distance; under "condition," whether it is full, offensive, or unobjectionable. Where the premises have no separate closet, it should be stated what place of convenience the inmates use; and, where two or more adjoining houses use the same closet, it is convenient to include them in a bracket, so that the eye, in looking down the sheet, may readily recognise the fact.

8. *Nature of Water-supply.*—In this column, the inspector should state briefly whether there is a supply on the premises, and, if so, its position with reference to any possible source of contamination. If there is none, it should be stated whence the inmates derive their drinking-water. It is also important to note, when a well exists, whether it is used for drinking, or not. Where two or more adjoining premises use the same well, they may be bracketed, as in the case of the closets.

9. *Defects in Drainage, Ventilation, or General Condition of Premises.*—Here should be noted the nature of the drainage, if any, as well as any facts connected with dilapidation or faulty construction of the premises which may be prejudicial to health, such as dampness arising from want of spouting on roof, and badly-built walls or floors, defective doors or windows, etc.

10. *Existence of any Special Source of Actual or Possible Nuisance.*—This column is intended simply to register the existence of a nuisance at the date of the survey, or of what may at any time become one. In this latter category all pig-styes, whether with or without pigs, should be placed. The details of the nuisance, if one exists, should be entered in the special Record of Nuisances.

11. *Remarks by Medical Officer of Health.*—This is a very important column, which appears to have been omitted in all other forms which I have seen. It is essential, as enabling the medical officer to record the result of his personal observations on the premises; or to enter the details of any examination of the water which he may have made; or to note the occurrence at any previous or subsequent time of infectious disease on the premises.

Finally, a column for "Additional Observations" allows the entry of facts of a miscellaneous kind, such as the existence and character of public drains, wells, nuisances, etc., not immediately connected with any special premises. The forms* on which all these details are provided for are so large as to give ample room for any ordinary entries, whilst, by a very simple arrangement, they can be so folded as to be easily portable, and may be carried in a case for many miles under the arm without any inconvenience.

A few words will explain to those who have not adopted such a system of obtaining information as this the advantages which it presents. In the first place, it affords a good means of ensuring that the inspector visits every part of his district, and also of providing systematic work for him. From thirty to forty houses visited and carefully registered in this way make a good day's work in an ordinary rural locality. The survey, which (or a copy of it) should always be in the possession of the medical officer of health, enables him at any time to turn to any part of his district on the occasion of disease breaking out there, and, if necessary, to refresh his memory as to the actual state of it. It is, moreover, the indispensable basis of any report to the sanitary authority as to the sanitary condition of a locality. Thus, from the population column, the medical officer will be able to ascertain with exactness whether there is any tendency to general overcrowding or not, as evidenced by the relative number of premises with one, two, and more than two bed-rooms respectively, and the average number of occupants in each. He will, from the next column, be able to show the general state of the closet accommodation, and the numbers who use closets that are employed in common. From the next column, supplemented by his own personal examination of the principal sources of drinking-water in the place, he will be able to form an opinion as to the sufficiency of the water-supply both as to quantity and quality. These and other equally important facts will all be obtainable from the survey, and will be available, not only for the use of the medical officer himself, but also of the Sanitary Authority, to whom they will afford the best possible proof that the sanitary work of the district is being done systematically and efficiently. In fact, so strongly am I impressed with the value and indispensability of such a proceeding as a preliminary to all sanitary work, that I would strongly advise every medical officer of health to insist upon it as a primary condition to his own operations. He may possibly meet with some difficulty occasionally in enforcing it; but, if he be firm, he will in most cases succeed. His greatest difficulty may possibly be with the inspectors, some of whom much prefer running about in a desultory way, looking up nuisances, and making ambiguous reports on their own account to the more prosaic and exacting duty of house to house visitation which the survey

involves. But it is wonderful how soon an inspector learns the importance of accuracy in his work when he finds out that his medical officer has the power, and exercises it, of going over his work, and that he does not hesitate to note any errors or omissions that he finds. And it is this which makes the survey so valuable: it is the best means which the medical officer, especially in large districts, has of keeping his staff up to their work and of ascertaining exactly what they are about.

