Blood-letting will never perhaps be generally revived; but nevertheless it may be our readiest or even only means at hand, especially with the general practitioner in rural districts. It sometimes materially aids the action of other remedies (see Watson, *Practice of Physic*, art. Enteritis). I well remember one case, where a stalwart dalesman had bronchitis, to which he was subject. The first or congestive stage was always troublesome; and when he came into my hands, after trying antimony, ipecacuanha, and iodide of potassium in vain, he had to be bled, as before, by my late father. On two different occasions had this to be done by me—each time with perfect success. At another time recently, I had an opportunity of watching the effect of general bleeding over pericarditis in its earliest stage; its effect was most satisfactory. My experience of bleeding is, however, almost confined to watching it in the practice of my late father, who often resorted to it with excellent effects.

In 1800, Rasori brought forward the use of tartar emetic alone in large doses in the treatment of inflammatory conditions, especially pneumonia. In many cases the good effects of this treatment were marked; the fever, the bounding pulse, the thirst, and the inflammatory processes, all were relieved, and the patient was easier and cooler, in free perspiration and with a softer pulse. The heart's action was depressed and the peripheral vessels dilated, especially those of the skin, permitting of a large flow of warm blood through them, and so exposing it to the cooling influence of the surrounding medium. But tartar emetic in full doses is a very active agent, and only suited to the cases called sthenic; its depressing effects rendering it unsuitable to asthenic cases and to children, except in very moderate doses. But to Rasori must be awarded the credit of originating the valuable idea of bleeding a patient into his own vessels—and not into the blood-basin.

Another depressant agent or direct sedative was introduced for the treatment of inflammatory conditions, and especially pneumonia, by two Italians, Borda and Breda, namely, hydrocyanic acid, which affects the circulation much in the manner of antimony. But prussic acid in anything like free doses is an agent one uses but charily, and so it has been given up.*

Then free purgation had its day, especially under Hamilton, and combined with salines found favour with many. But this method was unpleasant and inconvenient, necessitating much disturbance, interfering with rest and sleep, and therefore objectionable. It still remains in a modified form, and is the first arrow fired at acute disease from the country practitioner's quiver. In a large number of less serious cases it makes a capital commencement; probably, however, rather by its unloading the intestinal canal than by any direct action upon the circulation.†

The saline treatment is still in common use, and over many patients potash exercises a powerful sedative influence. The effects of acetate of ammonia over the cutaneous vessels in inducing perspiration with its apyretic consequences, render it a favourite remedy with many; and it is admirably adapted to domestic use, there being no room for doubt but that a dose or two of acetate of ammonia have arrested in its early stages many a threatening pyrexia. For we must remember, gentlemen, that the arrest of acute disease in its first manifestation is a much easier matter than the institution of recovery and repair after much injury has been done, when the affection has got strong hold of the patient.

While these general measures were being tried in their turn, and partially adopted partly discarded, other measures for affecting the circulation were being instituted. These were measures applied externally. Blisters, counter-irritants, dry cupping, etc., had long been in vogue, and were known to exercise in a smaller degree the same action as wet-cupping and leeches; viz., attracting the blood to the cutaneous vessels and so relieving the inflamed part beneath, according to the law of Schroeder van der Kolk. But for this to be successful it is necessary that the blood supply of the inflamed part, and of the skin operated upon, should actually be derived from the same arterial trunk. In costal pleurisy, where the pleura and the skin alike derive their blood-supply from the intercostal arteries the effect of this local treatment is much more marked than in pneumonia with visceral pleurisy. To the French school belongs the credit of first affecting the general circulation by efficient external measures. Junod invented a boot by which he could lock up a quantity of blood in a leg, actually bleeding the patient to the extent of the blood so imprisoned; and then when desirable, permitting the blood to once more rejoin the general current. But Junod's boots are long went the way of many ingenious but impracticable measures, namely, to oblivion, where, I am afraid, they

