enlarged. The operation was done under the carbolic spray, and the wound was syringed with 1 in 40 carbolic water and dressed with carbolic gauze. In the first twenty-four hours the patient was sick twice. His temperature rose to 104.4° at 10 A.M. on the second day, and the urine passed per urethram became dark olive-green on exposure to light. The dressings were then changed to German peat moss, and the lotions to boracic water, whereon the temperature fell to 101° , and his general state improved considerably. The stone removed on Dec. 1st was of uric acid, laminated in structure, and consisted of three processes connected by narrow necks, with a small central portion. One of these processes was roughened, where a small portion had been broken off and lost.

The further progress of the case was of steady improvement. The German peat moss proved an excellent absorbent for the urine, keeping the patient dry and preventing any decomposition of the absorbed fluid. The dressing thus needed renewal only once in twenty-four hours, though more than a pint, often a quart, of odourless pale urine could be squeezed from the peat moss after its removal from the bandage. The sinus never closed, and when attempts were made to discontinue the drainage tube, irritation, pain, and rise of temperature always followed these experiments. On March 23rd a calculus which had been detected previously was sought for through the sinus enlarged for that purpose, but unsuccessfully. In the next few days symptoms of renal colic appeared, with pain along the penis to the glans. Thenceforth the temperature rose nightly to 101° or 101.6° . The patient had a troublesome cough, and lost flesh rapidly. On June 8th eleven small calculi were extracted through the sinus, each resembling in shape and size a small dried pea. On June 22nd a large irregularly shaped calculus was withdrawn, weighing forty grains. The patient improved greatly after this operation. His temperature fell and he regained some flesh. On June 24th several minute calculi were found on the dressing, and more were washed out by syringing the sinus. Similar calculi were passed at intervals during July. In August he went to Eastbourne; then his temperature was normal, and the urine had only traces of albumen and from 2 to 3.5 per cent. of urea. In October, 1887, he was readmitted into hospital. He was much thinner than in July. There was much fetid discharge from the sinus in the loin, although no stones had been passed for several weeks. The urine passed per urethram was as follows: weakly acid; sp. gr. 1010 to 1012; urea only 0.9 per cent.; albumen one-half to one-fourth; muddy, with deposit of urates or phosphates, mucus, and pus; no blood.

On Oct. 26th, 1887, the kidney was removed by dividing the scar of the first operation, incising the capsule, and stripping it from the kidney. Next, the pedicle containing the renal vessels, which was very thick and firm, was tied with carbolised silk. The kidney was then snipped off with scissors from the pedicle. The renal artery spouted freely. A carbolised silk ligature was applied, but broke twice with the strain necessary to compress the vessels. Ultimately a stout ligature of hemp held all secure. This ligature had not been purified, so its ends were left hanging from the wound. The cavity was well sponged with solution of zinc chloride, forty grains to the ounce, and drained by large tubes. The reaction after the shock of the operation was moderate. The wound, unless dressed twice daily during the first week, would be fetid. On Nov. 7th the ligature came away, and then the wound rapidly healed. The urine became acid on the fourth day after the operation, and the urea increased from 0.6 to 1.2 per cent. in that time, but the albumen also increased from one-fourth to one-half or even two-fifths.

When the patient left the hospital early in December, he was in most respects in good health. The urine was acid, sp. gr. 1015 to 1010: slightly turbid from mucus, with 1.5 or 2 per cent. of urea; but the albumen was still about one-fifth.

The parts removed consisted of the whole kidney and some calculi. The kidney was much sacculated by dilatation of the pelvis and calyces; but each sacculus was surrounded by cortical substance, the medullary substance having been absorbed under pressure. The thickness of the cortical substance varied between a quarter and half an inch. The sacculi were full of fetid pus and urine; in several were calculi of different sizes. The five largest and six smaller ones were preserved, but several small ones, probably a dozen, were lost during the operation.

Remarks.—The history of this case has several interesting features. In the first instance, the symptoms were limited to paroxysmal pain for fifteen years. The patient never in his recollection had irritation of the bladder or bloody urine. Again, when the persistence of pain in one loin, deep-seated fulness and tenderness at the painful spot, and absence of symptoms connected with the bladder led to the diagnosis of calculus in the left kidney, the existence of numerous calculi was not discovered at the first operation, in spite of careful digital and needle exploration. This shows that these means are insufficient for ascertaining the number of calculi in the kidney. The condition of the kidney after removal indicated that probably many calculi existed at the time of the first operation, though the great increase in size of the organ during the ten months which intervened between the first and last operations showed that the saccular dilatation had made little way before the first calculus was extracted. It is remarkable that, while innumerable mustard-seed-like calculi escaped from the kidney through the wound, none were ever detected in the urine from the bladder, nor did any of the larger pea-like forms enter the ureter.