I will say nothing here on the subject of the other element of sanitary inspection, viz., the Record of Nuisances, except to refer to two features which such a record ought to possess, but in which all of those which I have yet seen are defective, viz., each entry ought to contain a full account of all the proceedings adopted in respect of the case to which it refers until it is taken into a court of law; and the Record ought to have a separate column for observations by the medical officer of health.* Such a column is important for two reasons: firstly, because it affords a means of either supporting or checking, as the case may be, any suggestions for abatement offered by the inspector; and, secondly, because it enables the medical officer to record his opinion formally in all cases in which the sanitary authority may desire to have it in a written form.

Armed with these two weapons for sanitary warfare, it will be the fault of the medical officer of health himself if he cannot carry on his campaign successfully. But, whether he succeed or not in achieving all the objects which he may at the outset of his labours consider desirable and practicable, he will at any rate have laid a solid foundation for his work, without which he may at any time find it collapse under his hand.

CASE OF OCCIPITO-SPINAL MENINGITIS, ACCOMPANIED BY DOUBLE FACIAL AND GENERAL PARALYSIS.

By THOMAS STRETCH DOWSE, M.D., F.R.C.P. Ed.,
Medical Superintendent Central London Sick Asylum, Highgate.

THE following case is of especial interest, inasmuch as the signs and symptoms clearly indicate that the patient was suffering from inflammation of the basilar cerebral meninges, as well as of the spinal cord, with general peripheral inflammation of its substance, terminating in complete resolution. And, furthermore, although its etiology at first sight leads one to suppose its origin to be catarrhal and idiopathic, yet the clear history of syphilis, coupled with the results of the treatment, cannot fail to convince one that the syphilitic cachexy influenced to no small degree the condition of the patient and the course of the disease.

T. G., aged 28, was admitted into the Highgate Infirmary, said to be suffering from acute rheumatism. He was a strong, muscular, big-boned and well-made man, with a phthisical family history, and of fair rheumatic diathesis. There was an account of his having contracted syphilis eight years before, which never showed itself in a tertiary form; and, from his own statement of the excellent health which he always enjoyed, it could not have taken much hold upon him. One month before his admission, he was working for some days in the rain, and wore his wet clothes continuously, which produced some constitutional disturbance, as of a severe cold, when he was suddenly seized with a feeling of "pins and needles" in both hands and feet, accompanied with numbness and a sense of heaviness, with cramps and darting muscular pains. On this account he could neither walk, unless he had hold of something to support him, and for the same reason he could not feed himself.

Upon admission, he had the characteristic smell of acute rheumatism. There was no marked arthritic pain or synovial effusion. Temperature 102; pulse 115; respirations tranquil. The countenance gave indication of facial paralysis, which was more marked on the right than on the left side. He was unable to close the lid of either eye, and there was excessive lacrymation, with diplopia. Food lodged between the teeth and the cheeks; and when he endeavoured to blow a whistle, they remained flaccid and immovable. The state of akinaesthesia was less marked on the left side of the face, and existed to a less extent all over this side of the body.

There was akinesis of both upper extremities, with absence of co-ordinating power. When asked to grasp one's hand, he did it feebly; and when he attempted to pick up a pin, or put a cup to his mouth, he invariably fell short of the mark. The state of paresis of the lower extremities was much more marked than in the upper. He was unable

* They may be obtained of Headland, printer, Gloucester, and are in use in various parts of the kingdom.

* Records for nuisances prepared in this way may also be obtained of Headland, of Gloucester.

to raise the limbs to the extent of a few inches without the greatest difficulty, and complained that they felt as though made of lead: they were hyperæsthetic and hyperalgic. He suffered intense agony from cramps in the muscles of the thighs, with numbness and pricking pains in the legs and feet.

