5. *Objective symptoms.*—On examining the mouth, at first there is sometimes almost entire absence of swelling or of any usual inflammatory signs, and the tissues are not markedly indurated. There may be slight suppuration. If the disease is not far advanced diagnosis is only complete after removal of the tooth. Later, well-marked symptoms of malignancy appear.

6. *Microscopical appearances.*—The growths consist of masses of cells held together by a fine network of fibrous tissue which is very dense here or very loose there, and is in some places apparently undergoing fibrification or chondrification. In the centre of the growth this network is scanty, but the intercellular tissue is conspicuous outside. Vessels are scanty in the centre and have extremely thin walls; they ramify among the cells. In the outer portion they are larger (but not dilated) and have normal walls. The cells themselves are for the most part rounded in shape and considerably larger than red blood-corpuscles (Fig. 4). They contain one or more nuclei and are devoid of any definite cell wall. Great numbers of spindle cells exist. There is little hæmorrhage into the tissues, probably because of the small size of the growth, and because it has not advanced sufficiently to allow of large hæmorrhages to take place in its substance; but small extravasations of blood corpuscles are noticed here and there. Microscopically the growth is practically indistinguishable from granulation tissue, as has been pointed out by Mr. Knyvett Gordon; considered from a clinical aspect, however, there can be no doubt as to its malignant nature, as Fig. 3 shows. The jaw was excised for malignant disease of the antrum by Mr. W. J. Pilcher of Boston, to whom I am indebted for the specimen. The photograph exhibits the first right maxillary molar *in situ*, with its periodental membrane greatly enlarged by the new growth. Infiltration of the surrounding parts has taken place, the gum, antral mucous membrane, and alveolar process being alike affected, and the latter partially absorbed. There is also absorption of the apical regions of both the labial roots. The patho-histology of this growth is identical with that of the isolated cases already mentioned, and from the evidence at hand it seems to be clear that the latter are only earlier stages of the former.

To sum up, it may be said that sarcomatous disease of the periodental membrane is not rare in its earlier forms, but that it is very seldom met with in an advanced condition; and that removal of the molar tooth fortunately cuts short its career if taken sufficiently early, but if it is allowed to continue it constitutes another starting-place for malignant disease of the maxillæ.

Boston, Lines.

Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

TINCTURE OF CUSPARIA.

BY SIR JAMES SAWYER, M.D., F.R.C.P. LOND.,
F.R.S. EDIN.,

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FEW drugs are better known and less used than cusparia. I think many of our profession will agree that there should be a spirituous tincture of cusparia in the new Pharmacopœia. In official tinctures of mild aromatic and non-astringent bitters we are not too well off; and a watery infusion, which is the only preparation of cusparia in the present British Pharmacopœia, is unwieldy for many purposes. A consideration of the history and constitution of the drug suggests that cusparia has claims to a professional revision of its therapeutic properties. Perhaps it is owing to certain peculiar circumstances of fraudulent commercial substitution, which were pointed out long ago and which are well known, that cusparia has not come into usual employment in European practice, although it has been much vaunted as the chief ingredient in a popular cordial, and although it appears to have found extensive therapeutic consumption in South America and elsewhere. I have been prescribing a tincture of cusparia bark, which I have had made with proof spirit, and of the strength of two and a half ounces of the bark to one pint, and I have directed its preparation in a manner similar to that given in the official directions for tincture

of cascarilla. Recent researches (1892) of Beckurts and Nehring show that cusparia bark contains, besides a volatile oil and other constituents, four alkaloids—namely, galipine, galipidine, cusparine, and cusparidine—all of which are crystallisable bases. I think it will be found that a proof spirit tincture would better represent the essential constituents of the drug than an aqueous preparation, such as an infusion. The profound and practical Paris, in his classic "Pharmacologia," wrote of cusparia bark: "Its active matter is taken up by cold and hot water, and is not injured by long decoction, but the addition of alcohol precipitates part of the extractive. Alcohol dissolves its bitter and aromatic parts, but proof spirit appears to be its most complete menstruum." I find that a weaker tincture than that which I have indicated—namely, of the strength of one ounce of cusparia to one pint of proof spirit—is given as a non-official formula by Beasley.

Birmingham.

A CASE OF FORWARD DISLOCATION OF THE SEMILUNAR BONE.

