was admitted on the eighth day of an attack of scarlet fever, a pericardial rub was detected, as well as mitral disease, which latter was evidently old; a few days later, there were joint-pain, and an eruption of erythema circinatum. In another case (*loc. cit.*, page 62, 1884), M. E. J. B., aged 13½, admitted to the general wards for acute rheumatism and endocarditis, during convalescence, when she had been free from pain for two or three weeks, contracted scarlet fever. On the fifth day, there was a recurrence of rheumatism in the joints; and on the ninth day pericarditis occurred.

In another case (*loc. cit.*, page 63, 1884), Eleanor H., aged 5, admitted for mitral disease, having suffered from rheumatism six months before, contracted scarlet fever. There was a pericardial friction-sound heard the same day; and on the fifth day there was an erythematous rash. The association, however, of scarlet fever and acute rheumatism is rather that the latter follows during convalescence, which I am inclined to think it does more commonly in adults than in children. Two cases of this kind, which were under the care of my friend Dr. Massiah, of Didsbury, and which he was good enough to ask me to see, impressed me very much. Two brothers, 8 and 10 years old, suffered from a mild attack of scarlet fever; during the fourth week, when they were up and about in their room, and still desquamating, they began to complain of pain in their joints, which, however, was never severe, and also of pain in the region of the heart, with dyspnoea. Both quickly developed both mitral and aortic bruits, and later on pericarditis; one died within three weeks, and the other within five weeks, of the commencement of the rheumatic attack. Both evidently suffered from acute or malignant endocarditis. Such cases are of great importance, and easily mislead, especially as the joint-pains may be comparatively slight.

Scrofulous Disease of Joints.—Disease of the hip, or of other joints, is not, as far as I have seen, a common sequence of scarlet fever; though it is quite possible it may happen oftener than I think, as the cases occurring would gravitate to the surgical side. Presumably, the weakened condition of health produced by the fever, predisposes to tubercular disease of bone or other organs. There can be little doubt that an attack of scarlet fever, as a rule, greatly aggravates chronic disease of joints which have already become established. Suppuration quickly takes place in a perhaps hitherto quiescent hip-joint, and possibly a condition of septicæmia or pyæmia supervenes. It seems probable that sometimes a joint, which has suffered from scarlatinal synovitis, may become the seat of chronic disease, though I cannot say I have ever been certainly able to trace out such a sequence. Much of the variance of opinion with regard to the rheumatic or septicæmic origin of the joint-lesions in scarlet fever has, no doubt, originated from the fact that observers have been describing the different forms which occur. Personally, I have no doubt that the form which occurs most commonly in children is of septicæmic origin, and rarely leaves behind any damage to the heart; but it is also certain that an attack of scarlet fever will sometimes cause a recrudescence of true rheumatism, or in some way predispose, so that an attack supervenes in the course of the patient's convalescence.

A CASE OF DIAPHRAGMATIC EMPYEMA.

By VINCENT D. HARRIS, M.D., F.R.C.P.,

Physician to the City of London Hospital for Diseases of the Chest, Victoria Park; Demonstrator of Practical Physiology at St. Bartholomew's Hospital.

THE following case illustrates a condition which appears to be sufficiently interesting and uncommon to be recorded. The symptoms, as will be seen from the following account, were such as might possibly have given some clue as to the nature of the affection, that is to say, a localised collection of pus between the under surface of the right lung and the right convex upper surface of the diaphragm, had they not been obscured and masked by those of chronic bronchitis, which existed in considerable severity at the same time.

The account of the case, and of the necropsy, is based upon the very full and accurate notes of Mr. P. M. Earle, who was the resident clinical assistant at the hospital, in charge of the case at the time, and to whom my thanks are due.

