

the salaries of Poor-law medical officers and workhouse nurses and of workhouse school teachers, toward the cost of medicines for Poor-law patients, and for some other purposes. All these will suffer, but not to the same extent as the asylums.

*The Public Health of Belfast.*

That the condition of Belfast from a public health point of view is anything but satisfactory at present is clear to anyone reading the articles appearing in the local papers and also from a perusal of the discussion which occurred at the monthly meeting of the city council on May 1st. Between March 18th and April 21st of this year the average annual death-rate from all causes was 21·8, while in the corresponding period of 1916 it was 20·7; and 188 cases of infectious disease were notified, compared with 115 in the previous five weeks and 169 in the corresponding period of 1916. Altogether 37 cases of typhus had occurred in the recent epidemic, while upwards of 100 new cases of typhoid have been notified during the eight weeks up to the middle of April. The chairman of the Public Health Committee was unable to assign any cause for the origin of the typhus outbreak beyond the fact that ships came to Belfast from foreign ports, which might have brought the disease to the city—an explanation sufficient to cover the occurrence of any form of infectious disease in any maritime town at all times and seasons. As to the typhoid, in the district principally affected—Ballymacarrett—the health committee put forward as an explanation the eating of shell-fish, a view medical expert opinion in Belfast would certainly not endorse. Nothing was said as to insanitary domestic conditions. Then one of the aldermen of the city council made a very severe attack on the corporation scheme for dealing with tuberculosis, which began in May, 1913. The scheme was, he said, costing £31,600 a year now, instead of £15,000 as formerly, without obtaining any results, and he mentioned that in the first quarter of 1917 the death-rate from tuberculosis had exceeded anything experienced for the past 15 years. In 1911 the deaths from phthisis in Belfast were 802, while in 1916 they were 828, and during the three months from Dec. 16th, 1916, to March 16th, 1917, 290 deaths occurred from pulmonary tuberculosis, a figure much above the average. The monthly figures were respectively 93, 85, and 112. In 1914, from the middle of January to the middle of March, 139 deaths took place from phthisis, while during the same period in 1917 there were 197. The corporation scheme for dealing with infantile mortality has not yet been launched, and although £32,000 a year are being paid for street cleansing, not a municipal water-cart was used until last week, and dust, full of microbes, was being blown into the houses. In a word, notwithstanding that more money is being spent, the public health of Belfast is not improving, and no real scientific attempt is being made to grapple with the great questions of public health that are now being considered in England and Scotland.

*Belfast and the War Office.*

The action of the War Office in dealing with Irish medical schools and with Irish doctors requires some explanation, as is apparent from what appears in THE LANCET of May 5th, p. 704, where, in reference to a Dublin hospital for France, it is said a similar offer on more than one previous occasion was refused when made by Dublin, and also when offered by Belfast in 1915, and by Cork more recently. Not only are these facts accurate, but it may be added that again last week Sir Alfred Keogh, Director-General A.M.S., refused a second offer from the medical profession in Belfast. As a result, the president of the Ulster Medical Society has written Lord Derby, asking him to explain his letter urgently calling for doctors, with this refusal on the part of the heads of the Royal Army Medical Corps, at the War Office to accept the second offer from the members of the Belfast Medical School. Another matter causing great annoyance is the fact that experienced hospital surgeons, who on high patriotic grounds have offered their services, are told that they can join with the rank of their pupils a few days qualified, and go to a camp to be trained, when some of them thus treated have actually been doing all the operative work at the Belfast Military Hospital. At the same time the ranks of lieutenant-colonel and captain are given to others on their first appointment as temporary medical officers of the Royal Army Medical Corps.

## Correspondence.

“Audi alteram partem.”

### THE NEGLECT OF VACCINATION.

*To the Editor of THE LANCET.*

SIR,—The Local Government Board has recently inquired from the local authorities as to the isolation accommodation for small-pox cases, and the replies generally in the West of England cannot, it seems, be described as satisfactory. This is to be much regretted, as owing to the decrease in vaccination it is essential that adequate isolation should be provided. The neglect of vaccination has probably not had the attention it demands, and this is the feeling of public vaccinators in most districts. In several towns in the West the number of conscientious exemptions exceed largely the number of successful vaccinations. It would be as well to have the term conscientious objection more clearly defined, often it is only ignorance that is implied when the expression is used. A man told me that he never had his children vaccinated; he had a “conscientious objection” to the operation, as he did “not want matter put into his children’s arms.” This parent was a member of a board of guardians, and had voted against vaccination whenever that subject was discussed at the meetings. Legal proceedings are practically never taken against parents for neglecting to have their children vaccinated, and perhaps this is wise, for the delinquents have often been fined a few coppers, and these fines are paid by the antivaccination societies.

