three-quarters of an hour after the accident. The knee-joint was then moderately swollen, and but little painful; the patella was broken transversely, the two fragments being pretty equal. The interval between the two pieces was one centimetre. I laid the matter before the patient, and proposed the wire suture, which he gladly accepted. I also told him that I thought it advisable to wait eight or ten days before operating. Ice-bags were applied to the joint, the limb placed on a back splint, and elevated, whilst the fragments were retained closely together, and at rest by a testudo genu. On April 7th, assisted by Dr. Vos, Mr. Jonker, and Dr. Van der Heyden, chief of the Medical School and Hospital at Kobé (Japan), I performed the operation exactly as described above. I pointed out the posterior membrane, which was not so far organised as in the second case, and of a bluish-red colour, to my friend Dr. Van der Heyden. He was also of opinion that it was formed by the blood-clot in process of organisation. The interval between the fragments was at this time one centimetre and a half. Whilst I was gently boring the holes for the wire the membrane could be seen fluctuating. The bony surfaces were then freshened, and the space between was sponged out with a weak solution of corrosive sublimate (1 in 1000). The fragments were drawn together with a thinner wire than I had previously used, and the wound closed. A typical antiseptic dressing was applied, the limb placed on a back splint, and elevated. There was a little pain during the first two days. On the evening of the second day, April 8th, the temperature reached $38^{\circ}2$ C.; with this exception the temperature did not exceed the normal.—April 19th: Dressing removed; the wound healed; pad of salicylic cotton applied to protect the young cicatrix; the back splint reapplied. Four days later a plaster bandage was applied from the toes to the hip, and the patient allowed to get up; but to remain in his room. At the end of May he walked about a little with the plaster bandage still on. On June 2nd the bandage was removed. The patient was warned not yet to bend his unprotected knee-joint. Misunderstanding the warning, however, he frequently bent the joint to restore the movements of the stiff knee, and on June 7th the union between the fragments was thus strained. On inspection I found slight tenderness and a little effusion of blood under the soft parts. Rest and a mercurial application were ordered. On June 12th the swelling had disappeared. I could then feel a slight separation of from one to two millimetres between the fragments, but did not feel absolutely certain of this. For security I instructed the patient to wear the apparatus proposed by Mr. H. Parson,² but it caused pain and a little soreness. Meanwhile I became certain that a little separation existed, for there was slight lateral mobility of the fragments. By the middle of July the strength of the limb had so much improved that the patient returned to the Hague, and in August resumed his duties as under station master on the Rhenan Railway. In September, however, whilst standing before his desk, Mr. V. B. felt his left knee suddenly give way, and he fell. He was removed to the hospital at the Hague, and two days later was operated upon a second time. I have since heard he made a very good recovery. That the unfortunate complication of refracture in this case has nothing to do with the mode of operation I propose will be clear. The only circumstance in the operation I can think of that might have contributed towards the accident was the use of a weaker platinum wire than in my previous cases. In consequence the fragments were not so strongly drawn together for fear of breaking the wire.

Finally, since I have demonstrated that suture of the transversely fractured patella with wire can be performed in the majority of recent cases—say ten to twenty days after the accident—without opening the joint, and since this is not possible in old cases, it will therefore be far safer to operate in recent cases than in old ones.

Utrecht.

² Vide THE LANCET, May 19th, 1883, p. 862.

It is not an uncommon practice, we believe, in Yorkshire to administer the leaves of the arbor vitæ (*Thuja occidentalis*) to horses for the purpose of imparting a gloss to their coats. It is a practice, however, that cannot always be followed with impunity, and a farm servant at Driffield was last week sentenced to a month's imprisonment for causing the death of a mare by this means.

ON ASEPTIC BLADDER WASHING.

By SOLOMON C. SMITH, M.D.,

SURGEON TO THE HALIFAX INFIRMARY.

WASHING out the bladder is a proceeding which when properly performed is calculated to relieve, and in some cases to cure, very serious conditions, but if ill done is pregnant with mischief. It is one of the most efficient methods of treating chronic vesical catarrh, and it is the most useful means at our disposal for checking that septic inflammation of the bladder which constitutes one form of what has lately been spoken of as "catheter fever." Offensive urine is, in my experience, always bacterial, and there is no reason why septic bladder catarrh should not be treated on ordinary surgical principles either by washing out the cavity or by drainage by means of perineal section, or by both measures combined. To wash the bladder without doing harm four points must be attended to.

