

proved. In those of very low type, the senses, including the muscular, have to be developed, the muscles generally have to be strengthened, and the brain improved. In fact, the essential basis of the successful treatment and training of imbeciles is physical, and, as such, belongs to the physician rather than to the schoolmaster or house-governor. The schoolmaster must, of course, carry out the orders of the physician, who must give time and attention to the cases individually, such as a visiting physician cannot do. Dr. Wood's method may be an economical one, but it will be at the cost of efficiency.

His conception of a superintendent not fitted by nature to attend to petty details of management, must be peculiarly his own. Certainly it does not refer to Dr. Ireland, who not only gave his own time, but that of his relatives, to the management of the Larbert institution, which, instead of deteriorating under his management, was raised to a high state of efficiency.—I am, etc.

FLETCHER BEACH, M.B., M.R.C.P.,
Medical Superintendent, Darenth Asylum.

ACONITINE.

SIR,—In a lecture on aconitine-poisoning delivered before the Balloon Society of Great Britain on the 5th inst., Dr. Springmühl is reported to have said that on the occasion of the Lamson trial neither of the scientific experts pointed to the great difference between English and foreign aconitine, nor was it mentioned by the prosecution or defence.

It is to be regretted that Dr. Springmühl has made these incorrect statements. You have already pointed out in an editorial note that in my evidence I did lay down the distinctive difference between the so-called German and English aconitine; and I repeat what has been already said in your columns, that at the trial I spoke of German and English aconitine as being quite different substances. In cross-examination as to the medical dose of aconitine, I said that certain doses laid down in the text-book were applicable to the German and not to the English article.

Dr. Springmühl, perhaps relying upon imperfect newspaper reports, has thought fit to revive an unfounded charge against myself and Dr. Dupré, which could never have been made by anyone well versed in the facts of the trial, or who had read the officially printed short-hand writer's report taken for the court, in which I am made to state in evidence (p. 579) that German aconitine is very different from English aconitine.—I am, etc.,

THOMAS STEVENSON.

London, May 16th, 1882.

ETHER AS AN ANÆSTHETIC.

SIR,—In the BRITISH MEDICAL JOURNAL of May 13, Dr. Saundby refers to the report of a case in which I removed the kidney, and the patient died with suppression of urine, as an illustration of one of the dangers of ether as an anæsthetic. No mention is made in that report of the anæsthetic employed; which happened to be chloroform. However valuable and interesting therefore the question raised by Dr. Saundby may be, my case can scarcely serve as an illustration of it.

The danger of administering ether for the purpose of tapping an pyæmia is, I believe, a very real one. I have myself, after opening the chest, seen very alarming symptoms, attributable to the ether, in a case where the respiration was already considerably impaired; in this instance prompt blood-letting appeared to save the patient's life.—I am, etc.,

RICKMAN J. GODLEE.

18, Wimpole Street, W., May 15th, 1882.

ANIMAL VACCINE LYMPH.—In a recent report on several vaccine farms in the United States, Dr. James Law observes that the taking of the virus early seems to be a very essential condition of securing it pure. He was assured that up to the seventh day the unbroken vesicle contains no superadded products, and will convey cow-pox uncomplicated. Later, when granular and pus cells appear, and above all when the ruptured vesicle becomes the seat of septic and other bacteria, the virus cannot be sent out with the same confidence. If, as Palasciano and others claim, the intensity of the virus is greatest from the third to the seventh day, and if at the same time its purity can be guaranteed in a way that cannot be accorded to it at a later stage of the eruption, the mere fact of a larger yield cannot justify the practice of collecting the virus at a more advanced stage. The lessened supply may enhance the cost of the virus, and the method may necessitate the National Board of Health cultivating its own virus, yet Dr. Law thinks it should not be a valid argument for the sanction of an article, the purity of which is not guaranteed by every possible precaution.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

THE NOTIFICATION OF INFECTIOUS DISEASES.

THE following is a summary of the replies to the circular from the Local Government Board, from the towns and boroughs where provision has been made for the notification of infectious disease, published as Parliamentary Papers by the Government.

