From this table it will be observed that amongst the 111 cases in which litholapaxy was performed there were four deaths. The details of these cases are as follows:—

CASE 7.—A Hindoo male, aged sixty-five, was admitted into the Moradabad Civil Hospital on September 21st, 1882, with symptoms of stone in the bladder, which had existed three years. There was painful and difficult micturition, with frequent desire to make water; passing of blood occasionally, and the urine for some months had been mixed with pus, giving a very offensive smell on standing. There was great enlargement of the prostate. A catheter was passed and about ten ounces of fetid urine drawn off. On passing a sound several small calculi were detected. The man's health was very bad. On September 2nd I performed litholapaxy. The operation lasted thirty-five minutes, the lithotrite being introduced four times. The débris weighed eleven drachms. No. 18 cannula passed easily—after previously slitting the floor of the meatus slightly—as far as the prostatic portion of the urethra, where some manipulation was necessary to pass it into the bladder. It was evident from the appearance of the débris that there were several calculi, varying in size from that of a pea upwards. Before withdrawing the cannula finally the bladder was washed out with a weak carbolic solution. In addition to the usual after-treatment, a catheter was ordered to be passed morning and evening, owing to the atony of the bladder and enlargement of the prostate that existed. During the first two days little urine passed except through the catheter. The urine continued fetid and sanious; the bladder was washed out daily, a faint trace of carbolic acid being added to the water. There was no pain, but the patient continued very anxious and depressed, and died on September 27th from exhaustion. No post-mortem examination was permitted.

(To be continued.)

REMOVAL OF A GUN-BREECH AND BOLT FROM THE NOSE AFTER FIVE YEARS.

By RUSHTON PARKER, B.S., F.R.C.S.,
PROFESSOR OF SURGERY IN UNIVERSITY COLLEGE, LIVERPOOL.

THE patient, a farmer aged twenty-four, was brought to me by Dr. O. W. Griffith of Pwllheli, on Dec. 19th, 1883. Five years before a muzzle-loading fowling-piece had burst in his hands, laying open his face about the mouth and nose. The resulting wound had healed externally with a trifling scar and no deformity, under the the care of another medical man. About November, 1883, he consulted Dr. Griffith on account of a persistent fetid discharge of pus from his nostrils, and a sinus under the upper lip on the left side. The use of disinfectant lotions not having produced any improvement, it was concluded that a piece of necrosed bone was at the root of the evil. The examination by myself and Dr. Griffith showed entire absence of facial and buccal deformity, and the probe revealed nothing except a bare edge of bone when passed into the sinus under the lip. Exploration by either nostril, however, with dressing forceps was attended by contact with what was presumed to be a piece of dead bone, that could be seized and turned about, but not withdrawn, as the aperture was not large enough. So arrangements were made for operation under anæsthetic the next day, which was undertaken in lodgings the patient took for the purpose. The sinus beneath the lip was entered with a blunt-pointed bistoury, and the soft parts of the nose detached from the upper jaw by a horizontal incision along the mucous fold under the lip. Through the resulting hole the manipulations were made, in order not to mutilate the exterior of the face. The sequestrum forceps employed soon clicked with a metallic sound, and were withdrawn holding an iron screw bolt, at once suggesting that one had to do with parts of a gun, but the main object still remained, resisting at first all efforts at extraction, though freely movable round and round. The bony margins of the nostril were clipped with pliers to enlarge the opening somewhat, but even then the body did not advance. The sequestrum forceps missed their hold repeatedly, having become much distorted, and therefore almost useless. However, with the fingers, and with another pair of forceps used as a lever, the piece of metal was prised through the opening by

forcibly pulling, wrenching, and wriggling. Examination with the finger failed to detect any further loose fragment, coming upon blood-clot and the sharp edges of the nasal septum and other bony corners presumably not necrosed. Much hæmorrhage naturally occurred, but was speedily arrested by washing with hot water. The patient was a full-blooded man of extremely strong build and middle height, and most bravely endured the operation, of which he must have felt the greater part, as the chloroform produced little or no effect upon him. Much soreness naturally followed all the next evening and night, in which he slept but little. The next morning early he took a breakfast of ham and eggs instead of the tea or beef-tea which had been recommended for him,

and he set off the same day for Pwllheli, where he has remained and progressed favourably ever since. In the first week of June, 1884, he was seen by Dr. Griffith, who found the incision under the lip healed without visible cicatrix, and the discharge from the nose a mere trace. The patient was free from all inconvenience.

