variegata*. 1886

- 1541f. The *Œdipoda cœruleus*. 1886
 The five preceding specimens were presented by S. C. K. Moberly, Esq., who obtained them in the neighbourhood of Taganrog, South Russia.
- 1542a. Male and female specimens of the *Gryllus campestris*. 1886
- 1542b. *Gryllus melas*. 1886
 Presented by S. C. K. Moberly, Esq.
- 1545a. A specimen of *Pediculus pubis*, or Crab Louse, obtained from the eyelash. 1886
- 1546a. Specimens of *Pediculus vestimenti*. 1886
- 1546b. Specimen of the Common Bug (*Cimex lectularius*), prepared for microscopical examination. 1886
- 1546c. Head of the Common Bug (*Cimex lectularius*). 1886
 [In the Microscopical Cabinet.]
- 1546d. A specimen of an undetermined species of Water-Bug (*Nitia* ?). 1886
 Presented by S. C. K. Moberly, Esq., who obtained it in the neighbourhood of Taganrog, South Russia.
- 1546e. Specimens of the Common Head Louse (*Pediculus capitis*). 1888
 [In the Microscopical Cabinet.]
- 1547a. Specimen of *Pulex irritans*, the common Bed-Flea, prepared for microscopic examination. 1886
- 1553a. Two specimens of the *Triscolia hæmorrhoidalis*. 1886
 Presented by S. C. K. Moberly, Esq., who captured them in the neighbourhood of Taganrog, South Russia.
- 1553b. A Microscopical Preparation of the stinging apparatus of *Bombus*. 1889
 Presented by T. W. Shore, M.D.
- 1561a. The Vegetable Caterpillar, *Sphæria robertsiana*. After passing through its chrysalis state, it becomes one of the night-moths of New Zealand. Its Maori name is Pepeawato. The plant is the *Hepiulus virescens*. The spore is parasitic, and becomes fixed between the head and the first ring of the body. More rarely the spore takes up its position between the last and the penultimate segment of the caterpillar. The caterpillar buries itself for the chrysalis stage, and the spore grows, utilising the tissues, and absorbing all the interior of the insect until it dies. The caterpillars thus affected were charred, and used by the Maoris as the pigment with which they tattooed their faces. (*Cf.* Botanical Catalogue, p. 255.) 1889
 Presented by C. A. Parker, Esq.
- 1562a. A male and female specimen of *Anisoplia crucifera*, in the act of coition. 1886
- 1562b. A specimen of *Cetonia aurata*, the Golden Beetle. 1886
- 1562c. A specimen of a male and female *Oryctes nasicornis*. The male has a large horn, which in the female is rudimentary. 1886
- 1562d. A specimen of the female *Amophylla campestris*. 1886
- 1562e. A specimen of an undetermined species of *Rhisotrogus*. 1886
- 1562f. Two incomplete specimens of *Hydrophilus piceus*. 1886

1562g. Two incomplete specimens of the Water-Beetle (*Dytiscus marginalis*). 1886

1562h. A specimen of *Chrysomela limbata*. 1886

The eight preceding specimens were presented by S. C. K. Moberly, Esq., who obtained them in the neighbourhood of Taganrog, South Russia.

SUB-KINGDOM V.—MOLLUSCA.

(A.) MOLLUSCOIDA. CLASS I.—POLYZOA.

1563a. A Microscopical Preparation of *Plumatella Repens*, showing the avicularia. 1887

Presented by D'Arcy Power, Esq.

1563b. *Flustra foliacea*, prepared for microscopic examination. 1889

Presented by T. W. Shore, M.D.

II. TUNICATA.

1568a. *Botryllus Stellatus*. A portion of a fixed compound ascidian. The mass consists of a firm gelatinous matrix, in which are embedded the individuals arranged in star-shaped clusters. 1887

Dredged in Portland Roads.

Presented by D'Arcy Power, Esq.

(B.) MOLLUSCA. (I.) ACEPHALA. CLASS I.—LAMELLIBRANCHIATA.

1581a. Sections through (*a*) the widest part of the body, (*b*) the middle of the ventricle, and (*c*) the posterior adductor of a large specimen of the fresh-water mussel (*Anodonta cygnea*).

In the uppermost section, which passes through the renal and reproductive apertures, the mantle folds are seen to arise close to the dorsal surface. The visceral mass is large and laterally compressed; it lies between the two mantle lobes, and its ventral edge is produced into the wedge-shaped muscular foot. The coils of the intestine are seen in the visceral mass embedded in the generative gland, and cut across about half a dozen times. In the pericardial cavity, which is situated in the median line immediately beneath the dorsal surface, is seen the rectum. Inside the rectum is the typhlosole or fold of its ventral surface. The gills lie in the dorsal half of the mantle-cavity between the visceral mass and the mantle. Along the base of each gill is the supra-branchial canal, along which the respiratory stream of water flows backwards to the cloacal cavity. The excretory organs are paired, and lie between the pericardium and the visceral mass. The reproductive apertures are immediately ventral to the excretory apertures.