Mr. C. F. Preston, the Town Clerk of Barrow-in-Furness, writes, in reply to the circular, under date April 1882, that his local authority are so far quite satisfied with the working of the provisions of the Barrow-in-Furness Corporation Act, 1881, relating to notice being given of persons suffering from certain infectious diseases. The provision has acted beneficially in regard to the health of the town; two cases of small-pox have been quickly isolated, and the disease did not spread. The local authority further believe that the spread of scarlatina and typhoid fever have been prevented by the operation of this Act. The number of cases reported from September 18th, 1881, to March 31st, 1882, was 480. The authority pay for each certificate the sum of 1s. 6d., making an aggregate of £36. The medical officer of this authority entirely concurs in the expression of opinion as to the good results following the working of the provisions in question.

Mr. W. E. L. Gaine, Town Clerk of Blackburn, testifies to the satisfaction of his authority with the working of the compulsory notification provisions; and states that the immediate notification of infectious disease was the means of preventing the spread of small-pox in the borough, when it broke out on April 19th of last year. In no single case did a second one arise in the dwelling of those where infectious disease had been previously reported, and the patient removed to the hospital provided; and no other case in the borough could be traced to these. Four hundred and twenty-two medical certificates of notification were received during the year ended March 25th, 1882, and 2s. 6d. paid on each one, amounting to £52 15s.

Mr. H. P. May, Town Clerk of Blackpool, replies, that it is the unanimous feeling of the Town Council that the powers obtained by the Blackpool Improvement Act, 1879, for the compulsory notification of infectious disease, are most valuable. The medical attendant sends in his certificate to the medical officer of health, and a fee of 2s. 6d. is paid to the medical attendant for his certificate. In the last twelve months, these fees amount to £13 2s. 6d.

Mr. R. G. Hinnell, Town Clerk of Bolton, reports that the information furnished by the certificates of disease under the Bolton Improvement Act, 1877, Section 87, has been a very valuable aid in checking the spread of infectious disease, as they have been thereby enabled in every case to adopt precautionary measures. The number of cases of infectious disease notified to the sanitary department for the year ending March 31st, 1882, was 668; and the amount paid for certificates for the nine months ending March, 31st, 1882, £74 15s. The medical officer of health reports for 1880, that the compulsory notification of infectious disease has, during the past fifteen months, given every satisfaction, and proved of immense value in limiting the spread of contagion. The cases reported amounted to 1,646.

Mr. T. N. Whitehead, Town Clerk of Burton-on-Trent, writes, in reply to the circular, that the provisions in force in that borough for the compulsory notification of infectious disease have been fully worked out for three years, and have proved satisfactory. The number of cases reported for the year ending March 25th, 1882, was 167; and the amount paid therefore, at 1s. each, was £8 7s.

Mr. Joseph Jones, Clerk to the Sanitary Authority of Derby, states that the working of the powers for the compulsory notification of infectious disease given in the Derby Improvement Act of 1879, has been satisfactory; 460 certificates have been received, and £51 15s. was paid in fees. The Medical Officer of Health, Mr. Iliffe, submits an elaborate report on the working of these provisions, in the course of which he says that two years' experience of the working of the compulsory notification of the infectious disease clauses in the 1879 Act has given additional weight to his previous opinion, that they are of immense importance and value to the inhabitants of the borough.

Mr. Joseph Bayley, the Town Clerk of Huddersfield, writes that the corporation of the borough are thoroughly satisfied with the working of the provisions referred to in Sir John Lambert's circular, and believe that they have been of great value in the prevention of the spread of infectious disease, and in minimising the suffering and deaths which have occurred. The number of cases reported for the fifty-two weeks ending December 31st, 1881, was 255.

Mr. W. S. Daghly, the Town Clerk of Jarrow, replies, on behalf of the Town Council, that they are satisfied with the working of the Jarrow Improvement Act relating to the compulsory notification of infectious disease, but suggest that, in any future public or private legislation on this subject, the words "infectious disease" should be more clearly defined. The number of notifications of the existence of infectious disease supplied by medical practitioners amounted to 331, at a cost of 1s. per case, or £15 11s.

Mr. Swanson, the Town Clerk of Lancaster, states that the corporation of that city are satisfied with the working of the provisions respecting which information is sought by the Local Government Board. Seventy-two cases of infectious disease were reported during the year ending March 25th, the aggregate amount of fees paid being £9.

