

an increasing tendency to return as insane old men and women suffering from little more than senile dementia, the figures quoted above still under-estimate the recently improved care of the insane poor in England and Wales. Judged by this standard, the insane poor of London are better cared for in London than in any other part of the country. After transferring the 4308 inmates of the metropolitan asylum institutions at Leavesden, Caterham, and Darenth, from the workhouse to the asylum class, it appears that no less than 92·7 per cent. of the metropolitan insane were under asylum treatment, only 4·3 per cent. were retained in workhouses, and only 3·0 per cent. lived with relatives and others. In England and Wales, exclusive of the metropolis, the proportions in these three classes formed a striking contrast to the metropolitan proportions: 65·5 per cent. were in asylums, 22·6 per cent. were in workhouses, and 11·9 per cent. were residing with relatives. In the several union counties of England the smallest proportions of pauper lunatics under asylum treatment at the beginning of this year were 55·1 per cent. in Gloucester, 57·7 in Nottingham, 59·4 in Somerset, 60·5 in Wiltshire, and 60·6 in Lancashire; the largest proportions were 73·7 per cent. in Hertford, 75·2 in Cornwall, 78·9 in Buckingham, and 82·1 in Huntingdon. The proportion retained in workhouses ranged from 11·4 and 11·1 per cent. in Buckingham and Monmouth, to 26·9 and 36·7 per cent. in Stafford and Lancaster. Lancashire, which shows the largest proportion of pauper lunatics retained in workhouses, has the smallest proportion residing with relatives and others, which does not exceed 2·7 per cent.; this is slightly lower than the proportion in the metropolis, 3·0 per cent. In Wiltshire 20·4 per cent. of the pauper lunatics are residing with relatives and others, and no less than 22·0 per cent. both in Gloucester and Hereford. These wide variations in the proportional care and treatment of the pauper insane abundantly prove that other considerations than the best interests of the insane govern their treatment in the several counties. In conclusion, we may note that in Wales only 54·7 per cent. of the insane paupers are in asylums, 14·1 per cent. in workhouses, and that no less than 31·1 per cent. are under the dangerously slight control implied by their being classed as "residing with relatives and others." It is impossible to doubt the desirability for more uniformity in the care and treatment of the insane in different parts of England and Wales, as well as in due certification of all persons returned as insane by the various authorities who are responsible for their protection and support.

HEALTH OF LARGE ENGLISH TOWNS.

FORTY-SECOND WEEK OF 1879.

THE low temperature of last week caused a general increase of mortality, which was higher than in any week since the middle of May last. In twenty of the largest English towns, containing nearly a third of the entire population of England and Wales, 5367 births and 2963 deaths were registered in the week ending last Saturday. The births exceeded by 185, while the deaths were so many as 407 below, the average weekly numbers during 1878. The deaths, however, showed an increase of 192 upon those returned in the previous week, and were equal to an annual rate of 20·9 per 1000, against 19·9 and 19·6 in the two preceding weeks. During the past three weeks of the current quarter the death-rate in the twenty towns has averaged 20·1 per 1000, against 20·9 in the corresponding periods of 1877 and 1878. The lowest death-rates in the several towns last week were 12·4 in Brighton, 12·7 in Portsmouth, 13·9 in Wolverhampton, 16·2 in Bristol, and 17·0 in Newcastle-upon-Tyne. The rates ranged upwards in the other towns to 22·1 in Manchester and Bradford, 22·5 in Sheffield, 22·6 in Salford, 23·2 in Hull, 25·7 in Norwich, and 25·8 in Liverpool. The high death-rates in the last-mentioned towns were not, except in Liverpool, to any considerable extent due to excessive zymotic fatality. The deaths referred to the seven principal zymotic diseases in the twenty towns further declined to 468 last week, from 537, 490, and 474 in the three preceding weeks; 161 resulted from scarlet fever, 125 from diarrhoea, 65 from measles, and 52 from whooping-cough. The annual death-rate from these seven diseases

averaged 3·3 per 1000 in the twenty towns, and ranged from 0·9 and 1·0 in Oldham and Brighton, to 5·3 both in Liverpool and Sheffield. The fatal cases of scarlet fever in the twenty towns, which had steadily increased from 94 to 151 in the five previous weeks, further rose to 161 last week; this disease showed the largest proportional fatality in Newcastle-upon-Tyne, Liverpool, and Leicester. The deaths from measles were numerous in Leeds and Liverpool. Diphtheria caused two deaths in Plymouth, in Birmingham, and in Liverpool. Diarrhoea fatality showed a further general decline, but exceeded the average number in the corresponding week of recent years. The deaths referred to fever were 42, of which 26 occurred in London, and but 16 in the nineteen provincial towns. A fatal case of small-pox was registered in London, but not one in any of the nineteen other towns. The number of small-pox patients in the Metropolitan Asylum Hospitals, which had steadily declined in the seven preceding weeks from 111 to 42, were 46 on Saturday last; the number of new cases of small-pox admitted to these hospitals, which had been but 4 and 5 in the two previous weeks, rose to 18 last week, and exceeded the number of admissions in any week since the end of August. Small-pox caused 14 more deaths in Dublin, showing a marked increase upon recent weekly numbers.

