

been 150 and 155 in the preceding two weeks, declined last week to 145, and were 20 below the average. The causes of 61, or 2·0 per cent., of the deaths in the twenty-eight towns were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Bristol, Nottingham, Sunderland, and in four other smaller towns; the largest proportions of uncertified deaths were recorded in Halifax, Brighton, and Liverpool.

#### HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been 17·6 and 18·5 per 1000 in the preceding two weeks, further rose to 18·7 during the week ending Sept. 12th, and was 1·4 above the mean rate that prevailed during the same period in the twenty-eight large English towns. The rates in the eight Scotch towns ranged from 14·0 in Aberdeen and 14·9 in Leith to 21·0 in Paisley and 22·0 in Dundee. The 481 deaths in these towns showed a slight increase upon the number in the preceding week, and included 35 which were referred to diarrhœa, 15 to whooping-cough, 14 to "fever," 4 to diphtheria, 4 to scarlet fever, 3 to measles, and not one to small-pox. In all, 75 deaths resulted from these principal zymotic diseases, against 78 and 72 in the preceding two weeks. These 75 deaths were equal to an annual rate of 2·9 per 1000, which was 0·4 above the mean rate from the same diseases in the twenty-eight English towns. The fatal cases of diarrhœa, which had been 47 and 45 in the preceding two weeks, further declined last week to 35, of which 20 occurred in Glasgow, 6 in Edinburgh, and 4 in Dundee. The 15 deaths from whooping-cough exceeded by 2 the number in the previous week, and included 11 in Glasgow. The fatal cases of "fever," which had been 8 and 7 in the preceding two weeks, rose again last week to 14, a higher number than has been recorded in any week since the beginning of this year; 13 occurred in Glasgow and 1 in Paisley. The 3 deaths referred to measles, and 2 of the 4 deaths from scarlet fever, were registered in Glasgow. The deaths referred to diseases of the respiratory organs in these towns, which had increased from 63 to 82 in the preceding three weeks, declined last week to 62, and were 22 below the number in the corresponding week of last year. The causes of 38, or nearly 8 per cent., of the deaths in the eight towns last week were not certified.

#### HEALTH OF DUBLIN.

The death-rate in Dublin, which had been 23·9 and 18·5 per 1000 in the preceding two weeks, rose again to 22·1 during the week ending Sept. 12th. During the past ten weeks of the current quarter the death-rate in the city averaged 19·9 per 1000, the rate for the same period being 17·9 in London and 16·1 in Edinburgh. The 151 deaths in Dublin during the week under notice showed an increase of 24 upon the number in the preceding week, and included 14 which were referred to diarrhœa, 3 to "fever," 1 to whooping-cough, and not one either to small-pox, measles, scarlet fever, or diphtheria. In all, 18 deaths resulted from these principal zymotic diseases, equal to an annual rate of 2·6 per 1000, the zymotic death-rate during the same period being 2·2 in London and 1·4 in Edinburgh. The fatal cases of diarrhœa, which had been 4 and 9 in the preceding two weeks, further rose last week to 14, a higher number than in any previous week of the year. The 4 deaths referred to different forms of "fever," which had been 4 and 2 in the preceding two weeks, rose again to 3 last week. The 151 deaths in Dublin included 35 of infants under one year of age, and 32 of persons aged upwards of sixty years; the deaths both of infants and of elderly persons exceeded the numbers recorded in the preceding week. Five inquest cases and 3 deaths from violence were registered; and 56, or more than a third, of the deaths occurred in public institutions. The causes of 23, or more than 15 per cent., of the deaths in the city were not certified.

#### THE SERVICES.

ARMY MEDICAL STAFF.—Surgeon-Major-General G. M. Slaughter, Principal Medical Officer, Southern District, having attained the prescribed age, is placed on retired pay.

INDIAN MEDICAL SERVICE.—Bombay: Surgeon-Major

George Bainbridge (dated Sept. 18th, 1890) and Surgeon-Major James Arnot, M.D. (dated April 30th, 1890) to be Brigade Surgeons.—The Queen has approved of the retirement from the Service of Brigade Surgeon Robert George Mathew, Bengal Medical Establishment (dated Aug. 11th, 1891).

NAVAL MEDICAL SERVICE.—The following appointments have been made at the Admiralty:—Staff Surgeons: Arthur W. Russell to the *Penelope* (undated); Wm. R. White, M.B., to the *Raleigh*, and George S. Smith to the *Hotspur* (all dated Sept. 16th, 1891). Surgeons: Walter Bowden to the *Raleigh* (dated Sept. 16th, 1891); George A. Holroyd to the *Raleigh* (undated); A. G. Wildey to the *Bellerophon* (undated); Arthur S. Nance to the *Shannon*; William G. K. Barnes, M.D., to the Royal Marine Depot, Walmer; Robert H. Nicholson to the Cape of Good Hope Hospital; and Elrington F. S. M'Kay to the *Swallow* (all dated Sept. 14th, 1891); Mr. Ebenezer Snell, to be Surgeon and Agent at Brighton and Blackrock (dated Sept. 15th, 1891).

