

A BUILDING, to be used as a cottage hospital, has been commenced in the village of Charlton, near Malmesbury, Wilts.

IN reply to a question on the subject, the Lords of the Treasury have informed the Senate of the University of London that the cost incurred by the Vice-Chancellor on the election of a member to represent the University must be paid by the latter, and will not be recoverable from the candidate.

WEST INDIAN advices by the *Tasmanian* are to the effect that, as cholera is prevalent in Cuba, the Governor of Jamaica, by advice of the Privy Council, has declared all Cuban ports infected, and has required all vessels arriving at Jamaica from that island to undergo a quarantine of eight days. The health of Jamaica itself continues good. It is said that the official return of deaths from cholera in Santiago de Cuba between Jan. 28th and Feb. 14th amounted to no less than 171.

WE understand that Dr. Lionel Beale, the Professor of Physiology in King's College, is about to resign his professorship, which he has now held for the last sixteen years. He will retain the post of physician to King's College Hospital. There appears to be a desire on the part of the authorities to separate in future the two appointments of Professor and Physician, instead of combining them in one officer as has hitherto been done.

THE Medical Officers' Superannuation (Ireland) Bill, brought in by Mr. Brady, Mr. Pim, and Mr. Hamilton, provides that the guardians *may* have power, with the consent of the Poor-law Commissioners, to grant superannuation allowances to medical officers in certain cases, not exceeding two-thirds of the income of such officers, including the average special fees of three years preceding retirement. A month's notice of the grant required is to be given to the guardians. The Act is not to affect the rights of any medical officer under other Act or Acts. The term medical officer is to include that of surgical officer.

AT a meeting of the junior students of Charing-cross Hospital, held on the 16th instant, Mr. W. Harry Pearce, assistant demonstrator of anatomy, was presented with a surgical dressing-case, and a written testimonial, bearing twenty-one signatures, as an acknowledgment of the benefit derived from his Osteological lectures during the past session.

Correspondence.

"Audi alteram partem."

THE DRY-EARTH SYSTEM.

To the Editor of THE LANCET.

SIR,—The Rev. Henry Moule, in his letter to you in defence of the earth-closet system, says that certain observations which I, like many others under similar circumstances, had made as to the variety of ways in which fevers may spread themselves, are irrelevant to the subject in question, as is also, according to him, Von Pettenkofer's quoted opinion. Now the cases to which I alluded went to show that the spread of fever was in many instances to be referred to gaseous matters met with, as such, in privies, and not to the drinking of water contaminated with sewage. And the main strength of the argument for the adoption of the earth-closet system lies in the fact that at the present

moment, in spite of a very general theoretic acceptance of both views, attention is, in practice, almost exclusively directed to the working of the latter of the two agencies for the propagation of disease. I submit, therefore, that reasoning, and facts, and opinions, which force us to consider whether an earth-closet may not itself be a factor in the constitution of the former of these sets of antecedents, are anything but "irrelevant" to a discussion of the merits of the system in question. Later on in this letter I shall show that the word "irrefutable" might have been used with more propriety than the word "irrelevant."

Secondly, Mr. Moule says that "to disinfect privies and cesspools is no part of the dry-earth system. Its great object is not to disinfect, but to supersede those abominations, and the equal abomination of the sewer." This, however, is a limitation of the use of the words "dry-earth system" which is not justified by common usage, nor by a usage which Mr. Moule has himself given the sanction of his name to. In the *Lancaster Guardian* of December 1st, 1866, in an article stating that J. W. Garnett, Esq., J.P., is conducting the experiment, I read,—"There is no absolute need for Mr. Moule's apparatus, or any other. A few shovelfuls of earth thrown in through a hole in the back of the closet," &c. See also Mr. Garnett's own account of the plan he adopts ("Leamington Congress Report," p. 180); also Mr. Mechi (*ibid.*, p. 179); and to the end of Mr. Moule's own pamphlet, "National Health and Wealth" (London, 1866), I find appended a letter from Mr. James, of Halton, in which the following sentence occurs:—"With rare exceptions, waterclosets and cesspools are available for the earth method, and are readily adapted at a very trifling expense." The same letter, with the same sentence contained in it, appears also in the "Prospectus of Moule's Earth Closets" (issued by the Company, 29, Bedford-street, Strand, W.C.), at p. 20.