1. The catheter must not press with its point against the opposite wall of the bladder—in other words, when the eye has entered the cavity it should go no further.

2. During its stay in the bladder the catheter should be perfectly still, therefore one hand will be fully occupied in holding it steadily in position.

3. No pressure should be made upon the abdominal walls.

4. No germs of decomposition must be introduced, therefore the catheter must be clean and no air must be allowed to enter.

The first and the last are the most important rules, and if they are rigidly followed the sort of catheter employed is to

a great extent a matter of taste, and of individual preference. For the effectual removal of septic mucus it is generally necessary to flush the cavity many times at each sitting, and at each alternation between outflow and inflow there is great risk of introducing air if the operation be done either with a syringe or a funnel and elastic tube, the two usual methods. Moreover, the syringe labours under the additional disadvantage of having a limited capacity, while the amount of fluid which the bladder requires to flush it is a very variable quantity, in some cases an ounce and a half being enough to open its sacculi, and in others five times that quantity being not more than sufficient. With the object of avoiding some of the risks of the operation, and reducing it to such simplicity that it can be performed by the patient himself, and can therefore be repeated frequently, a point of importance in many cases, I have contrived an apparatus which I will now describe, and which I may premise can be readily made by any tinman. The principle on which it acts is that the water flows into the bladder from a reservoir held aloft, which may be a common tin can holding a quart or more, and that when it flows out again it passes into the chamber utensil through a separate tube, and that these tubes being made of soft indiarubber, alternate compression of one or other will cause the water to flow alternately in and out of the bladder. It is obvious that for this purpose there must be a sort of three-way or T-shaped junction-pipe close to the end of the catheter, one arm being connected by tubing with the reservoir, another with the catheter, and the third leading to the utensil. Each arm should be about half an inch long, and of such calibre as to fit tightly into such a

size of vulcanised indiarubber tubing as will slip easily, but watertight, over the end of the catheter. A hole is to be bored in the side of a quart can close to the bottom, and half an inch of tin tube of the same calibre soldered into it. Two feet of rubber tubing will connect this with one arm of the T, one inch more will connect the other arm with the catheter, and about a foot will carry the downstroke of the T into the utensil. An American clothes-peg or pinchcock on the long tube will prevent water flowing before it is wanted. To use it fill the can with warm water (98° to 99° F.), pass the catheter, slip on to it the short tube, and thus let the urine flow into the utensil, elevate the reservoir and remove the pinchcock, thus letting water flow for a moment also into the utensil so as to drive all air from the tubes, then with the finger and thumb compress the upper tube so long as urine flows through the lower one, when this ceases change the compressing finger and thumb to the lower tube, thus making the water flow into the bladder; in a few seconds change the finger back to the upper tube, stopping the down flow and letting the water flow again from the bladder into the utensil, and repeat this alternation as long as the water is at all soiled. The assistant who holds the can must all the time keep it constantly replenished. The most generally useful fluid is water, or water slightly impregnated with sodic sulphate ($\frac{1}{2}$ per cent.), but in various cases I have found carbolic or salicylic acid, or quinine solution or weak nitric acid, to act for a time more beneficially than the simpler wash; the great point, however, is to use enough fluid to leave the bladder clean.

I showed this apparatus at the Leeds Medico-Chirurgical Society three or four years ago, but I then drew the water from the reservoir by a syphon. I soon found, however, that a much more trustworthy plan was that which I have now described, attaching the tube to the bottom of the reservoir.

Halifax.

CASE OF STRANGULATED UMBILICAL HERNIA; OPERATION; RECOVERY.

By J. BERNARD, F.R.C.S.I.,
MEDICAL OFFICER, H.M.'S PRISON, HULL.

ON Nov. 16th, 1883, my attention was called to E. S—, a female prisoner, aged forty-seven, who was complaining of pain in the abdomen in the neighbourhood of a hernia of many years' standing. She stated that she had usually been able to reduce the hernia (which was umbilical), but occasionally had to seek advice at the Hull Infirmary, where once or twice chloroform had been necessary for its reduction. Her present symptoms began after a day's work in the laundry. On examination, I found a tumour at the umbilicus the size of an orange, with an irregular surface, of a deep-red colour, and somewhat tender when touched. There had been no action of the bowels since Nov. 13th. The patient said that the tumour was now about double its ordinary size. Whenever it had so increased on previous occasions she had generally been able to push it back. Now, however, she could not do so, and it was causing her great pain. I attempted to return the mass by taxis, but failing, ordered the patient to remain in bed, and to take a dose of compound senna mixture.

