wrote (10th August), but in a mitigated form. The penitentiary suffered only two days from the disease. Connected with the almshouses are two well-constructed pavilions, only a few feet apart, and separated by a brick wall ten or twelve feet high. One was occupied by feeble old men, the other by old women. The only point of difference Prof. Hamilton could discover between the pavilions was in the number of inmates; the male pavilion containing only 62 persons, the female 99. In the first there was not a single case of cholera; in the second, 31 of the inmates died of the disease.

Of the 14 house physicians and surgeons employed in the several buildings in the island, not one suffered from the epidemic.

GREAT BRITAIN AND IRELAND.

Week ending Sept. 13th. — Gateshead: 61 cases of cholera and diarrhoea; 1 death. Leighton Buzzard: 6 cases of cholera, 15 of diarrhoea; 4 deaths from cholera. Isle of Thanet (Margate district): 9 cases of cholera and diarrhoea; 1 death. Chester-le-Street: 2 cases of cholera and diarrhoea; 2 deaths. Ulverston: 1 case of cholera, 1 of diarrhoea; 1 death. Portsea Island: 44 cases of cholera and diarrhoea; 4 deaths. Carmarthen: 15 cases of cholera and diarrhoea; 3 deaths. Honiton: 1 case of cholera, 11 of diarrhoea; no deaths. Ormskirk: 34 cases of cholera and diarrhoea; 3 deaths. Liverpool parish: 46 cases of cholera, 3 of diarrhoea; 16 deaths from cholera, 1 from diarrhoea. Pocklington: 4 cases of cholera, 1 of diarrhoea; 2 deaths from cholera. Haslingden: 18 cases of cholera and diarrhoea; 1 death. Richmond (Surrey): 3 cases of cholera and diarrhoea; 2 deaths. Bridgend and Cowbridge: 6 cases of cholera, 48 of diarrhoea; 2 deaths from cholera. Neath: 218 cases of cholera and diarrhoea; 36 deaths. Pontypridd: 3 cases of cholera, 68 of diarrhoea; 2 deaths from cholera, 1 from diarrhoea. Birkenhead Union: 14 cases of cholera, 29 of diarrhoea; 4 deaths from cholera. Halifax: 6 cases of cholera, 56 of diarrhoea; 4 deaths from cholera. Newton Abbot: 2 cases of cholera, 64 of diarrhoea; 2 deaths from cholera.

Week ending Oct. 20th. — Leighton Buzzard: 2 cases of cholera, 30 of diarrhoea; 1 death from choleraic diarrhoea. Houghton-le-Spring: 9 cases of cholera, 29 of diarrhoea; 4 deaths from cholera. Gateshead: 69 cases of cholera and diarrhoea; 1 death. Sunderland: 11 cases of cholera, 22 of English cholera, 33 of diarrhoea; 9 deaths from cholera, 1 from English cholera, 2 from diarrhoea. Stockton: 12 cases of cholera and diarrhoea; 5 deaths. Tynemouth: 57 cases of cholera and diarrhoea; 16 deaths. Doncaster: 3 cases of cholera and diarrhoea; 2 deaths. Exeter Incorporation: 26 cases of cholera and diarrhoea; 7 deaths. St. Thomas's Union (Exeter): 6 cases of cholera, 42 of diarrhoea; 3 deaths from cholera, 64 from diarrhoea. Lewes: 7 cases of cholera and diarrhoea; 4 deaths. Haslingden: 10 cases of cholera and diarrhoea; 4 deaths. Chester: 10 cases of cholera and diarrhoea; 9 deaths. West Derby Union (Liverpool): 264 cases of cholera and diarrhoea; 9 deaths. Toxteth-park township (Liverpool): 173 cases of cholera and diarrhoea; 24 deaths. Chertsey: 4 cases of cholera and diarrhoea; 2 deaths.

A severe outbreak is reported at Wolverstone in Durham, leading to upwards of 20 deaths.

The Metropolis: 112 deaths from cholera, and 32 from diarrhoea, were registered during the week ending October 29th. The deaths from both forms of disease in the previous five weeks were 248, 244, 251, 254, and 199; the deaths from cholera alone being 182, 150, 177, 182, and 144. Of the 112 deaths in the latest return, 30 occurred in Woolwich.

The Registrar-General reports for the last three weeks in Liverpool the following deaths from cholera—99, 53, and 38.

Edinburgh: During September, 2 deaths from cholera. In the first three weeks of October, 29 deaths from cholera or choleraic diarrhoea. Oct. 29th, 7 cases were admitted into the cholera hospital, and 5 deaths occurred there. Oct. 30th, no admissions, 2 deaths.

Slateford: 21 cases, 15 deaths.

Musselburgh: 42 cases of cholera and diarrhoea, 20 deaths.

Buckhaven (Fife): 28 deaths; 12 cases were under treatment on the 31st of October.

The epidemic has appeared in several villages of the Lothians and Fifeshire.

Dundee: From the 26th to the 29th inclusive, there were 19 deaths from cholera in this town and the neighbouring manufacturing village of Lochee.