In the middle section, which passes through the ventricle, the mantle lobes are the same as in the preceding specimen. The visceral mass is cut across close to its posterior end. The inner lamella of the gill ends in a free extremity above. The pericardial cavity is triangular in section, and has very thin walls. The ventricle surrounds the rectum. The vena cava is a thin membranous tube lying in the floor of the pericardium. The kidneys lie on either side of, and above, the visceral mass.

In the lowest section the posterior adductor muscle is seen as a large mass of transverse muscular fibres running across the dorsum. The gills are cut across close to their dorsal ends, and are small. The rectum lies dorsal to the adductor muscle, the typhlosole still being present. 1888

- 1592a. *Mya Arenaria*, with one valve removed to show the animal. 1889
Presented by T. W. Shore, M.D.

(II.) CEPHALOPHORA. (I.) GASTEROPODA.

MURICIDÆ.

- 1597a. Three shells of *Murex brandaris*. 196. 1886
- 1599a. Two Specimens of *Fusus Contrarius*, obtained from Walton-on-the-Naze. 1887
Presented by J. F. Little, M.D.
- 1601a. The Spawn of a Whelk (*Buccinum undatum*). 1887
Presented by T. W. Shore, M.D.
- 1601b. The Radula of *Buccinum Undatum* (the common whelk), prepared as a microscopical object. 1888
- 1616a. The Radula of *Patella Vulgata* (the common limpet), prepared as a microscopical object. 1888
- 1622a. A Specimen of the *Aplysia*, or Sea-Hare. The body is elongated and slug-like in shape, and bordered by a broad epipodium, which is reflected over the back. Two contractile tentacles are situated at the upper part of the head, whilst two prolongations of the velum surround the mouth, and form, as it were, a second pair of inferior tentacles. The eyes are sessile, and are placed in front of the base of the superior tentacles. The branchia is dorsal, and is covered by a thin prolongation of the mantle, with an operculum, including a flat calcareous shell, which in this specimen is broken. 1888
- 1623a. A Microscopic Preparation of the Eggs of *Doris*. 1888

HELICIDÆ.

- 1627a. A Microscopical Preparation of the Radula of *Helix Pomatia*. 1888
The five preceding specimens were presented by T. W. Shore, M.D.
- 1628a. Specimens of several common forms of *Helix*. 230. 1886

SERIES XXXVII.

CASTS AND MODELS OF NORMAL STRUCTURES AND CONGENITAL MALFORMATIONS.

CLASS I.

CASTS OF NORMAL STRUCTURES.

- 1a. Model of the Human Brain, Cerebellum, and Medulla, constructed to show the gross anatomy of the organs. 1886
- 1b. Model of the Human Eye on an enlarged scale, to show the microscopic as well as the macroscopic characters. 1886
- 1c. Greatly enlarged Model of the Human Ear, to show the auditory mechanism. 1886
- 1d. Gigantic Model of the Tongue and Larynx, adapted to exhibit the various anatomical details. 1886
- 37a. Two Wax Models of the human Female Breast. One is in a virgin condition, the other shows the areola developed during pregnancy. 1887
Presented by J. Matthews Duncan, M.D., F.R.S.
- 42a. A Painted Plaster Cast, showing the histological appearance of the healthy skin. 1885
- 42b. Models of Crystals, showing the process of repair. 63. 1887

CLASS II.

CASTS OF MALFORMATIONS.

MENINGOCELE WITH HYDROCEPHALUS.

- 63a. The Cast of the head of a child, aged fourteen months, showing a large asymmetrical Meningocele on the right side. The swelling shows three distinct enlargements or bulgings, of which the largest is situated over the parietal region. An irregular serrated bony edge could be felt about half way up on the outer side of this portion ; the remainder was quite soft, and was translucent in many parts. 1893

The swelling was noticed soon after birth, since which time it had increased rapidly. There was some stiffness of the left arm, with slight contraction of the flexor muscles. With this exception there was no paralysis, and the child was bright and intelligent for its age.

The child subsequently died : the right hemisphere with the skull-cap is preserved in Series xxx. No. 2516b.

See *Faith Ward Book* for 1892, *sub.* Frederick Thompson.

