

who have had much clinical experience in cholera must have noticed that one of the very earliest of its specific symptoms is a marked coldness of the tongue. It is generally easy, in the course of an epidemic, to pick out the cholera cases from those of ordinary diarrhoea by simply attending to this indication, which is readily recognisable by the touch. It is not the effect of exhaustion from diarrhoea, for it often occurs before diarrhoea has set in. It is, probably, the immediate result of the depression produced by the impression of the poison on the nerve-centres. I simply mention this matter in illustration of my position as affirming that the first attack is on the nervous centres, or the ganglia of the sympathetic system.

The suggestion I have to make is an immediate recourse to the *bain électrique*, at the very outset of the disease. The patient being placed in an ordinary bed, the legs of which are insulated by glass foot-cups such as are commonly used for insulating pianos, and the prime conductor of the electric machine being brought into connexion with the body, the sick person may be charged with electricity without either trouble or pain of any sort. It is easy, with a little obvious care and precaution, to avoid discharging the electricity. For example, food and medicine may be administered with non-conducting china ware without touching the body. The effect of the electric bath is likely to prove in the early stage of cholera, as it undoubtedly proves in a certain class of cases in the early stages of fever, *conservative of the vital nerve force*, retarding or altogether preventing exhaustion, and, in some instances, even producing a distinct rise of the pulse, and general reaction. It is commonly supposed that static electricity has no stimulating influence, the effect produced in certain cases in which it is used being entirely due to the current set up in the act of discharging. I believe this to be an error. When nerve-centres are charged with electricity they are more stable as regards their molecular state, and whatever nerve force they happen to possess acts with greater intensity, as from a firmer base. In short, the electricity serves the purpose of a "reserve," although it is not nerve force but only approximately like it, and capable in an emergency of doing *some* of its work in the organism.

As an easily practicable expedient in the treatment of a malady which, under the best of circumstances is exceedingly unmanageable, I think the *bain électrique* should be tried. It cannot in any way interfere with the general plan of treatment which may be adopted, and in one or other of its forms holds out a fair promise of usefulness.

I am, Sir, yours truly,

Welbeck-street, W.

J. MORTIMER-GRANVILLE.

ASIATIC CHOLERA AND ITS INTRODUCTION INTO THIS COUNTRY.

To the Editor of THE LANCET.

SIR,—A great deal has been written on quarantine and sanitation as a means of preventing the importation to and the spread of cholera within our own country, but I feel it is the duty of the profession to do its best by promulgating sound views to meet the progress of the disease and to allay any unnecessary feeling of alarm in the public mind. It is, I think, now pretty well admitted that cholera (the Asiatic form) is mainly propagated through the medium of bacteria or disease germs; if it were not so, when the disease has once located itself in any position (take Cairo as an instance, where 300 deaths are occurring daily), why should the disease produce such havoc in that city? and why, when it appears to have destroyed all the susceptible portion of a given population, should it pass on to another city or locality and carry out its work of destruction with equally lamentable results there? What I wish to show, supposing this theory to be sound, and supposing the cholera epidemic to fix upon any of our large cities, London for instance, what is to prevent its ravages being carried out there to a most frightful extent? It must not be forgotten that since 1844 a more extended system of underground drainage has been carried out in the metropolis, by which a quarter of a million waterclosets have been made constantly to discharge their foul contents into the house drains, and that, in consequence, at this moment there are four thousand miles of underground drains in the metropolis, all of which are more or less choked with human excreta, and should a cholera epidemic attack London, these four thousand miles of under-

ground cesspools would be the medium through which the disease would be propagated in every direction, such underground cesspools being more or less in direct communication with the interior of the dwelling-houses, some through the watercloset only, others through the various waste-pipes, &c.; whilst the atmosphere of the streets also is polluted by exhalations and emanations from the drains and sewers through the various gully-holes, ventilators, and traps. It is a popular idea when the watercloset is used that the closet soil is instantly removed from the house drain and is conducted to the sewer's outfall at Barking Creek; but such, however, is far from being the case. In dry weather the closet soil remains in the house drains, and some of it in the soil pipe, even when vertically placed, and no amount of flushing or washing will remove it. Now, suppose we take one dry week as an example, and imagine four thousand miles of cesspools extending under every house and under every street throughout the metropolis; surely such a condition as that, should a cholera epidemic prevail in London, would favour its propagation in every direction. It must not be forgotten that the atmospheric current is always a backward one towards the houses, and so long as the sewage runs through and out of the sewers, so long will it remain so. Moreover, the atmospheric temperature within dwelling-houses being higher than that of the drains and sewers it is obvious that the tendency of the foul gases in the drains and sewers will be to rise into the houses and streets. All kinds of schemes are being devised by modern sanitarians, who are aware of the evil they have created, such as cutting off the connexions of waste-pipes, &c. from lavatories, bath-rooms, and sinks with the drains; but that is a complete admission of the failure of their system, for if the drains were not polluted by human excreta, surely it would not be necessary to sever the connexion with them. The real evil lies in allowing the solid excreta to be discharged into the drains at all; that material is so viscid and tenacious that it is impossible, even with the most effective flushing, to free the drains from it. If the attention of the Local Government Board is not drawn to this subject, so that that body may be made thoroughly to comprehend the danger, I fear the results of a cholera epidemic in London, should it occur, will be frightful to contemplate. In the report on urban diarrhoea mortality, July 14th, I notice 249 deaths occurred in the week ending that date from diarrhoea in the twenty-eight principal towns; 167, or two-thirds of the whole number, occurred in London alone, and if the mortality from diarrhoea is so exceptional in London, surely we may expect the mortality from cholera will be equally excessive. The urgent importance of the subject must be my apology for troubling you with these few lines.

I am, Sir, yours truly,

Birmingham, July, 1883.

EDWIN CHESHIRE, F.R.C.S.

SCOTTISH NOTES: UNIVERSITY OF ST. ANDREWS.

To the Editor of THE LANCET.

SIR,—With regard to the article under the above heading, which appeared in your issue of the 14th inst., giving quotations from a memorial to the Lord Advocate by the Medical Faculty of the University of St. Andrews, I beg to state that the quotations selected are calculated to mislead, from not giving both sides of the question. Your inference is calculated still further to mislead, as you conclude your article with the following words:—"These main contentions are supported by a long list of arguments, weighty of themselves, but all tending—and this is the chief point to the profession—to withdraw St. Andrews from even the semblance of purely medical teaching now existing. Drs. Pettigrew, McIntosh, and (with some reservation) Heddle sign the document from which the above quotation is taken; and in the further consideration of this and other matters, it will not be unfair to assume [the italics are mine] that these gentlemen aspire only to complete incorporation in an extended Faculty of Arts." Now, so far from the Medical Faculty of the University of St. Andrews seeking dissolution and "complete incorporation in an extended faculty of arts," it is distinctly stated in the memorial referred to that the Medical Faculty desire a fourth medical chair, in order to be able to give two *anni medici*. The following clauses from the memorial will verify this statement:—"The most St.