The prognosis now depends on the state of the remaining kidney. The large amount of albumen which remained while the patient stayed in hospital, though in other respects his recovery was rapid and complete, makes it probable that the long delay which took place between the first operation and the removal of the kidney allowed chronic inflammation to prevail over a large portion of the organ, and thus seriously to diminish the patient's probability of a long life. The practical inference to be gathered from the result would seem to be that if the sinus left after nephrotomy does not close completely in about three months, the kidney should be explored by laying open freely the pelvis, and, if found to be sacculated, it should be at once removed.

WOOLWICH UNION INFIRMARY.

SECONDARY CANCER DISSEMINATED THROUGH THE LYMPHATICS.

(Under the care of Mr. JAMES MATTHEW CAW.)

THE following case is remarkable in the fact of nearly all the lymphatic glands of the trunk being secondarily affected by cancer.

Rebecca G—, aged fifty-two, was admitted on Nov. 23rd, 1887. She complained generally of weakness, palpitation, pain and vomiting after eating, gradually increasing emaciation, and of lumps in both axillæ and groins. She has had nine children. A sister died after an operation for cancer of the breast, and a brother probably from cancer of the liver. About fourteen months ago she became conscious of the formation of small lumps in the abdomen towards the left iliac region. Soon afterwards the abdomen became greatly swollen, and was tapped two months later, and, according to her own statement, thirty-six pints of fluid were removed. Seven days after this she underwent an operation at the Samaritan Hospital, and a tumour was removed through a central abdominal incision. She was told that the operation should have been performed sooner, but that the whole of the growth had been removed, and was unlikely to return. The wound healed up in six weeks, but since the operation she has always been more or less subject to pain and sickness after eating.

State on admission.—Emaciation is very marked. The tongue is clean, but covered with a sticky saliva, and she usually complains of thirst. A cicatrix, the seat of the operation referred to, extends from the umbilicus to the pubic symphysis. In each axilla is a glandular lump, about the size of a hen's egg, movable and lobulated. Underneath the skin of the chest are many small nodules, varying in size from a very small pea to the size of a bean. Over the smaller of these the skin is red and discoloured, and the nodules in many cases are felt to be connected by hardened tortuous lines, probably infected lymphatics, which over the fifth right costal cartilage give the tortuous appearance of a subcutaneous varix. A movable subcutaneous nodule, the size of a bean, is situated over the hepatic region in the right hypocondrium. These nodules give rise to little or no pain. Extending into the abdomen from Poupart's ligament on either side are other large glandular masses. The superficial cervical glands are very slightly, if at all, affected; but there is a small mass above the left clavicle, in the

region where the thoracic duct enters the internal jugular vein. The glands near the internal condyles of the humeri are not affected.

The patient died about a month after admission, the nodules having increased in number and emaciation having progressed very rapidly.

At the necropsy, made by Dr. Boulter, in addition to the appearances already mentioned, the tortuous masses which occurred subcutaneously on the front of the chest were seen on section to consist of swollen dilated lymphatics, containing a whitish fluid. A small cancerous mass occupied the region of the thymus gland, and was adherent to and partly involved the sternum and second left costal cartilage. The heart and lungs were healthy; the posterior mediastinal glands were much enlarged, and apparently infected with a soft cancer, which towards the centre was caseous and degenerated. The intestines showed no sign of peritonitis, but were peppered over with a black deposit, not removable by washing, probably the result of the escape of blood into the abdominal cavity during the laparotomy; the remains of what appeared to be the pedicle of the tumour which had been removed were seen attached to the broad ligament; the lumbar glands formed a lobulated mass weighing eight or nine ounces. Three round cancerous masses, not so hard as scirrhus, occupied different regions of the liver. The uterus, kidneys, and spleen were all apparently healthy. The brain was not examined.

Microscopical examination.—The nodules in the liver, which were round on section and about the size of walnuts, presented the ordinary appearance of a carcinoma, intermediate in character between scirrhus and encephaloid, the alveoli and their contained cells being very clearly marked. In the nodule mentioned as lying subcutaneously in the hepatic region the cancer was softer and more encephaloid, the stroma being less in quantity. The infected glands were seen to consist of a cellular substance, undergoing in many places fatty degeneration and caseation, stroma being almost entirely absent. On section of such a gland, several little new outgrowths were observed springing up in the capsule of the gland. Microscopical examination of the semi-fluid matter found in the centre of many of the infected glands showed the presence of numerous oil globules and fatty lymphoid cells and corpuscles, also many small masses of broken-down lymphoid tissue, but no special appearance of cancer elements.

Remarks by Mr. CAW.—The case is noteworthy on account of the acuteness and virulency with which the cancer poison invaded the lymphatics, and is, so far as I can learn, unique in the number of glands affected. Although numerous staining reagents were used, no micro-organisms were found.

LEEDS GENERAL INFIRMARY.