- 68a. Cast of the upper part of the back and shoulders of a young woman, aged twenty-one. The left scapula is raised, and fixed to the spines of the upper dorsal vertebrae, from ossification of the muscles in that region. The posterior border of the scapula is unduly prominent. 1892
 See *Female Surgical Register*, vol. ii. (1892), No. 710.
- 70a. Cast of the Left Hand of a woman who had congenital absence of the entire little finger with an ill-developed thumb. 1885
- 70b. Cast of the Right Hand of a man who had congenital absence of two fingers. 1890
 From the same man as cast No. 88b.
- 70c. Cast of the Left Hand of a youth, aged sixteen. There is a congenital absence of the index, third, and ring fingers, producing the deformity known as "claw-hand." So far as could be ascertained, none of his family suffered from any congenital abnormality. 1890
- 70d. Casts of the Hands of a youth who had Congenital Absence of some of the fingers. The right hand had only a thumb and two fingers, the index and middle fingers being absent. In the left hand the little finger was absent, but in its stead a short digit, consisting of the two distal phalanges with a nail, grew out of the ulnar side of the ring-finger at the joint between the first and second phalanges. None of the lad's relations had any similar deformities. 1891
- 70e. Cast of the Right Hand of a boy, in which there is congenital absence of the ring and little fingers, with fusion of the index and middle fingers. 1892
 A cast of the right foot of the same boy, also congenitally deformed, is preserved in this Series, No. 103a.
- 71a. Casts of the Feet of a child, in which there is congenital absence of the second and third toes of the right foot and of the second toe of the left foot. The third left toe is rudimentary and united to the fourth. There was a somewhat similar malformation of the hands. 1891
- 72a. Cast of a child's Hand, with bifid thumb and congenital absence of index and middle fingers. 1884
- 78a. Cast of the Hand of a patient, showing a supernumerary little finger. 1885
- 78b. Cast of the Foot of the same patient, showing a well developed sixth toe. 1885
- 78c. Cast of the Left Hand of a child, aged one month, showing a supernumerary digit, attached to the ulnar side of the little finger. A similar abnormality existed in the right hand. 1892
- 78d. Cast of the Left Foot of the same child from which the preceding cast was taken. It also shows a supernumerary digit. A similar abnormality existed in the right foot. 1892
 As far as could be ascertained, no abnormal conditions of the hands or feet had occurred among the child's relatives.
- 79a. Cast of the Left Hand of a young man, showing an extra digit growing from the radial side of the metacarpal bone of the thumb, to which it was firmly attached without the intervention of a joint; it was removed by operation. So far as could be ascertained, no other members of his family had any congenital deformity. 1890
 See *Male Surgical Register*, vol. i. (1890), No. 2256.

79b. Casts of the two Hands of a girl, showing a congenital malformation of the left thumb. Springing from the middle of the metacarpal bone of the index finger is a rudimentary supernumerary digit, having a well-formed nail, and which is bent downwards to meet the tip of the thumb; this is also deformed. These two digits could be separated and apposed to a slight extent. The right thumb is small and stunted. 1892

See *Female Surgical Register*, vol. ii. (1892), No. 710.

87a. Cast of both Hands and Arms, from a woman who was born without fingers on the left hand; the thumb is represented by a papilla. The patient could knit and sew. 1884

88a. Cast of the Legs and portions of the Feet of a Child, in whom there was a congenital absence of the patella with genu valgum. 1887

See *Male Surgical Register*, vol. iii. (1887). No. 594.

88b. Cast of the Left Lower Limb of a man who had congenital absence of the femur. The leg and foot are well formed, and are connected with the trunk by means of a large rounded mass, composed very largely of muscles, by which the patient could fix the leg firmly on the pelvis. On deep palpation of this mass, the upper end of the tibia could be felt, and this seemed to be connected with the acetabulum by a short piece of bone two or three inches in length. 1890

From a man, aged 19. No other member of his family had any congenital deformity. He was a shoe-black by trade, and by means of a wooden peg, fifteen inches long, fixed to the sole of his boot, he could walk well. The left calf measured twelve inches, the right fourteen; the left foot was nine inches long, the right ten and a half. He also had a congenital absence of two fingers of the right hand.

See cast 70b.

88c. Cast of the Left Knee of a child, who had Congenital Absence of the patella. 1891

See *Female Surgical Register*, vol. iii. (1891), No. 2535*.

90a. Cast of the Left Lower Extremity of a youth, aged fifteen, who had congenital absence of the lower half of the tibia and fibula, and of the foot. The tibia and fibula gradually tapered off, at about six inches below the knee-joint, into a blunt cone, to the end of which, but separated from it by a deep constriction, was attached a growth somewhat resembling an undeveloped foot. This growth, however, contained no bones, and seemed to consist of fibrous tissue only, with perhaps some cartilage. On the outer side of the leg, just below the knee, is seen a rounded projection over the head of the fibula. This was soft, and seemed to consist of fat and fibrous tissue. 1890

The patient stated that no other member of his family suffered from congenital malformations. By means of a leathern socket to which a wooden pin was attached, he could walk well.