The death is announced of Staff Surgeon John Joliffe, R.N., aged sixty-nine. Mr. Joliffe was the son of Colonel Joliffe, and joined the navy as assistant surgeon in 1845. He was the only surgeon present at Sir T. Cochrane's operations against the Malay pirates on the Coast of Borneo in 1846. His services also in the *President* during the operations against Angoza, Mozambique, were such as to secure for him honourable mention in despatches. He became staff surgeon in 1850, and was awarded a Greenwich Hospital pension in 1887.

YEOMANRY CAVALRY.—Westmoreland and Cumberland: Joseph Edward Bowser, M.B., to be Surgeon (dated Sept. 12th, 1891).

VOLUNTEER CORPS.—*Artillery*: 1st Worcestershire: Acting Surgeon David Rice to be Surgeon (dated Sept. 12th, 1891)—*Royal Engineers*: 1st Devonshire and Somersetshire: Joseph Fuller, Gent., and William Lloyd Edwards, Gent., to be Acting Surgeons (both dated Sept. 12th, 1891).—*Rifle*: 4th Volunteer Battalion, the King's (Liverpool Regiment): Acting Surgeon Geo. Goodfellow Hodgson to be Surgeon (dated Sept. 12th, 1891).

## Correspondence.

"Audi alteram partem."

### INJECTION OF SALINE SOLUTION FOR HÆMORRHAGE.

To the Editors of THE LANCET.

SIRS,—In answer to several inquiries as to the kind of instruments used in the injection of a saline solution into the circulation of a patient dying from loss of blood reported in THE LANCET (Sept. 12th, p. 626), I would say that they consisted of a fine metal nozzle, to which about a foot of rubber tubing was attached. The fluid, which consisted of a solution of twenty grains of common salt in a pint of boiled water, was injected warm by means of an ordinary large syringe, air being carefully excluded from any part of the apparatus. I have since used this injection in two cases of hæmorrhage of a less severe character than the one already described with very great benefit.

I am, Sirs, yours faithfully,

Sept. 17, 1891.

W. ARBUTHNOT LANE.

A simple apparatus can be obtained from Messrs. Down Bros., St. Thomas's-street, S.E.

To the Editors of THE LANCET.

SIRS,—I often heard the late Dr. Wooldridge, when I was his house-physician, speak of his experiment of bleeding a dog to apparent death, and then by intravenous injection of as much saline solution as it had lost blood, restore it not only to life, but to such immediate activity that within half an hour of the double operation it was able to run about the laboratory, and eat a hearty meal of beef-steak as if nothing had happened to it. He was at that time very anxious for an opportunity of seeing this treatment applied to a case of hæmorrhage in the human subject, and was as certain of its success as he was contemptuous of

transfusion of blood as a remedial measure. How well founded his confidence was is shown by the brilliant success which has attended Mr. Lane's bold adaptation of the treatment. I only once saw transfusion of blood attempted, and that was for a case of pernicious anæmia under the care of Dr. Wilks. Notwithstanding the fact that it was tried under the most favourable circumstances, with all the necessary apparatus ready, with skilled help at hand, and plenty of time, yet through premature clotting and various other mishaps it ended in a complete failure, probably not one drop of blood reaching its destination. I remember I came to the conclusion at the time that transfusion was not an operation I should care to attempt in an emergency, even if I had the expensive apparatus required at hand.

I should think that, owing to the simplicity of Dr. Wooldridge's method, it should be given a fair trial, and in order that any general practitioner like myself may be able to avail himself of it in an emergency, I hope that Mr. Lane may find time on a future occasion to give us fuller particulars as to the method of carrying it out than he has afforded us in the account published in the last number of THE LANCET. It would be important to have fuller information regarding: (1) the apparatus required and mode of use; (2) the composition and temperature of the saline solution; (3) the time occupied in the injection—or, in other words, the rate at which it is safe to throw such a large volume as three pints and a half of fluid into the general circulation; (4) any hints which his experience may suggest.

I may add for the benefit of any old Guy's men in India, that it was Dr. Wooldridge's hope that his method might some day be applied to the "collapse" stage of cholera. He thought that the unfortunately transitory, though brilliant, results of intravenous injection of saline solutions in that disease were due to the effect not being kept up. His idea, therefore, was to have a large quantity of the solution hung over the patient's bed and allow a constant flow to run through the vein, the rate being regulated by the effects produced, and so keep up the volume of the blood and counteract the constant drain of its watery constituents through the intestines. It was his opinion that, at any rate, the patient would escape the risk of dying through his blood becoming inspissated. His first theory having been proved to be correct by Mr. Lane, it remains the privilege of some of your colonial readers who happen to have known Dr. Wooldridge and admire his genius, to show us that his second theory is as brilliant as his first.

I am, Sirs, yours faithfully,

FRANCIS HEATHERLEY, B.S., F.R.C.S.

New Ferry, Sept. 13th, 1891.