Mr. Storey, Town Clerk of Leicester, writes that the sanitary committee of that town are thoroughly satisfied with the principle of notification, and are quite satisfied that, since they have obtained such power, they have stamped out at the very commencement what would otherwise have proved small-pox epidemics. The total number of certificates and the cost for the year ending March 25th, 1882, were: certificates, 1,898; total cost, £230 12s. 6d.; 53 certificates, for various causes, not having been paid for.

Mr. T. T. Marks, Town Clerk of Llandudno, replies that the commissioners are satisfied with the working of the provisions obtained by the Llandudno Improvement Act, 1879; but suggests some alterations in the detail of working them. Thirty-five cases were reported during the last year; and the fees paid were 2s. 6d. each, making a total of £4 7s. 6d.

Mr. John Leigh, the Medical Officer of Health, replies for Manchester, and records his perfect satisfaction with the working of the Act for the compulsory notification of infectious disease in that city. Since February 1st, 1882, to April 1st, 262 cases of infectious disease were reported to Mr. Leigh by medical practitioners of the city.

Mr. H. B. Miller, the Town Clerk of Norwich, informs Sir John Lambert that the local authority are quite satisfied with the provisions contained in the Norwich Improvement Act, 1879, with regard to the clauses respecting the compulsory notification of infectious diseases. During the year ending March 25th, 1882, there were 469 cases of infectious disease reported, at an expense of £58 12s. 6d.

Mr. S. G. Johnson, Town Clerk of Nottingham, notifies that, after some difficulties with the medical men of the town, provisions in the Nottingham Improvement Act, 1878, as to the notification by the medical attendant of cases of scarlet fever and small-pox, were put into force; since which time (February 22nd, 1882), the medical men have worked most amicably with the medical officer of health; 416 notices of infectious disease have been served on the medical officer of health, and 72 cases of infectious disease have been removed to the hospital erected specially for these cases.

Mr. H. Booth, Town Clerk of Oldham, states that his sanitary committee have up to the present time every reason to be perfectly satisfied with the working of the provisions in the Oldham Improvement Act, 1880, relative to the compulsory notification of infectious diseases; and believe that they have had a beneficial effect in arresting the spread of infectious diseases in the borough. The number of cases notified during the year ended March 25th, 1882, was 656; and for each certificate 2s. was paid, making a total of £82.

Mr. H. Hames, Town Clerk of Preston, replies to the circular that his authority are satisfied with the working of the provisions relating to the compulsory notification of infectious diseases in the borough, but suggest the omission from the list of infectious diseases of measles and whooping-cough. The number of cases of infectious disease reported during the year ended March 25th, 1882, was 1,517, the expense of which, at 2s. 6d. per certificate, was £189 12s. 6d.

Mr. Henry Day, Town Clerk of Reading, reports that his corporation are satisfied with the working of the provisions for the compulsory notification of infectious disease. From August 1881 to March 31st, 1882, 122 cases of infectious disease, including measles, have been notified by the medical practitioners in the town. The amount of fees payable from August last to March 25th has been £6 2s., the fee being 1s. per case, and was fixed at 1s. because measles is included in the category of infectious diseases, in consequence of the difficulty of diagnosis in some mild cases between that disease and scarlet fever. The Medical Officer of Health also records his opinion that, unless the duty of notifying infectious disease is imposed upon the medical attendant as well as upon householders, the notification would be delayed or evaded, and any regulations relating to this important matter would practically become inoperative.

Mr. Samuel Brown, Town Clerk of Rotherham, states that the regulations now in existence as to infectious disease have hitherto worked

satisfactorily. The number of cases reported for the year ending March 25th is 1,057, and the cost has been £132 2s. 6d.

Mr. M. F. Blakiston, Town Clerk of Stafford, replies that his authority is satisfied with the working of the compulsory Act. The number of cases reported for the year ending March 25th, 1882 was 15, and the fees paid 2s. 6d. in each case.

Mr. Buckley, Town Clerk of Stalybridge, states, in reply to the Local Government Board circular, that the sanitary committee of Stalybridge are quite satisfied with the working of the provisions contained in the Stalybridge Extension and Improvement Act, 1881, relating to the compulsory notification of infectious disease, and believe that many cases of infectious disease would remain undiscovered but for the compulsory powers referred to. The number of cases of infectious disease reported from August 11th, 1881 to March 31st, 1882 was 117, and the amount paid for the reports was £14 12s. 6d.