BY LEONARD P. GAMGEE, F.R.C.S. ENG.,

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SURGEON TO THE CHILDREN'S HOSPITAL, BIRMINGHAM.

A MAN aged fifty-two was admitted to the General Hospital, Birmingham, on April 9th, 1895, complaining of a swelling over the front of the left wrist and of inability to flex the joint. He stated that four months previously, while working in a mine, he was standing with his back to the wall, with his left elbow flexed and with the back of his left arm pressing against a beam which projected from the wall. While he was in this position a truck came along and struck his left hand in such a way that his wrist was forcibly hyperextended. He found, immediately after the accident, that he was unable to flex his wrist, and very soon a great deal of swelling appeared all round the joint, both back and front. This general swelling subsided during the next fortnight. At the end of that time the condition was the same as on his admission. When he was admitted the following conditions were present. The power of extension of the left wrist was normal, but the joint could not be flexed beyond the horizontal position. On the front of the carpus in the middle line was a hard and fixed swelling, apparently immediately under the skin. From the size and position of the swelling I diagnosed that it was one of the carpal bones—probably the os magnum—dislocated forwards, and, from the fact that the patient felt numbness and tingling along the palmar surfaces of the first three fingers, that the median nerve was stretched over the surface of the bone. It was quite impossible to reduce the dislocation, and so two days after his admission I made a longitudinal incision over the swelling and found it to be caused by the semilunar bone, which had been dislocated forwards and then displaced downwards over the os magnum, the median nerve being stretched over the front of the bone. The nerve was freed and the bone removed, the wound healing by primary union. I last saw the patient on June 11th and found that the movements of his left wrist-joint were perfect, the left hand being practically as useful as the other. Subluxation backwards of one of the carpal bones, especially of the os magnum, is not very uncommon and is generally caused by forcible flexion of the hand. Forward dislocation of one bone, unless compound, is, on the contrary, extremely rare, the chief obstacles to displacement being the concave form of the palmar surface of the carpus and the resistance offered by the anterior annular ligament. In this case removal of the bone was the only possible way of restoring the function of the wrist, reduction such a long time after the injury being quite out of the question.

Birmingham.

PRESENTATIONS.—Dr. James W. Norris Mackay, of E'gin, has been presented by the members of the Northern Counties branch of the British Medical Association with his portrait (painted by Sir George Reid), in recognition of the "valuable, disinterested, and unremitting services rendered by him as secretary and treasurer of the branch since its inauguration in the year 1863."—Mr. S. Boake, L.K.Q.C.P., L.R.C.S. Irel., who has conducted, at Chard, classes in connexion with the St. John's Ambulance Association, has been the recipient of a gold pencil-case and an illuminated address from the members of the classes as a tribute of their esteem.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Prooemium.

ROYAL INFIRMARY, LIVERPOOL.

A CASE OF PERFORATED GASTRIC ULCER; LAPAROTOMY;
GASTROSTOMY; RECOVERY.¹

(Under the care of Mr. F. T. PAUL.)

It is well known to the readers of THE LANCET that we have constantly urged the publication of cases in which operation for perforating gastric ulcer has been performed, whether successful or not, and have done our best to spread a knowledge of the results obtained by different surgeons under the many and varied circumstances amid which cases have presented themselves for relief. There is probably no class of case which is calculated to cause greater anxiety to the medical attendant than one of this nature. Any additional success attained, any fresh suggestion of value in the treatment such as that made by Mr. Paul, may induce those in responsibility to recognise that not to recommend operation is to deprive the patient of a very good chance (and usually the only one) of recovery. The case of successful operation by Mr. Maurice, referred to by Mr. Paul, was published in THE LANCET. We have also given an abstract of a paper by Mr. Warrington Haward,² in which he described the case of a woman aged twenty-six who had been under his care, and on whom he had operated. As excision of the ulcer was not possible he had sutured its edges to the wound. The patient died from abscess of the lung six weeks after the operation.