Emily B., aged 59 years, residing in Bethnal Green, was admitted into the Victoria Park Hospital, under my care, on October 13th, 1885, as an urgent case. She was a married woman, a silk-weaver by occupation, in poor circumstances. She gave the following history of her illness. Having been for many years subject to winter-cough, she was this year attacked in the autumn, much as usual; but, three weeks before she applied for relief, she was rather suddenly seized with a considerable increase of her usual difficulty of breathing, and with pain in the right side. After this, her cough and dyspnoea

gradually increased, and the pain continued. She denied having had shiverings at any period during her illness; and her sputum, which was white and frothy, was never rusty or blood-stained. So anxious had become her condition by October 13th, that, when she came to the hospital as an out-patient on that day, she was found to be too ill to be sent away, and was at once admitted as an in-patient.

Condition on Admission.—She was ill-nourished; had a sallow complexion; her expression was distressed; lips and tongue bluish; cheeks not at all flushed; extremities cold. She answered questions feebly, and with difficulty. She complained of pain at the lower part of the right chest, increased on deep inspiration, and after cough; respirations 34, costo-abdominal. She had frequent short cough, with yellowish-white, frothy expectoration, chiefly mucus; no hæmoptysis. Pulse 114, regular, but small and weak. There was no swelling or oedema of the feet or ankles; no ascites. The tongue was thickly coated on the dorsum, with dirty-white fur. Her appetite was much impaired; the bowels were said to be regular. Temperature 99.4°, evening 102.6°. On physical examination, the signs of severe bronchitis and of emphysema were discovered, and, in addition, slight impairment of percussion at the right base, and slight crackling at both bases, but, perhaps, more on the right side. There was no diminution of vocal fremitus at either base. The heart-sounds were weak, but natural, but the cardiac dullness was absent. The hepatic dullness commenced in the right nipple-line, at the sixth rib above, and extended downwards to just below the costal margin; splenic dullness was not increased; there was some tenderness over the right hypochondrium. She was ordered—milk Oij; beef-tea, eggs, and 4 ounces of brandy; an ether draught every four hours, and a poultice of linseed and mustard.

Course and Termination.—The patient distinctly improved for some days after admission. The breathing became much less embarrassed, and the cough, although very troublesome, became looser. The pulse varied from 120 to 128. The temperature was always high: in the morning about 100.5°, and in the evening 102° to 102.6°. No fresh physical signs were found on careful examination, but it was noted that the liver was tender. The medicine was changed on the 16th, to senega and ammonia three times a day. On October 18th, however, without any apparent cause, the patient became very much worse; her complexion became dusky, and she was delirious, and tried to get out of bed at night.

Her state was too serious to admit of careful examination, and, from that time until her death, which occurred the next night but one, she was in a semi-moribund condition. On superficial examination of the right base, on the day of her death, the clerk's notes state that there was distinct dullness. During the whole period after admission into the hospital, the lips were singularly blue.

Necropsy. sixteen hours after death.—Slight rigor mortis was present. There was no *post mortem* staining. There was about half a pint of serous effusion in the right pleural cavity, apparently quite recent. The lower edge of the right lung was firmly adherent to the ribs and diaphragm; and, below the lung, thus shut off from the rest of the pleural cavity, and between it and the upper convex surface of the diaphragm, was a collection of thick creamy pus, localised by thick walls of fibrinous material. The abscess-cavity thus formed was irregular in shape, and encroached upon the lower lobe of the lung, as it were pressing it upwards. There was no communication between this and the lateral pleural cavity, and it was, as it were, surrounded on all sides by lung-tissue. There were several fibrous bands passing between the lower surface of the lung and the diaphragm, and across the abscess cavity. The fluid was very thick, as above stated, but not offensive. There was a slight excess of fluid in the left pleura. The lungs exhibited signs of emphysema and bronchitis; but were not, in any part, at all consolidated. With the exception of congestion, the other organs were healthy. The heart was normal.