93a. Cast of the Pelvis of a girl, aged five years, who had extroversion of the urinary bladder. There was no umbilicus, and the pubes were separated by a distance of about one inch and a quarter. The pelvis measures eighteen inches round the crests. 1888

A drawing is preserved in Series xxxviii., No. 1313.

See *Female Surgical Register*, vol. iii. (1888), No. 1306.

97a. Cast of a Hand, showing congenital constriction of right thumb, probably due to intra-uterine pressure. 1884

98. Cast of Hand and Forearm, showing a congenital malformation of the humerus with absence of the radius. The thumb is undeveloped and the carpal bones appeared to be absent with the exception of the unciform process. 1885
 See *Female Surgical Register*, vol. iv. (1884), No. 2365.
99. Cast of a Forearm, in which there was a congenital shortening of the radius. 1885
100. Cast of the Foot of a Cretin. 1885
- 100a. Cast of the Hand of a Cretin. 1885
 See *Luke Ward Book*, 1885, No. 823.
101. A Cast of a specimen of well marked hare-lip, involving the upper jaw, showing a pre-canine incisor on the left side of the cleft and an extra incisor above the first left incisor on the right side of the cleft. 1885
 From a native of India, who died during a famine.
 Presented by C. W. Cathcart, Esq.
102. Cast of Fœtal Head, showing the result of passing through a deformed pelvis. 1885
 See Series xlvii., No. 3129a.
- 102a and b. Casts of a Fœtal Head, from a case of labour in a generally contracted flat pelvis, showing the moulding before (α) and after (β) maceration. 1891
 Presented by F. H. Champneys, M.D.
103. Cast of the Legs and Feet of a boy who had a congenital malformation of the right foot and toes, with talipes varus. The right leg was considerably shorter than the left, and the foot had a large corn on the outer side. The great-toe was hammer-shaped, and there was marked contraction of the tendo-achillis and plantar fascia. The left foot was in a condition of valgus. 1886
 See *Male Surgical Register*, vol. iii. (1886), No. 3605*.
- 103a. Cast of the Right Foot and Leg of a boy, in which there is congenital absence of the fibula and two outer toes, with partial fusion of the second and third toes. There is considerable eversion of the foot. The whole leg was about five inches shorter than that of the opposite side. 1892
 A cast of the right hand of the same boy, also congenitally deformed, is preserved in this Series, No. 70e.
104. Cast of the Right Foot and Leg, from a case of congenital fracture of the right tibia in the lower third without union. The lower extremity of the upper fragment projected forwards and inwards. 1886
 See *Female Surgical Register*, vol. v. (1886), No. 2310*.
105. A Cast of the Feet of a new-born child, showing the position of the feet in congenital talipes valgus and varus. 1886
 From the Clinic of Professor Von Volckmann, Halle. Cf. No. 3480a.
 Presented by W. G. Spencer, M.B.
106. Casts of the Hands of a boy, aged sixteen, who had congenital shortening of the distal phalanges of both little fingers. The second inter-phalangeal joint of the little finger of the right hand was enlarged, and the finger itself was slightly bent. 1888
 Seven years ago the patient had rheumatic fever, followed by chorea. He had a double musical apex murmur.
 See *Matthew Ward Book* for 1888, No. 22.

107. Cast of an Unusual Deformity of the Clavicles, occurring in a boy, aged eleven years. The sternal portion of the clavicles are natural, but their acromial ends are wanting, the bones terminating in pointed extremities, which appear to rest on the coracoid processes. The movements of the arms were quite natural. The patient was admitted to the Hospital for lateral curvature of the spine. 1889

See *Male Surgical Register*, vol. iii. (1888), No. 2964.

108. Cast of the Head of a boy, aged eleven years, who had a well-marked rickety skull. The head is large, and tapers from the occipital towards the frontal region. The forehead does not overhang the face, as is the case in hydrocephalus. 1889

From the same patient who had deformed clavicles. (No. 107 in this Series).

See *Male Surgical Register*, vol. iii. (1888), No. 2964.

109. A Cast of the External Genital Organs of a man, aged thirty-seven. The penis and scrotum are undeveloped and the testes have not descended. There is no hair on the pubes. 1889

The patient was a very large and fat man, with a perfectly smooth face; he was married, but had no children by his wife. His voice was high pitched. Examination, per rectum, showed that only the floor of the prostate had been developed.

See *Male Surgical Register*, vol. iii. (1889), No. 3464*.

110. Cast of the Left Arm of a patient, aged thirty-eight, who had a congenital defect of the ulna. The left hand was bent towards the ulnar side, and could not be straightened; it was smaller than the right. The ulna terminated in a point about two inches above the carpal bones, but it was continued onwards by a band of ligament. The patient also had multiple exostoses. 1889

See *Matthew Ward Book* for 1889, s. v. Edwin Duckham.