are likely to remain. But if this is the destiny of Junod's boots, a far different future is before another French method of affecting the general circulation by external appliances, viz., the jacket-poultice. The excellent effects of this application in thoracic affections are well known to us all, especially in pneumonia, and in the acute pulmonary congestion, commonly seen in the course of organic diseases of the heart. The application of moist heat to so large an area of skin, with its myriads of minute vessels, exercises a marked effect over the circulation. The vessels of an extensive area are dilated, and therefore hold more blood; the consequence of which is, that practically the vascular system is relieved of the bulk of blood retained in these dilated vessels, as effectually as if the patient had been bled to an equal amount. A considerable quantity of blood can thus be withdrawn from the circulation in a manner that admits of its being returned again when desirable—a matter of immense practical importance. The temporary removal of a mass of blood from the circulation without its withdrawal from the body, in a form at once practicable and effective, is one of the greatest steps forward in modern therapeutics. After this exposition of the action of a jacket-poultice, it becomes unnecessary and superfluous to insist upon the constant renewal of the hot poultice, and the absurdity of allowing it to remain on when cold is at once manifest. When the principle of the use of the jacket-poultice becomes more generally known, its adoption will be much more extensively resorted to.

[To be continued.]

THE CASE OF THE LATE DR. H. W. FULLER.

By WILLIAM FULLER, Esq.;

WITH AN ACCOUNT OF THE *POST MORTEM* EXAMINATION.

By W. H. DICKINSON, M.D., F.R.C.P.,

Assistant Physician to St. George's Hospital.

I WAS called to see my brother, Dr. Fuller, on the evening of Monday, December 8th, and found him suffering from an incessant short hacking cough, with expectoration of glairy mucus, and complaining of great pain in the epigastrium extending over the whole region of the liver, with severe intercostal pain of the right side. He was unable to remain for a minute turned on his left side. His pulse was very intermitting and irregular; his tongue coated but moist. The temperature 102. His urine was scanty, high-coloured, and very loaded. On examination, I found no physical signs of either pleurisy or pneumonia. The percussion-sound was equal on both sides; but there was inability to expand the chest and to inflate the lungs, apparently owing to the pain. He told me that, with the exception of some little trouble with his bowels and loss of appetite, he had been quite well till the previous day, when he had been forced to return home, feeling very poorly and short breathed, and was unable to eat his dinner. However, the next day he managed to see his morning patients, and went out to pay his visits, but was again forced to return home from the pain and irritating cough. His bowels had not been well-relieved, though he had taken a dose of pills in the night. Knowing his tendency to rheumatic affections, I diagnosed rheumatism of the diaphragm and intercostals, and insisted on some days' rest in bed. On Tuesday, the 9th, he was somewhat relieved. His pulse was less intermitting and irregular. Temperature 101. The urine was still scanty. The bowels had been relieved with dark bilious evacuations. Contrary to my wish, he got up and received his patients as usual at home, but did not leave the house. At 5 P.M., he went to bed again, thoroughly knocked up; and at 6 P.M. I found him much exhausted, but otherwise better. Temperature barely 100 deg. The urine was more free, the pain and cough less. There was more power of inflating the lungs. On December 10th, he remained quietly in bed, and was much relieved in the evening. The urine was free, less high coloured, and without deposit. The pulse was regular, soft, 88; his cough still irritable when lying on his back, but much better when on his right side. Whenever he took food, he complained of pain in the act of swallowing, and for some time afterwards in the epigastrium. On the 11th, he was much better, saw several patients in his bedroom, and held two consultations. After this he had a severe rigor, followed by profuse perspiration; but at night the temperature was 99; the tongue was cleaning at the edge. Pulse 84, regular, soft. His general feelings were improved. On the 12th, he was much better; he was taking quinine and acid mixture. Temperature natural. Pulse about 80. The urine was free, clear, and fairly abundant. He worked at correcting proofs of the new edition of his work on *Rheumatism* till 11 P.M., did not sleep; and on the 13th

* It seems strange that bleeding in its worse aspects should cling so tenaciously to the country where the earliest attempts to do away with it commenced.