As I am writing for the readers of THE LANCET, I need not stop to vindicate Liebig's and Von Pettenkofer's claims to our respect. Hence I shall merely say with reference to Mr. Moule's application of the term "conjectural" to Liebig's system of removal of sewage by water, that the system is at full work, and fully accepted, in Hamburg, where the Baron can see it without leaving his fatherland; and that it has been only due to the Prussian conquest that the municipality of Frankfort has not followed the example of their sister free city. If London seems to be too large a place to justify us in reasoning as to the possibility of sewage being removed elsewhere by the same water carriage as, Mr. Moule can convince himself, is at work there beyond all conjecture, there are small towns enough which will furnish him with "simple cases." Worktop is one with which I am well acquainted; Eastbourne is another (see THE LANCET of May 11th, 1867); Alnwick is another (see Report on the Sewage of the Metropolis, 1864, p. 186); and the *Builder* of last Saturday, March 13th, will furnish him with the names of three more towns, of more or less moderate dimensions, which have, wonderful to relate, recognised the truth which—holding for dead and living, for organic and inorganic matter alike—teaches us that "suspension in water is the cheapest mode of carriage."

Fourthly. Mr. Moule says he has heard of no outbreaks of fever or cholera in the gaols where his system has for five years been in full operation. I say he ought to have heard of such; for, by a singular Nemesis, I am able to bring forward Dr. De Renzy—as I imagine, the same Dr. De Renzy whom a few years ago Mr. Moule (see Rivers Commission Report, Evidence, vol. ii., p. 291, q. 8899) was quoting on his own side—to give the following crushing answer for me to Mr. Moule's assertion that I have borne false witness against his "five years' experience" of the earth-closet system in India. Dr. De Renzy, then, is quoted to the following effect by Dr. Cunningham, an officiating Sanitary Commissioner with the Government of India, in the Fourth Annual Report of the Sanitary Commissioner with the Government of India, 1867 (Calcutta, 1869), p. 211, par. 440:—

"Dr. Mouat states that, 'although adynamic fevers may occur occasionally in an endemic form, they will never become contagious so long as the present conservancy arrangements be obtained.' Actual experience has, unfortunately, already falsified this prediction. In 1866 the fever appeared with all its former virulence in the Umballa Gaol, and caused 48 deaths out of a strength of 698 convicts; and last year it appeared in the Peshawur and Rawul Pindee Gaol.

Nowhere, I venture to say, is the dry-earth system carried out to greater perfection than in the Punjab Gaols, *but the fact remains, that, in spite of the most thorough deodorisation of excreta, the contagiousness of gaol fever continues unchanged.*"

The following extract from a Madras Report* is even more valuable, as, besides giving reasons for the discarding of the earth-closet system, which will be satisfactory to many a hesitating Local Board in England, it gives encouragement to the advocates of irrigation. These extracts are lengthy, but the books whence they are taken are not readily accessible, few cities in England or elsewhere having such a library as our Radcliffe; the facts which they contain are, at the present juncture, of critical and cardinal importance, and their value is proportionately great.

"Last year's report contained a full report of Captain Tulloch's project for the drainage of the Presidency town, and that officer is now in England maturing his plans, and perfecting his acquaintance with the most recent and improved system, not only of main, but of house sewerage, and of the utilisation of sewage in the fertilisation of land. The question of disposal of the refuse of the town of Madras has occupied the anxious consideration of Government and of the municipal commissioners. The expense attending anything like a system of conservancy upon the dry method is enormous, and even in carrying it out to the extent that is now done the greatest difficulty is experienced in disposing of the refuse. It was formerly deposited upon waste land in several localities, but these became such intolerable nuisances that it was necessary to adopt other means. Burial in pits, covering the refuse immediately with earth, was then adopted; but this system, even though a vast improvement upon the other, cannot be continued; for, in the first place, land is not procurable, and, secondly, surrounding the place with a chain of these ordure pits, must sooner or later result in further most dangerous contamination of the already contaminated water-supply. Hence cinerators have been proposed, to burn all organic refuse, and one is to be built as an experimental measure. The question of the utilisation of liquid manure in irrigation of grass or other land in the centre of the town at the People's Park has also been raised, and was referred to me by the President of the Municipal Commission. In the present aspect of the case, and in the face of the conflicting opinions advanced by sanitarians, I have not thought myself justified in giving the countenance of my official sanction. The President has, however, recently brought to notice that irrigation of this nature is actually practised upon fields not a hundred yards from the People's Park, and that no ill effect can be traced upon the health of those living in the neighbourhood."—p. 169.

