INSPECTION twenty-four hours after death. The general appearance of the body was that of a stout, well-grown young man, of about 17 or 18 years of age. The abdomen was very much distended, and, on an incision being made, gave exit to a large quantity of gas. There were found three to four quarts of fluid in the peritoneum, the first portion removed being clear; that from the pelvis and dependent parts resembled a mixture of pus and serum. The general vascularity of the peritoneum was slightly increased; all the abdominal viscera appeared healthy with the exception of the liver, on examining which there was found a large opening, commencing at its anterior edge, where the suspensory ligament becomes attached to it, and extending into the substance of the right lobe, forming a very extensive cavity, from which the pus found in the abdomen had evidently escaped. Pressure caused an additional flow of pus. The gall-bladder was distended with bile. The bladder contained no urine.

REMARKS. From the symptoms, attack, and mode of death, I was strongly impressed with the idea that there must have been rupture, or perforation of some viscus.

The fact of the patient not having passed urine for almost an entire day, viz., twenty-two hours, coupled with that of the bladder being found perfectly empty on the introduction of the catheter, led me to think it possible that the bladder was ruptured, and its contents extravasated into the peritoneum. On the other hand, the absolute denial of his having sustained any external violence militated against such a supposition. Again, it was difficult to reconcile it as being a case of perforation of the intestine, inasmuch as there had been neither diarrhoea nor dysentery to lead on to ulceration or perforation.

It must be conceded that the case is one not devoid of interest, when we reflect that an abscess should go on to formation without any manifestations or derangement of the general health. Moreover, the suppression of the renal secretion is worthy of observation.

ON DISEASES OF JOINTS.

By HOLMES COOTE, Esq., F.R.C.S., Assistant-Surgeon to St. Bartholomew's Hospital, and to the Royal Orthopædic Hospital, etc.

IV. LATERAL CURVATURE OF THE SPINE.

[Concluded from page 188.]

THE practice of keeping patients afflicted with lateral curvature of the spine, for months, and even years, upon reclining boards, is in every way reprehensible. I doubt whether existence under such circumstances would be acceptable to a person with healthy mind. To those subject to perverted feeling and hysterical emotions such a plan would obviously encourage the morbid tendency; and there are few surgeons who cannot recall to mind cases in which, to use the words of Dr. Prout, "the ruling passion is displayed in attempting to excite pity and commiseration, where the erotic sentiment cannot be excited."

Now, some practitioners keep their patients on the back; others on the face; others on the side. Of these, the first is the most reasonable as affording rest. The other two must be inconvenient and disagreeable to a degree. I grant that there are cases in which the deviation from the straight line disappears where the patient assumes the recumbent posture; but what will ensue from the continuance of such a practice? Judging from what we witness in bed-ridden cases, I should expect the ligaments first to lose their tone, and then to contract and form morbid adhesions. As regards the bones, they lose their earthy material, and become light and spongy. A vertebral column of usual size taken from an adult and dried, weighed one pound seven ounces and a half; one taken from a person long confined to bed, weighed, under similar circumstances, only thirteen ounces and a half.

This change pervades the whole osseous system; the cancellous texture of the long bones disappears, and a shell filled with brownish fat remains. This is called excentric atrophy; and I have known it proceed to such an extent that the femur has broken in no violent handling; or has been so light that the saw could scarcely be used in amputation. What must ensue when the patient rises after a long period of this restraint? Can we expect healthy tone in any of the normal structures? On the contrary, the patient is in that condition most prone, from general debility, to physical deformity.

There are cases of incipient lateral curvature in young per-

sons (of the class "general yielding of the vertebral column") which may be treated without instrumental supports. Abstinence from employments which call forth the exercise of one side of the body in preference to the other; fresh air; out-door occupations; and rest whenever a feeling of fatigue is experienced, may, in conjunction with the bodily changes effected by growth, succeed in arresting, if not in entirely removing, the deformity. But the patient requires watching, for the tendency to disease continues, and it may become progressive long after puberty.

CASE I. John B—, aged 31, a well built, yet slightly made man, of pale complexion, waiter at an hotel, applied at the Royal Orthopædic Hospital, February 25th, 1858, complaining of weakness in the loins, loss of power in the lower extremities, fatigue after walking a mile or so, and "dropping" of the right shoulder upon rising of a morning. Upon examination, there was found general looseness of the vertebrae, the spinal column yielding readily to the weight of the head and upper extremities. There was a slight double lateral curvature. In the recumbent posture, the deviation very much disappeared. It was obvious that this man's employment was beyond his strength, and he was directed to wear the pelvic band with two crutches extending to the axillæ.

But whenever the curvature is established, the only method of affording relief is by the application of some constantly acting support, which will overcome the resistance of the contracted ligaments, and allow the elongated ligaments of the convexity to resume their normal proportions. These conditions are, in fact, fulfilled by the well known instrument invented by M. Tavernier, and called the lever-belt. Yet there is felt, by those who have used it, a want of power to act with accuracy against particular parts of the curve.