† It is possible, however, that unloading the bowels may permit of distension of the abdominal veins, and so act like bleeding.

and 14th became gradually worse, with more discomfort and pain in swallowing, more cough, and increased feeling of *malaise*. The tongue was more dry, and the urine loaded, but the pulse did not exceed 86, and the temperature did not exceed 100. On the afternoon of the 14th he had another rigor; and in the evening the temperature rose to 102 deg., with a feeling of general aching all over. I could detect nothing fresh by a most careful examination of the chest. It was on this afternoon that Mr. Manley Sims elicited from him that on the afternoon of the 7th, when he was taken ill and returned home, he had a rigor, so severe that he wrapped himself up in a railway rug and laid himself down before the fire, where he remained some hours. Up to this time there were no head-symptoms of any kind. On this day he sat up chatting about his case and other subjects with Mr. Sims, and wrote a prescription for himself as clearly and well as he had ever done. On my arrival at his house at 8.30 A.M. on the 15th, I was told that he had passed a quiet night, but was obstinate in refusing food, medicine, etc. I found him in a semicomatose condition, and was unable to elicit answers to my questions. He was unable to protrude the tongue. The conjunctivæ were congested; the pupils rather contracted; temperature 103 deg.; pulse 96. The scalp was hot. Difficulty in swallowing was more marked. The abdomen was soft. His urine was passed under him. Sir William Jenner, who saw him with me, noticed slight ptosis of the left eyelid. We agreed that the symptoms were those of blood-poisoning, probably uræmia. In the evening, a small quantity of urine was collected, and was found by Sir William Jenner and myself to contain albumen in distinct quantity. The temperature rose to 104.4. Pulse 100. On the 16th, the symptoms all increased in intensity; the coma became more profound. The pupils acted less. The temperature was 104 deg. He had great difficulty in swallowing, food was often retained in the mouth a minute or two before it was swallowed. The urine was examined; no albumen could be found. Ptosis of the left eyelid was more marked; there was slight drawing of the mouth. Dr. Barclay and Dr. Sieveking joined in the management of the case. From this time till death, at 4 P.M. on the 18th, the symptoms gradually increased in intensity, with loss of power in the right side, and rigidity of the flexors of the right arm, increased ptosis of the left eyelid, insensibility of the pupils, alteration in the axis of the eyeballs, muscular twitchings, and complete loss of the power of swallowing. After consulting together and carefully going over the symptoms, the case was diagnosed as one of abscess of the liver, with pyæmic deposits in the brain.

The *post mortem* examination of Dr. H. W. Fuller was made on December 20th, 1873. Externally, the body presented no signs of disease. There was a recent excoriation made by a blister on the back of the neck, and there were marks of leeches on the temples.

Head.—The dura mater was somewhat injected, and was firmly adherent to the anterior part of the vault, from which it had to be torn, leaving an irregular layer of fibrous tissue adherent to the bone. The bone itself was roughened. The pia mater was intensely injected. The convolutions were somewhat flattened. A large number of abscesses, perhaps more than a score, were found in various parts of the brain. These were abundant in the white matter of the centrum ovale; some were found in the grey matter of the convolutions, and some were in contact with the processes of the pia mater. In these situations, the abscesses mostly varied in size from that of a pea to that of a small bean, though some were no larger than mustard-seeds. A large collection of matter undermined the floor of both lateral ventricles, and had burst by a small opening into the left through the optic thalamus. This layer of pus was of irregular thickness; it was separated from the floor of the ventricles by a layer of brain-substance about an eighth of an inch in thickness; it extended horizontally more or less parallel to the floor of the ventricles, involving the optic thalami and corpora striata on both sides. Beneath the matter was a stratum of intense injection. The collection of matter was of irregular thickness, having a mean thickness of about a quarter of an inch. The lateral ventricles each contained a small quantity of sero-purulent fluid; the fluid being the more purulent in the left, into which the abscess had burst as described. The abscesses were generally surrounded by congestion, but nowhere so intensely as between the base of the brain and the floor of the ventricles. The abscesses all appeared to be quite recent, and about equally so. The pus had the colour and consistence of thick cream. The membranes at the base of the brain, especially about the pons and in the space between the pons and the optic commissure, were greatly thickened, evidently by old meningitis. The thickness surrounded the roots of the third nerves, and covered all the adjacent parts.