REMARKS.—The diagnosis of a localised diaphragmatic empyema, or of an abscess between the under-surface of the lung and the diaphragm, is not, one would imagine, by any means an easy matter; and in this case, where the symptoms were masked by those of severe bronchitis, it is not wonderful that the affection should have escaped detection during life. At the same time, there were certain symptoms and physical signs which, if rightly interpreted, might have suggested a clue. These may be shortly stated to be as follows. 1. The high temperature, which persisted throughout the time the patient was under observation, with a regular, or almost regular, evening rise, amounting sometimes to about 2° Fahr. High temperature such as this is not likely to arise in uncomplicated emphysema and bronchitis. With the high temperature was coupled more than usual prostration. 2. The complaint of pain in the right side, and tenderness over the liver

These symptoms were, however, considered to be due to congestion of that organ, which often accompanies chronic pulmonary affections, and, as such, were disregarded. 3. The extreme blueness of the lips and tongue, almost amounting to blackness, suggesting congenital heart-disease more than anything else, was certainly a sign more marked than in the majority of cases of bronchitis; but even this is not impossible in a few cases of uncomplicated bronchitis. 4. The presence of liver-dulness up to sixth rib in the right nipple-line, when the cardiac dulness was absent, is certainly uncommon in ordinary emphysema. At the same time, it should be remembered that the physical signs, at first, were such as to exclude pleurisy with effusion. The signs which a collection of pus, such as has been described, should present, were obscured by the fact that a layer of fairly healthy lung intervened between it and the chest-wall. Very few direct references to the possibility of the occurrence of localised empyemata between the lung and the diaphragm, are to be found in text-books of pathology or medicine, or, indeed, in special works upon chest-diseases. This is the more strange, because one is familiar with diaphragmatic pleurisy, which is believed by many to be far from uncommon. The most pointed allusion to the subject which I have been able to find occurs in Wilks and Moxon's *Pathology*, second edition, 1875, p. 307, and is as follows. "Not long ago, we had an opportunity of examining the body of a woman, who had a local collection of pus, or an abscess, at the very bottom of the chest, between the lung, diaphragm, and ribs; this was shut in, and probably had existed for some years; for..... and we think we have met with other similar instances." This is an almost exactly parallel case to the one here reported; but my case differs in that there were with it no definite physical signs, while the duration of the affection was much shorter; in all probability, a few weeks only. It is doubtful whether operation, even if a correct diagnosis had been made, would have afforded relief. It has been pointed out to me, as not unlikely, that those cases of empyema which discharge into and through the bronchi by perforation of the lung, may not unfrequently be cases of localised diaphragmatic empyema; and I confess the suggestion appears to be a good one. In the present instance, if the patient had been able to get over the severity of the coincident bronchitis, one could conceive nothing as more likely than that the pus should have burrowed its way into the lower lobe of the lung, upon which its pressure must have been already considerable; burrowing in other directions being, at the same time, prevented by strong fibrous adhesions.

CLINICAL MEMORANDA.

TETANUS NEONATORUM.

THE above disease is of such rarity, that I think the following cases are worthy of record.

CASE 1.—Mrs. D., the mother of six healthy children, was delivered of a fine male child on January 6th, 1883. He appeared to be well developed, and everything was perfectly natural, with the exception of the umbilical cord, which had three or four times its ordinary thickness, and was of a much darker colour than usual. It was of about the normal consistence. For six days, all seemed to go on well, when the parts in the immediate neighbourhood of the umbilicus became somewhat inflamed and irritable. On the seventh day, these appearances increased, and the cord separated. The child progressed favourably until the sixth day, when it refused the breast, and, about the same time, its jaws became fixed, and an occasional spasm occurred, the whole body being rigid from head to foot. These spasms soon became continuous, with frequent exacerbations, until, on the eighth day, the child died. During the last two or three months of pregnancy, the mother had complained of very violent pain in the left side of the abdomen, coming on every night when getting into bed, and continuing for several hours, which prevented her from obtaining any rest. On April 1st, 1884, she was confined of a child, who is now alive and healthy.