The boundary line between complete and partial anaesthesia was upon a level with the umbilicus; and in this region he said that it felt as though a cord was bound round him. There were occasionally clonic spasms, but these were infrequent. There was incontinence of urine for twenty-four hours, which passed off and did not return. The bowels were most obstinately confined. There was no especial tenderness down the spine; no intolerance of light. [This sign, though not authentically recorded, I have invariably found to be pretty conclusive evidence as to the seat of the cerebral meningeal lesion. There is not, as a rule, photophobia in basic meningitis; but when the meninges covering the superior cerebral convolutions are inflamed, and more particularly when the inflammatory action becomes intraventricular, then intolerance of light is always attendant, and furnishes a marked symptom.] He occasionally complained of great pain and heaviness in the occipital region. He was especially deaf upon the right ear; and, although his intellect was clear, there was at times considerable amnesia and thickness of speech, which never amounted to aphasia. The progress in the acute stage was exceedingly interesting, and for about three weeks his condition varied little from that just described; the temperature ranging from 101 to 105 degrees, and in proportion as it decreased, so sensibility and voluntary power began to return. The sub-idence, however, of the ravages produced by the nature of the malady and the repair of the degenerated tissues was extremely gradual, so that for months he was unable to walk unaided.

When he was discharged, six months after he was first attacked, he appeared to be perfectly well. The facial paralysis, as well as that of other parts of the body, had completely gone. He closed his eyes, masticated his food, moved his arms, and walked almost as well as ever he did. At times he staggered momentarily, but this seemed to be due more to the atonic condition of the muscles than from any central ataxic cause, as the other signs of locomotor ataxy were absent. The deafness of the right ear, however, remained persistent.

After the more acute symptoms had subsided, large doses of iodide of potassium were freely administered, as well as the syrup of chloral and bromide of potassium to relieve pain.

For some time after he first got out of bed, his legs were of no use to him; the muscles were lax and devoid of tone; but by the aid of cold douches to the spine, and persistent rubbing as well as galvanism, with strychnine injections, he progressed rapidly, and left the institution perfectly well.

CASE OF INTESTINAL OBSTRUCTION IN COLIC: EVACUATION OF FLATUS BY PUNCTURE: RECOVERY.*

By SAMUEL MARTYN, M.D., F.R.C.P.,

Physician to the General Hospital, Bristol.

ON July 16th, 1873, I was called to Mr. B. B., a short, strongly built man, aged 60, who, up to the time of this attack, had been in good health. In his family, there is a strong gouty tendency, but he has never suffered in that or any other important way, unless from occasional bronchial catarrh. As this gentleman was a deaf-mute, we had to converse on the fingers, which was a little difficult, owing to his having very imperfect sight. Mr. B. had had diarrhoea for a few days, referred to taking fruit. Just now, he was found in an attitude described as "doubled up" on the staircase, with extremely violent colic. He made constant efforts to pass a stool, but the greatest straining produced no result. Pulse 60. Tongue very furred. I ordered a dose of castor-oil, two successive doses of chlorodyne, and fomentations of "liquor papaveris."

July 17th. In the morning, the symptoms were equally violent, the pain occurring in paroxysms at short intervals. He rolled on the floor. Pulse 50-60. I gave one-fifth of a grain of morphia subcutaneously. At 10 P.M., he again had a dose of castor-oil, a quarter of a grain of morphia subcutaneously, and fomentations.

July 18th. He slept a few hours after the sedatives. When seen, at 5 A.M., he had been since three again in violent pain, diffused over the central region of the abdomen chiefly, with tenesmus. His urine was normal. The long tube passed nine inches, when the orifice brought back blood and mucus; an enema was, therefore, given, with turpentine,

oil, and egg, but soon returned. Morphia was injected subcutaneously. At 10 P.M., the pain was as violent, but he slept a little between the attacks. He took a little fluid food. Pulse 60. Tongue very furred. I ordered two drachms of brandy at intervals, and a pill of extract of opium and extract of belladonna every fourth hour.