I do not mean to say that in India, where the construction of aqueducts appears to be a task beyond the powers of the modern rulers of the country, there is not a good deal to be said in favour of an earth system as compared with one which leaves ordure naked in cesspits or latrines. But this good deal which may be said rests as largely upon æsthetic as upon scientific grounds. The physician has shown (*Pfaff. Zeitschrift für Biologie*, bd. iv., hft. ii. and iii., p. 256) that water evaporates faster out from an equal surface of moistened sand than from an equal surface of the pure and simple liquid; and the physician knows very well how often the first rain ushers in the epidemic. Watery vapour does much for us in the way of good, but, like most potent agencies, its working may tell in the other direction also. It may be, however, that Indian physicians, like physicians elsewhere, have been overborne by obstreperous assertions. But I will not allow myself to be unjust to the earth system, and therefore I will say what I think is the proper place and power of this form of conservancy. They lie in places where, as in isolated houses, earth can be procured in such quantities as actually to smother the excreta, or, in stricter language, to reduce evaporation to a minimum (see *Pfaff. l. c.*); in places where water cannot be procured; at times when epidemics are absent; or when disinfectants, properly so called, can be employed, together with the earth. Vegetable life should, of course, always be employed to rebuild up the constantly self-analysing mass; but it is obvious that the greater specific heat of water gives the plan of irrigation a great advantage over all forms of compost manuring; to say nothing of its solvent and diluent powers.

* Report of the Sanitary Commissioner (J. L. Ranking) for Madras, 1867. Madras, 1868.

Finally, Mr. Moule has quoted some laudatory expressions of Dr. Mouat's, and expresses surprise that I did not lay them before your readers, who may, consequently, be led to suspect that I have garbled my unwilling witness's evidence. So far is this from being the case, that I can say that I cannot, after repeated searching, find in the volume from which I quoted, the words which Mr. Moule has said should be set off against all I have written. I am inclined, therefore, to suppose that Mr. Moule may have, by inadvertence no doubt, referred to some other report of Dr. Mouat's which I have not seen. And this supposition is the more reasonable inasmuch as Mr. Moule's representation of Dr. Mouat's evidence is by no means an adequate one. My time would have been saved, and the suspicions of uncharitable persons would not have been roused, if Mr. Moule had taken the trouble to give, as I have given, the pages whence he quoted. With Dr. Mouat's *opinions* as to the earth-closet system, to the same effect and almost in the same words, everybody who knows anything of it, whether by advertisements or otherwise, is abundantly familiar. But though Dr. Mouat's *facts* as well as his *opinions* have often enough been called in question (see Report of Sanitary Commissioner for Government of India for 1867; Calcutta, 1868, pp. 138-142, 210-211), I thought it might be well to refer to them, as they would be known to be given by an unwilling witness. They run thus:—

"Great attention is now paid to dry-earth conservancy, and I have seldom reason to find fault with the manner in which it is carried into effect. The burying of the deodorised excreta in the gaol gardens is a matter of some risk, and I am watching it with great anxiety. When the admixture with earth is carelessly performed, or where the earth used contains a large amount of moisture, the fermentation of excrementitious matter will take place, and disease will be the certain and sure result." (The italics are mine, used to emphasise what Mr. Moule's report of this evidence omits.) "Hence the conservancy arrangements need to be controlled with the greatest and most constant care and vigilance by officers in charge of gaols and by the medical officers. The arrangements are excellent when I visit the gaols, but I am for the most part unable to make unexpected visits, and it is on the correct every-day conduct of the proceeding that its success depends."—"Report on the Gaols of the Lower Provinces of the Bengal Presidency for the year 1867." Calcutta, 1868. p. 144, paragraph 87.