111. Cast of the Face of a man who had a congenital meningocele. The tumour was soft and pulsating; it was situated at the root of the nose in the middle line, and had separated the nasal bones. Firm pressure caused the tumour to become smaller, and it only refilled slowly. It grew until the patient was eighteen years of age; at the time the cast was taken he was thirty. 1889

A photograph is preserved in Series xxxviii., No. 1334.

See *Male Surgical Register*, vol. iii. (1889), No. 1431.

112. Casts of the Hands and Feet of an out-patient. There is congenital absence of the phalanges of all the fingers and toes, with the exception of the fifth in each case. In the feet it appears as if the metatarsals were also wanting in some cases. The left foot has a well-developed great toe, which is absent on the right side. 1889

113. Cast of the under surface of a Liver, showing several small supernumerary lobules. 1891

SERIES XXXIX.

CATALOGUE OF MIDWIFERY AND OTHER
INSTRUMENTS.

61. MAINS, an instrument introduced by Palfin into the art of obstetrics. It is considered to have led to the invention of forceps. 1886

They formerly belonged to Dr. Mayo, of Winchester.

Presented by Mr. T. Godart.

SERIES XXXIXA.

CATALOGUE OF HISTORICAL INSTRUMENTS.

1. A Case of Dissecting Instruments, formerly belonging to John Abernethy. 1886
2. A Case of Small Trephining Instruments, formerly belonging to John Abernethy. 1886
3. A Case containing six Surgical Needles for use in the ligature of *nævi*, formerly belonging to John Abernethy and afterwards to Thomas Wormald. Two of the needles are of silver with detachable steel points. 1886
4. A pair of Obsolete Artery Forceps with a sliding catch, formerly belonging to John Abernethy. 1886
Presented by A. Willett, Esq.
5. A Clinical Thermometer, used in England during the latter half of the eighteenth century. 1886
Presented by Robert Martin, M.D.
6. A Stethoscope, made according to Lænnec's model. The instrument consists of a wooden cylinder measuring eleven and three-quarters inches in length and one and a quarter in diameter. It is perforated, and is composed of two portions united by a screw. The ear-piece is, unfortunately, missing. 1887
Sir George Burrows wrote of it:—"I am happy to send you a venerable relic of the earliest study of auscultation at St. Bartholomew's Hospital. The old wooden solid cylinder is a facsimile to that used in the Lænnec wards at Paris. It was the property, originally, of Dr. Bond, the Regius Professor of Physic at Cambridge, who, with myself, was Dr. Latham's clerk at St. Bartholomew's Hospital in 1827-28. We were two of the first to study auscultation in the wards there. With progressive improvements in the form of the stethoscope this old wooden tube was left unused on the table of the ward. The nurses appropriated it to their own use to stir up the linen in their washtubs, from which in-glorious service I rescued it, and preserved it as a memento of my earliest studies in auscultation."
Presented by the late Sir George Burrows, Bart., D.C.L.
7. A Stethoscope, made according to Lænnec's model. 1887
It formerly belonged to Mr. C. R. Thompson, of Westerham, Kent.
Presented by A. Maude, Esq.

8. A Case of Lithotrites, made in France about the year 1827. They are copies of the instruments employed by Civiale. The lithotrite was worked by means of the string and drill-bow. The instruments consist of—

- (a.) Leroy's chevalet.
- (b.) A drill-bow.
- (c.) Lithotrites of various sizes.
- (d.) A lithotrite for breaking up the fragments.
- (e.) Leroy's modifications of André de la Croix's simple lithotrite handles. 1887

Civiale writes of the cases upon which he operated with instruments similar to these:—
 "Every patient, with a single exception, was cured. Those who died some time after the operation had been performed, succumbed to causes which had nothing to do with the operation. In the larger number of cases, when an autopsy was performed, the bladder was found to be healthy, and it did not contain a single fragment of the calculus."—See *Lettres sur la Lithotritie par le Docteur Civiale*, Paris, 1827.

9. Heister's Pelican. 1887

Presented by Dr. Bowes.

10. A Pair of Old-fashioned Spectacles, with circular convex glasses in steel frames. 1888

11. A Pair of Old-fashioned Spectacles, with circular concave glasses in steel frames. 1888
 By an ingenious contrivance the strength of the glasses can be varied at will.

The two preceding specimens were presented by Henry Willett, Esq.

12. An Automatic Gum Lancet. 1888

Presented by D'Arcy Power, Esq.

13. A Lancet, which formerly belonged to John Hunter. 1889

The lancet came into the possession of the late Mr. Clift, and subsequently of Sir Richard Owen, K.C.B., by whom it was sent to Mr. Langshaw, who gave it to Sir James Paget, Bart.

Presented by Stephen Paget, Esq.

14. An Arab Truss, made by a native blacksmith. The pad is kept in position by the application of a wheel and ratchet. 1889

Presented by Dr. Mackie, of Alexandria.