Remarks.—This is the largest piece of gun-barrel, embedded in the nose, that I have heard of, weighing 3 oz. in the breech and $\frac{1}{2}$ oz. in the bolt, the former having dimensions of $2\frac{1}{2}$ by $1\frac{1}{2}$ by $\frac{3}{4}$ in., and the latter $2\frac{1}{4}$ by $\frac{1}{4}$ in. The next largest that I know of is that removed by Mr. George Lawson, depicted in the second and subsequent editions of his work on the Eye, and weighing $1\frac{1}{2}$ oz.

Liverpool.

LATERAL DEVIATION OF THE SPINE.

By F. R. FISHER, F.R.C.S. ENG.
SENIOR SURGEON TO THE NATIONAL ORTHOPÆDIC HOSPITAL.

THE various conditions of curvature of the spine have of late years attracted a considerable degree of attention, especially with reference to their treatment. Pott's disease of the spine, or, as it is more commonly called, "angular deformity," and lateral curvature, have mainly, it might perhaps be written solely, received notice. Concerning these deformities more difference of opinion has been expressed as to the most desirable methods of treatment to adopt for the relief of the latter than of the former condition, because most surgeons are fairly well agreed as to the objects to be striven for in order to relieve Pott's disease, whilst they dispute pretty freely as to what lines should be followed to overcome lateral deformity. Much of this difference of opinion is to be traced to a confusing together of several conditions of lateral deviation of the spine under the one term lateral curvature. Now, although lateral curvature varies greatly in its nature, especially as regards the situation of distortion and the number and length of the curves formed in the column, there is one distinguishing feature in this deformity which should prevent any error in diagnosis, and to this point alone need reference be made here. Wherever the curves may be situated, whether in the cervical, dorsal, or lumbar region of the spine, whether in the early or late stage of the deformity, there will always be found that condition which has given to lateral curvature of the spine the name of scoliosis; this ever present characteristic is the so-called "rotation of the vertebræ"—that is to say, the anterior portion of the column, the bodies of the vertebræ, is further displaced from the median line than is the posterior portion, the spinous processes; indeed deviation of the latter processes is frequently

not established until very considerable displacement of the bodies of the vertebræ has taken place. From the presence of this structural change in the column it follows that in whatever position the subject of the deformity is placed the distortion of the spine remains, a fact in itself of great aid in arriving at a correct diagnosis of the condition. A surer and equally simple mode by which to detect lateral curvature is to make the patient stand erect in the drill position of attention, and gradually stoop forwards as though endeavouring to accomplish the familiar feat of touching the toes with the tips of the fingers without bending the knees; if whilst the patient is in this position, with the pelvis nearly at right angles with the thighs, the surgeon runs his fingers down the column, one on either side of the spinous processes, there will be detected a fulness at the seat of curvature on the side towards which the transverse processes of the rotated vertebræ are directed backwards, whilst a groove, owing to the same processes being thrown forwards, will be distinctly evidenced on the opposite side.

The fact that lateral deviation of the spine does not constitute lateral curvature cannot be too strongly insisted upon. Once arrive at a clear understanding on this point and much controversy might be avoided. To illustrate the confusion which at present exists between the various

overworked and underfed, the servant of the lower classes, girls educated at cheap "establishments for young ladies," the attendants at second-rate drapery shops, and such like; also it is met with in those who have suffered from long illness of an exhausting nature, and in those affected with that defective condition of health commonly described as general debility. Frequently accompanying the deformity, as it did in this case, is that mental condition which tends to exaggerate any bodily derangement; the hysterical complication generally appears at a late, and not an early, stage of the affection, which must not be confounded with the so-called "hysterical spine."

The case illustrated in Fig. 2 was one of a remarkable nature. It is well known that Pott's disease sometimes gives rise to lateral distortion; when this occurs it is usually in the advanced stage of the disease, and is caused by one or more vertebræ being so affected that the sides of the bodies are chiefly destroyed, instead of the anterior portions, as usually happens. In the case of the girl here figured, however, lateral deviation was one of the first symptoms of Pott's disease. A few days after the patient first came under my notice local pain was complained of in the spine, at about the situation of the second lumbar vertebra. On examination, I found that there was some

FIG. 1.

FIG. 2.

FIG. 3.

conditions of lateral deflection there are here figured three cases, showing marked deformity of the spinal column, all of which were described as cases of lateral curvature. In only one of these cases was there any evidence of rotation of the vertebræ, and where this condition did exist it had been overlooked and that portion of the spine had been regarded as perfectly normal. An interesting point to observe about these cases is that they present a marked similarity to one another in external appearance. Fig. 1 might be regarded as the advanced stage of the same condition existing in Figs. 2 and 3; nevertheless they all distinctly differ in their nature.

