particular from other similar cases can hardly be considered a very strong argument either way. In a case which we reported last year (pp. 125, 252, vol. for 1857), the presence of a fatty tumour pressing on the cord had occasioned convulsive movements; but in the present case there seemed to have been no pressure, and there was no history of convulsions. Whether, if the tumour had been left to grow, these symptoms might not have followed, it is not easy to say; but it seems probable that they would.

The second case is also interesting, from the length of time which the symptoms lasted; and further, as showing the regularity with which union progressed, and the success with which the fracture was treated, in a subject agitated with constant tetanic spasms.

CASE I. Henry D., aged 34, was admitted March 14th, 1858, under the care of Mr. Johnson, with a scald from hot water, received half an hour before. He was quiet and sensible on admission. The upper and inner part of both thighs, genitals, nates, and lower part of the body, were scalded.

March 15th. He had slept well; the pulse was quiet during the day; the appetite good. In the afternoon, when about to be dressed, the boy was lying on his back; he gave a sudden start, and all the muscles of the body became convulsed; the face was livid; the eyes fixed and staring. He was insensible. A short time afterwards, spasms came on like general tetanus, chiefly about the mouth; there was trismus to a certain extent; the pulse was rapid; the bowels were not open.

R. Pulv. ipecac. comp. gr. iij; hydrargyri chloridi gr. iij. M. Fiat pulvis statim sumendus.

R. Syrupi papaveris 3ss; haustus salin. 3iss. M. Fiat haustus 4tis horis sumendus.

Throughout the day the spasms continued at intervals, chiefly about the face; he was restless; the eyes were fixed; he appeared to be in no pain, but took no notice of his friends. The pulse varied remarkably even in two minutes; the spasms were never more than momentary.

March 16th. The bowels were not open. Soap and water injection was given effectually. He was pretty quiet and insensible during the night; the spasms were few and slight. The pupils were much contracted. The face was flushed; the skin cool; pulse 120, weak. The poppy syrup was omitted; and he was ordered to have port wine and beef-tea. He did not take much food.

March 17th. He was quiet, and stared about, apparently seeing nothing; pulse feebler, but stronger during the day. He became quite sensible, and put out his tongue when asked; he was very restless in bed, and refused beef-tea, but took milk. No spasms occurred. In the evening, he was quiet again, and lay as if awake; but took no notice of his friends. Pulse weaker. The scalded surface was looking unhealthy.

March 18th. He was improved, and was more sensible; he noticed his friends, and took a little food. The bowels were open; and he passed urine.

March 19th. The burn was sloughing. The boy was often found dosing, with the head always thrown back. No spasms occurred. He refused food, but took wine.

March 20th. The pupils were very dilated; pulse weak and quiet. The head was thrown back; but there were no spasms. The burns were very unhealthy; bowels not open; tongue coated.

March 21st. He was in the same state, always restless when touched. He took nothing but wine. He passed urine. He was decidedly opisthotonic. Sordes were present about the mouth.

March 22nd. He was less strong, more comatose. The eyes were little sensible to light and touch; the pupils dilated. He was very restless; took milk and wine; put out his tongue when asked. During the evening, he screamed out repeatedly, and was very restless, rolling on the face and back. He was semi-comatose; the eyes were fixed; he noticed nothing; tongue dry and brown; bowels open. The head was thrown back, so that it nearly touched the scapulae.

March 23rd. He died at a quarter to 8 A.M.

On *post mortem* examination, forty-hours after death, the brain was found healthy, its veins perhaps rather fuller than natural. The spinal cord was found to terminate at the level of the last dorsal vertebra. Lying on the spinal membranes, at their back part, and extending from the lower part of the cervical to the middle of the dorsal region, was a lobulated collection of fat, apparently the result of an increase in the quantity of fat usually found in this situation between the periosteum and dura mater. There was no proof of pressure on the cord, which presented a uniformly healthy appearance,

both here and throughout its entire length. The glands in the duodenum were prominent, and two of them decidedly enlarged. All the other viscera were healthy.

CASE II. Edward W., aged 8, a delicate looking child, was admitted on January 27th, under the care of Mr. Cutler, with a compound fracture of the right leg in the lower part. There was a rather large wound on the outer side of the leg, but the bone was not comminuted, and did not protrude. It was easily brought into position, and retained there. The child was quiet and docile, and seemed likely to do well. On the day after admission, he seemed feverish and restless, on which account a purge of calomel was given, and repeated next day.

January 30th. He was found to be weak, with small rapid pulse, and complaining of pain about the face and neck. The stimulant plan of treatment was adopted—five grains of carbonate of ammonia every six hours, and two ounces of red wine daily. During the next few days, his condition did not greatly change, but the debility increased, as did the pain about the face; and the tetanic stiffness about the muscles of the neck became more clearly marked.

February 2nd. He lost the power of mastication.