ADDENDA TO BOTANICAL COLLECTIONS, 1885.

ROSACEÆ.

POTENTILLA TORMENTILLA (*Tormentil*). — Rhizomes, formerly used for their astringent properties.

MYRISTICACEÆ.

MYRISTICA OFFICINALIS.—The fruit, showing seed (nutmeg) and mace (aril).

LILIACEÆ.

LILIUM AURATUM.—Aërial bulbs on the stem, similar to those usually borne by *Lilium bulbiferum*.

GRAMINEÆ.

FLOUR.—White Hungarian flour contains a large percentage of starch, with but little gluten, and is the least nutritious. Granular wheat-meal—or whole meal as ground by Dr. Morfit's process—contains the entire ingredients of the grain, excepting the outermost (fibrous) skin, being made from decorticated wheat. This is the most nutritious form of wheat-meal.

APPENDIX.

TULIP with a pistilloid perianth.

CLEMATIS, fl. pl., with petals foliaceous.

ROSE, with foliaceous calyx and proliferous, bearing a central flower-bud in place of the pistil.

PEARS.—Proliferous axes (internodes) only, without a trace of an ovary.

HORSE-CHESTNUT, root with embedded stones.

PICEA LASIOCARPA grafted on *Picea pectinata* (Silver Fir).

Eucalyptus Honey.

An Oriental Drug Pot of Bamboo.

Carbonised Coquilla Nut.

Scilla Sibirica, bearing bulbils upon the leaf sheath.

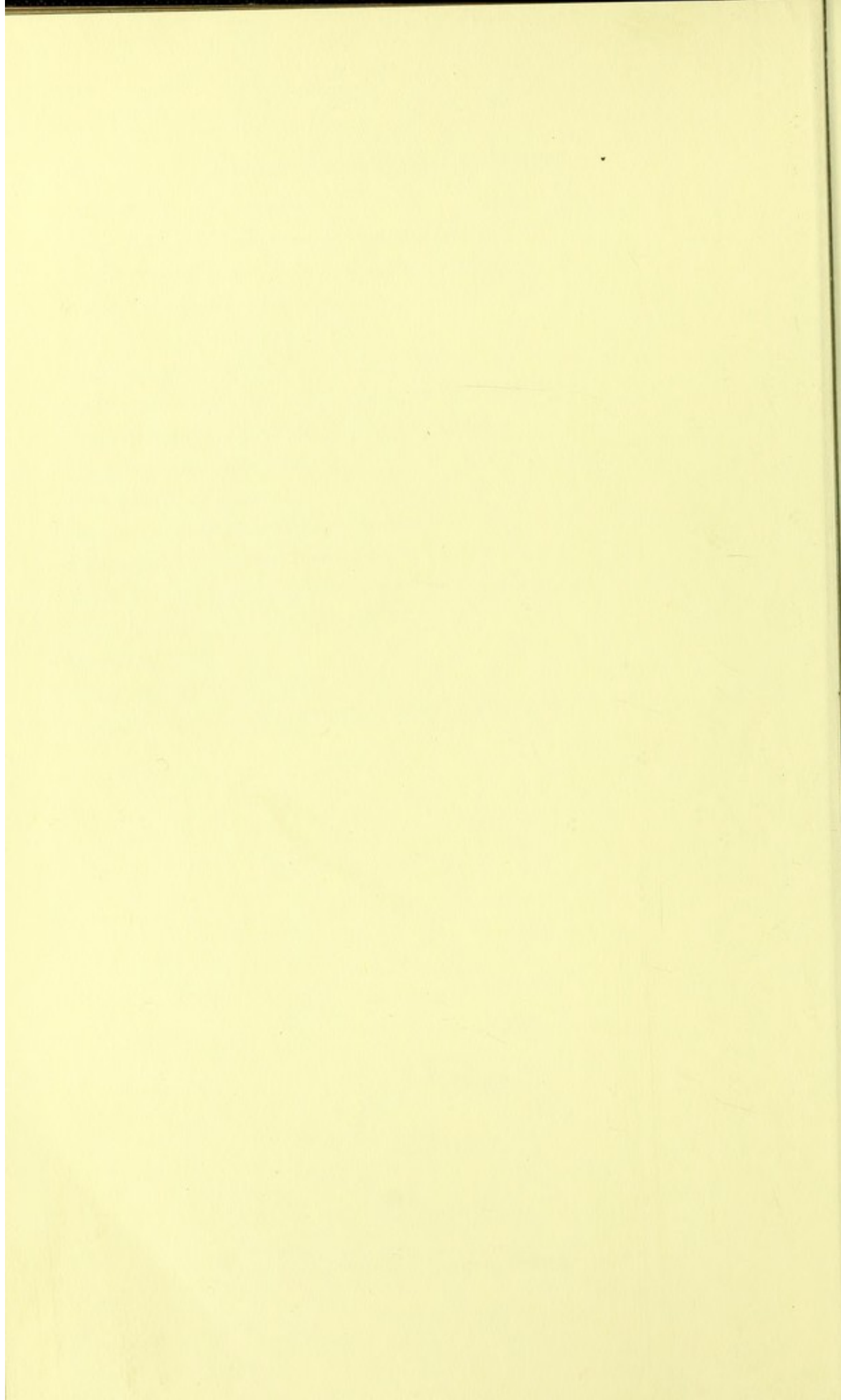
Proliferous Rose.