This deficiency is supplied by Mr. Tamplin's instrument, one equally well known, and acting by means of pads pressing in the situation required, by steel rods moved by cogwheels, and attached to a pelvic band. The apparatus has been modified according to the fancies of other practitioners, some adding a screw here or there; the principle, however, remains precisely the same as laid down by Mr. Tamplin, and of its utility no better proof can be afforded than the acquiescence in its superiority by the late Mr. Lonsdale some short time before his death. Those desirous of learning more about the instrument may either consult the work upon the subject (*On Lateral Curvature of the Spine*, by R. W. Tamplin. London, 1852), or see it any time at most surgical instrument makers, such as Mr. Ferguson, of Giltspur Street.

It is not sufficient to direct the patient to put on the instrument, and then leave the further progress of the case to chance. Most careful watching is necessary, and the extending force must be used slowly, with patience and skill. If there is only one long curve, generally directed to the right, a single pad will be sufficient to act upon it. But if there be a double curve, counter pressure by a second pad, also moveable, must be likewise exerted. The steel rods, which support the pads, must move not only from side to side, but from before backwards, that they may accurately adapt themselves to the figure, and keep up pressure whatever amount of change may ensue. Finally, the crutches under the axillæ, extending from the pelvic band, require movement in every direction, that proper support may be given without fretting or excoriation. The crutch on the concavity should rise well into the axilla, and be supplied with means of being elongated; for the body of a person suffering from lateral curvature may be raised from half an inch to two inches, or even more, when corresponding instrumental changes, without removal of the apparatus, become requisite.

The surgeon should himself turn the screw to which the compressing pad is affixed on alternate days, or at least twice a week, when it will be noticed that, as the spinal deformity is relieved, constitutional symptoms under which the patient has long suffered vanish accordingly. A lady, at present under my care, has for many years suffered from violent periodical headaches, which have almost entirely disappeared since the deformity of the vertebral column has been relieved. A second patient, whose case is recorded in this JOURNAL (p. 144), experienced such irregularities in the action of the heart, that she feared to go out alone lest she should faint in the streets. The replacement of the viscera of the thorax, consequent upon the correction of the spinal deformity, removed this unpleasant sensation. A third patient was relieved by similar treatment of distension of the intestine by flatus and general inactivity of the alimentary canal, alternating with occasional attacks of spasm, tenesmus, and diarrhoea. A fourth patient (whose case is related at p. 187 of this JOURNAL), was relieved of a set of

symptoms dependent on amenorrhœa. It is very common for women, who have been barren so long as the uterus has been out of position in connection with general visceral displacement in deformities of the spine, to become impregnated soon after the removal of the deformity. The difference, in short, amounts to that between a state of health and a state of disease; and it is, in my opinion, to be regretted that the subject has not attracted more attention.

Curvatures of the spine are not only lateral; the convexity may be posterior (cyphosis), or anterior (lordosis), the former not uncommonly combined with lateral curvature; the latter frequently complicated with diseased hip.

The existence of posterior curvature indicates the necessity of a back-board on a well made pad, which should be affixed to two crutches, reaching (as in the description of the former instruments) from the pelvic band to the axilla. The cyphosis of old age is scarcely remediable.

The treatment of anterior curvature depends upon the nature of the disease of which it is a concomitant.

I would, in conclusion, remark that in rachitic cases of lateral curvature the bones themselves are altered in form. Our efforts, says Mr. Tamplin, can only be directed to apply the most efficient means to put a stop to an increase of the deformity, and, as far as is safe or prudent, relieve that which is already in existence. I say safe or prudent, because the distortion of the ribs and chest is occasionally so severe, that no one possessing either sense or feeling would attempt the application of such force as would have a tendency to restore them to a straight position, which could only be attained at the expense of fracture of the ribs or dislocation of the vertebrae. (Tamplin *On Deformities*. 1846. p. 223.)

MEMORANDA OF CASES IN PRIVATE PRACTICE.

By THOMAS SNAITH, Esq., Surgeon, Horncastle.

I. ANAL FISTULA OF LONG DURATION: SUCCESSFUL TREATMENT BY ASTRINGENTS.

In February 1853, in consequence of an observation while in attendance on M. B. for general indisposition, I was induced to request an examination of the left side of the anus. I found the opening of a sinus, fully a probe's length in depth. In answer to my inquiry as to how long it had existed, the patient said he could not tell; but that, for a very long time, he occasionally found on the paper he used in the closet a quantity of blood or matter, and was always inconvenienced when the bowels were relieved. I told him it was high time that something was done, or the sinus would increase until it could not be cured. I proposed the usual operation; but he so stoutly resisted the knife, that I was compelled to propose another mode; telling him plainly, however, that I did not expect it to succeed. To this he readily consented, and my treatment began.