About 1 A.M. on Dec. 13th, 1894, Mr. Paul was requested by Dr. Sidney Palmer to see with him a woman in whom he suspected that a gastric ulcer had recently perforated. The patient was thirty-one years of age, married, and a sufferer for years from dyspeptic symptoms. Six months previously the pain had become worse after food, so that she frequently induced vomiting to obtain temporary relief. The vomited matter was often dark brown and sometimes nearly black. Notwithstanding her constant pain and the advice of her medical attendant, she was far from careful in her diet, and on the night of Dec. 12th had a cold meat supper. This was shortly followed by the usual pain and vomiting, upon which there immediately supervened the most violent and agonising pain in the upper part of the abdomen. Her friends gave her a teaspoonful of brandy and applied hot fomentations, but without relief. Dr. Palmer was sent for. He found her in a condition of profound collapse and still suffering intense pain, so he injected morphia and took means to encourage reaction. About midnight the patient was beginning to get warm again, and the pulse to regain a little vigour. Mr. Paul was consulted as to the desirability of attempting relief by operation. On his arrival reaction was still further established. The skin was fairly warm, the pulse 130, the pain still severe, and the abdomen as rigid as a board from muscular contraction. The diagnosis seemed to be unquestionably correct, and there was no hesitation in advising the patient to submit to an operation. Unfortunately it was not convenient that it should be done where she was staying, so she was removed to the Royal Infirmary, Liverpool, and left in charge of the house surgeon, Dr. J. P. Nixon, with instructions to telephone as soon as she had fully recovered from the collapse, which of course had been somewhat deepened by the necessity of removing her. Mr. Paul went to the hospital on receipt of the message and commenced to operate at 7 o'clock, which was nine hours after the first onset of the symptoms. An incision was made four inches in length between the ensiform cartilage and the umbilicus. As soon as the peritoneal cavity was opened sour-smelling gas and greenish liquid escaped, and the neighbouring viscera showed signs of commencing peritonitis. The ulcer, though in a most awkward position, was

easily found on account of its very large, hard, and thick base, which made it feel like a malignant infiltration. It was placed at the cardiac end of the lesser curvature, and it required some tension to keep it in view, even although the left rectus muscle was cut across to the margin of the costal cartilages. The rent was transverse and measured about half an inch in length. Excision of the ulcer was out of the question, and so awkwardly placed was the orifice that it appeared doubtful if it would be possible to close it with sutures. However, with small curved sewing-needles held in dressing forceps and armed with fine green catgut Mr. Paul was able to make some sort of a closure, over which he drew and stitched a tag of fatty omentum. But the coats of the stomach were so friable, and the position of the orifice so difficult to get at, that he did not consider the closure trustworthy. The front end looked pretty well, but at the back, where it was out of sight, the condition of the wound was very doubtful, whilst very little reliance could be placed on the sutures, even where satisfactorily tied, on account of the extreme friability of the tissues. It seemed that the first accumulation of either gas or fluid in the stomach would find a ready exit through the stitches, and therefore it was determined to drain the stomach by introducing a glass tube as recommended for gastrostomy and shown in the accompanying engraving. This is very easy to accomplish, and apparently is not a source of danger, but

A, Method of passing the ligatures in the stomach. 1, Glass tube. 2, Rubber tube with clip. 3, 3, Sectional view of glass rods over which the ligatures are tied. 4, Interior of the stomach. 5, Abdominal wall.

it remains for time and experience to approve or condemn such a proceeding. Stomach drainage was employed here because Mr. Paul believed that the ulcer would certainly leak again unless placed under the most favourable conditions, and because it is a known fact that this secondary leakage is one of the prominent causes of failure in otherwise hopeful cases. The glass gastrostomy tube was fitted with a short piece of rubber tubing, which was closed for the present. Next the peritoneal cavity was well washed out with simple warm water, and the wound closed without drainage by passing fishing-gut sutures through all layers of the abdominal wall. On taking the patient back to the ward the stomach-tube was allowed to discharge in a jaconet bag containing antiseptic wool. She was kept warm and a brandy enema given. At first there was some abdominal pain, but it was not very severe. She felt sick and twice brought up a mouthful of brownish fluid. Copious vomiting was probably impossible with an open tube in the stomach. Thirst was avoided by frequent sips of warm water in which small doses of salol were occasionally given. For the first few days there was no great cause for anxiety. The temperature ranged between 98° and 100° F., and with the help of a little morphia she slept sufficiently and suffered but little pain. The pulse came down to 100. The urine was drawn off by catheter, and nutrient enemata were given every three hours. On Dec. 16th, the fourth day after the operation, stomach feeding was attempted by giving a little meat essence, but it had to be discontinued

¹ Read at the Liverpool Medical Institution on March 28th, 1895.

² THE LANCET, May 6th, 1893.