On March 16th, 1886, she gave birth to a male child. He was healthy in appearance, but the cord was of a dark, dusky colour, not having its usual translucency, and far softer and more yielding than natural; so that, when the ligature was applied, it appeared as if it would be completely divided. On the third day, it had a very offensive smell; the linen in which it was enveloped was, therefore, changed, and the parts were washed in weak Condy's lotion. On the sixth day, the cord separated, and the navel looked uninfamed and perfectly natural. On the seventh day, early in the morning, when the child awoke, he could not take the breast, as his jaws were "set," and could not be opened wide enough to admit the nipple. He sucked

anything introduced into his mouth, and took a little milk from a spoon. In a few hours, his neck, back, and legs became rigid. At first, this rigidity would, after a time, almost entirely disappear; then, after a few minutes, return with greater severity than before, causing the child to scream with pain. The spasms increased in force and frequency, becoming, at last, almost continuous, until the child's death on the eighth day. The mother had again complained of the violent pain in the left side of the abdomen, during the last month or two.

I wish to call attention to the following facts. Two children in the same family died of this rare disease, a healthy child having been born between them. Both died on the eighth day. The condition of the umbilical cord, at birth, in each case, was abnormal; this, I think, must in some way be connected with the occurrence of the disease. A peculiar pain was complained of by the mother in both cases, which had been absent in every other pregnancy.

FRANK M. WRIGHT, M.R.C.S. Eng., etc.,
Bottesford, Nottingham.

OBSTETRIC MEMORANDA.

VIBURNUM PRUNIFOLIUM IN ABORTION.

I THINK that Dr. Macfie Campbell and I are nearer agreement than appears on the surface. While I cannot wholly depart from my attitude of friendly critic, I admit that Dr. Campbell's note in the *JOURNAL* of April 17th contains little but what everyone must endorse. If Dr. Campbell refer to my first article again, I think he will allow that it was written in no captious spirit, but with the object of elucidating more clearly the merits of a drug which had given us both satisfaction. Dr. Macfie Campbell has now recorded his experience, precisely as I felt sure he must, that viburnum is by no means the specific for abortion which one, unacquainted with the drug, might have inferred from his first article.

I have had a case under treatment by viburnum for over three weeks, which terminated prematurely May 13th, about the thirty-first week; the child lived four days. In this case (a multipara), the os externum was patent. Liquor amnii and mucoid discharge escaped, more or less freely, for over three weeks, with no pains, except at the beginning of the illness, when they were slight, and for a very short time before birth. In this instance, the drug was of as little real value as in the last case mentioned in Dr. Campbell's note.

Every new drug, like every new bonnet, has a period of fashionable favour, when it is liable to be overlauded. I believe that viburnum will gain a permanent place as a remedy for abortion (more especially "habitual early abortion"), but it can never wholly displace some of the remedies we have employed in the past.

It is only by comparing our experiences that reliable data can be obtained; and I have pleasure in knowing that viburnum is now recognised as worthy of trial by a number of competent observers.

A. D. LEITH NAPIER, M.D., Dunbar.

PATHOLOGICAL MEMORANDA.

INTRA-AURICULAR GROWTH: INTERESTING POST MORTEM EXAMINATION.

THOMAS SPRAGG, farm-bailiff, aged 59, had enjoyed good health until last Christmas. Since then, he had had occasional shortness of breathing, but had kept at his work except for four weeks in February. On the morning of April 26th, after eating a hearty breakfast, he started with three horses and a harrow to work on the farm. Three-quarters of an hour afterwards, he was found dead, suspended across the connecting chains between the leader and second horse of the team. The horses were standing still, but the condition of the field indicated that they had worked well that morning. No evidence of external injury was found. The brain and its membranes were intensely congested. The heart was somewhat large and dilated, and there was more than the normal amount of fat on its surface. The mitral and tricuspid valves were somewhat thickened and indurated. The aortic and pulmonary valves, and their respective blood-vessels, presented no deviation from health. Within the left auricle, just above the mitral valve, and attached to the auricle, there was a growth (of the size of a pullet's egg). It was attached by a short, broad, firm, solid pedicle, and had no communication with any other structure. The exterior of the tumour resembled the remainder of the lining membrane of the auricle; whilst the upper interior portion of it was filled with a curdy, cheesy-looking material, and the lower