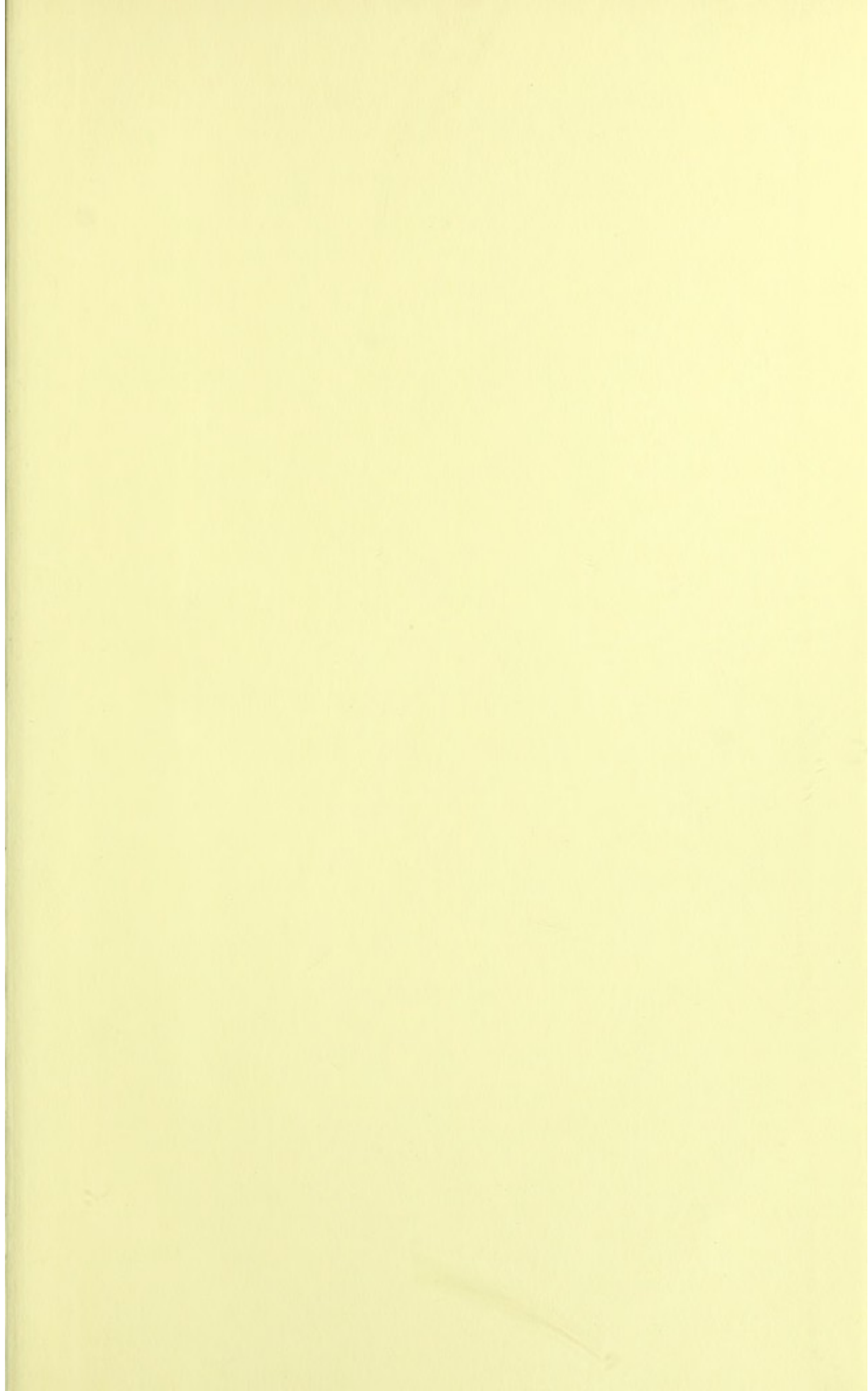
Pear Branch, with hypertrophied and fleshy petioles to leaves.

