institute surgeon. And this is common humanity. 3. Mr. Wylls's statements are satisfactory as evidences of an awakening conscience.

It was very kind of Mr. Wylls to postpone boycotting me yet a little longer. I am irresistibly reminded of the "Jackdaw of Rheims"—

"Never was heard such a terrible curse.
But what gave rise
To no little surprise,
Nobody seemed one penny the worse."

I will only add, Sirs, that when the wise medicine men of Yarmouth—mustering at an annual meeting six all told—have their sapient laws checked by a central authoritative body, then, and not till then, will I submit my sense of what is right and what is wrong to their infallible jurisdiction.

I am, Sirs, yours faithfully,

Great Yarmouth, Sept. 23rd, 1900. JAMES RYLEY, M.D. Lond.

THE DETECTION OF LACTIC ACID.

To the Editors of THE LANCET.

SIRS,—I have read with much interest Dr. Shufflebotham's valuable contribution on "The Chemical Examination of Gastric Contents" in THE LANCET of Sept. 15th, and being interested more in the chemistry than the pathology of the question I beg to offer a remark on one point which seems to me to be not quite clearly expressed. I refer to the description of the application of Uffelmann's test for lactic acid, and in view of the great importance of this test as an aid in diagnosis Dr. Shufflebotham will pardon me for drawing attention to the passage. The test is thus described. Uffelmann's reagent "consists of 10 cubic centimetres of a 5 per cent. carbolic acid solution and 20 cubic centimetres of distilled water. To this is added one or two drops of solution of perchloride of iron and an amethyst blue colouration is obtained. The solution should be prepared fresh each time as it does not keep. In the presence of lactic acid the blue colouration is changed to yellow. Hydrochloric acid has no effect on this reagent." This last statement is the point to which I take exception and which if not corrected may be the means of vitiating the results obtained by the application of the test. The purple blue colouration produced by the action of ferric chloride on phenol is familiar to every chemist, and it is equally well known that the colouration is only produced in neutral or slightly alkaline solutions. It is not developed if there is the slightest excess of acid, and when developed in a neutral solution it is entirely discharged by the addition of acid. So far, therefore, from hydrochloric acid having "no effect" the very reverse is the case, as the reagent is useless in the presence of free hydrochloric acid. It may be replied that the reference is restricted to the use of the reagent in testing gastric contents in which the percentage of free hydrochloric acid is usually very small, and while it is quite within the bounds of possibility that the proportion of free acid may be so minute as not appreciably to effect the result it is not safe to trust to this being the case without careful experimental evidence. Taking the percentages of lactic acid and hydrochloric acid found in a number of the cases quoted by Dr. Shufflebotham—namely, 0.05 per cent. and 0.02 per cent. respectively—I find that while a solution containing the former strength, 0.05 per cent. lactic acid, gives with the reagent a brilliant yellow colouration, the colour is scarcely perceptible in a solution containing 0.05 per cent. lactic acid and 0.2 per cent. hydrochloric acid, and quite imperceptible if the proportion of hydrochloric acid be very slightly increased or that of the lactic acid decreased. From these facts it is obvious that the test cannot be relied on when applied simply by adding the reagent to the gastric contents filtrate unless it has been previously ascertained by the phloroglucin test that free hydrochloric acid is entirely absent, a condition which rarely, if ever, occurs. The proper course to follow is to separate the organic acid by Berthelot's ether process, as described by Dr. Shufflebotham, and then to apply the test.

In place of Uffelmann's reagent I recommend one that is quite as satisfactory and much more convenient for use. It is prepared by dissolving four grains of sulphocarbolate of zinc and two grains of ferric chloride in half an ounce of distilled water. The colour is not blue, as with carbolic acid, but dark ruby, and the reaction is exceedingly delicate, so much so that 1 part of lactic acid in 100,000 can quite

readily be detected by using a full six-inch test-tube and looking down through it on a white surface. The advantage of this reagent is the convenience with which it can be prepared and the certainty that it will never vary in depth of colour. I would suggest that medical men would find it particularly handy to have the reagent in tablet form. Using perfectly dry ferric chloride the two salts can quite well be mixed and if preserved from moisture there is no reason why a compound tablet so prepared should not keep indefinitely.

I am, Sirs, yours faithfully,

Glasgow, Sept. 24th, 1900.

THOMAS MABEN, F.C.S.

"THE TREATMENT OF ACUTE ALCOHOLISM BY LARGE DOSES OF DIGITALIS."

To the Editors of THE LANCET.

SIRS,—With reference to the above I would like to point out that in Nelligan's *Materia Medica and Therapeutics*, edited by Macnamara, 1868 (Dublin), will be found, under the heading of Digitalis, that Jones of Jersey gave large doses of the tincture to his patients who were suffering from delirium tremens with very beneficial results. I believe the first heroic doses were given quite in error through the dispenser mistaking half-drachm for half-ounce doses, so it will be seen that the treatment is by no means of recent origin.