SUCCESSFUL OPERATION FOR FÆCAL FISTULA, IN A FEMALE PATIENT WHO HAD BEEN THRICE TREATED FOR STRANGULATED INGUINAL HERNIA.

(Under the care of Mr. MCGILL.)

For the notes of this case we are indebted to Mr. Green, house surgeon.

Isabella S—, aged forty-one, was admitted on May 2nd, 1887, suffering from a fæcal fistula in the situation of the right external abdominal ring of seventeen years' duration, and with the following history. When nineteen years of age, patient ruptured herself in the right inguinal region. She went about for five years without a truss, the protrusion being all the time reducible, and then the hernia became strangulated while the patient was lifting a tub. She was taken to a London hospital, where the hernia was reduced by operation. She left the hospital three weeks afterwards, wearing a truss, but with a small opening in the inguinal region discharging fæces. For nine years the hernia remained reducible, but was kept back with difficulty by a truss. The sinus also remained open. At the end of that time the hernia again became strangulated, and the patient was again operated upon at the same hospital. The hernia was reduced, but the fistula increased in size, and for six weeks all the motions were passed through it. Fæces then began to pass by the rectum, and soon very little came through the wound. At the end of three months she left the hospital with a hernia as large as a fist, reducible, but incapable of being kept back by a truss, and with two sinuses, discharging a small quantity of fæces. About two years ago the patient began to suffer from menorrhagia,

and a year last November this was cured by the removal of a polypus from the uterus. Last January, during a fit of coughing, the hernia again became strangulated, and was again operated upon. She states that an attempt was made at the same time to close the fistula, but upon the first dressings being removed fæces were found to be coming from the wound. The patient stayed in the infirmary, where the operation was performed for four weeks, and then left with a large fistula through which all the motions passed.

On admission into the Leeds Infirmary, the patient complained of the great annoyance caused by a fæcal fistula in the right groin, about an inch in length, in the position of the external abdominal ring. All the motions had come through this opening for the last three months. A hernia about the size of a fist came down when the patient stood up, and into this the fistula opened. Patient had no control whatever over the motions. It was decided to attempt to close the fistula. On the day before the operation the bowels were well cleared by a dose of castor-oil, and an enema was injected into the fistula on the morning of the operation.

Operation.—On May 9th an incision was made round the fistula close to its edge down to the adhesions connecting the bone with the parietal peritoneum. These adhesions were dissected and torn through, and the affected portion of the bowel was drawn out of the wound. The fistula was then found to involve about half the circumference of the gut. The edges of the fistula were then pared and brought together by means of Lembert's suture. Chromicised gut was used. The gut was then returned into the peritoneal cavity. The opening into the peritoneum was then sutured, and a set of deep silver sutures was used to draw together the pillars of the external abdominal ring. The superficial parts were sutured by means of gut stitches. A tube was put in to drain the superficial parts. The wound was dressed with gauze, iodoform, and salicylic silk.

No vomiting occurred after the operation. Milk and ice were given. The wound was dressed and the tube removed on the third day. The patient passed flatus per rectum on the same day. On the ninth day the bowels were moved by the rectum after the administration of an enema. The deep parts had united, but superficially the wound was healing by granulation. On the twelfth day antiseptics were discontinued. On the sixteenth day she was given fifteen minims of liquid extract of cascara sagrada, after which the bowels were moved twice. On the eighteenth day the patient was able to sit in a chair. Subsequently she progressed rapidly. The bowels were moved naturally every day. During the fifth week one of the silver sutures had to be cut down upon and removed. The patient left hospital on the forty-fifth day after the operation. She afterwards stated that she was quite well, and able to do ordinary house work.

Medical Societies.

PATHOLOGICAL SOCIETY OF LONDON.

Cow-pox.—*Carcinoma of Bile-duct.*—*Abscess of Brain and Adenoma of Pituitary Body in a Ewe.*—*Cystic Squamous Epithelioma.*—*Charcot's Joint Disease.*—*Hendon Cow Disease.*

AN ordinary meeting of this Society was held on Tuesday last, Sir James Paget, Bart., F.R.S., President, in the chair. The controversy on the Hendon Cow Disease and Cow-pox was continued by the meeting being prolonged till half-past ten.

Dr. KLEIN, F.R.S., said that on December 15th Dr. Crookshank showed a calf in which he had produced cow-pox. Several persons had expressed doubt. He now showed the same calf inoculated on Thursday last from the calf with typical cow-pox. Another calf also took cow-pox. In calves Nos. 3 and 4 (Crookshank) the results were spoilt by insufficient experiment, for Warlomont's stored lymph was used in No. 3, and therefore not reliable; in calf No. 4 it was doubtful whether the inoculation from the child's arm (human lymph) did really take, and so this specimen was spoilt for further experimentation. He also presented the following table showing the inoculations of the so-called cow-pox:—