Nov. 17th.—Was sent for last night at 10.30, in consequence of the patient complaining of the pain increasing; it was now generally over the abdomen, which was somewhat distended. I administered chloroform, and again attempted to reduce the hernia by taxis, but failed. I ordered forty drops of the tincture of opium, and enjoined perfect rest. On visiting her this morning, I found no diminution in the pain and distension of the abdomen. No action of the bowels had taken place. The patient's pulse was rapid; she complained of nausea, and had been unable to take any nourishment since early yesterday. Judging the case to be of some gravity, I called in Dr. Robinson of Hull in consultation, and, after a more complete attempt at reduction by taxis under chloroform, we determined to operate. Whilst preparing for the operation, vomiting of a bilious character came on. The patient being fully under the influence of chloroform, an incision was made in the direction of the neck of the tumour, and after carefully dissecting through the subcutaneous tissues, which were very fat, the peritoneum was reached. The fore-

finger introduced into the wound detected at once a tight constriction about the neck of the sac. Being still unable to return the mass, the peritoneum was laid open, exposing a mass of omentum, and an incision was made in the constriction with the hernia knife. The mass was then readily returned, no intestine being seen, although looked for. The wound was brought together by several wire sutures, and dressed with carbolic oil on lint, and a stout pad, and bandage. The patient quickly rallied from the operation. She was placed on low diet, with extra milk and beef-tea; she was also ordered forty minims of the solution of morphia. —18th: She complains of great pain, generally over the abdomen, which is distinctly tender to pressure; she has rested badly; pulse 100. Ordered fifteen minims of tincture of opium every two hours, until the pain is relieved. The bowels acted last evening after the operation very freely. —19th: Pain almost entirely gone, but still some tenderness; says she feels much better. The tincture of opium to be given every three hours. Catamenia appeared to-day after an absence of nine months. —20th: Improving; pulse 84. —22nd: Wound dressed, and sutures removed; union by first intention in almost the whole length of the wound; still a little abdominal pain, so that opium is continued. —26th: Progressing favourably, but complains of colicky pains. Ordered a purgative enema at once. —27th: Bowels acted freely after the enema given yesterday; she is free from pain. —11th: There has been a daily improvement since the last report. All medicines have been discontinued, and the patient has been able to get up. She was allowed out of bed yesterday and to-day.

Jan. 4th, 1884.—Discharged quite well.

Hull.

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. Proœmium.

HACKNEY UNION INFIRMARY.

A CASE OF HYDROPHOBIA OCCURRING ELEVEN MONTHS
AFTER DOG-BITE.

(Under the care of Mr. J. J. GORDON.)

ON November 30th, 1883, R. C—, aged twenty-nine, a labourer, was admitted at 12.15 midday, said to be suffering from catarrh. Beyond the fact that eleven months previously he had been bitten by a dog in a public-house and that he had been of intemperate habits and lived an irregular life, his previous and family history were unimportant. He was at work on the 29th all day and did not complain on reaching home. He went to work on the 30th (day of admission), but left off at breakfast-time in consequence of feeling ill. On his way home he felt so bad that he went into a public-house and called for some ginger brandy. In trying to drink it he failed, as "it took away his breath" the moment he put it to his lips. He stated that his behaviour frightened the people in the public-house. On arriving home he told his wife that he was very ill and wanted to see a doctor. She tried to persuade him to have some tea but he obstinately refused, saying it would choke him. He visited the parish dispensary, walking there with great difficulty, and obtained an order of admission to the infirmary.

He was seen immediately on admission, and put to bed. His face was very flushed, and his countenance wore a sullen, semi-stupid expression; tongue flabby, slightly furred, and tremulous; the fauces and back of the pharynx were reddened; respiratory murmur normal; heart's action quickened, but regular. (The examination of his chest seemed to cause him anxiety, and brought on spasmodic attacks.) Temperature normal; pulse 98. He had not been in bed long before he began to tremble all over, as if from nervousness or fear. Whilst putting some additional clothes on the bed the sheet happened to get over his face, when he nearly jumped out of bed, and made a great fuss. In the act of receiving his medicine from the nurse some of