The operation of vaccination is performed differently by many medical men; the public vaccinator has to make four marks, the private practitioner has liberty to make the number he prefers. In some centres there are one or two medical men who vaccinate in one place, and they vaccinate hundreds of children annually. I have seen the resultant scars of some of these cases, and they are almost microscopical in size. These vaccinations might be described as evasions of the law, and the protection conferred by them against small-pox must be extremely limited. After the war the whole subject of the performance of vaccination will have to be gone into, for the annual returns show a large decrease every year in the number of successful cases. The question would then be discussed as to whether any certificate of successful vaccination should be accepted unless it states the number of marks obtained, this number to be fixed by the authorities.

Another point open for debate is whether the public vaccinator should not be abolished, and the parents allowed to have their own medical attendant to perform the operation, the fees being paid by the State. This would make vaccination more popular with the parents, as the family practitioner would be preferred to the public official.

Doubtless several changes will occur in the administration of the Vaccination Acts, and if vaccination could be carried out more efficiently and revaccination enforced, the isolation accommodation at present available would be probably more than sufficient. I am, Sir, yours faithfully,

Lyme Regis, May 4th, 1917.

JAMES D. STAPLE.

### THE TECHNIQUE OF LUMBAR PUNCTURE.

*To the Editor of THE LANCET.*

SIR,—The contretemps which Mr. Sheffield Neave has experienced (THE LANCET, May 5th) must be, I think, very unusual, and it is remarkable that it has occurred in his practice three times. It is unlikely that he has met with three cases of congenital abnormality of the vertebral column, which have required lumbar puncture. It is also unlikely that he has struck an intervertebral disc without blunting his needle considerably. It is more likely that he underestimated the distance across the bony canal. I entirely agree with him in his remark about the value of revolving the needle in order to establish or increase the flow of fluid. Another device for the same purpose is to make the patient cough, or, if he is sitting up, to get him to raise his head slightly. It is useful to make a practice of operating below the fourth lumbar spine. Frequently when blood is met with here the fluid will be clear at the higher levels. This, no doubt, is

more often the case when the patient is sitting up on a stool. I always use a syringe as a handle for the needle. It serves also to wash the needle through when a fresh puncture is necessary and at the completion of the operation. Several sterilised test-tubes should always be at hand. It must be remembered that a little blood does not interfere at all with the cytological examination of the fluid or of the Wassermann reaction. In the former case the necessary adjustment can be made readily by simple arithmetic; for the Wassermann reaction the pathologist requires to have the fact that the fluid contained blood in his mind when he reads off the result of the test. To my mind the "Barker" needles are needlessly large. Fine needles of platinum-iridium, which I first saw used by Colonel Purves Stewart five years ago, make lumbar puncture practically a painless operation. The skin is sprayed with ethyl chloride. Over and over again patients have told me that they felt no pain whatever, and a medical man, whom I punctured recently, told me at the end of the operation that he did not know that I had commenced. The fineness of the needles has, in my hands, offered no difficulty in the case of intrathecal injections. My two needles, which are in use almost daily, are those which I bought five years ago. About once a year they require straightening out. Personal attention to one's needles is essential.

The high incidence of neurological syphilis in the Navy brings with it a large experience of lumbar puncture work. In the last ten months at Haslar, for instance, we have done some 250 lumbar punctures in the neurological department. In only one case was the resulting discomfort sufficient to cause the patient to ask that the operation might not be repeated. I agree with Dr. T. J. Horder (*THE LANCET*, April 28th) that a "dry puncture" is another word for an unsuccessful operation. With reference to Surgeon F. A. Williamson's dilemma (*THE LANCET*, April 21st), surely a "mistake in diagnosis" should not occur if the cytology of the fluid is examined. This is of far greater importance than the estimation of the pressure of the fluid. The determination and the enumeration of cells requires only a bottle of stain, a graduated pipette, an ordinary hæmacytometer, and a microscope with a 1/6th inch objective.

I am, Sir, yours faithfully,

HILDRED CARLILL, M.A., M.D. Cantab., M.R.C.P. Lond.,  
Neurologist to the Royal Naval Hospital, Haslar.  
R.N. Hospital, Haslar, May 6th, 1917.

## THE USE OF STATISTICS IN MEDICINE.

To the Editor of *THE LANCET*.

SIR,—This is not the time, nor can you provide the space, for a discussion of the proper use of statistical methods. The "wise sayings" of Sir Almroth Wright which you endorse have already been commented upon at length by me in your columns (January, 1913). But I do venture to ask, in all seriousness, whether this is the time once more to trot out that pantomime elephant, the imaginary "statistician," who insists on masses of heterogeneous data and refuses to pay attention to small groups of homogeneous observations and to contrast that comic animal with the expert (also imaginary) who can deduce absolute truth from half a dozen intensively studied cases.