Mr. W. H. Brook, Town Clerk of Warrington, states that the working of the provisions relating to notification of infectious disease has been most satisfactory. The number of notices given in 1882 is 451, and the amount of fees paid £45 7s. 6d.

In Edinburgh, the duty of notifying to the local authority cases of infectious disease is laid by the Municipal Police Act upon the medical attendant of the patient; whereas in Greenock the duty rests with the householder. Dr. Littlejohn reports, in regard to Edinburgh, that, since the clause in the Police Act rendering it imperative on all practitioners in the burgh to report cases of epidemic disease became law, in November 1879, reports of about 11,400 cases have been sent in to him, and a sum of over £1,450 has been paid to medical practitioners in the city. He further states that the clause, so far as Edinburgh is concerned, has been a great success, and the medical men of the city now unanimously approve of it. Dr. Littlejohn's report, which contains some striking illustrations of the value of prompt notification of infectious disease, is well worth perusal by all interested in this question. Dr. Wallace gives the results of compulsory notification of infectious disease by the householder, which are by no means satisfactory, by reason of the neglect of many householders to report cases of infectious disease, and in many cases the failure to call in a medical man. Nevertheless, striking results in the direction of diminished death-rates from infectious diseases have been obtained, even with the present imperfect method of notification; and Dr. Wallace, who is strongly in favour of the duty of notification of the existence of infectious disease being laid upon the medical attendant, anticipates great benefit to the community should the Bill brought in by Mr. Hastings and others become law. This view is supported by many cogent arguments drawn from his experience of the working of the present regulations in Greenock, which the space at our disposal precludes us from reproducing, but which are all well worth consideration at the present juncture.

SCARLATINA IN DURHAM.

THE terrible mortality from scarlatina in the county of Durham has almost passed into a byword amongst sanitarians. Various speculations have been made as to the causes of this exceptional prevalence—many of them ingenious, but all of them at the best but partially accounting for what is admittedly a grave etiological problem. Some years ago, when Mr. Simon was comparatively unfettered in the inquiries that he organised, he gave a commission to Dr. Buchanan to make an exact and systematic study of the conditions which determine the spread and intensity of scarlatina; but, owing to departmental and other changes, Dr. Buchanan never got any further than the preparation of a number of maps showing graphically the incidence of the disease upon the several English counties during the two previous decades. Although it was then shown that Durham had by far the heaviest mortality from the disease—a fact which had already been pointed out by Mr. Haviland—it apparently has not yet been possible to grapple with the question in any comprehensive fashion. But that inquiry is urgently necessary, is evident from the fact that, for the last thirty years, Durham has, in each quinquennial period, shown a scarlatinal mortality-rate higher than that of any other county in the kingdom. Whilst the average rate for England and Wales is 0.87, that for Durham during the last thirty years is 1.4; and the rate is not diminishing. Almost all the registration districts share in this excess; at least, there are only three exceptions. Darlington has an average rate for the period named of 0.81 per 1,000; Teesdale an average rate of 0.73, and Wear-dale one of 0.85; in all the others, the mortality is sustained at an excessive ratio, varying from 1.33 at Houghton-le-Spring, to 1.62 at Bishop Auckland.

To some small extent, no doubt, this excess may be explained away by the larger proportion of children living in Durham, as compared with the average English county; and, to a further extent, it may be

accounted for by a variety of unwholesome conditions, notably of lodgment, that mining villages too often exhibit in fullest intensity; and significance may be granted to these two considerations as affording some reason why scarlatina is exceptionally fatal in Durham, beyond the rate of fatality customary to the disease in other communities. It is obvious, however, that these circumstances do not satisfactorily account for more than a small proportion of the mortality, and there is evidently some other agent at work, of which we as yet do not appreciate the importance.

