

No. 4.

Mr. A. MORRIS to the Hon. the MINISTER for PUBLIC WORKS.

SIR,—

92, Liverpool Street, Sydney, 5th October, 1877.

I have the honor to enclose a letter written to one of the local papers giving extracts from the Report of the British Commission on the Philadelphia Exhibition. Not being a professional man, I am anxious you should see that my reports are confirmed by competent authorities.

I also take the liberty of sending the concluding letters on the merits of the two systems of dredging, that the question may be fairly before you. I find, by a recent publication, that the American dredging system is being rapidly introduced into England.

The Hon. the Minister for Works, Wellington.

I have, &c.,

AUGUSTUS MORRIS.

Enclosure 1 in No. 4.

Mr. MORRIS and DREDGING.

To the Editor of the *Herald*.

SIR,—I have no desire to inflict needless torture upon Mr. Morris, in his present distressed state of mind about what he terms my rude language; but I cannot pass by without comment a portion of his last letter which bears upon the case, and in doing so I will trespass as little upon your space as possible.

I suggested that Mr. Morris should satisfy himself as to the dredge "Newcastle's" capabilities by seeing the machinery doing work at the rate of speed stated by me; but he chose rather to obtain official information on the subject, from which he found that 160,725 tons were lifted in thirty days, or 540 hours, an average of 297 tons per hour; but in the simple process of dividing the tons by the hours, Mr. Morris has made a palpable mistake against the dredge of nearly 100 tons per hour, his quotient being only 209, and he is quite jubilant about his imaginary discovery that the Australian dredge can only lift as much in an hour as the largest American machine. Correcting his error at once disposes of the arguments advanced by him to prove the cheapness of United States work over ours. One would have supposed that, before putting the result of his few hours' observations, and the scraps of hearsay evidence against the combined experience of English engineers, and twenty years' colonial working, Mr. Morris would have been careful that at least his figures were correct; but I am inclined to think, from this vital error, that his facts in many other cases are of the same slipshod character as his figures, and, even if not incorrect in the abstract, are divested of many qualifying circumstances which would very much alter the conclusions to be drawn from them.

It is contended that the clam-shell machine will work during weather when it is not too rough for punts to go to sea, but too lumpy for an elevator dredge to work. My reply to that is, that we have frequently worked with a heavy range on (and at times when seas would have swept over one of the dredges I have seen photographs of) and have not lost any of the sand on its way to the shoots—or "chutes," as Mr. Morris for the first time in this country calls them. (I presume the new word is either an adaptation from the French, or derived from the General bearing that name.)

We are told that the harbour of New York is in as exposed a situation as the eastern part of Newcastle harbour or Sydney heads—a statement to which I must certainly take exception. It is some years since I was in the United States, but I well remember the position of New York harbour; as to exposed dredging localities, there is no analogy whatever between the places named. We are at last furnished with an instance of some sand being dredged, the locality being Baltimore, but there is an ominous silence about the cost per ton or per yard, doubtless owing to the work being done by a slow-working machine made by the company—a modification of the ordinary spoon-dredge, and the only suitable appliance for sand. Their pamphlet describing the clam-shell or grapple dredge with Hall's dipper says: "Dredges of this class are not adapted for working advantageously in very hard material, compact clay, sand, or gravel with the ordinary dipper, the weight of the dipper being mainly relied upon for its penetration." In a previous sentence the dipper is spoken of as Hall's.

Mr. Morris says that he intends writing to Mr. Prindle for some stronger evidence in support of his case—a course certainly more satisfactory than his present conjecturing how difficulties in sand-lifting "may be" overcome, and much more likely to convince the sceptical than his begging of the question, and adducing hearsay statements and opinions of persons whose names are not even given, and whose testimony is valueless in a matter of this kind, to be decided only by tests on both sides of the most severe and undoubted description.

A. B. PORTUS,

Dredge "Newcastle," Newcastle Harbour.

Enclosure 2 in No. 4.

To the Editor of the *Herald*.

SIR,—I freely admit that, in dividing the total of the tons lifted during the thirty days selected out of twelve months by the number of hours, I incorrectly gave the quotient as 209, whereas it ought to have been 297: which, however, does not bring the performances of the Newcastle dredge up to those of the American. I am glad, nevertheless, that they are better than I thought.

In my last letter, following a statement based on good authority, that 300 cubic yards would be raised, this passage occurs: "But taking it for granted that the American dredge can only lift 150 cubic yards of sand per hour," &c. This was obviously only admitted temporarily for the sake of argument, but Mr. Portus treats it as a positive admission. Against such an interpretation of my