July 19th. He had been drowsy between the attacks, which continued the same. There was universal abdominal distension, with flatus, and incessant short sharp borborygmi, with metallic ring. He took only a little milk and yolk of egg.

July 20th. The abdominal tension had increased to a distressing extent. Pulse 100. Respirations 33. The peristaltic movements, which had been very distinct, seemed arrested by the tympanitic distension. The colonic regions were now the most amphoric. Failing again to introduce the long tube, on account of opposition at the brim, or sigmoid flexure, I punctured the descending colon with a smallish trocar, and evacuated much flatus, so that the left abdomen became markedly softer. Half a grain of opium was given.

July 21st. The pain was still very severe. The abdomen was not quite so tense, but again very large. Pulse weaker, intermittent, 80-100. The legs were cold; the tongue was dry and furred. He had not slept. He took iced milk and soda-water with champagne, alternately. I gave one-third of a grain of morphia subcutaneously, and half a grain of opium.

July 22nd. He had scarcely any sleep last night. This morning an enema of turpentine and oil returned. A dose of chlorodyne gave some freedom from pain, but no sleep. This evening he was evidently in extreme danger. Pulse very weak, thready and irregular. Face dusky. The abdominal wall now projected at a right angle from below the costal cartilages. No peristaltic action could be felt, and the borborygmi had almost ceased. I then made two punctures, one into the transverse and the other into the ascending colon, with the effect of an immense exit of air. [Each puncture emptied the part only in its immediate vicinity, probably up to the nearest flexure. Thus, the ascending colon remained perfectly distended after the transverse had collapsed. I may note that I incised the cutis first, and found that, when the tension had been lessened by one puncture, a second required a very quick and perfectly vertical impulse to penetrate.] The abdomen became completely soft, and peristalsis was soon felt commencing in the still large and tense coils of the small intestines. The pulse improved at once; and circulation and respiration appeared much relieved; in fact, he implored by gestures to have more punctures made. I gave one-third of a grain of morphia subcutaneously.

July 23rd (one week since attack). After the morphia, last evening, he dozed at intervals between moderately severe attacks of pain; and, shortly after midnight, he passed a large motion, followed in the course of some hours by two others, all semifluid, with admixture of small hard masses. He was now not in much pain. His abdomen was soft. There was no tenderness near the punctures. Pulse 80-100. Temperature 100.3. His tongue was very furred. He took milk a little thickened, and brandy with soda-water, alternate hours. A third of a grain of morphia was injected subcutaneously.

July 24th. He was improving. His bowels acted three times profusely. The tongue was cleaning. Pulse 80-100. Temperature 100.4 A.M., 99 deg. P.M. I ordered weak chalk mixture and chloral at night.

July 25th. He had slept fairly for the first time. The bowels were moved three times. The tongue was improving. Temperature 98.4.

July 26th. He was much better. Pulse 70. Tongue clean. Temperature normal. His bowels were still rather active. He was ordered aromatic iron mixture.

REMARKS.—From the last date, Mr. B. made a slow but steady recovery, the bowels remaining irritable for several weeks. Fruit and vegetables had to be excluded from an otherwise generous though simple diet.

The site of the obstruction can only be determined, inferentially, as not having been in the duodenum or jejunum, vomiting having been absent except quite at the first onset; while the colon, at first empty, became enormously distended at the worst stage. At that period, all expulsive effort had ceased, and overdistension may have paralysed the muscular walls. Probably a similar overdistension, with faecal matter, of some coils of the ileum, may have induced, firstly, spasmodic colic (colica stercoracea flatulenta), and subsequently entire stagnation in that region. Uncomplicated colic rarely lasts so long; but when it does, has been known to issue in fatal intussusception. But, in this case, the patient having a very rigid chest, chronic bronchial irritation, and a weak heart, death would probably have been caused by interference with the circulation before either intussusception or enteritis had ensued. I imagine that powerful purgatives, by forcing still more faecal matter into the overdistended and occluded part, would have been certain to do harm; while, peristaltic action being active and obvious

* Read before the Bath and Bristol Branch.