## THE EASTERN HOSPITALS INQUIRY.

To the Editors of THE LANCET.

SIRS,—Referring to your leading article on the Eastern Hospitals Inquiry, amongst other matters you allude to the subject of disinfection, which has been employed there for a period of twenty years. During this time the bed linen &c. of over 25,000 patients have been washed, and a large number of persons, young and susceptible to infectious diseases, have been employed. The following are the diseases to which they have been exposed (small-pox excluded): typhus fever, enteric fever, scarlet fever, measles, diphtheria, and glanders; but with three exceptions, to be mentioned hereafter, no case of infectious disease has arisen during this long period amongst the laundry staff. One of the exceptions was the head laundress, whose business it was to visit the wards, and who possibly contracted it in this way or possibly elsewhere, not in the hospital at all. It is a mistake to suppose that all cases of infectious disease which "develop" in an infectious disease hospital "arise" there. The other two exceptions were the cases of two sisters, who were employed for two years at the soiled linen tub. They had been dealing during that time with the most infected of the linen &c. with complete immunity from infectious disease. At the end of that time, however, the brother of the young man of one of these sisters was admitted with enteric fever, and she visited him, soon after which she developed enteric fever. She was placed in an enteric ward, where she was visited by her sister, soon after which this other sister developed enteric fever. These three cases occurred about twelve years ago, since which time not a case of infectious disease has appeared amongst the laundry staff. Judging, then, of my method of disinfection by results, it is proved to be efficient. I have more than once called the attention of

Dr. Bridges and of the many distinguished health officers and physicians who have from time to time visited the hospital from all parts of the world to the doubtful value of the current disinfectants, to the complete efficiency of this method, and to the fact that a valuable contribution had been made to medical science.

I am, Sirs, yours obediently,  
Homerton, Sept. 14th, 1891.

ALEX. COLLIE.

## BURIAL OR CREMATION?

To the Editors of THE LANCET.

SIRS,—I would wish to supplement your admirable remarks in THE LANCET of Aug. 29th, p. 497, with a few suggestions of my own, the result of many years' study of the subject. Personally I am in favour of "earth to earth" burial as the means of disposal of the dead, but that cremation is the more perfect mode, speaking sanitarily, does not appear to me to admit of argument. I have therefore ever since the appearance of Sir Henry Thompson's celebrated paper in 1874, contended that those who prefer cremation as the mode in which their own bodies should be disposed of after death should have every facility for this being done. Extreme statements have been made by partisans on each side as to the objectionable features of burial and of cremation respectively. You have disposed of the former so effectually that I will merely add this remark. If burial were so dangerous as the cremationists urge, every village in which there is a churchyard or chapel-yard still in use ought to be a hotbed of disease, and this we know is not the fact. Where burials are few, in simple coffins and earthen graves, the ground will last for centuries without any detriment to the living. Burial, in the literal sense of the word, is really cremation underground; to condemn it is absurd.

But, on the other hand, the advocates of burial are equally absurd, it seems to me, in attempting to make so much capital out of what may be termed the medico-legal objection; for if every body is to be buried with a view to its being exhumed, farewell to burial reform. It would be an argument in favour of lead coffins, vaults, and all the mockeries of burial against which THE LANCET has inveighed so long. It is, however, capable of the *reductio ad absurdum* all round. Deaths occur daily in hundreds throughout the country of the perfectly natural cause of which there is not a shadow of a doubt. Again, it would be easy to name several poisons which could not by any chemical process be discovered, even soon after death and burial. What is required is an improvement in our death certification and registration system. Following an old and wise saying, let us take care of the pence—i.e., the ordinary cases of death—leaving the pounds—the extraordinary cases, requiring exhumation—to take care of themselves. As you have hinted, the two systems may be permitted to continue side by side; but as the principle of burial reform in its most important feature of "earth to earth" has been generally admitted, it seems to me that members of our profession, and especially medical officers of health, should do their utmost to suppress the following evils which still exist:—

1. Burials underneath cathedrals, churches, chapels, or buildings where people are assembled to worship. Those who order such entombments, for it is a mockery to term them burials, do so from thoughtlessness and under a mistaken notion of vested rights and the powers conferred by a "faculty." No faculty, whether granted by a clerical or legal chancellor, can confer the right to do an improper thing, and the Home Secretary has power to overrule any such faculty. Several City churches have been compulsorily closed in consequence of the effluvia arising from the human remains in the vaults beneath. And yet, in spite of this, the officials of another City church obtained a faculty to re-enter the remains removed from the churchyard into the crypts under the church. Such proceeding was strongly condemned in THE LANCET, and I have reason for believing that it was in consequence of this that the Home Secretary intervened and prohibited the proceeding. In another case—that of the Bebington Church, Cheshire—the combined action of the rector, churchwardens, medical officer of health, and parishioners prevented the granting of a faculty for burying a body in a vault beneath the church. But even if the faculty had been granted, the interment would, I feel sure, have been forbidden on application to the Home Office. It is too late in the day to make church vault charnel houses,