Correspondence.

"Audi alteram partem."

PLEURAL AND DIAPHRAGMATIC TENSION.

To the Editor of THE LANCET.

SIR,—In your last issue Dr. Neale, after quoting Mr. Le Gros Clark's conclusions as to the cause of the arched tension of the diaphragm, remarks, that "the above offers a very imperfect explanation of the normal condition of the lungs and diaphragm, inasmuch as no allusion is made to the mechanical action of the . . . pleuræ. The lungs cannot collapse . . . just on the principle that a piece of wet leather, pressed tightly on a heavy weight, can raise the latter . . ." In his very apt illustration, however, Dr. Neale does not seem to recognise atmospheric pressure, but rather a powerful attraction between the leather and the weight; for in commenting on Mr. H. St. C. Carruthers' case of congenital deficiency of the diaphragm he says, "The chest cavity was filled by a mass of intestines, stated to be the cause of the collapsed condition of the lungs; whereas, in fact, the collapse of the lungs was the cause of the position of the intestines." I incline to consider the collapse of the lungs as merely a condition, and the true cause of the position of the intestines to be the atmospheric pressure applied through the medium of the abdominal walls.

The discussion of problems connected with the mechanism of respiration is often characterised by vagueness of thought and expression, as instanced by the fallacy, many years ago exposed by Dr. Gairdner, but still too commonly accepted as an explanation of pulmonary emphysema, that an air-vesicle can be distended by uniformly applied external pressure. Another example occurs to me, found in one of our text-books, where the emphysema of the cellular tissue of the neck and neighbourhood, rarely met with in whooping-cough, is attributed to rupture of air-vesicles. This, if it should somehow happen, might occasion pneumothorax (absent from both the cases I have observed), but not the condition in question, to account for which we must suppose the rupture to be non-pulmonary and extra-thoracic, probably tracheal or laryngeal.

Mr. Le Gros Clark's statement of his conclusions, as given by Dr. Neale, is not even above criticism; at least, I think he himself could not defend the expressions I have placed in italics in the following quotations:—(b) "That the lungs retain their supplemental air by virtue of this tense condition of the diaphragm, *the elasticity of the former being resisted by the tension of the latter.*" The only resistance to the elasticity of the lungs is the atmospheric pressure, the diaphragm restricts itself to preserving a fair field with no favour. Again, he remarks, "Thus there exists a constant antagonism between the atmospheric pressure on the interior of the lungs and their elastic and contractile properties, tending to the expulsion of the air they contain, and *this*

expulsive power is limited by the resisting tension of the diaphragm." The expulsive power of a pair of lungs is a definite quantity, and to speak of it as limited by the resisting tension of the diaphragm, or even to speak of a resisting tension at all, is surely inadmissible.

I am, Sir, yours truly,

WM. McLaurin, M.B., C.M. (Glasgow.)

Islington, Oct. 19th, 1879.

THE WAR AT THE CAPE.

To the Editor of THE LANCET.

SIR,—It is a matter of some comment that the Commissariat Department, which gained for itself a somewhat unenviable notoriety during the Crimean campaign, and owing to the administration of which we have on more than one occasion had bad accounts since the commencement of the Zulu war, should be the only one to have honours and rewards heaped upon it. The senior officer has been promoted, and raised to the honourable distinction of a Knight Commander of the Bath. The other equally important departments of the army have as yet had no distinction at all. This has naturally caused a great deal of dissatisfaction. It is felt that the officers of the Army Medical Department, who have so ably attended to the care of the sick and wounded, the "Army Pay Department," which has had the spending and accounting for the large sums voted by Parliament for the payment of the troops and the expenses of the war, and the "Ordnance Store Department," which first equipped and started the force from England complete with all the necessary *matériel* to take the field, and has so efficiently kept up the supplies of ammunition, &c., since the commencement of hostilities, have equal claims with the Commissariat. Reports have on more than one occasion been made of soldiers being on "half rations," but nothing has ever been said that they were without medicines or surgical appliances, without money, or minus rifles, powder, and shot. If honours and rewards are given, by all means let them be distributed equally or not at all.

Sir Garnet Wolseley has, it is stated, drawn the attention of the authorities to the anomaly, and made suggestions for speedy amendment.

Your obedient servant,

SURGEON.

ARMY MEDICAL DEPARTMENT.

