fever in Salford and Huddersfield; "fever" in Norwich and Portsmouth; and measles in Nottingham. The 20 deaths from diphtheria included 9 in London, 2 in Portsmouth, 2 in Liverpool, and 2 in Salford. Small-pox caused 1 death in London and its outer ring, but not one in any of the twenty-seven large provincial towns. No small-pox patients were under treatment in the metropolitan asylum hospitals situated in and around London. The deaths referred to diseases of the respiratory organs in London, which had been 160 and 128 in the preceding two weeks, further fell last week to 110, which were 58 below the corrected average, and considerably fewer than those returned in any previous week of this year. The causes of 99, or 2·6 per cent., of the deaths in the twenty-eight towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Bradford, Sunderland, Portsmouth, and in four other smaller towns. The largest proportions of uncertified deaths were registered in Salford, Sheffield, and Oldham.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been 17·7 and 19·4 per 1000 in the preceding two weeks, further rose to 20·6 in the week ending September 11th; this rate was 2·0 per 1000 below the mean rate during the same week in the twenty-eight English towns. The rates in the Scotch towns last week ranged from 13·1 and 15·7 in Perth and Dundee, to 24·3 in Paisley and 28·0 in Aberdeen. The 508 deaths in the eight towns last week showed an increase of 21 upon the number in the previous week, and included 57 which were referred to diarrhoea, 20 to whooping-cough, 7 to scarlet fever, 4 to "fever" (typhus, enteric, or simple), 4 to diphtheria, 1 to measles, and not one to small-pox; in all, 93 deaths resulted from these principal zymotic diseases, against numbers increasing from 63 to 86 in the preceding four weeks. These 93 deaths were equal to an annual rate of 3·8 per 1000, which was 3·1 below the mean rate from the same diseases in the twenty-eight English towns. The deaths referred to diarrhoea, which had been 23, 36, and 53 in the previous three weeks, further rose last week to 57, of which 20 occurred in Glasgow, 9 in Dundee, and 7 in Aberdeen. The annual death-rate from diarrhoea in the eight Scotch towns last week did not, however, average more than 2·3 per 1000, whereas the mean rate from the same cause in the twenty-eight English towns was 5·7. The fatal cases of whooping-cough, which had been 22, 19, and 10 in the preceding three weeks, rose again last week to 20, of which 15 occurred in Glasgow. The 7 deaths from scarlet fever, all of which were returned in Glasgow, showed a further decline from the numbers in the previous two weeks. The deaths referred to "fever" had also declined, and the fatal cases of diphtheria were also below the average. The deaths referred to acute diseases of the respiratory organs in the eight towns, which had been 67 and 56 in the preceding two weeks, rose again last week to 72, and exceeded by 15 the number in the corresponding week of last year. The causes of 72, or more than 14 per cent., of the deaths in the eight towns last week were not certified.

HEALTH OF DUBLIN.

The rate of mortality in Dublin, which had been 18·2 and 26·2 per 1000 in the preceding two weeks, declined again to 25·9 in the week ending Sept. 11th. During the first ten weeks of the current quarter the death-rate in the city averaged 21·2; the mean rate during the same period was 19·3 in London and 18·2 in Edinburgh. The 175 deaths in Dublin last week showed a decline of 2 from the number in the previous week, and included 26 which were referred to diarrhoea, 7 to scarlet fever, 4 to "fever" (typhus, enteric, or simple), 1 to whooping-cough, and not one either to small-pox, measles, or diphtheria. Thus 38 deaths resulted from the principal zymotic diseases, against 18 and 22 in the preceding two weeks; they were equal to an annual rate of 5·6 per 1000, the rates from the same diseases last week being 3·4 in London and 2·0 in Edinburgh. The fatal cases of diarrhoea, which had been 9 and 14 in the preceding two weeks, further rose last week to 26, and exceeded the number in any previous week of this year. The 7 deaths from scarlet fever also showed an

increase upon recent weekly numbers; whereas the 4 deaths from "fever" showed a decline of 4 from the number in the previous week. Three inquest cases and 4 deaths from violence were registered; and 29, or one-sixth of the deaths, were recorded in public institutions. The deaths of infants showed a further increase upon the numbers in recent weeks, while those of elderly persons had slightly declined. The causes of 39, or more than 22 per cent., of the deaths registered during the week were not certified.

Correspondence.

"Audi alteram partem."

CHOLERA AND THE WATER-SUPPLY OF MADRAS.

To the Editor of THE LANCET.

