the operation because it was hidden by the head of the pancreas, might have been found by Senn's test, providing that it was not closed by some such thing as part of a cabbage leaf or other tough material that might be passing through the bowel. There was no evidence at the necropsy that septic peritonitis was due to this overlooked perforation. The perforations of the duodenum have proved the most difficult to find and to treat, because of the deep and hidden position of this bowel.

The following case has recently come under Dr. Bernays' notice. The Deputy Marshal, a man about forty years of age, had been shot at very close range with a 38-calibre revolver while attempting to make an arrest. The ball entered the abdomen at a point about midway on a line extending from the umbilicus to the spine of the ilium. The patient was doing exceedingly well; the pulse ranged from 80 to 90; temperature 99 6, never having been above 101; abdomen somewhat tympanitic, but not painful on pressure. He had vomited half a dozen times—a circumstance which one of the attending physicians attributed to the morphine that had been administered. The patient absolutely refused the operation under any circumstances. On examining more carefully and turning the patient over, a peculiarity was noticed in the motions of the left lower extremity. The muscles supplied by the crural nerve were found to be paralysed; while those supplied by branches of the sacral plexus were intact. Taking all the facts into consideration, it seemed quite possible that the ball might have passed into the abdominal cavity, along its anterior wall, very close to the parietal peritoneum, perhaps not even injuring the omentum, a distance of several inches, and then torn or injured the crural nerve just above Poupart's ligament.

In concluding his paper, Dr. Bernays said: "I cannot believe, from the evidence before me, that 30 per cent. of perforating gunshot wounds of the abdomen will recover without laparatomy, more especially if there is visceral injury, and if the missile be of such calibre as was used by the French army in 1870. My own experience of five operations proves to any candid and honest critic that under the expectant plan of non-interference the record would have shown five deaths, while under the plan followed by me this mortality of 100 per cent. was lowered to 40 per cent. Every surgeon will also admit that my cases (excepting the first one) were *bad* cases; and, indeed, cases No. 3 and No. 4, *both* of which recovered, were perhaps as grave and as badly injured as any successful cases that have been recorded. If the publication of these cases and results will serve to encourage my co-workers in the field of abdominal surgery to renewed efforts in cases of gunshot wounds, and if the description of my operations and after-treatment will serve to throw a little more light on this most difficult department of surgery, my object in publishing this paper will have been accomplished."

St. Louis, Mo.

RECURRING OCULAR PALSY.

BY D. R. PATERSON, M.D., M.R.C.P.

ALTHOUGH the history of the following case is necessarily incomplete, inasmuch as I have never seen the patient during any of the attacks, it may nevertheless be deemed worthy of record, perhaps rather on account of its rarity than in the hope of throwing any new light upon its nature. Not a few of the cases already published which have contributed in some measure to the study of this peculiar affection were recorded from accounts given by the patients and their friends, no observations having been made during an actual seizure. The patient who is the subject of this communication was seen by me for the first time three months ago, when she was suffering from pain in the temples and the back of the neck. She then gave me the following particulars, and as she is a well-informed lady, who took an intelligent interest in her symptoms as they developed, I am convinced of the accuracy of the account.

