rally select them if present; but it is possible that telegraph-wire may be the only article available, I have therefore thought it worth while making known how it can be utilised.

The illustrations kindly drawn by Dr. J. D. Macdonald, R.N., F.R.S., speak for themselves as regards the formation of the splints, and have been taken from splints put together without any other aid than the file or scissors and ligature-silk, which should be always available in the surgeon's pocket-case. Fig. 2 represents a splint for the leg or forearm; the latter being considerably shorter and narrower. Fig. 3 represents a splint for the outer side of the upper arm, one end being bent over the acromion, and the other under the olecranon, as might be done with a piece of leather strap. Fig. 4 represents an inner or back splint for the upper arm. Fig. 5 represents an angular splint for fractures of the lower end of the humerus, or injury of the elbow.

It greatly facilitates the construction of these splints if the surgeon be aware of the amount of wire required for each, which should be detached before the splint has been commenced. The following will be sufficient for a man of average size: upper arm (outside), 42 inches; upper arm (inside or back), 24 inches; angular for elbow, 34 inches; forearm and hand, 60 inches; leg, 78 inches. The file will be found most useful for many purposes of active service, and it does not interfere with the utility of the scissors.

IS ENTERIC FEVER EVER SPONTANEOUSLY GENERATED?

By R. BRUCE LOW, M.D.,

Medical Officer of Health, Helmsley Rural Sanitary District.

IN answer to this query, and acting on the advice given by Sir William Jenner, quoted by Dr. Fox in the JOURNAL of March 25th, that "the best mode of settling this question is to thoroughly scrutinise every isolated case that occurs in out-of-the-way country places", I submit two groups of isolated cases which occurred in my out-of-the-way country district. The first group consisted of four cases, all occurring in the same house about the same time. The house itself was a moderately large one for a cottager, consisting of four fair-sized rooms. The family consisted of four persons, three adults and a boy of four years. The situation of the house was most peculiar. It was built on a hill-side, facing the junction of four wide valleys; a more exposed situation could hardly be imagined. Above the house were miles of moorland; the house was some distance from any high road, and altogether so out-of-the-way, that it was impossible that any tramp infected with enteric fever could have found out the house, far less the privy which turned out to be the source of the mischief. The father of the family was the first victim; within a week his wife was taken ill; in another week the daughter; and, finally, a married daughter, who had come to nurse them, also took the disease. All the four persons were ill in the house at the same time; the little boy escaped (not having used the privy). Two sons came to help to nurse their relatives, and, by my advice, did not go near the privy; also a trained nurse, who ultimately took care of them. The father and the married daughter died. The other two recovered. The water-supply was examined and found pure; the house was clean and commodious. The privy was found running over, and so full of filth that the seat could not be used. The fact that all the sufferers had used this privy, and that those who were afterwards exposed to the same conditions (with the exception of the foul privy), as well as the double danger of the typhoid stools from the four individuals, never took the disease—all this points to some local exciting cause, viz., the privy. In addition to this, when we consider the exposed situation of the house, its isolated position, to which a person (a tramp, for instance, who is the vehicle for carrying about the disease, according to the belief of some) suffering from enteric fever could not have climbed, the road being both steep and difficult to find; when we consider the pureness and abundance of the water-supply, and the entire absence of enteric fever from the district, which is very thinly populated; combining these facts with the circumstance that neither the father nor any of the others had been out of the district for a very long time, nor had they had any visitors, we are driven to the conclusion that the disease was generated *de novo*, and that there could have been no exposure to a specific contagion. I may state that the privy was disinfected and cleaned out, and, although a new family has occupied the house since the outbreak, no fresh cases have occurred.