SIR,—At a time when cholera is such an interesting question in England, the following table, showing the decrease in mortality in an Oriental town from this pest since it has been favoured with a comparatively pure water-supply, may not be without interest. The Red Hills tank is a large sheet of water some ten or twelve miles from Madras. It is a rain-fed tank, and not cleaner than such tanks, undefiled, would be; but it has this advantage: it has no villages near it, it is away from any thoroughfare, and consequently undefiled by foot-passengers and pilgrims; it is, moreover, scrupulously conserved. The water is led into Madras, first, by a channel more or less well protected, and then the water is distributed over the town by pipes. Even the deaths which have occurred in Madras are found to have mostly taken place in outlying parts of the town, where the Red Hills water has not yet been laid on, except in one district, Triplicane. Here live a large number of Mussulmans, and their women, being Gosha—i.e., not allowed to be seen by any but their own family,—are obliged to draw their water from small wells in their back-yards, always perilously near the cesspits.

Return showing the deaths from Cholera in the Town of Madras from 1855 to 1884.

Year.	Deaths from cholera.	Remarks.
1855	1956	—
1856	805	—
1857	1378	—
1858	1965	—
1859	1082	—
1860	2580	—
1861	2776	—
1862	3635	—
1863	1684	—
1864	574	—
1865	944	—
1866	2984	—
1867	614	—
1868	13	—
1869	568	—
1870	861	—
1871	493	—
1872	5	{ Red Hills water-supply opened.
1873	6	
1874	0	—
1875	879	{ Famine years.
1876	2035	
1877	6246	
1878	64	
1879	34	—
1880	2	—
1881	123	{ A very severe epidemic throughout the Presidency.
1882	361	
1883	168	
1884	269	

During 1881–84, the Madras Presidency was visited with one of the severest epidemics of cholera on record, and yet it will be seen that the mortality in Madras city itself was comparatively slight. Two or three times it reappeared in the town coincidentally with the return of pilgrims from

some religious gathering, but it died out. During the four years, the European community were singularly free. I can remember only two cases, and, oddly enough, one of these was a teetotaler. The famine years are scarcely worth taking into consideration; during 1876 and 1877, the people from surrounding districts simply flocked in to die. Every case almost was called cholera; it was simple, and saved trouble.

Such a table as the above points, I think, very forcibly to the advantages which would accrue from having every town in India furnished with a pure water-supply; and this, with the authority of Government, might easily be carried out.

I am, Sir, yours truly,

Madras.

M. C. FURNELL, M.D., Surg.-Gen.

"SPAYING," OR REMOVAL OF THE UTERINE APPENDAGES?

To the Editor of THE LANCET.

SIR,—The fact that you have devoted a leader to this question of nomenclature shows that you agree with me at least in its importance. I object to the term "spaying" because it is altogether a false term, and I think you will allow me to argue this view as briefly as I can.

First of all it is false, because in spaying animals the Fallopian tubes are not removed habitually; that is, some of those who operate on the animals do remove the tubes and others do not, a fact of which I have satisfied myself by actually seeing it done. The removal of the ovaries only of an infantile animal seems quite enough to prevent the changes of puberty. Removal of the ovaries alone in cases of myoma and chronic inflammatory disease of the appendages of adult women would not be enough to procure the desired results, and very often the ovaries may be left with distinct advantage if the tubes are thoroughly removed. I have published quite enough on this subject to satisfy any reasonable inquiry, and I have much more material nearly ready for publication, the conclusions from which are all in the same direction. The very pathological changes induced by the diseases for which the operations are performed, as proved by numerous specimens exhibited at many societies, establish anatomical differences enough to make us regard "spaying" as an operation quite different from "removal of the uterine appendages."

You say that an operation should be named not by reason of the motive with which, or the purpose for which, it is done, but according to its nature from an anatomical point of view. Will you permit me to say that I think you have hardly sufficiently considered the effect of such a conclusion, as you may come to an altogether different opinion if you apply your principle in other directions. Thus the harikari of the Japanese Daimio and the abdominal section of an approved operation are, *anatomically*, quite the same. Are we therefore to speak in a serious medical journal of them both as "belly-ripping?" Would you seriously undertake to publish a paper of mine with the title—"A Series of Five Hundred Consecutive Belly-rippings?"

The operation performed by the obstetric physician for the induction of premature labour and the illegal proceedings of the abortion-monger are, *anatomically*, exactly the same, yet is not the nomenclature *entirely* influenced by the "motive with which, or the purpose for which," these operations are undertaken? Would not a jury and a judge take motive and purpose very prominently into account as to the definition and means of each of these operations?