Mrs. X——, who is about sixty years of age, is married and has one child. Beyond the fact of her mother and one sister having suffered from neuralgia, there is little of note in the family history. Within the last five years, however, her brother's daughter—now twenty-five years old—has on two occasions been the subject of facial paralysis. The patient lived in Scotland, where she enjoyed excellent health, until her marriage in 1868, when she took up her abode in the south-west of England. Shortly after the change of residence she began to suffer for the first time from what she thought was neuralgia—pain in both temples and occiput, as well as in the head generally. It troubled her frequently, and was of moderate severity. In the summer of 1870, during very hot weather and after a morning of agonising pain, confined mostly to the left temple and forehead, but felt very acutely likewise in the eye of the same side, she noticed as the pain lessened that there was "something wrong" with the sight. All objects appeared to her to be double, the two images being parallel and the false one lying to the left of the true. To an ordinary observer, both eyes appeared straight except when she attempted to look to the left, upon which a convergent squint became apparent. She was unable to move her left eye outwards, and in order to see objects upon that side was obliged to turn round. There was at no time drooping of the upper lid. This attack, although unaccompanied by sickness, she put down to "biliousness." An ophthalmic surgeon whom she consulted informed her there was "paralysis of one of the nerves of the eye." Within three months the sight had become normal. After this the pain, on the whole, was less, until the spring of 1873, when it became more severe, being limited chiefly to the left side of the head and temple. The patient went out on Good Friday, as the headache had eased considerably. She thought she "caught cold," as next day she was worse, and on Easter Sunday, whilst she was much relieved, she became aware that the *left side of the face* was paralysed. There was no affection of sight, and she was able to close her eye fully, although "it watered and felt weak." In this attack the initial pain was not so severe as in the former, nor did it extend into the eye, being felt chiefly in the side of the head. By the end of July the patient considered herself well. During a very warm summer about six years ago, there was a severe attack of pain, beginning, as before, on the left side of the head, and subsequently becoming general, in which the same eye was affected, with symptoms precisely identical with those in the first—viz., double vision, squint, &c. Whilst the axis of the right eye is directed to the left, there is apparently no movement outwards of the other globe. This attack was not so severe as the former, and within seven or eight weeks the patient had recovered fully. The neuralgic pain still troubles her at times, but much less than formerly. Immediately before the facial palsy set in, the headache was accompanied by loud singing in the left ear, and this has been more or less continuous since that time, increasing in intensity as the pain becomes worse. There has never been any deafness. The patient has always been long-sighted, and has never observed any difference in the seeing power of the two eyes. The pain complained of at present is mostly in the left temple and side of the head. It has never been accompanied by sickness, and is relieved by antipyrin. The movements of both eyes are perfect, no trace of the former affection remaining. The lower facial lines are not so marked on the left side, and this difference is more evident when the patient smiles. The general health is good.

The interest of this case lies, perhaps, in the age of the patient, the long interval between the recurrences, and the fact that the abducens was separately involved. In most of the cases already published the affection dated from youth or infancy, and ceased after middle life. Of recent years the subject of recurrent ocular palsy—more especially that of the oculo-motor, or third nerve—has been attracting attention, and contributions to its study have been made by Senator, Joachim, Saundby, Snell, and Bernhardt, amongst others. According to Senator[1] the cases may be divided broadly into two classes. In one group which are essentially "periodic," and have been compared to migraine, epilepsy, and other paroxysmal neuroses, the intermission is complete. An illustration is afforded by Snell's case[2] of a little girl, eight years of age, in whom periodic attacks of paralysis of the third nerve took place about every six months. The other class has been termed "periodically exacerbating." The attacks do not resemble migraine so closely, headache and vomiting are not so prominent, and in the intervals the parts do not return quite to their normal condition. Thus in one instance re-

[1] Zeitschrift für Klinische Medicin, Bd. xiii., p. 252.
[2] Trans. Ophthal. Soc., vol. v., p. 193.

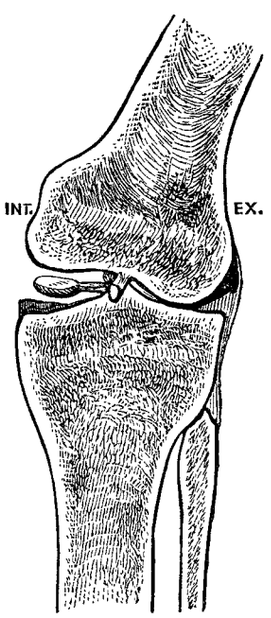
ported by Saundby[3] of recurring palsy of the oculo-motor the recovery was incomplete, the superior rectus remaining weakened, the pupil larger, and a degree of ptosis persistent. As Gowers says, "the nature of this disease is mysterious." Observers, such as Thomsen, Snell, and Joachim have traced a neurotic history on one or both parents' side. We have some ground, though perhaps insufficient, for regarding our patient as possessing, in a measure, an hereditary predisposition, and this is strengthened by the history, in her niece, of recurrent facial palsy, in which—we have it on the authority of Neumann—the existence of a "neurotic tendency" has frequently been observed. It is not an easy matter to make out a direct exciting cause. Errors of refraction may explain the selection of one globe rather than the other, such a difference having existed in one of Saundby's cases, where the affected eye was astigmatic, and in two examples recorded by Bernhardt.[4] On the other hand, Pel[5] has recently shown that a recurring oculo-motor paralysis may be the prominent symptom in the first stage of tabes dorsalis.

Cardiff.

EXCISION OF JOINTS.[1]

By DR. MAX SCHÜLLER.