The second group also consisted of four cases. Two little boys, attending a day school, had an attack of diarrhoea. One of the boys passed his evacuations in bed during the night, but was able to go to school next morning. The mother of the boys employed a charwoman

to assist her in washing the soiled bedclothes. An aunt of the boys resident in the house also assisted. Within a week these three persons were seized with symptoms of enteric fever, which developed rapidly, and proved fatal to the mother and to the aunt. All three, when engaged in the cleaning of the soiled linen, were nauseated by the foul smell of the evacuations. The house was a fairly built one, and contained twelve inmates (six adults and six children). The drainage was perfect, the water-supply pure and constant. No cases of enteric fever existed in the district. None of the family had been from home; they had had no visitors. The privy was clean, and as wholesome as could be expected. The two boys attended school all the time they were ill (a few days); their appetite and general health were not affected. The school was airy and well ventilated; none of the other scholars were ill. No source of contagion could be traced. Was the diarrhoea of the boys the manifestation of enteric fever in a mild form? If so, then the infection of the three persons is at once accounted for; but it is open to doubt if this diarrhoea was that of enteric fever, for in no way could any source of infection be found which would account for their having taken the disease. In the absence of any proof to the contrary, we must admit that the disease began from the inhalation of the foetid stools of the boys; that the emanations from these stools poisoned the systems of the three individuals who inhaled them, and the "filth-fever" was thus generated. I have omitted to mention that one of the children, who remained in the sick room with its mother during her long illness, also took the disease and died from it, the mother clearly infecting the child; but none of the other children or the other inmates of the house suffered from the disease. In conclusion, I may state that the privy in the garden of the house was quite inaccessible to any tramps, who might have left in it their infected stools, so that this theory, which meets many of the obscure cases, is not tenable in this instance.

SARCOMA OF KIDNEY AND LUNGS.*

By A. W. MAYO ROBSON, L.R.C.P.Lond., M.R.C.S.Eng.

MRS. W., aged 52, gave a good family history, and told me that her health had been all that could be desired up to five years ago, when she was attended by Mr. Hey for gastritis, followed after a month by phlegmasia dolens of the left leg, which detained her in bed for several weeks. From this attack she perfectly recovered, and continued well up to the latter part of last year, when she frequently complained of slight pain in the left side of the abdomen and in the left hip, and was unable to sleep on that side; but beyond these symptoms nothing of importance was noticed till Christmas, when her appetite began to fail and her strength to flag. She lost flesh, became low-spirited, and fell generally ill. At the beginning of January 1875, she sought advice, and received medicine, but became gradually worse, and vomited and retched violently and frequently.

About the middle of January, I saw her, when she was thinner than usual, rather pale, had a very red tongue, and a slight dry cough; pulse 85, and bowels constipated. She complained of severe pain shooting down the back of the left hip and thigh, which recurred every night about the same hour, and of frequent vomiting, quite independent of food. The abdomen was tympanitic, but neither painful nor tender. The urine was normal in every respect. Despite the use of various medicines, with careful nursing and dieting, she gradually grew worse, and only received benefit from morphia.

On February 5th, Mr. Hey met me in consultation; and as the only evidence of disease seemed to be in the mucous membrane of the stomach, muco-gastritis was given as the diagnosis, and the case treated by the different stomach sedatives, but without any effect, as the vomiting continued and the weakness increased, so that on February 15th it was considered advisable to give nutrient enemata, especially as the mouth had become aphthous. For a short time, the wasting seemed to be checked; but when the injections were temporarily left off, on account of inflamed piles, she again failed rapidly, until the renewal of the treatment. The intense tympanites was relieved from time to time by turpentine stupes.

On March 10th, the pain was diminishing in the hip and thigh, and increasing in the left loin. The tympanites was much diminished. On pressing my hand deeply in the left lumbar region, I discovered a hard smooth enlargement, resonant in front, more distinctly felt when the patient was placed on her right side, when it seemed to move with each respiration. I pointed it out to Mr. Hey at our next meeting a few days afterwards. As there were absolutely no subjective kidney-symptoms, we thought the tumour could not be renal, although our first impression, on feeling it, led us to think it such.

* Read before the Leeds and West Riding Medico-Chirurgical Society.

On March 14th, as she was gradually failing, and there was some doubt concerning the nature of the tumour, the friends wished for further advice, and Dr. Allbutt met Mr. Hey and myself. The tumour then reached from the ninth rib to an inch below the twelfth. The diagnosis then advanced was, that the enlargement was of a malignant nature, probably connected with the spleen.