I am, Sirs, yours faithfully,

EDWARD C. CLANCHY.

Battersea-park-road, S.W., Sept. 24th, 1900.

"THE PREVENTION OF DISEASE IN THE FIELD."

To the Editors of THE LANCET.

SIRS,—May I briefly reply to some difficulties you have suggested to my proposition that on active service all water used for drinking purposes should be boiled or filtered?

1. You "would urge Dr. Canney to put forward his proposals for the consideration of those more immediately concerned with the question which he has taken up." I cannot help thinking that those most "immediately concerned" are not the War Office but the whole public who are watching their relatives through this anxious struggle. If the public make it a *sine qua non* that no general can come back with credit from a campaign with a heavy list of casualties from preventable diseases all "difficulties" in the way of prevention will rapidly fade away. Men do not mind facing fair war, but for thousands to have to go through (and too often, alas, not get through) typhoid fever and dysentery—both preventable filth diseases—with scant attention and nursing and often terrible feeding is too cruel to be tolerated. Seeing that men have had to drink infected water almost everywhere in South Africa it would appear that if there are any others more "immediately concerned" in protecting the army from destruction they must have encountered obstacles and difficulties at the hands of other War Office departments, such as you probably refer to as the "practical difficulties in the way of it being carried out."

2. Flies and dust as carriers of typhoid bacilli. I think very few bacteriologists would uphold the latter agency. Both agencies would require to find the bacilli first before they could carry them. My proposition was to keep the army free from typhoid fever (and largely from dysentery) from the first day of landing. There would then be no dejecta from which the bacilli could be obtained (any suspicious case being treated as typhoid fever, as regards dejecta, antiseptically). Seeing that every man probably in South Africa has been exposed to infected water or utensils it seems unnecessary to assume "dust and flies" without absolute proof. This theory would militate against any proposed plan for abolishing typhoid fever and dysentery as mainly water-borne diseases.

3. "It has not been the experience of medical officers in India and elsewhere that immunity from disease can be guaranteed by the use of boiled water or of filters." This would be a most serious objection if the medical officers had shown at the same time that no other water had been used in the bazaars or elsewhere outside the barracks, that all milk had been boiled, that utensils had not been washed in infected water, and that the toilet water and water used for salads, &c., had been boiled. If any of these things had been left undone no weight would be attached in this country by any bacteriologist to the Indian medical officer's statement.

4. Thirst. The extra half hour (with present machines) is doubtless a difficulty. The occasions would be very rare with a smart "water corps," as smart as the Royal Artillery, that the men would not with education wait the time. Further, a smart "water corps" could perhaps obviate a man arriving in the desperately thirsty condition. Wilful disobedience could be met in other ways.

5. Transport. I have shown that 500 mules would have carried the boiling machines (one per 100 men) and fuel (petroleum) for 10 days, sufficient to boil four pints per man per day for the whole of Lord Roberts's army of 50,000 men moving from the Modder to Bloemfontein. If the mules had been killed *en route* the position would not have been worse than without the attempt; if, on the other hand, the "water corps" had got them along safely there would have been practically no suffering, from 15,000 to 20,000 less to treat at Bloemfontein and Kronstad for weary months under heartrending difficulties. In this scheme I have suggested as transport pack mules, thus disposing of "single lines of railways," roads, and other "difficulties." From the outset the transport of a "water corps" would be sacred. No general could touch it for any purpose whatsoever. It is obvious that no general or transport officer will accept the additional transports with pleasure, but if there is no better scheme in the field there must be no escape.

6. With regard to the difficulty of knowing when the water may be contaminated I have assumed that all water in war is contaminated as the only safe hypothesis.

I am, Sirs, yours faithfully,

Sept. 24th.

LEIGH CANNEY.

RHEUMATISM AND TONSILLITIS.

To the Editors of THE LANCET.

SIRS,—I trust you will permit, and that Dr. Poynton and Dr. Paine will pardon, my claim—quoting the opinion of another—to be "the first to emphasise the etiological, semeiological, and therapeutic analogy between tonsillar inflammations and the arthritic diathesis." My views on the close relations of rheumatism and tonsillitis are recorded in the first edition of my work "The Throat and its Diseases," published in May, 1878, and treatment of tonsillitis by salicylate of soda—then a new remedy—was first recommended. At the meeting of the British Medical Association at Leeds in 1889 Dr. Archibald Garrod, while conceding me British priority amongst the "moderns," mentioned Stoll (1777) as the first writer to speak of rheumatic angina, but on that occasion I was able to cite still earlier authors—viz.: Sauvage (1771), Balls (1762), and Musgrave (1710). I also on the same occasion quoted from a letter I had received from Sir Andrew Clark in which he said: "If one will think merely of the rapidity with which the tonsil manufactures and discharges lymph cells it will not be difficult to see how a sudden suppression of this process, the accumulation of effete matters in the crypts, and the filling of the lymph spaces with products of bacteria life, and with matters undergoing evolution, may contaminate the blood and originate the troubles considered as rheumatic." I was at once ready to accept this interpretation which at that time represented a decidedly advanced view. Since that date this contamination of the system, or blood-poisoning, has been acknowledged to be of microbic origin by several observers. In the fifth edition of my book the subject of tonsillitis has been treated from the bacteriological point of view, and I have tabulated the micro-organisms found in 100 cases of tonsillitis by our hospital bacteriologist, Mr. St. George Reid.