I do not blame your contributor for not knowing that for several years English statisticians have been at work on the problem of the small sample, any more than I blame the publicity department of the Food Ministry for issuing guesses as to the quantity of food wasted in private families without studying the exact investigations of this point published 17 years ago by Atwater's collaborators; nobody can be expected to read the literature of a subject upon which he means to advise the public—it would bias him. But if I go to the expense of having six absolutely true dice cut, and if on the first trial they all throw a 5, and I at once recommend the gambling public to put their money on 5 in future dicing, I wonder whether your contributor will contrast me advantageously with Weldon and other statisticians who went to the trouble of making thousands of tosses with the ordinary dice of commerce, and whether he will draw that moral of his—viz., when a shorter and a longer way are open, it is not well to choose the longer. On the whole, I do not think he will. But if I were to say that a profound knowledge of the peculiarities of dice, *my* dice, had satisfied me that it really was a certainty that the 5 would turn up

and that other observations inconsistent with this view were due to want of technical knowledge on the part of the observer, he would no doubt take my word. Perhaps the gambler would, too, and perhaps he would not be *quite* satisfied in the long run.

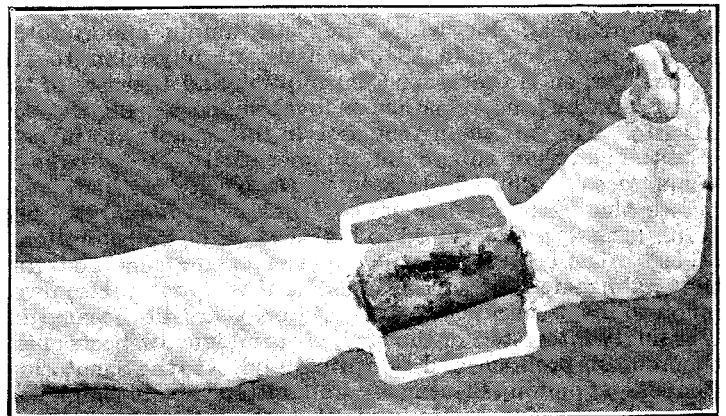
I am, Sir, yours faithfully,

Lister Institute, S.W., May 5th, 1917. M. GREENWOOD, Jr.

## BRIDGED PLASTER SPLINTING.

To the Editor of *THE LANCET*.

SIR,—Referring to the method of plaster splinting described by Captain George Davis in *THE LANCET* of Feb. 24th I may say that this method of applying plaster has been in use in Boston, Mass., for a number of years and it was when I was a student in Boston that I learned this method. It was used extensively at the American Ambulance in Paris by Dr. Osgood, of Boston, when he was on service



Bridged plaster splint applied for an infected gunshot wound of the leg in order to facilitate dressing and at the same time immobilise the fragments.

there. I have referred to bridged plaster in my recent book on Military Surgery, and the appended photograph shows the splint in use.—I am, Sir, yours faithfully,

D. PEARCE PENHALLOW,

Chief Surgeon, American Women's War Hospital.  
Oldway House, Paignton, South Devon, April 14th, 1917.

## A SIMPLE METHOD OF APPROXIMATING THE EDGES OF WOUNDS.

To the Editor of *THE LANCET*.

SIR,—I venture to suggest a mode of uniting the edges of wounds which is original, though perhaps not new. It is especially useful with children and in cuts or operations about the face where stitch marks are sometimes more noticeable than the actual scar of the wound.

After preparing the wound, take a suitable number of pieces of silk thread about 4 in. long, each with a knot at the end, and arrange them across the wound just where stitches would be placed. Then fasten down the knotted ends with strapping 3/4 in. broad, with its edge half an inch from the wound, and turn the loose ends back. Having similarly prepared the other side, it only remains to draw the edges of the wound together and tie the ends in pairs. For small operations one has time to adjust the silk ends and strapping ready for use, and the former may be passed through the strapping to make it even more secure. I have always used Johnson's adhesive strapping, which keeps the silk quite firm, only the latter must not be wet.

This method might be used for larger wounds to supplement stitches, or to replace those which have given way, or to relieve tension.

I am, Sir, yours faithfully,

GEORGE A. BALLINGALL.

St. Leonards-on-Sea, May 2nd, 1917.

THE American National League of Nursing Education has elected Mrs. Bedford Fenwick as their first honorary member in recognition of her labours for the higher education and registration of nurses. The League is composed of all the leading superintendents of training schools for nurses in the United States.