Chest.—At the apex of the right lung was an ancient vomica, about as large as a walnut, which was occupied by a mass of soft cretaceous matter, easily detached from its walls. The lower part of this lung

was intensely injected, approaching, but not amounting to, hepatisation. It was in a state such as precedes the formation of pyæmic abscesses. A few pleural adhesions existed over the position of the vomica. No recent or characteristic tubercles existed in this lung or elsewhere. The left lung was attached to the chest by a few adhesions at the back. The lung was congested posteriorly, to a less extent than the right lung; it was in other respects natural. In cutting through the root of this lung the cavity of an abscess was exposed, which was partially empty, but might, if distended, have held an orange. This lay in the posterior mediastinum, and in contact with the root of the left lung, the outside of the left bronchus being somewhat eroded. It lay posterior to the pleural cavity, close to the left side of the œsophagus. It was surmised, from its position, and the impossibility of finding any other source for the pus, that it had originated in one of the bronchial glands. The heart was uncontracted; the valves were healthy. The blood was fluid, with the exception of a large elastic decolourised clot in the right ventricle.

Abdomen.—The peritoneum was free from adhesions, and there were no obvious signs of disease in this cavity. The liver was perfectly natural, excepting the presence of a gall-stone, almost exactly of the size and shape of an olive, in the gall-bladder. The kidneys were of full size, smooth and natural, excepting that they were somewhat congested. The bladder was not examined.

Death in this case was clearly due to pyæmia, the suppurative results of which were limited to the brain. The origin of the pyæmia must be attributed to the mediastinal or postpleural abscess, since no external or other source could be discovered.

The only pathological difficulty is in the origin of this abscess; it could not be traced to the œsophagus or spine, and it clearly had not crept up from the abdominal cavity. In the absence of any obvious source, it was presumed to have taken its rise in one of the bronchial glands, possibly as the result of tubercle, such as had given rise to the vomica at the right apex. But the extreme rarity of such a result of tubercular disease must leave some doubt upon the origin of the abscess to which the pyæmia was due.

CLINICAL MEMORANDA.

CONGENITAL STRANGULATED HERNIA IN AN INFANT.

A **HEALTHY** thriving boy, 10 days old, had a fit of crying, which lasted three hours during the middle of the night. He vomited repeatedly in the course of the early morning; though he sucked the breast, all that he swallowed seemed to come up. It was then observed that he had a considerable tumour in the scrotum, on the right side. This the nurse fomented with hot water. When I saw the child in the afternoon, the vomiting was still continuing, and the bowels, contrary to custom, had not acted since the previous evening. The child was evidently suffering, but there was no fever, nor any unnatural fulness in the abdomen. On examining the scrotum, it was evident enough that the swelling was an inguinal hernia. The testicle of the right side was felt in contact with the protruding end of the hernia, but the cord could not be made out, being lost in the tumour. On the left side, both testicle and cord were found in a natural condition. The handling of the hernia caused a good deal of pain to the child, so that taxis was not much persisted in, and was quite unavailing. At the same time, the symptoms did not seem very urgent; and, as the relatives stated that the tumour was not so large as when first observed, I decided to wait, directing that enemata should be administered, and that carminatives should be used to prevent the child's crying. In the evening, the tumour was somewhat less than in the afternoon, and the child was easier, though the hernia could not yet be reduced, and there was no action of the bowels. Next morning, the hernia was gone. The bowels had acted during the night, and the vomiting had ceased. With the exception of slight feverishness, which passed off during the course of the day, the child was quite well. Ten days have now elapsed; the hernia has not returned, and the infant is in perfect health.

No doubt, the hernia was congenital and strangulated. Its rare occurrence at such an early age and its spontaneous cure seem to make it worthy of record.

ROBERT SOMERVILLE, M.D., Galashiels.

COMPOUND DISLOCATION OF ANKLE: RECOVERY.

J. J., a collier, aged 40, married, robust and healthy, whilst at work on September 10th, 1872, in the pit using a pike in a sitting position, was suddenly knocked over by some falling coal into a hole which was just behind him. His foot became entangled in the *débris*; he was thus partially suspended by it, and the following accident was the result. The foot was turned inwards at a right angle to the leg. A