The Lieutenant-Governor of Bengal, at page 11 of his "Resolution, Judicial Gaols, Fort William, July 6th, 1868," says, somewhat drily, "In a damp climate, like Bengal, it must require great care to secure the essential elements of a successful dry-earth conservancy." This comes at the end of the Report quoted.

But I will ask your readers whether any physician who believes either in Dr. De Renzy's evidence, or in Von Pettenkofer's science, can, with either or both before him, say an earth system is preferable to a water one; or whether any sanitarian in his senses can advocate a plan which requires all the care, precaution, and supervision which, even on Dr. Mouat's own showing, the plan absolutely requires if it is not to be absolutely dangerous?

The Rev. Henry Moule, in his letter, has spoken of my "imperfect acquaintance with," my "inadequate conception," and my "grievous misrepresentation" of his system. And, without exactly intending it probably, he has suggested to the minds of persons who are acquainted with neither of us, that I have garbled my evidence. Your readers can now, by your kindness, judge as to the justice of those charges.

I am, Sir, your obedient servant,

GEORGE ROLLESTON, M.D., F.R.C.P., F.R.S.,
Linacre Professor of Anatomy and Physiology, Oxford.

Oxford, March 18th, 1869.

To the Editor of THE LANCET.

SIR,—Professor Rolleston's remarks on the earth-closet system in your last number demand the most careful consideration. He maintains that evidence is wanting to prove that morbid gases are odorous gases, and that deodorisation is equivalent to disinfection. He says:—"If I am told that the earth-closet is inoffensive, and that the privy is fetid, I answer that a rattlesnake is none the less dangerous because its rattle is removed; and that for anything

shown or known to the contrary, odour is to infection, deodorisation to disinfection, what the noise of the serpent is to its bite."

I have long suspected, and Professor Rolleston's paper has done much to confirm my suspicion, that there was a very close relationship between the earth-closet system and the extensive prevalence of a severe form of diarrhoea in the camp at Wimbledon last summer. The dry-earth system was adopted there and then for the first time, and it was believed and reported to be a complete success. Deodorisation was perfect, yet it is notorious that diarrhoea prevailed to an extent that had never before been experienced in the camp. About three hundred cases were so severe as to require admission into the hospital, while a large number were treated as out-patients. In no previous season had there been so heavy a demand upon the medical staff of the encampment. I am not aware that any explanation of this unusual prevalence of bowel disease was given. The excessive heat and dryness of the season could have had only an indirect causative influence; but it appears highly probable that the outbreak of diarrhoea in the camp affords an illustration of the principle for which Dr. Rolleston contends; the excreta were deodorised, but not disinfected and rendered innocuous. The earth-closets had silenced the serpent by depriving it of its rattle, but its poisonous bite had lost none of its malignant power.

The exact coincidence of the first introduction of the earth-closets with an unprecedented prevalence of severe diarrhoea in the camp, is calculated to excite grave suspicion that the sanitary efficiency of the dry-earth system is less complete than its advocates believe.

I am, Sir, your obedient servant,
Savile-row, March, 1869. GEORGE JOHNSON.

THE BIRMINGHAM GUARDIANS AND THE POOR-LAW MEDICAL SERVICE.

To the Editor of THE LANCET.

SIR,—I have just received a copy of the *Birmingham Gazette*, containing a report of the proceedings of the guardians, and the letter which it is resolved to forward to the Poor-law Board in answer to their requiring an explanation of the reasons of the guardians for reducing the number of medical officers.

Into the question of respect or disrespect to the Poor-law Board in not acknowledging their letters until Mr. Peel, the Inspector, visited the Board and secured the production of them, it is not my intention to enter. I presume the public have already made up their minds upon this point. What I should, however, like to touch upon is, that although they have forwarded a prodigiously long document, they have dealt mainly in general assertions rather than in positive proofs of the wisdom of their proceedings.