February 6th. He was attacked with spasms of the muscles of the jaw and back. The aid of a physician was now called in, and under his direction the tincture of opium was administered in doses of five minims every four hours, but this had no effect in diminishing the severity of the tetanic spasms. On the 8th, he was ordered a drachm of tincture of bark with a teaspoonful of water every four hours, and port wine *ad libitum*, with fifteen minims of tincture of opium at bedtime. He was now hardly capable of taking food by the mouth, so that beef-tea injections were given every four hours, and fragments of strong jelly placed in his mouth frequently. The injections were well retained, and a good deal of the food and medicine prescribed were administered, but the spasms increased in severity, the face being at these times much drawn, the mouth firmly closed, and the body strongly arched. Similar treatment was pursued, but he continued in the same state, and began to lose strength. On the 14th, the effect of small and frequently repeated doses of belladonna was tried (five minims of liquor belladonnæ every three hours); but all remedies failed, and he died on the 18th, much exhausted by protracted suffering.

The brain, spinal cord, and all the viscera were found healthy. The right tibia was fractured irregularly across, at the junction of the lower and middle thirds. There was no displacement. There was a large superficial granulating surface over the fracture at the outer part of the leg. A large nerve was traced into this surface from the musculo-cutaneous; it appeared quite healthy. The fracture did not, at the time of the *post mortem* examination, communicate with the wound.

Original Communications.

SUCCESSFUL CASE OF CÆSAREAN OPERATION: MOTHER AND CHILD SAVED.

By JAMES HAWKINS, Esq., Newport, Monmouthshire.

THE patient, Matilda Tanner, was 20 years old, and four feet one inch high. Her mother states of her, that she had been "hurt in her birth". She made no effort to talk before her fifth, and could not speak distinctly until her twelfth year. Her deciduous teeth did not appear until she was eight years old. At this age, too, she made her first essay to walk with crutches, with which she could not dispense until she had attained the age of ten. She menstruated first in her eighteenth year; thence to the period of her confinement only four times, at irregular intervals, and in small quantities. From the age of twelve to twenty, she enjoyed uninterrupted good health.

February 17th, 1858. Labour pains commenced. I saw her next day; and, upon examination *per vaginam*, found that the dimensions of the pelvis were very irregular and small, the last lumbar vertebra projecting so far over the brim of the pelvis that the antero-posterior diameter, or rather the distance between the symphysis pubis and last lumbar vertebra, did not exceed an inch and three-quarters. Expulsive pains not having commenced, I left her till next day.

February 19th. I again visited her, in company with Messrs. Brewer and Woollett, both of whom coincided in opinion with me that the Cæsarean section was the most feasible—the only

means whereby the life of the fetus could be preserved, and, under the circumstances, the most favourable to insure the life of the parent. Accordingly, in their presence, and with my assistant, Mr. Charles McArdle, having previously obtained the consent of the patient and her parents, I proceeded to operate. The bowels had been frequently moved during the day; the bladder was emptied; and, about a quarter of an hour before the operation, the membranes had ruptured without interference, the os being dilated about the size of a half-crown.

Having been placed on a table, with her legs hanging over one end, and her head and shoulders slightly pillowed up, she was put under the influence of chloroform. I commenced an incision about half an inch to the left of, and the same distance below, the umbilicus, extending about eight inches towards the pubis, and parallel to the mesian line. The integuments and subcutaneous adipose tissue having been cut through, the subjacent tendinous structures and peritoneum were successively divided to the same extent as the first incision. The uterus, being now exposed, was cut into to the extent of about six inches, bringing to view the fetus, which presented naturally, with the funis coiled round it. The fetus, placenta, and membranes, having been carefully removed, the uterus contracted firmly, almost immediately. A small portion of omentum that protruded having been returned, the parts were quickly brought together with sutures, and long strips of adhesive plaister in their intervals; over this were placed a few rolls of lint; and a broad bandage being tightly applied over all, she was removed to bed. No vessel required ligature, and there was very little hæmorrhage during the operation. The baby, being detached from the placenta, was consigned to the care of a female attendant; and, when seven days old, weighed eight pounds and a half. After being conveyed to bed, the patient was ordered to have one of the following powders.

R Pulveris opii gr. vj; hydrarg. chloridi gr. iij. M. Divide in pulv. iij, quarum sumat unam 3tis horis.

10 P.M., four hours after the operation. The pulse was 102. She had taken two of the powders, did not complain of pain, and had a slight discharge from the vagina.

February 20th. She passed a restless night, but without pain; pulse 96.

R Pulveris opii gr. xij; hydrarg. chloridi gr. vj. M. Divide in pilulas vj, quarum sumat unam 4tis horis.

February 21st. She slept five or six hours last night, and passed urine for the first time. She had occasional pain, like uterine pain, in the abdomen, which yielded a tympanitic sound on percussion. Pulse 94. In the evening of this day, the uterine pain became more severe and frequent, and there was tenderness on pressure over the abdomen. She had pain in the head also, and an anxious countenance. There had been a slight bloody discharge from the vagina, which was very fetid. The pulse rose to 104.