The case shown in Fig. 1 was a girl aged nineteen, who had been for a long period under treatment for lateral curvature; as will be seen, she presented a terrible condition of deformity when standing erect, but when lying down the spine was perfectly straight; moreover, she could, by placing the hands on the hips, herself force up the column, and so extend it almost to the normal shape; there was here, then, no structural change in the spine of any sort. This case belongs to a class of which examples are constantly to be met with, and to which, to distinguish them from true lateral curvature, the term *lateral bending* might very well be applied. The subjects are usually young girls who are

slight rigidity of the spine at this point, and complete recumbency was ordered to be observed. In a few weeks slight prominence of the second lumbar vertebra was well marked, and the case clearly declared itself to be one of Pott's disease of the spine. Probably such a state of things as here existed is of very rare occurrence, and it is to be hoped that it is so, for such a condition might very well be mistaken, when in its earliest stage, for the comparatively trifling affection of lateral bending of the spine. Under no circumstances, however, should such a case be mistaken for one of lateral curvature, and yet as such was it described by a surgeon who has written somewhat freely on the subject of deformity of the spinal column.

The third case was a young girl, aged seventeen (Fig. 3), who was sent to me as requiring treatment for lateral curvature in the dorsal region of the spine. For the relief of this she had been wearing for some months a plaster-of-Paris jacket, and had been kept almost entirely recumbent; the deformity continued to increase, and her general health began rapidly to fail. When I first saw her she could only walk a few steps, her muscles were soft and flabby, and she was very thin; with regard to the existing deformity of the spine, that which was most evident when she was standing up (the lateral deviation in the dorsal region) disappeared

when she lay down, but well-marked rotation of the vertebræ in the lumbar region was present, although the spinous processes were not out of the straight line. A few weeks' care restored the general health and overcame the lateral bending of the spine in the upper part of the column, the rotation of the vertebræ in the lumbar region was afterwards reduced, and she made a complete recovery.

On the question of distinguishing such cases as have here been described as lateral bending of the spine from those of true lateral curvature, regard must be paid to the fact that many authorities describe lateral curvature as presenting in the early stage only lateral deviation of the column unaccompanied by rotation of the vertebræ, and the latter complication is given as a later phase of true lateral curvature. Without questioning the correctness of this view, at the same time not admitting its truth, it is sufficient here to indicate the reason for regretting such a method of description; granting, then, that lateral bending may terminate in lateral curvature, the latter term should not be applied until the deformity is accompanied with rotation of the vertebræ, because this is the essential characteristic of the affection. Every surgeon must admit that lateral deviation of the spine may arise and disappear without any structural change in the spinal column becoming developed; we are therefore no more justified in describing lateral bending of the spine as lateral curvature than we should be in calling pleurisy empyema, or periostitis necrosis, simply because the one disease may precede the other. To enter more fully upon this subject would necessitate a consideration of the etiology and pathology of lateral curvature, matters upon which the writer hopes to treat in another communication.

Grosvenor-street, W.

SCLERODERMA IN RELATION TO FILARIA SANGUINIS HOMINIS.

By JOSEPH BANCROFT, M.D.

ON May 4th, 1883, a case of scleroderma came under my notice in the person of a colonial-bred girl who had resided most of her life near the town of Ipswich, and on examining her blood I discovered filariæ in abundance. I have had this patient under observation since that time, and thinking I might find additional evidence of the association of filariæ with scleroderma I delayed making the communication until the present time. As no other cases of scleroderma can be found in the limited population of this colony (the filaria diseases being happily on the decrease by better attention being paid to securing pure drinking water), I considered it best to make my experience public in order to inform observers in South America and Asia of this case, so that in their wider fields of observation it may be possible to pursue the inquiry further.