Having had an opportunity of inspecting the returns of sickness, &c., I learn that the smallest allowance of new cases which the least hardly-worked officer annually had was 1200, whilst his less fortunate brother officers have had considerably more. This number is totally beyond the means of any district medical officer fairly to deal with, if his private practice engages much of his time, and utterly beyond the capacity of the five newly-appointed officers to treat. I also demur to the grounds on which Mr. Clay's statements are based. When he moved for the appointment of the committee to consider the question of out-door relief, it was suggested by a guardian, and adopted by the Board, that power should be given to call the medical officers before the committee. This rational course was not followed, this being in marked contrast with the action of the committee of two years ago, who went exhaustively into the subject, examining medical and relieving officers, and who then decided, after months of consideration, that it was better to increase the staff than simply add to the salaries of the six then existing officers.

As regards the question of vaccination, I find, on inquiry, that it occupied each officer on an average about one hour weekly, whilst they realise about £50 each,—some compensation for the low remuneration of the medical service in other respects, and making the salary of each of the eight equal to that proposed to be given under the new arrangement to the five, with vastly increased obligations.

Mr. Clay—for I perceive it is his report—has been inspecting the books, and gives a long array of statistics. I shall not follow him—the average number of recorded cases is quite sufficient to show the folly of his proceeding,—but will content myself with stating that any one at all acquainted with Poor-law medical relief knows fully well that scores of cases are never recorded in the books at all. The medical officer, especially where, as at Birmingham, he finds all medicines from his stipend, is compelled to give such attendance in the way in which he can best economise his time and trouble.

I originally drew public attention to the faulty medical arrangements of this town, by learning from the Poor-law Reports how inadequate was the remuneration, how prodigiously the poor's-rate had mounted up in the fifteen years ending 1867—viz., from £31,777 in 1852, to £83,440 in 1867, and, as I am prepared to assert, mainly from this cause; but I did not allude then to what I will now. And it is this: In 1852, the in-door maintenance cost £3273 17s.; whilst, in 1867, it had mounted up to £21,470, minus the rations of officers; and which has unquestionably sprung from the irresistible inducements which the over-worked district medical officers have had to send their bad cases into the workhouse for that treatment which they were unable, with justice to themselves, to give at home, and which system Mr. John Clay and his benighted followers would perpetuate if Mr. Goschen fails in preventing it.

As regards the apparent diminution of sickness recently, I would remind Mr. J. Clay that the last winter has been unusually mild, and therefore there has been less illness amongst the working classes. And, as regards his point about the medical officers being willing to do the work, I learn, when asked whether they could, they said they would try. And it is a significant evidence of the feeling entertained that I find only two officers have written to thank the Board for their appointments.

I am, Sir, your obedient servant,
Dean-street, March 17th, 1869. JOSEPH ROGERS.

THE ENSUING SESSION OF THE MEDICAL COUNCIL.

To the Editor of THE LANCET.

SIR,—Can you inform your readers when the General Medical Council meet, and if it is likely a Bill to amend the Medical Act will be introduced to the House of Commons this session? It is surely time something was now done to prevent unqualified persons from using titles, and imposing on the public.

I am, Sir, your obedient servant, J. A.
March 15th, 1869.

* * We cannot give our correspondent the information he seeks. We have already said that we think the Council should meet sooner in the year if it is to effect any amendment of the Medical Act. By the end of June—the usual time of the Council's meeting—all legislation that has any chance of being completed is well forward; ministers and members are getting tired, and indisposed to undertake fresh subjects. Considering the great importance of the amendment of the Medical Act, and of the points of difference between the Council and the profession on the subject, we hope the President will fix the meeting for as early a date as possible.—ED. L.

REPRESENTATION OF THE PROFESSION IN THE MEDICAL COUNCIL.

To the Editor of THE LANCET.

SIR,—Your persistent and earnest advocacy of the rights and privileges of the Fellows and Members of the Royal College of Surgeons, is as creditable to your disinterestedness, as it is merited by that vast neglected body,—the Fellows and Members of that corporate institution. And as you have directly appealed to me in your last leader to consent to be the recipient of contributions towards a fund for the purpose of testing the legality of the Council of the College in quietly ignoring the substance of the "body