Without going into detail it may be stated that various forms of staphylococcus, either alone or associated with other organisms, were found in 62 cases, streptococcus in 58 cases, and diplococcus in 32 cases. With respect to this last named organism I have pointed out in my monograph on "Diphtheria and its Associates" (p. 48) that diphtherial "throats in which diplococci are predominant are 'dirty' in character and the pseudo-membrane slow to clear away."

In the article under consideration it is mentioned that a diplococcus found in acute rheumatism has a disposition to grow in culture as a streptococcus, and in most of the photo-micrographic illustrations of diplococci in my book the organism is associated with streptococci. In one case (No. 22, p. 131) which presented certain aspects of diphtheria, but which was really one of acute lacunar tonsillitis, the diplococcus was found in almost pure culture. Of course, I make no claim to originality in

these observations, and, indeed, I have endeavoured to give full credit to other workers, continental, British, and transatlantic, in the same field. I only now draw attention to them as in some sense confirmatory of the much more elaborate and complete investigations of Dr. Poynton and Dr. Paine.

I am, Sirs, yours faithfully,

Mansfield-street, W., Sept. 24th, 1900.

LENNOX BROWNE.

"POISONING BY CARBON MONOXIDE."

To the Editors of THE LANCET.

SIRS,—Some years ago I used to see an "ironer" who was the subject of attacks of vertigo, headache, and visual hallucinations when she awoke in the morning, but no amnesia or sickness. She was always worse after "glossing" and during drying. She stated that many other women in the trade suffered from headache, &c., but that they usually attributed it to the "heat." May I add one or two other references to those given by Dr. Elgood in his very interesting paper in THE LANCET of Sept. 15th (p. 805)? Ruata¹ recorded a case of active delirium lasting for five days after exposure to the fumes of a coke stove in a close room. Voss² reported an instance of poisoning of five in a family with two fatal results. One of the fatal cases had well-marked convulsions and tetany-form spasms. Régis³ points out that in the acute forms of poisoning a very prominent symptom is retrograde amnesia. He has also observed rapid and incurable dementia follow in prolonged chronic or professional toxæmia in ironers, whose previous symptoms included vertigo, mental obtusion, hallucinations, and even delirious conceptions.

I am, Sirs, yours faithfully,

Sept. 24th.

J. CHRISTIAN SIMPSON, M.D. Edin.

"LODGE PRACTICE IN BRITISH COLUMBIA."

To the Editors of THE LANCET.

SIRS,—Your Canada correspondent in THE LANCET of Sept. 22nd (p. 911) falls into an error when he says that "not a single medical man throughout the Dominion of Canada made any response whatever to this appeal." No one is allowed to practise in British Columbia whatever qualifications he may possess until he passes an examination in anatomy, chemistry, physiology, pathology, materia medica, medical jurisprudence, theory and practice of medicine, surgery, clinical medicine, clinical surgery, obstetrics and diseases of women and children, in addition to paying \$100. The same applies to Ontario and Manitoba. With a British qualification one can practise in the North-west Territories on payment of \$50. Hoping this may be of service to anyone going out to settle in Canada,

I remain, Sirs, yours faithfully,

PIERS J. HATTON, M.B., C.M. Edin., &c.

Manchester-street, W., Sept. 24th, 1900.

THE GENERAL ELECTION AND THE MEDICAL ACTS.

To the Editors of THE LANCET.

SIRS,—The Accrington and District Medical Society have taken the opportunity given by the General Election to send a deputation to both the candidates before the constituency asking them to pledge themselves to support any amendment of the Medical Acts which may be brought forward by the General Medical Council or the British Medical Association, especially with a view to registration being the sole right to practise medicine, surgery, or any of their branches. The society further suggests that the medical societies in every electoral district should immediately take similar steps.

I am, Sirs, yours faithfully,

ELWIN H. T. NASH, M.R.C.S. Eng., L.R.C.P. Lond.,

Accrington, Sept. 26th, 1900.

Honorary Secretary.

* * A telegram received as we go to press states: "Both candidates absolutely agree with proposals of deputation."—ED. L.

¹ Gazzetta Medica di Torino, No. 24, 1892.

² Deutsche Medicinische Wochenschrift, Oct. 6th, 1892.

³ Practical Manual of Mental Medicine.