My patient is seventeen years of age, and has been attacked with a thickening and hardening of the skin of the face, arms, shoulders, and all the body above the level of the waist. Below this part the integument is softer, and is normal over the legs. The skin feels like salted ham, it is impossible to pinch up a fold of it, and the sensation in it is but little impaired. No folds or creases are to be seen on the face, neck, or other parts down to the level mentioned. She does not complain of dyspnoea, though the textures of the chest seem so inflexible. I thought I had seen a similar case before, the patient being Captain B—, a Dane, a Sandwich Island trader, who had in April, 1875, come to live here for the benefit of his health, but in his case the skin was more flexible. I examined his blood then, with negative results. Photographs of the girl suffering from scleroderma were taken on May 15th, 1883. About the end of the same month she was taken ill with symptoms like peritonitis, from which she recovered. Some time later I sent for her, to show the blood to a Mauritius medical practitioner on a visit here, but could find no filariæ. Months later I examined her before Professor Anderson Stewart of the Sydney University, when the microscopic worms were demonstrated active and abundant. In the work of the late Tilbury Fox, page 345, is quoted the opinion of Rasmussen, that scleroderma is of elephantoid nature, and that observer suggested the name "elephantiasis sclerosa" for it. In Quain's Dictionary, published this year, is an article by the late Erasmus Wilson, which gives no recent observations on this curious disease. I have no doubt the scleroderma of this

kind is correctly interpreted by Rasmussen as a form of elephantiasis of the upper parts of the body. How the lymphatics in elephantiasis become obstructed by adult filariæ will require some careful injections and dissections of those vessels to determine. In old cases of elephantiasis of the legs and scrotum the microscopic filariæ are seldom found in the blood, due possibly to death and calcification of the adult worms. The parent worms may not live in the lymphatic ducts at all for anything we know to the contrary, but by their proximity to these vessels and by their penetrating them to void their brood, inflammatory closure of the larger lymphatics may ensue. The sexual orifice of the mother-worm pointed out by Dr. Cobbold, and figured in THE LANCET as close to the head of the animal, is a fact to be carefully noted. The Sandwich Island patient probably had suffered from filariæ. No microscopic brood could be found in his blood when he lived here. He suffered from strange pains in his chest like angina, seldom could lie down and rest for long together. He took large doses of morphia with very little relief. I lost sight of him after about a year's observation, and he died later on while travelling for his health.

The patient, S. J.—, aged seventeen, of German parentage, was born in Ipswich, Queensland, and lived for the first six years of her life in a neighbouring farming district, the Walloon Scrub, since which she has lived eight years in Brisbane. She has always enjoyed good health and went to school until twelve years of age. She has drunk water without care as to boiling or filtration. She occasionally shivers for a few seconds, eats well, bowels act regularly, menstruates scantily, is not short of breath, and can do her housework. She wishes to be cured of the hardness of the face, arms, and upper parts of the body, which has existed four months, and came on almost imperceptibly, without any sickness. This hardness is, as above described, uniform, without creases, and the skin cannot be pinched up. Filariæ were found in abundance on May 4th, 1883. In June, after an attack of mild peritonitis, which kept her in bed for some days, the microscopic worms could not be found in the blood, though examined with a plentiful supply and with great care. Later in the year they were found in abundance.

Dec. 1884.—She is working as housemaid near town, and has not been under medical treatment for the past year.

I trust that the history of this case will lead to further inquiries by Drs. Manson and Lewis and by practitioners in Brazil. Brisbane.

CASE OF SCARLET FEVER WITH EXTENSIVE SLOUGHING OF LEFT ANTERIOR TRIANGLE OF NECK AND EXPOSURE OF VESSELS.

By A. GLOVER WILLIAMS, M.R.C.S.,

SURGEON TO THE BRIXTON DISPENSARY, LATE HOUSE-PHYSICIAN ROYAL HOSPITAL FOR DISEASES OF THE CHEST.

ON Oct. 23rd, 1883, a boy aged six years was brought to me by his mother. He was delicate-looking, of fair complexion, with light hair. He had been for the last two or three days suffering from sore-throat, accompanied by feverish symptoms, but no rash, according to his mother's statement. On examination, there was slight ulceration of both tonsils; the glands at the angles of the jaw and along the inner edges of the sterno-mastoid muscles were enlarged and painful, especially on the left side; there was some amount of fever, but no sign of any rash or desquamation. The patient was ordered to be kept at home. When I visited him on the 25th there were the same symptoms, but the fever was more marked. Temperature 102° F. No rash was to be found on examination. By the 28th the throat symptoms had much increased; there was marked ulceration of the tonsils; the glands at the angle of the left jaw and along the inner edge of the sterno-mastoid were much enlarged and tender, but not fluctuating. I ordered chlorate of potash and bark.

On November 3rd the ulceration had extended over the fauces, palate, and tongue, but did not involve these structures to any depth. Temperature was 103°. On the 5th the throat symptoms were about the same; the glands on the left side were now semi-fluctuating. On the 7th I opened the abscess, but only a small quantity of pus came