Mr. Spear, in the course of a recent report to the Local Government Board on a serious epidemic of the disease in the Durham Registration District, has been at pains to collect particulars as to the circumstances of as many of the cases as possible. Thus, 451 attacks occurring in 176 different families, most of them during the year 1880, were carefully inquired into. As many as 422 of these cases were found to be in children between the ages of one and fifteen years; 4 occurring in children under one year, and 25 in persons above the age of fifteen. In the 176 infected families, there were 31 infants under one year of age, who were exposed as much as the older children to risks of infection; but, while it was exceptional for the latter, if unprotected, to escape, of these 31 infants, only 4 were known to be affected. The women of the Durham colliery villages, who certainly have abundant opportunity for forming an opinion, say that "suckling infants rarely take the fever." The evidence seems also to point to adults as really possessing a certain immunity, apart from that accorded by previous infection. Thus, amongst 42 persons above the age of eighteen, who were very positive of not having suffered previously from the disease, and who were living in infected rooms, there were only 7 distinct attacks; 11, however, suffered from slight sore-throat and *malaise* during some period of their exposure, a fact again suggestive of relative immunity in their case, for rudimentary or abortive attacks in children are far less common.

In all but 46 of the 176 infected families, the attacks were multiple; and, in almost all cases, there was a distinct interval between the first and second attacks in a family, a circumstance itself going to show that the disease was spreading mainly by personal intercourse, and not by any common influence of food-supply or the like. The type of the epidemic, judged of by the rate of mortality alone, was not a severe one, for the proportion of fatal attacks was about 9 per cent. of the whole; but the moderateness of the mortality seems rather to have been due to the comparative absence of fatal sequelæ, for, in respect of the original infective process, the facts would rather suggest exceptional severity. Thus, the duration of the illness is recorded in 207 of the 295 fatal cases; in 57 of these, the fatal termination occurred on or before the third day; in 106, within a week; in 45, in from one to two weeks; in 26, in from two to three weeks; and in 30 cases, after a longer time. Again, in 75 of the 295 cases (these all rapidly fatal), the deaths are recorded as from malignant scarlatina, or from scarlatina with one or other of the cerebral symptoms that indicate at this early stage deep infection; in 49 cases, the disease is spoken of as "scarlatina anginosa", and in 8 cases as scarlatina with diphtheria. On the other hand, in only 18 of the 295 cases is dropsy mentioned as contributing to the fatal result. Mr. Spear doubts, however, in spite of certain authoritative opinions to the contrary, whether the type of an epidemic, as a whole, of scarlatina, can often be properly spoken of. In this, as in most outbreaks, "malignant" cases, and cases of extreme mildness, were seen side by side; the one apparently giving rise to the other. Certain localities, it is true, suffered to an exceptional extent; and it is very probable that the virulence of the disease in such cases was in a measure determined by local sanitary conditions. In a district, however, where such conditions are, as a rule, so generally unsatisfactory, it is too hazardous to draw comparisons for the purpose of speaking definitely on this point. Mr. Spear mentions also that, in the course of the inquiry, suspicion arose that the prevalence of scarlatina might be in some way related to the pre-existing prevalence in the locality of measles; and it seemed as if those who had recently passed through an attack of the latter disease exhibited a higher susceptibility than others not so circumstanced to the contagion of scarlatina. The observation is not altogether new, for a somewhat similar one is recorded by Kostlin and Löschner in the course of their epidemiological studies at Stuttgart; but our information on the point is as yet too meagre to warrant any conclusions being drawn from the coincidence.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

ASTON.—In his report for the year ending 31st December last, Mr. Henry May, the medical officer for Aston, states that the population at the last Census was 53,844, showing an increase of 19,896 in ten years. The total number of houses in the district was 12,188, of which

10,780 were inhabited, and 1,306 were void. There had been a large increase in the number of children, of which the very high annual birth-rate up to 1879, nearly 44 per thousand, was the chief explanation. The report gives particulars as to the mode of obtaining information upon infectious diseases, and the means adopted to prevent their spread, including isolation and house-to-house inspection and attention to the water-supply. Fully three-fourths of the houses are supplied with the fairly good water of the Birmingham Corporation. The number of births registered during 1881 was 2,039—viz., 1,050 males and 989 females, as compared with 2,064 births during 1880. There had been a constant though varying increase in the number of births during each year for eight years until 1880; but during 1880 and 1881, there has been a decrease. In 1876 the birth-rate was nearly 44 per 1000, but in 1880 it had fallen to 39.28, and this year it has fallen still lower—viz., 37.5. The decrease in the births is general in the neighbourhood, and corresponds with a decrease in the birth-rate of the country, which has fallen from 17.6 per 1000 in 1873, to 14.9 in 1880 and 1881. There have been 882 deaths registered in the district during the year 1881—viz., males 446 and 436 females, being 32 less than in 1880, giving a death-rate for the year of 16.2, as compared with 17.3 during 1880. The diminution of the death-rate is chiefly in consequence of the absence of any serious epidemic or excessive mortality from any outbreak of disease. There were 148 deaths registered from the seven principal zymotic diseases, as compared with 163 during the previous year, and amounting to 16.8 per cent. of the total of deaths. The zymotic death-rate was 2.7 per 1000 living, being 1.5 below the average of nine preceding years. There have been no deaths from small-pox in Aston Manor for seven years. Scarlet fever caused 33 deaths, and 191 cases were reported, in 1881, against ten deaths out of 62 cases in 1880. Measles caused 8 deaths, typhoid fever 6, diphtheria 23, whooping-cough 43, and diarrhoea 45.