On April 6th, the tympanites had entirely disappeared. The tumour extended from the eighth to one inch below the twelfth rib; the pain was seated in the left loin and shoulder, and the cough had increased. There was a little dullness over the upper part of the right lung in front, to which part the heart-sounds were conducted freely; and mucous rales could be heard over both sides of the chest.

On April 30th, I met Mr. Teale in consultation. The diagnosis was "a malignant tumour in or near the spleen, with a deposit of some material in the lungs".

On May 17th, she died, being conscious to the last.

Necropsy twenty-four hours after death.—There was general emaciation. The spleen, liver, and heart, were normal; the pleuræ were healthy. The lungs, especially the upper part of the right, were occupied by a number of hard greyish nodules, varying from the size of a pea to that of a small nut. The right kidney was normal. In the left lumbar region was situated a hard nodulated mass, five inches and a half long by four broad and three thick, stretching from the spine and aorta internally (being adherent to both) to the ribs externally, and having in front the descending colon, to which it was firmly fixed. After removal, it was found to be principally composed of the left kidney, the hilus being filled with a hard cartilaginous mass, stretching to and being so firmly united with the aorta that part of that vessel had to be removed before the tumour could be taken from the body. The capsule was easily removed from the upper part, revealing several small collections of thick creamy pus; but was thick, hard, and firmly adherent below. On section, the kidney-structure seemed to be almost abolished, being replaced by a whitish substance almost resembling white turnip, except near the lower part, where the lines of a solitary pyramid could be seen converging to its calyx. The calices were filled with a hard, dense, white, cartilaginous material, so that all, except one near the bottom, had their cavities obliterated. The pelvis of the kidney contained fat. The part joining the aorta and kidney was much denser than the rest, creaking when cut, quite white, and perforated by the vessels and ureter. On examination of the renal tumour under the microscope, it was found to vary in different parts. In some places the tubules were quite distinct, being filled with small round cells, the walls of the tubules being composed of several concentric layers of spindle-shaped cells; in other parts, the intertubular tissue, which was composed of round, oval, caudate, and spindle-shaped nucleated cells and free nuclei, predominated over the tubular; while again in other parts, especially in the extrarenal growths, there were no tubules. The pulmonary nodules resembled the cellular parts of the renal tumour, except that they contained more of the fibrous element.

REMARKS.—There are several points to which I wish more especially to draw attention—viz., the entire absence of subjective urinary symptoms, the rapidly fatal termination, the non-enlargement of the right kidney, the prominence of gastric symptoms with tympanites, the seat of the pain, and the histological character of the tumour. The first two points may be passed over by simply mentioning them. The non-enlargement of the right kidney may, I think, be explained by the small amount of work which would be thrown on it, as the patient retained the recumbent posture during her entire illness. The prominence of gastric symptoms is, "to my mind", not easily explained, especially as there were no other symptoms of uræmia. The later aphthous condition of the mucous membrane was not to be wondered at, as it is common in wasting diseases; but the almost sudden disappearance, without returning, of the tympanites about five weeks before the patient's death—i.e., at a time when the atonic condition of the muscular coat should have been the greatest—seems to me very curious. The seat of the pain was not at first where one would have anticipated it would have been—viz., in the left loin—but followed the course of the left sciatic nerve. I suppose this might be explained as the facial pain is in toothache, as a reflected one. Later on, the pain was chiefly in the loin, and during the last month in the loin and left shoulder. Pain in the right shoulder is well known to be a symptom of hepatic disease; and may not this pain in the left shoulder have been due to disease of the left kidney? Both the phrenic and pneumogastric nerves communicate with the abdominal sympathetic, and thus with the renal plexus. In looking through several medical works, I find no mention made of sarcoma of the kidney, most malignant tumours being classified under the head of encephaloid. I suppose this is due to the fact that the distinction has only been made during the last few years.

REPORTS OF SOCIETIES.

MEDICO-CHIRURGICAL SOCIETY OF EDINBURGH.