I kept the bowels in a loose state by mild aperients. I injected, every third or fourth day, a half-ounce syringeful of a solution of sulphate of copper, containing ten grains to the ounce of water; and occasionally a syringeful of a solution of nitrate of silver, containing two grains to the ounce. Every day, or on alternate days, I passed a tent of lint up to, or very nearly to, the top of the sinus. By these means I compelled the sinus to heal (if it would) from the top, and was delighted to find it did so. After some months, I could not pass the probe above half its length; and gradually the sinus closed altogether.

I regret I did not at the time keep a daily or weekly account; but such are the facts of the case, according to the best of my recollection. The patient has not for years past complained of pain or uneasiness in the part, and the orifice is quite closed. I should observe, that occasionally during the cure (about twelve months), a partial union of the sides took place, but I always forced my probe through them, being determined to make the sinus heal from the top, or not at all.

II. POPLITEAL ANEURISM IN BOTH LEGS AT DIFFERENT TIMES, PROBABLY CAUSED BY USE OF LEAPING-POLE: SUCCESSFUL TREATMENT IN BOTH INSTANCES BY LIGATURE.

Early in September 1845, I was sent for to see a farmer, about 40 years of age, and residing about ten miles from this place. I found him labouring under popliteal aneurism of long standing, of the size of a man's fist. I told him I could

do nothing for him while he resided at so great a distance from me; and he consented to come to Horncastle.

I gave him two or three cathartic doses; and, on October 2nd, tied the femoral artery on, I think, the right thigh. After the operation, an anodyne was given to him; the limb was well wrapped up in flannel; a fire was kept up in his bedroom; and every attention was paid to him. The ligature came away in due time: in fact, he had not, during the two months he remained here, a single untoward symptom. At the expiration of that time, he went home quite well.

I could not make out by the most minute inquiry the cause of the complaint. All he could tell me was, that, a long time ago, he had a certain amount of pain and numbness in the leg, and perceived a small swelling in the ham, which increased to the size of a man's fist. I suspect, however, that the cause was the use of the *leaping-pole*. My patient's farm was in Billingham Fen; and, in the fenny districts, the fields are separated by large ditches or drains, instead of hedges and walls. Indeed, so large are these ditches, that no man can jump over them; he therefore uses a long pole, by means of which he can throw himself over the widest; but, of course, according to the distance, so must be the force of the spring or bound.

In a second attack which my patient had, there could not be the slightest doubt or hesitation about the cause of the injury. In the latter part of July 1847, nearly two years after the first operation, he complained of pain in the ham immediately after throwing himself over a large ditch by means of his leaping-pole, and walked home very lame. In about a week, he found a considerable swelling in the ham, and came over to me. I told him he had the same disease in that leg as he had had in the other two years previously; and that nothing but tying the artery in that thigh, as had been done in the other, would save his life. He consented; and, on August 30th, 1847, the operation was performed. He did well, and at the end of three months went home perfectly cured. He died about four years ago.

III. OBSTINATE PROLAPSUS UTERI: REMOVAL BY LIGATURE: RECOVERY.

About thirty years ago, a dispensary patient, then aged about 40, sent for me in great haste. I found a large mass, of the size of an infant's head, protruding from the vagina. It had suddenly come down; and the patient and some women surrounding her were nearly frightened to death. I tried to restore the prolapsed uterus, but found it impossible to do so. Shortly afterwards, my friend the late Dr. Bousfield (senior physician to the Horncastle Dispensary) saw her with me, and advised anodyne fomentations, etc., for her relief, as the mass could not be restored. Matters remained in this state for some days, during which the menstrual secretion was seen oozing from the sides of the uterus.

Dr. Bousfield asked me if I would incur the responsibility of attempting the removal of the prolapsed uterus by ligature. I replied, I would readily do so with his sanction, but that on my own responsibility I would not. It was then agreed, with the consent of the patient and her friends, that the operation should be performed. Not having a double canula, I made one by cutting a silver catheter in two, and soldering the sides together, and next morning I placed a thin iron wire round the tumour, as far within the vagina as I could. To the best of my recollection, the putrid mass sloughed off in about ten days. The woman recovered without an unfavourable symptom, and died only a year ago.

IV. IMPACTION OF FÆCES IN THE RECTUM.

Six years ago, a lady came under my care, having for many months laboured under a very perplexing complaint, the most prominent symptoms of which were those of a large calculus passing from the liver. The pain was occasionally terrific; there was some discoloration of the skin, and great irregularity of the bowels. Warm baths, clysters, and indeed all kinds of treatment, were resorted to. She twice went to London for advice prior to becoming my patient, but without benefit.

From her description of the pain and great difficulty she experienced in obtaining an evacuation of the bowels, I was induced to ask for permission to examine the rectum. On passing my forefinger up the bowel, I felt a hard and large mass of something, of the size of at least a hen's egg. I very diligently attempted to make an impression upon it with my finger-nail, and fortunately brought away a small particle. This I found to be feculent matter; and now the difficulty was, how to get it expelled. Clysters had no effect on it, although frequently repeated—twice a day at least; and the mass was so large that the utmost efforts were unable to propel it through