Again, you say that "spaying" does not consist in the removal of an ovary still functionally active, and this, being quite true, is the basis of my objection to the application of the word in human surgery. "Spaying" is the removal of both ovaries long before they are functionally active. "Removal of the uterine appendages" is an operation for the removal of either one or both ovaries or tubes long after they have become functionally active; and from these facts alone there is an immense anatomical difference between the two operations, which makes a common nomenclature alike impossible and improper.

You say that "spaying" is the removal of both ovaries; how is it possible, then, to class under such a word a case where one or both tubes are removed as chronic abscesses, the ovaries being left? How am I to class under it a case where I remove one tube for a ruptured tubal pregnancy and leave both ovaries? Or if we happen to remove both

ovaries for large cystic tumours, are we still to call it a case of "spaying"? The advantage of the term I advocate is, clearly, that it is comprehensive, and admits of classification in a much more orderly fashion than can be done in any other way. And let me here say that I entirely agree with you that to speak of Battey's, or Tait's, or Hegar's operations is very foolish, and is productive of endless confusion. I have never ceased to protest against it so far as my own name is concerned, and for a very simple reason, which I have put on record very many times. Battey originally proposed the operation of removing the ovaries in cases where there was no actual disease of them for the purpose of indirectly influencing neurotic conditions. My first operation was removal of a small ovary, the subject of an abscess; my second, the removal of the appendages for uterine myoma; and to these and similar physical conditions I have, with a very small number of exceptions, confined my work. Hegar's proceeding was for myoma entirely. To speak, therefore, of all operations for removal of the appendages by any one of the three names is to commit an absurdity.

Of course every woman submitted to an operation should be made aware of what is really going to be done to her, not only in this instance but in every other; and not only every woman, but every man: that is, they should be made to understand it as fully as their intelligence admits of. This view really constitutes the greatest argument against the use of the word "spaying," for it is "understood of the people" as having intentions and results so absolutely foreign to the intentions and results of "removal of the uterine appendages," that I am not at all surprised at the row in Liverpool, and the unusual results brought about by it, now that we have an admission from Dr. Grimsdale of what he has been doing and saying. When I heard him say in the witness box that "ovariotomy did not necessarily include removal of the ovary," I suspected he was living in an atmosphere of confusion; now I know he has created it, and, by his own confession, he is responsible for results deeply to be regretted, not only for abdominal surgery but for the credit of the whole profession. In his evidence, Dr. Grimsdale clearly threw blame on Dr. Imlach for performing operations without consultations. If Dr. Imlach did this, then Dr. Grimsdale was clearly to blame for it. As consulting officer to the hospital, he could have insisted on consultations being held, and if they had been refused his remedy lay in an appeal to the Committee of the Hospital by a complaint that an important law was broken and defied. Instead of this he appealed to outside authority in such fashion as led to most discreditable proceedings.

I am, Sir, yours truly,

Birmingham, Sept. 4th, 1886.

LAWSON TAIT.

To the Editor of THE LANCET.

SIR,—Had not Dr. Imlach made indirect reference to the other members of the staff of the Liverpool Hospital for Women in your issue of Sept. 4th by saying that he was the only one of them who had performed the operation of castration for hæmatocele and hæmatosalpinx, I should not have intruded into this discussion. I am proud to say that Dr. Imlach's statement is perfectly correct as far as I am concerned, and I believe also as regards Dr. Lupton, who is suffering from a lingering illness and unable to answer for himself. I have never performed spaying operations for either hæmatocele or hæmatosalpinx. It is also a fact that I have never yet lost a patient from either of these diseases, nor had one that did not completely recover.

Being, however, surgeon to the same hospital, I must necessarily have had to treat the very same classes of cases as Dr. Imlach, and if in the space of three years he has had a considerable number of these cases, it follows almost as a matter of course that I have also treated a considerable number, unless it has happened that they all went to him, and consequently none to me. I do not believe this has been the case. The case stands thus, then: Dr. Imlach has treated a certain number of these cases by mutilation, with three deaths, and I, in common with large numbers of surgeons, have treated a number nearly as large, with not only no deaths and no mutilation, but with complete recovery and without abdominal section.

I will concede that the laparotomist has one advantage over the surgeon who treats his cases in less sensational ways: his diagnosis is more accurate; and this is so from the fact that the laparotomist makes his diagnosis by open-