WEDNESDAY, APRIL 5TH, 1876.

J. D. GILLESPIE, M.D., President, in the Chair.

Exhibition of Patient.—Dr. JOHN DUNCAN, in the absence of Mr. SPENCE, showed for him a patient lately in his wards, who had an aneurism involving the first part of the right subclavian, the innominate, and part of the arch of the aorta. Under rest and half-drachm doses of the iodide of potassium four times a day, the aneurism had consolidated and pulsation had disappeared.

Pathological Specimen.—Dr. FINLAY showed a specimen of a fracture, which separated the condyles of the femur from each other longitudinally. It had been caused, along with other injuries necessitating amputation of thigh, by a fall from a mast on the knee.

Puerperal Fever.—Dr. BRUCE read a paper on cases of puerperal fever in a practice of twenty-two years. In a paper recently read before the Society, Dr. Matthews Duncan had shown the non-epidemicity of puerperal fever. He agreed with the views then advanced, and now wished further to support them by an account of his experience in thirty-five hundred obstetrical cases ranging over a period of twenty-one years. The term puerperal fever was ambiguous; but he understood by it "cases with fever, rapid pulse, and suppression of the lochia, all occurring on or about the third day". His cases were as follows. In each of the years 1856 and 1859, he had one case. Both recovered. In 1860, he had four cases. The first was weakened by previous hemorrhage, and died. Previously to attending it, he had been at a *post mortem* examination in a case of cancer of the stomach. His second case occurred the day after the former, and also died. Of the other two, only one died—a result brought about by her own carelessness. In 1862, he had one fatal case, with symptoms like typhoid fever. In 1864, two cases occurred, both with a scarlatinal eruption, and both fatal. In 1868, there were three cases as follows. Two had puerperal peritonitis, and died; and the third had scarlatinal rash; it also was fatal. In 1870, there was one case. In 1872, there were four cases; three of them in an epidemic of small-pox. In 1873, there were two cases, of which both recovered. In 1874, he had eight patients who febrile in succession. Two only, however, were puerperal fever; the rest being attacked with "weeds". In the last case, occurring in 1875, he would mention, the placenta was adherent, and this might account for the result. To sum up these, the members would observe he had twenty-two cases; in which three were due to scarlatina; three to small-pox; one to bad nursing; two to direct contagion probably; while in eight the causes were unknown.—After some remarks from the PRESIDENT conveying his sense of the value of Dr. Bruce's paper, Dr. MATTHEWS DUNCAN expressed his complete concurrence with the views which Dr. Bruce had stated, and his gratitude to him for thus tabulating the results of his large experience. In referring to a case in which Dr. Bruce had allowed the possibility of his having communicated infection because he had attended a necropsy just before, Dr. Duncan thought the problem an insoluble one, and that the case might have occurred without any such source of infection. All Dr. Bruce's experience was an excellent illustration of the accidental and altogether non-epidemic character of puerperal fever. During the thirty years he had practised midwifery, he had never seen an epidemic of puerperal fever, nor had there been one since 1854, when the statistical records were first published. The epidemic theory had been often used, and was useful enough to explain awkward series of cases in the hands of certain practitioners.—The PRESIDENT referred to two cases of midwifery which he had attended for a friend when he himself was acting surgeon to the Royal Infirmary; one of which died of puerperal fever; the other had recovered. These had alarmed him; and, while attending hospital, he delivered no more women. Perhaps his alarm had been unnecessary.

Pneumothorax.—Dr. CHURCH read an account of a case of pneumothorax, which had been recently under his care. A hammerman, aged 37, had been going to his work in his usual health, when sudden symptoms of collapse with difficulty of breathing had come on. The symptoms of pneumothorax of the right side were well-marked; it was motionless and bulging; percussion was tympanitic. Dr. Church had tapped the right pleural cavity with antiseptic precautions, between the fifth and sixth ribs, near their angles. The air escaped with a hissing sound; and the imminence of the symptoms gradually passed off; the patient gradually but slowly recovered.—The PRESIDENT and Dr. T. G. STEWART made remarks on the interest and success of the case.