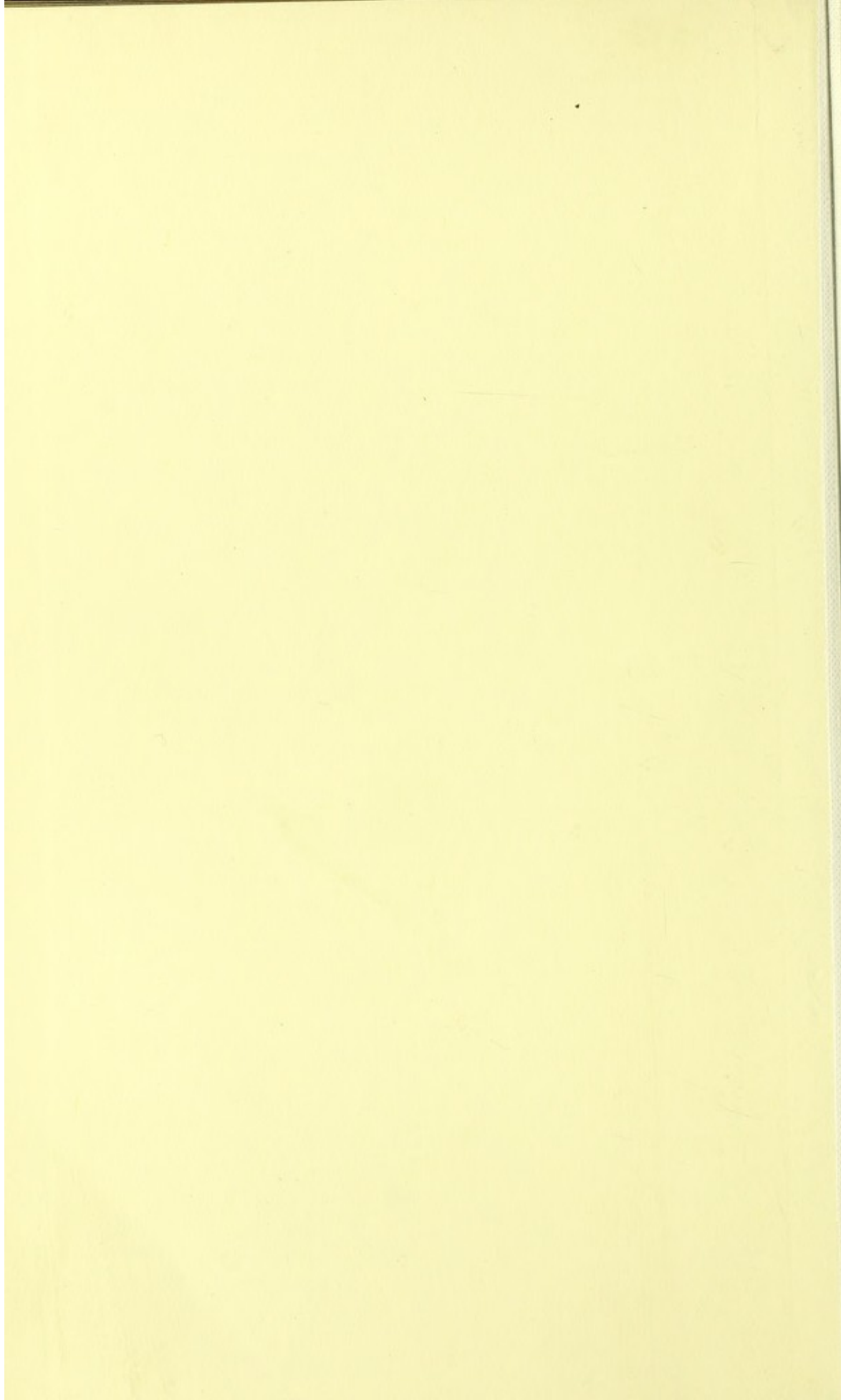
Seeds of Eugenia Jambolana.

- Fruits of *Citharexylum Lætum*. 1888
- Honey, Black and White, from the *Eucalyptus* of Australia.
- Oriental Drug Pot, made from the stem of a Bamboo.
- Fruit of *Citharexylum Lætum*.
- Seeds of *Eugenia Jambolana*.
- Bulbils formed on the leaf-sheath of *Scilla Sibirica*.
- Seeds, grown and prepared for "Guarana," of *Paullinia Sorbilis*.
- Tragacanth-like Gum of *Cochlospermum Gossypium*. 1889
- Hypoxylon concentricum* (fungus).
- Curare, strychnos species (?).
- Bearberry Leaves (*Arctostaphylos uva ursi*).
- Pellitory Root (*Anacyclus Pyrethrum*).
- Snake Root (*Polygala senega*).
- Green Hellebore Root (*Veratrum viride*).
- Proliferous Rose.
- Pears with leaf-petioles fleshy.
- A Leaf of the *Opuntia Cochinealifera*, showing the female cochineal insects *in situ*.









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