Operation for the removal of a Loose Body impacted in the Knee-joint.—The patient in this case was a man aged twenty-three, in whose left knee-joint existed an irreducible joint mouse wedged in between the articular surfaces of the internal condyle of the femur and inner tuberosity of the tibia. To remove the impacted bone I made a longitudinal incision between the patella and the internal lateral ligament, opened the capsule of the joint on a small director, and made, in a semi-bent position of the knee, a forced abduction of the lower part of the leg. By that proceeding the internal condyle of the femur and tuberosity of the tibia projected out of the small opening of the capsule and separated a little from each other, so that it was possible to look through a small space into the interior of the joint. The mouse sat on the eminentia inter-condylica tibiæ, and projected in the space between the inner joint surfaces. It was cut away; then the internal semilunar cartilage,



which was a little displaced, was sewn again on the capsule, and the joint closed. Four weeks later the patient began to walk, after the wound had healed by first intention. Now he can move the joint freely, and use it very well—much better than before. I believe that this method of opening the knee-joint—which allows (as I have proved before on the dead subject) an inspection of the lateral parts of the joint between the joint surfaces without any lesion of the ligament—will be of the greatest use; also in cases of so-called "internal derangement" (Hey)—i.e., of the subluxation and breaking off of a semilunar cartilage, with its irreducible interposition between the articular surfaces. It makes, I believe, the excision of the joint quite unnecessary, and leaves it nearly intact, and also perfectly healthy, and it will prove to be also a better and surer help than the fixing apparatus, which are of little use in all such cases.

Excision of Ankle.—Four years ago I performed on a boy aged fourteen years an excision of the ankle for a suppuration of the joint after an acute osteomyelitis of the tibia. The new-grown joint is of normal shape, and the result is so complete that the boy can run, jump, climb, and share in all sports and gymnastics as well as his fellows.

Excision of Shoulder-joint.—A specimen was shown by me to the Society of habitual luxation—i.e., recurring dislocation of the shoulder-joint,—which had been improved by the excision of the joint. It occurred in a young married woman who for fourteen years had had innumerable dislocations of that shoulder. The head of the humerus was found lying on the inner border of the glenoid cavity. The head showed a depression on the posterior part, which had been in contact with the margin of the glenoid cavity, and presented signs of arthritis deformans. The tuberosities were unbroken, and the scapular muscles untorn, whilst the capsule was not abnormally loose. With the head were removed four loose bodies, one as large as a small walnut. I believe the depression on the head of the humerus was caused by pressure on the inner border of the glenoid cavity, which was also worn away at its upper part; in the lower part there seemed some irregularity which seemed to be the result of fracture. The first cause of the recurring dislocation was, in my opinion, this little fracture of the scapular articular surface, which I frequently find in experimental dislocations.[2] If the shoulder is not fixed by a good bandage after being reduced, this little breaking off of the border of the articular surface may not heal, and will thus give a cause for repeated dislocations. The joint mice are the result of the arthritis deformans. The specimen demonstrates, I believe, that in recurring dislocations of long standing the reduction is mostly of an illusive value, and that the function and usefulness of the arm can only be restored by operative interference.

Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

A CASE OF TRAUMATIC TETANUS; RECOVERY.

By H. HOLDRICH FISHER, M.B. LOND. &c.

AN instance of this disease, especially when a favourable result supervenes, is of sufficient interest to justify the case being recorded.

Albert T——, aged fifteen years, while playing leap-frog with an elder brother on June 18th, was accidentally knocked over, and in doing so tore down a flap of skin from his forehead. The skin was laid in position and strapped over by his mother, and nothing unusual occurred until the 26th, when she noticed that the boy could not open his mouth. He was brought for advice on the 30th, and when seen the jaws could not be opened more than half an inch, but there was nothing to account for it. There was a wound on the forehead which had begun to suppurate, though the flap of skin had in great part united. This was dressed, and the boy ordered to bed. On July 1st he was seen at home; the jaws were more tightly closed, he had an anxious expression, some risus sardonicus, and the muscles of the neck were standing out prominently in a state of tonic spasm. To speak at all, he had to depress the lower lip with his finger. He was able to swallow; the pulse was quiet, and the temperature normal. He was ordered nourishing fluids, an icebag to the neck, a quiet and dark

[3] THE LANCET, vol. ii. 1882, p. 345; vol. i. 1885, p. 57.
[4] Berlin. Klin. Wochenschr., No. 47, 1889.
[5] Ibid., No. 1, 1890.

[1] A paper read before the Berlin Medical Society, July 2nd, 1890.

[2] See M. Schüller's Surgical Anatomy, vol. i., p. 94.