

CORRESPONDENCE

[This department is a meeting-place for ideas. If you have any suggestions as to new methods or successful methods, let us hear from you. You may not be accustomed to write for publication, but do not hesitate. It is ideas we want. Your suggestion will help another. Ed.]

SEWAGE DISPOSAL, ETC.

Sir,—Having read the very discursive and learned dissertation on the above, published in the "News-Advertiser," of Vancouver, as well as Mr. Donald Cameron's reply thereto, of the same date, I beg leave to say that I thoroughly endorse every word Mr. Cameron has uttered on the subject, what he has said being perfectly correct.

An ounce of practical knowledge gained by actual experience in matters of purely engineering import, such as this, is worth a whole hundredweight of mere academic, dilettante utterance, the ipse dixit of pedagogues and pedants, presuming to speak with authority upon matters which lie entirely beyond their ken and comprehension—the case here—and so, in going so far as to call in question, at length, and with some detail, the extraordinary and totally misleading statements set forth by this schoolman, or school-master, and "expert" in fiction, I mean to oppose these by solid facts alone, and facts

"Are chieftains that winna ding, an' daurna be disputit."

It is a fact that, now full half a century ago, the Burgh of Portobello, Midlothian, Scotland, watering-place for Edinburgh, the capital, and situated along a broad, sandy beach, one mile in length, installed, for the first time in its history, a complete and thorough "combined-system" of sewerage, having its main intercepting brick culverts carried along the upper side of said beach, east and west, for fully half a mile each way, to deliver their "crude" sewage, mixed, of course, at times, with rain flood water, directly into the Firth of Forth (no intervention whatever) by cast-iron pipes, debouching at level of low water spring tides, the extreme tidal range there being 19 feet. All this was accomplished without the slightest inconvenience to bathers (a big crowd in summer time), harm to the beach itself, or serious injury to the North Sea

Before starting the work of the above scheme the Burgh Municipal Council thought it advisable to submit the whole proposal, for revision, to a gentleman then considered to be the very highest living authority on this special subject, the late Mr. James Newlands, M.I.C.E., Municipal Engineer of Liverpool, the burgh's engineer being the late Mr. John Paterson, C.E., Edinburgh.

Mr. Newlands reported favorably, and the work—under my own supervision—was proceeded with and carried out satisfactorily, results being as stated above, and the burgh's one and only great natural asset—its precious bathing-beach—was preserved inviolate and intact.

To the west from Portobello, along the same littoral, stretches for six miles, the seaward boundary of the city of Edinburgh, and of the Burgh of Leith (its seaport) with an aggregate population of about 450,000, occasional and regular users of the Portobello bathing-beach, before mentioned.

About one-half of the sewage resulting from this large community is—or was, for I speak of forty-six years ago—after being utilized for irrigation purposes, and partially purified by that means, on the—in this connection well-known—Craigentinny Meadows, or "Sewage Farm," of 500 acres, or thereby—allowed to run upon the mile long beach in front, and to spread all over it, finding its own way to meet the tide, and so, ultimately and finally, to disappear within it, once and forever.

The great bulk of the other half, however, that from Leith and the northern and western portions of Edinburgh, including almost the whole "New Town," is collected by a capacious main intercepting sewer, about six miles long, carrying the "crude" sewage, combined in rains with flood-water, and finally debouching at the Black Rocks, at level of low water, springs direct into the estuary in precisely the same manner as has already been described for Portobello, and with exactly the same results.

This scheme, popularly known as "the Water-of-Leith Sewerage," both corporations (1863) united in promoting as a joint undertaking, which it was figured would serve its purpose for a period of twenty-five years, to be renewed, or duplicated, at the expiry of that term, as has now actually been done, on identically the same lines and principle which was followed in the first instance.

The fact which I now wish to direct particular attention to is that—while engaged as assistant to Messrs. David and Thomas Stevenson, M.I.C.E., Edinburgh—upon the work of the preliminary surveys for the required Act of Parliament, I was called upon to travel through, inspect, and report upon, perhaps, ten miles of tubatory sewer-culverts, all of which were found to be constructed of sound, solid masonry—some of them over seven feet high in the clear, and including those of almost the whole "New Town" of Edinburgh, said sewers having been built at the time of the laying-out of the new townsite, or during the latter half of the eighteenth century.

Strange though it may appear to some people, I caught no "zymotic disease," encountered no "foul and pestilent congregation of vapours," "deadly organisms," dead cats and dogs, or other "putrifying matter"—things which exist only in the heated and fertile imagination of the ingenious and accomplished writer, and ventilated now in order to humbug the public, while it suits a purpose to do so, on the late Abraham Lincoln's well-known first principle and dictum, that "you can fool some people all the time," just as has been done during a long series of years past, right here in Vancouver, B.C., and, as we know to our cost, a legacy and burden that will continue to be felt and regretted for all time to come.

It is a fact that the city of Aberdeen, Scotland (180,000 population), sewers directly into the North Sea, which, nevertheless, has not been materially damaged thereby.

In 1880, however, when I was requested by the late Mr. William Boulton, M.I.C.E., city surveyor, to examine and fully report upon the entire, then existing, sewerage system of the city, with a view to contemplated improvements and extensions, the outfall at that time emptied right into the River Dee and harbor near to its mouth, without any serious inconvenience or nuisance being felt or complained of in consequence.

My examination of many miles of these sewers, granite and brick, of ancient and recent construction, was almost an exact repetition of my previous (1863) experience of the same kind in Edinburgh—lots of good, wholesome, fresh air, and little or no sediment—the latter in reality being confined to one spot only, where the Footdee main trunk outfall culvert had been cut down half way and flattened out, in order to allow of the railway tracks of the Great North of Scotland Railway freight station being laid to grade over the lowered top of the said main outfall sewer.

At another point, and for some quite considerable distance, the effluent from Ogston's extensive soap and candle factory exhaled a peculiar, not altogether disagreeable pungent odor, while a greasy coating covered the surface of the brick walls and invert of the sewer, making the latter somewhat slippery to go upon, but, with these two exceptions, both readily accounted for, and the last named in no way