R Pulveris opii, hydrarg. chloridi, aa gr. vj. M. Divide in pilulas vj, quarum sumat unam quaque hora.

February 22nd. She slept a little occasionally last night. The tympanitis and abdominal tenderness were rather increased. Pulse 96, intermittent. In the evening, the pulse was 130, small and wiry. The uterine pains recurred more frequently, and were the more distressing, owing to the tympanitis which still continued, and the peritonitis which had now supervened.

R Decocti avenæ Oij; sodæ chloridi ʒss. M. Ft. injectio statim utenda.

This was retained entire for two hours, after which the bowels began to act freely. She was ordered to have eight grains of Dover's powder at bed-hour.

February 23rd. She had no sleep last night. The gums were tender; pulse 134; the bowels were moved frequently and involuntarily. Peritonitis and tympanitis still continued.

R Ætheris chlorici, spiritus ammoniæ aromat., aa ʒij; tinctura cinchonæ comp. ʒss; aquæ ʒiij. M. Fiat mistura cujus sumat ʒss quaque hora.

The uterine pain recurred in the afternoon. At night, the pulse was reduced to 120.

R Pulveris opii gr. xij; calomelanos gr. vj. M. Divide in pilulas vj, quarum sumat unam secundâ quaque hora.

February 24th. She slept a little last night. The bowels were still acting very freely. She had a slight discharge from the vagina. Pulse 120. The tympanitis was much less, the peritonitis easier.

8 P.M. She was roused from sleep by a sudden noise, after which she grew fretful. The uterine pain recurred more se-

verely, and the pulse rose to 132. She was ordered to continue the last pills, some of which remained, owing to her having slept a good deal this day.

February 25th. She had an easy night. The tympanitis was entirely gone; the peritonitis almost gone. Pulse 120. On this day the wound was opened, and the sutures removed. The upper part looked very healthy, and inclined to adhere; and from the lower end there was a very offensive discharge. Having carefully sponged the wound, I placed a thin strip of lint, spread with spermaceti ointment, along its edges, and brought them closely together with long strips of adhesive plaister, placing a folded towel for a pad on each side. I bound a broad roller over all. After this the patient expressed herself much relieved, but fatigued. She was ordered to have an ounce of brandy in arrowroot directly, and beef-tea frequently. In the evening, her pulse was 120, weak. She called for something to eat. The uterine pain had recurred, but not so severely.

R Pulveris opii gr. ij. Fiat pulvis occurrente dolore sumendus. Mitte iij.

February 26th. She had a very good night. The bowels were quiet, and she had very little pain. Pulse 108. She felt comfortable and hopeful. In the evening, the pain recurred as usual. The last powders were repeated.

From this date she continued to progress steadily, with the exception of a troublesome attack of bronchitis, which yielded to appropriate treatment. The wound was dressed every other day with a strip of lint, adhesive plaister, compresses, and roller, as before; saturating the lint with the compound tincture of benzoin, instead of spreading the spermaceti ointment over it, as in the first dressing; and stimulating the edges occasionally with a strong solution of nitrate of silver. The uterine pain continued to occur in the afternoon, but becoming less, and coming on at a later period each day for a week after this date, when it disappeared entirely; it was always much assuaged by two-grain doses of opium, of which she had one each afternoon.

March 18th. She had a slight show of the menstrual discharge.

March 25th. She began to apply the baby to the breast, and in a few days afterwards had a fair supply of milk for it. The cicatrix of the wound measures at present only four inches.

For the first week the patient was kept entirely on milk and farinaceous food, after which she had beef-tea, and in a few days was allowed a small quantity of mutton daily. On the 4th of April, she got out of bed for the first time; since then, she and the baby, a fine little girl, have frequently been in my surgery, and are at present in perfect health.

Transactions of Branches.

BATH AND BRISTOL BRANCH.

LITHOTOMY.

By AUGUSTIN PRICHARD, Esq., Surgeon, Bristol.

[Read April 29th.]

IN the BRITISH MEDICAL JOURNAL for August 20th, 1857, I published three lithotomy cases which had been under operation at the Bristol Royal Infirmary, and from which stones had been extracted by sections in the middle line of the perinæum, as recommended by Mr. Allarton. I have now the opportunity, through the courtesy of my colleagues, of continuing the series and describing five cases which have come under our notice since that time, and which I narrate as nearly as possible in the order in which they were admitted.

CASE I. Richard Baulch, aged 21, was admitted on January 29th, of the present year, into the Bristol Royal Infirmary, under the care of Mr. Harrison. He had suffered from the symptoms of stone since his infancy, and latterly the pain and irritation of the bladder have been much increased.

The operation was performed under chloroform by Mr. Harrison, and the section made in the middle line, according to Mr. Allarton's plan. The stone was very large and hard, and required to be crushed before it could be removed; this was done by a strong forceps, with a screw adapted to the handle, and great force was needed to break it up. The weight of the fragments collected was seven drachms and a scruple, and it was apparently composed of oxalate of lime and lithates. He had no bad symptoms at all from the day of the operation, the