ALNWICK AND CANONGATE.—Dr. McEwen, in his first annual report, makes it abundantly clear that he intends to do his utmost to rouse the sanitary authority to a sense of duty. He condemns the water-supply as dangerously open to contamination, and animadverts on the practice of keeping animals (especially pigs) in dirty and overcrowded parts of the town. He desires to see better by-laws for common lodging-houses, and strongly urges the provision of a small hospital for the isolation of cases of infectious disease. He regards the unduly large mortality from phthisis (12 per cent. of the total deaths) as connected somewhat nearly with the unsanitary state of many of the dwellings, especially of the poorer classes in the town. As he well observes, "in those yards or alleys where the houses are huddled together, and where there is more or less overcrowding, and where darkness, damp, and dirt prevail, there are conditions highly favourable to the development of pulmonary consumption. That there are too many such houses, no one will deny; and that such houses draw to them a class of tenants who despise sanitation and encourage filth and disease, is a subject which cannot be considered without at the same time being reminded that frequently such 'properties' belong to parties who must be aware of the extent of mischief which they allow to exist." Dr. McEwen has here touched upon what is perhaps the greatest impediment of sanitary progress in small towns—the neglect and often positive refusal of small-property holders to spend the money necessary to put the tenements they own into reasonably habitable condition. There were no special features in the mortality of the year, which was equal to a death-rate of 21.8 per 1,000.

KING'S NORTON (RURAL).—Mr. Hollingshead has again to report a satisfactorily low death-rate of 17.2 per 1,000, which is a slight decrease upon that for 1879. The zymotic death-rate shows a marked decline, the total number of deaths registered from these causes being 21, against 36 for the previous year. These rates are, however, exclusive of the workhouse deaths, which in 1880 were 31. The total births were 590, and the total deaths 295, which, based upon a population of 15,343, give rates of 38.45 and 17.2 per 1,000 respectively. Of the total deaths, 91 were under five years of age; and of these, sixty had not completed their first year of existence. Whilst admitting this to be an unduly large percentage of the mortality, Mr. Hollingshead holds improper feeding to be responsible, rather than any defect in sanitation. He states: "It is a very common practice among the poor part of the community to give their children scalded bread with sugar made into a kind of pap, and which is kept stewing on the hob most part of the day. Sometimes a little sugar is added to it, but generally it is quite plain. The bread used is frequently new, and consequently when made into food, is little better than dough." On this ground, the health-officer advocates the establishment of *crèches*, where infants could be properly nursed in the absence of their mothers. Small-pox, which had for some time been entirely absent from the district, be-

came prevalent during the latter part of the year, and altogether nine cases occurred, three of which terminated fatally. The health-officer regrets the absence of any system requiring the compulsory notification of cases of infectious disease, and of any isolation accommodation better than that afforded by the Birmingham Hospital, which is a long distance from many of the villages in the district. Many improvements have been effected by the recent system of drainage, which, however, requires ventilation and additional flushing. The water-supply, too, needs extension, since in many cases an analysis of the well-waters has shown them to be unfit for domestic use. The general sanitary work of the district has been well attended to; but an alteration in the system of scavenging seems desirable.