To the Editor of THE LANCET.

SIR,—At a time when discontent prevails in the Medical Department of the Army, and when it is difficult, if not impossible, to obtain candidates for it, is it not surprising that medical officers should apparently be forgotten when honours are being so freely lavished on those who have lately returned from Zululand? Surgeon-Major Reynolds was considered deserving of the Victoria Cross for his conduct at Rorke's Drift, but nowhere have I seen that the Commander-in-Chief noticed his gallant services, and honoured him in the manner he did Major Chard at Portsmouth, although they arrived in the same vessel.

Again, Major Chard was honoured with a command to appear before Her Majesty at Balmoral; but no such honour for Dr. Reynolds. He has instead been ordered to report himself to the principal medical officer, Ireland, for duty there! Is it not very disheartening that such invidious distinctions should be made?

Yours truly,

Oct. 20th, 1879.

DISJECTA MEMBRA.

YORKSHIRE ASSOCIATION OF HEALTH OFFICERS.

(From our own Correspondent.)

ON Thursday, the 16th inst.; the fourth annual meeting of the Yorkshire Association of the Medical Officers of Health was held at Bradford, the president, S. W. North, Esq., of York, occupying the chair.

After examining the town sewage works in the morning, the efficiency of which seems to be undoubted, they visited

the Fever Hospital, where they were entertained in a most hospitable manner by the House Committee. Among the recent improvements at this institution, a disinfecting stove, designed by Dr. Ransom, of Nottingham, excited special interest.

At 3 P.M. the general meeting was held, by permission of the Mayor (Mr. August Holden), in the Town Hall, at which about 300 gentlemen were present. The routine business having been transacted, Mr. Harris Butterfield, of Bradford, read a most interesting paper on "Infantile Diarrhoea." He considers the causes to be due mainly to high temperature, excremental pollution of atmosphere, construction of back-to-back dwellings, as also those built upon ashpit refuse which has been used to fill up old quarries, and improper feeding. The remedies, he thinks, are more easily recognised than applied—viz., improved dwellings with better ventilation, a more rapid and thorough removal of excreta, and a reform in the habits of the people as regards the general management of infants. A valuable communication was also made by Dr. Britton, of Halifax, on "A difficulty of Water-supply." His remarks were chiefly applicable to hilly neighbourhoods in rural districts. He gave the following example:—Water originally pure near the top of a hill is contaminated in its passage through a farmyard. It flows from thence over the land or in drains till it gets to a stone trough, forming the water-supply for block of cottages No. 1. The same thing is repeated lower down at block of cottages No. 2. As the law at present exists there seems to be no possibility of obtaining wholesome water for these blocks of cottages. The subject appears to be one of paramount importance, and we hope Dr. Britton's paper may be the means indirectly of providing a remedy for this pernicious state of things.

Bradford, Oct. 21, 1879.

PARIS.

(From our own Correspondent.)

SINCE the beginning of the present year the Morgue has been used for practical demonstrations in connexion with the chair of Legal Medicine. This teaching is almost unique, and attracts many foreign students. It would scarcely be possible to obtain elsewhere, in so short a time, a practical knowledge of the post-mortem appearances resulting from crime, but a month here would be almost sure to furnish the elements of a complete course of criminal necropsology. Besides the numerous bodies fished out of the Seine, subjects are brought hither by the police from all parts of Paris. Death by drowning, suicidal or criminal (for suicide is not a crime in France), are very frequent, but other causes are common enough. There is a fashion in these matters, as in everything else, and of late stunning and stabbing seem to have been in vogue. Self-destruction can be, and often is, surely and speedily effected by a jump from one of the towers of Notre-Dame, or from the top of the Arc-de-Triomphe, but a gentler method is often preferred. Statistics show that the scrapings of lucifer-matches are most frequently chosen for this purpose. Oxide of carbon, generated by means of charcoal, is also employed commonly enough, and the more so as it enjoys the reputation of lulling away the taker sweetly into eternity. But here, again, fashion has interfered, and a person with any sense of propriety is debarred from its use. Voluntary death by the inhalation of oxide of carbon is not considered at all *distingué*, and some unpleasantness might arise for the family when a means which is socially considered *un peu trop blanchisseuse* had been adopted by one of its members. The préfet of the Seine has now appointed a Commission to study the present organisation of the Morgue, and if projected arrangements are carried out, they will leave very little to desire. Amongst other novelties it is proposed to furnish a freezing apparatus, which will enable the bodies brought for identification to be kept for a considerable time.

Numerous changes have been made recently in the medical curriculum. Formerly the first of the five examinations for the doctorate could only be passed at the expiration of four years of medical study, and it then required about two years more to obtain the degree. Minor examinations, called *examens de fin d'année*, took place at the end of each of the first three years. These are now to be suppressed,