At Brechin, 4 deaths were reported last week, and the epidemic is said to have appeared in the town of Forfar.

Dublin: During the week ending the 20th of October the deaths from cholera were 118; in the two previous weeks, 81 and 98.

Correspondence.

"Audi alteram partem."

THE SANITARY CONDITION OF SALTBURN.

To the Editor of THE LANCET.

SIR,—We deeply regret the apparent antagonism which now exists between the Improvement Company and a great part of the inhabitants of Saltburn, owing to the treatment which the memorial inserted in THE LANCET of the 13th inst. has received at the hands of the Company. We deprecate a state of chronic warfare, and would rather, even if it entailed some sacrifices, work with the Company to remedy the real evils complained of.

"The origin of that document purporting to be the sentiments of seventy-eight residents at Saltburn" is by no means so mysterious as insinuated, and certainly is not the outgrowth of any wrong feeling towards the Company; and "the pretexts used in canvassing for signatures" were, we think, unobjectionable. Visitors found fault with the water, and the drainage, and the overcrowding; and we had to listen almost daily to their strictures: we knew of the existence of these things: the Improvement Company is the sole authority in these matters, and we presented a respectful memorial to them. This is the origin of that document. The "pretexts used" were the simple reading of the paper, and asking for signatures if acquiesced in. Wherein have we erred? Why impute malicious motives? Is it to be a condition of our residence at Saltburn that we must not speak? This cannot be. In proportion to our means, some of us have even a larger stake in the prosperity of the place than the Company; and it appears to us unreasonable that we should be censured for urging attention to *acknowledged* evils, and that the memorial should be construed as an attack upon the Company.

We send you a sample of the "almost invariably brilliant water," taken to-day from the town pipes. This is what we have after a comparatively light fall of rain; we leave you to imagine its brilliancy after the heavy rains of August and September; and we ask whether we are not justified, from its muddy appearance, apart from the sewage which it receives, in urging upon the Board that the water is "quite unsuitable for domestic purposes."

We will not enter into further justification of the course we have taken, as we might do; but as, through your ability and disinterestedness, the sanitary defects of the place have been exhibited, we hope that effectual remedies will be speedily applied. After all, we believe that the Company are as fully alive as ourselves to the existence of these defects; and by the steps we have taken we have sought only to urge the importance of *immediate exertions*, that the growth and progress of the place may not be hindered.

WILLIAM RAPP, Bookseller,

Compiler of the Memorial.

WILLIAM TAYLOR, Chemist &c.,

Canvasser for Signatures to the Memorial.

Saltburn-by-the-Sea,
Oct. 27th, 1866.

* * The specimen of water received with the foregoing letter was very far from being clear or brilliant, and fully bears out the statements of the authors of the petition.

To the Editor of THE LANCET.

SIR,—Finding reference has been made in your pages to a certain petition presented by the inhabitants of Saltburn to the Saltburn Improvement Company, I, as one of those petitioners, beg for space in your columns to express the intense regret which is felt by myself and many others who signed that memorial that such use should have been made of it as to call it forth to prove the very unfounded statement made by one of your correspondents respecting the insalubrity of our much-admired marine watering-place.

That so many of the inhabitants should attach their names to such a memorial and pursue a course so prejudicial to their own interests, and the celebrity of their beautiful town, may well excite surprise. From conversation with several, I find

they trusted to the good faith of their townsman presenting that petition, and never gave time for the careful reading of its contents; and others, with myself, never saw it, but, on being asked if we would sign a memorial to the Company for a supply of *better water*, at once assented under the strong desire that the present supply should be improved upon as early as possible, and with pleasure we hear this subject has the careful consideration of the Company, and will be remedied in due course.

Judging from the great indignation expressed by many of the inhabitants that such unwarrantable liberty should have been taken with their signatures, my opinion is that nine-tenths, if not the whole of them, would discard that part of the petition which has reference to the very erroneous assertion about the prevalence of fever or any other disease now so keenly felt in many of the adjacent towns and villages of our county.

I am, Sir, yours most respectfully,
Saltburn-by-the-Sea, Oct. 27th, 1866. JAS. CUNNINGHAM.

THE CAUSE OF DENTAL CARIES.

To the Editor of THE LANCET.

SIR,—Having read an interesting letter in your impression of Oct. 20, by Dr. Pidduck, on the cause of dental caries, I must ask to be allowed to confirm, as far as my experience goes, his theory of our bony deterioration. I fully believe that the primary cause of dental caries may be discovered in the fearful adulteration of all the necessaries of life in large cities. The principal food of growing children consists of bread, milk, and water. The first, as Dr. Pidduck remarks, has all the bone-making qualities taken from it, the flour being too finely sifted and invariably adulterated with large quantities of alum, to make the bread whiter. All who keep cows in the country know the difference between town and country milk. And then comes London water. This we should not use unless boiled and filtered, for fear of drinking sewage, and by thus boiling and filtering it, we take from it many earthy constituents which would be useful in building up the bony parts of our children's frames. There is, no doubt, a great increase in the amount of dental caries amongst our rising generation, and I cannot help thinking that adulterated bread, combined with the want of good air and pure water in all our large towns, has a great deal to do with it.