WEST SUSSEX COMBINED DISTRICT.—Dr. Kelly again presents a series of interesting reports upon the various districts forming this extensive combination. Not the least interesting or valuable part is the summary which he has appended to the present report, in which are statements of the births and deaths for the preceding six years, their respective rates and causes, and a general history of the meteorology and temperature of 1880. Dr. Kelly has omitted, however, any statement showing the sanitary state of his combination; nor is any mention made of improvement in water-supply and drainage. This may arise from the fact that there may be little to chronicle in this respect; but a statement as to sanitary progress would considerably enhance the value of the concluding portion of the report. Amongst an estimated population of 16,146 souls, there were 2,614 births and 1,287 deaths during the year 1880, giving rates of 30.3 and 14.9 per 1,000 respectively. A considerable increase is shown in the zymotic deaths, the rate per 1,000 being 1.9, against 0.9 in 1879, 1.6 in 1878, and 1.1 in 1877. This high zymotic death-rate arose chiefly from the prevalence of whooping-cough, diarrhoea, and measles; no less than 127 of the total number of 171 deaths from zymotic causes being due to these three diseases. Whooping-cough was largely prevalent in the Wakeham Rural District, where 24 deaths were registered from that disease. Eleven more happened in the Steyning Rural District, and 6 at Worthing. Diarrhoea was also very fatal at Steyning, where 20 deaths from it occurred. Measles was most prevalent at Steyning and Horsham. Scarlatina caused 9 deaths, diphtheria 12, enteric fever 15, and typhus 1. No deaths from small-pox were reported during the year; but 130 deaths were registered from phthisis, 204 from chest-diseases, and 90 from heart-disease. The infantile mortality was at the rate of 101 deaths for every 1,000 births, against 107 for the preceding two years. Dr. Kelly has little to report in the way of sanitary improvement; but signs are not wanting that progress may be expected. Petworth is in the peculiar position of having a thorough system of drains lying useless for the want of water, which has not yet been provided. At Worthing, there has been a marked improvement in the ventilation of house-drains; and West Zarring (in the East Preston District) is about to be provided with water. The outbreak of enteric fever at Worthing, due to infected milk, has already been dealt with in these columns.

CERTIFICATION OF IMBECILE PAUPERS.

STR.—Will you kindly inform me if it is usual for medical officers of workhouses to charge 2s. 6d. each quarter for certifying to imbecile paupers resident in the house? I find many of my medical brethren do so without comment by guardians or auditor.—Faithfully yours,
NEMO.

* It is generally held that, as by the terms of the appointment the workhouse medical officer engages to make tri-weekly, or it may be daily, visits, that the writing of all certificates, whether they relate to apprentices or quarterly returns of harmless or imbecile lunatics, come within the terms of his contract. The only exceptions as regards fees to workhouse medical officers are those which relate to the removal of acute lunatics; and in order to obtain these, he must have been required to visit and certify under the order of the justices or a stipendiary magistrate. Midwifery is also excepted from the contract—a fee, which is laid down in the general order, being accorded in each case. It is true that, in some instances, the 2s. 6d. fee has been paid, but that has arisen from special arrangement having been made at the time of the appointment, or by an oversight on the part of the clerk and auditor. Our correspondent should look at the wording of the contract he has signed, as that will determine the terms on which he holds office, and will govern the fees to which he should be entitled.

A NEW VESICANT.—Dr. José Armengue of Barcelona has lately brought to the notice of the profession a new vesicant, which in many respects would appear to be far superior to cantharides. The new material is derived from the *Enas afer*, a coleopterous insect, which at certain seasons of the year appears in enormous quantities in many parts of Spain. From experiments which Professor Armengue has instituted on his own person, and on that of several medical students, he is led to claim for the *Enas afer* as a vesicant the following advantages over cantharides: it is cheaper; it acts without appreciable pain; it is equally powerful; and it does not, so far as his experiments have yet shown, affect the genito-urinary system. If its non-inflammatory action can be established by further experiment, it is probable that the *Enas afer* will be a valuable addition to the materia medica.

MILITARY AND NAVAL MEDICAL SERVICES,

AMALGAMATION OF THE INDIAN AND ARMY MEDICAL DEPARTMENTS.

We extract the following from a recent number of the *Indian Herald*, published at Allahabad.

“The Secretary of State for India has, it is stated, agreed to the recommendations of the Government of India for the amalgamation of the Indian and Army Medical Departments. It is now intended to create a new medical corps for India, to be composed of all Indian medical officers who joined the service after 1860, and all army medical officers at present serving in India who volunteer to join the new corps and are under fifteen or twenty years' service. Older officers of the Indian services who joined the Indian service before 1860, are to be on the new list, for the purpose of regulating promotion, but not to be amalgamated with the Army Medical Department, because they have each a covenant, which gives them the right to serve only in India; whereas younger officers have only the Queen's commission, and no special agreement restricting service to India. After the amalgamation, all medical officers on the new list will ordinarily be employed in India, but will be liable for service in any part of the British Empire.”

We have reason for believing that the amalgamation of the Indian and Army Medical Department is by no means the accomplished fact which it might be inferred to be from the foregoing paragraph. There still exists many difficulties to be overcome before the arrangements for uniting the two services—a union which, we have no doubt, will be arrived at in course of time—can be sufficiently advanced for public announcement.

SIR.—In answer to “A.M.D.”, in the JOURNAL for March 2nd, you say that “the whole subject of medical service in India, and especially the mutual relations of the Indian and British medical services, are under anxious consideration”. Perhaps it may assist those who are considering the matter, in rendering the junior branch of our department justice, if they know some of our prominent grievances. A surgeon, when gazetted in the Army Medical Department, ranks as captain, and in England gets good pay and draws captain's allowances for lodgings, etc., amounting in all to nearly £300 a year. Before he is allowed to enjoy this any length of time, he is sent abroad, the majority being sent to India. He arrives at Bombay, and is sent to his station. A warrant is given for the journey, and if he travel up country with troops, as a rule, his baggage is taken up free; but if he travel alone, only four and a half maunds (a little over three hundredweight) are allowed on the warrant for himself, and half a maund for each servant. This, of course, falls far short of the weight of his necessary “kit” brought out from England, and the surplus has to be paid out of his pocket. When he joins his station, he may consider himself fortunate if he be left there three or four months. Each time he moves he has to break up his establishment, sell furniture, etc., at a loss, and pay for any extra luggage beyond the four and a half maunds he may carry about. Or he may be sent into camp some distance from the station, and has to pay for the carriage of all he takes out, no allowance being given for these moves. In England, a surgeon is always able to get his travelling allowance, ten shillings a day, and carriage of goods. I quite allow this is all supposed to be covered by his consolidated pay in India; but what is that pay? 317 rupees 8 annas a month—not by any means equivalent to £300 a year in England. I have been now nearly a year in the country. From the first station at which I joined, I was sent to do a surgeon-major's work for three weeks. There I was in medical charge of a draft from an English regiment, and a whole native regiment, besides staff duties. For this work nothing extra was allowed, I was informed. Thence I was sent back to my original station; and after a few days was sent to a new station, where I remained a fortnight; thence to another station, and after remaining there three months, I was sent to a musketry camp, where I am at present. I suppose I may consider myself fortunate, as I have had only six journeys to make; each move, however, has cost me money, and as these moves are by no means optional, why should I be obliged to pay for them? Now-a-days, gharries, bullock-carts, and coolies are more expensive than formerly, and yet our pay is not increased, but is the same as in former days when we ranked as lieutenants.

Again, our work is much increased; the Native Army Hospital Corps require instruction, and lectures have in consequence to be given; and we are informed that we must do any extra work we are ordered to do. Horse-allowance has also been taken away since the station hospital system has been introduced. Why should not Government give us the same pay that captains receive, and also give us allowance for travelling? Our work is increased, and our duties more onerous; surely the labourer is as worthy of his hire now as he was formerly.—I am, sir, your obedient servant,
Bengal, March 28th, 1882. SURGEON A.M.D.

SIR.—At the concluding portion of the leader in your issue of February 25th, the writer seems to be labouring under a delusion, if he thinks that, “whenever a separate medical organisation for the civil medical duties of the various provinces of India becomes an accomplished fact, all real difficulties in the way of the Indian Army Medical Department coalescing with the British Army Medical Department will have disappeared...”

Pray understand that men who have entered the time-honoured Indian Medical Service did not do so for the purpose of being “coalesced” with the other service. They entered it with the expectation of remaining in a service where they would hold permanent civil and military appointments, with the privilege of transfer from the one to the other, and *vice versa*. Those who would have preferred the other service had their option of entering it, and could easily have done so with the marks with which they entered the Indian service. There are the majority of Indian