I am, Sir, yours faithfully,
GEO. PARKINSON, M.R.C.S.

Brook-street, Grosvenor-square, Oct. 24th, 1866.

POISONING BY ARSENIC THROUGH ACCIDENTAL IMPREGNATION OF WATER.

To the Editor of THE LANCET.

SIR,—A group of cases, which came under my care in March last, illustrates a source of possible danger to farm servants in careless stowage of drinking-water.

On March 10th I was sent for into the country to see a shepherd's family, who soon after tea were seized with symptoms of irritant poisoning, in a mild degree "sickness and burning at the stomach," as I was told by the messenger. I could not go very well that evening, so sent emetics and ammonia, directing them to send again, if necessary. The next day I was sent for to see their neighbours—a blacksmith and his wife,—who were both ill in bed with vomiting, purging, pain in stomach and limbs, and sense of exhaustion. I found that they had had some sickness and pain in the pit of the stomach for two or three days; but on the previous evening had taken largely of tea, and had been seized with much more violent pains, retching, and purging. Their tongues were loaded with fur, and had morbidly red edges; pulses, that of the man especially, fluttering and rapid. They could not sit up in bed without difficulty, and had frequent retching.

What was the cause of these symptoms? That they were aggravated by tea-drinking, and that the water only was the same for both houses, made me think that this must be the vehicle of the poison. They had procured, they said, the water from the same place that they always did, and could think of no way in which it could have been poisoned. The date of the first bad symptoms was that of the last bucketful of water used. Had the pail been employed for any other purpose? Now they

remembered they got a fresh supply of water before the other pail was empty; and one of the number recollected that some sheep-wash had been in the pail, "but it had been rinsed out since." Pouring the water away, and looking at some from the bottom of the bucket, I found a white sediment, which on being tested was discovered to contain arsenic. I had directed the shepherd to ask his employer if there was arsenic in the sheep-wash, and he told me on the next day what I had already found out by testing.

The shepherd's family soon recovered, but the blacksmith and his wife were very ill for a fortnight with gastritis, conjunctivitis, &c. It was more than a month before the man could walk about, and twelve months before he could do any work. The pains in his limbs were violent for some time, and afterwards he could only walk unsteadily with a stick for months.

The treatment consisted of a sulphate of zinc emetic, followed by hydrated sesquioxide of iron and carbonate of magnesium, subsequently iodide of potassium for about three months, and then galvanism. His improvement was very slow, and he is now a very different man from what he was previously.

I am, Sir, yours truly,
Rochester, Oct. 9th, 1866. JAMES V. BELL, M.D., &c.

THE VOLUNTEER MEDICAL STAFF AND THE BELGIAN TIR NATIONAL.

To the Editor of THE LANCET.

SIR,—I do most heartily and sincerely endorse every sentiment expressed in Dr. Griffith's letter in your last number. I also was present at the Tir fêtes, and although I can never forget the extraordinary kindness and unbounded hospitality of the Belgian people, I am at this moment smarting under the influence of the insult or slight offered to the volunteer medical staff by Colonel Loyd Lindsay or his executive.

The King of the Belgians invited, through Colonel Loyd Lindsay, some twenty or thirty officers to dine at Laeken every day for some three or four days, and out of the number of those considered as privileged to attend, I believe, but one medical officer was selected. Now, Sir, although I do not hesitate to say I should have regarded King Leopold's invitation as the brightest and the proudest souvenir of my visit to Belgium, still I should not now have one shadow of complaint to make if a fair and impartial distribution of those high honours had been made by those in command. If the rank of surgeon in the volunteer service is not a mere sham, its medical staff has been most unfairly used at Brussels, and I warn every gentleman who, like myself, holds a commission as such to ascertain without loss of time what real rank and privileges it carries.

I am, Sir, your obedient servant,
H. P. REE, L.R.C.P. Ed., F.R.C.S.E.,
Fulham, Oct. 30th, 1866. Surgeon 2nd or South Middlesex Volunteers.

THE ARMY MEDICAL SERVICE.

To the Editor of THE LANCET.

SIR,—You will regret to learn that his Royal Highness the Commander-in-Chief, notwithstanding the opinions expressed in the House of Commons and by others high in office, although less publicly, has at length carried into effect the unjust change in the system of promotion amongst the medical officers of the brigade of Guards, by acting on the submission paper of 1860, which was recently published, and for the first time made known to the colonels of the regiments, and those coming under its operation, by order of the House of Commons, although it had been in existence for six years. It is curious to observe how careful the framer of this paper has been in protecting the privileges of the colonels, without once bestowing a thought upon those medical officers who are brought under its action, and whose most vital interests are affected by it. The extreme injustice consists in giving retrospective action to an order which has remained unpublished for six years, whilst the fault of secrecy rests with the authorities.

The feeling of distrust and suspicion engendered by this inconsiderate act must always remain with those whose lives have been sacrificed to it, and who suddenly find, after many years' service, that their prospects are injured—in several