

No. 2.

The UNDER SECRETARY for PUBLIC WORKS to Mr. A. MORRIS.

SIR,—

Public Works Office, Wellington, 18th September, 1877.
I am directed by the Hon. the Minister for Public Works to acknowledge the receipt of your letter of the 3rd instant, relative to American dredges, and to express his thanks for the courtesy of your communication. The contents will receive the Minister's full consideration.

A. Morris, Esq., 92, Liverpool Street,
Sydney, N.S.W.

I have, &c.,
JOHN KNOWLES,
Under Secretary for Public Works.

No. 3.

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

SIR,—

8th September, 1877.

Thinking you would wish to have before you anything which can be said on both sides of the question in respect to American dredges, I take the liberty of enclosing a correspondence which has appeared in the *Sydney Herald*.

The introduction of any one great improvement such as relates to dredging will of itself fully justify the expense incurred in sending Commissioners to Philadelphia.

The Hon. the Minister for Public Works, Wellington.

I am, &c.,
AUGUSTUS MORRIS.

Enclosure 1 in No. 3.

AMERICAN v. AUSTRALIAN DREDGES.

To the Editor of the *Herald*.

SIR,—In December last the subject of the relative efficiency of the best types of American and Australian dredges was, I thought, set at rest when it was shown in your columns that dredging was being performed in Newcastle much more expeditiously, and at less than half the cost quoted by your Centennial Exhibition reporter, as the contract rate for easier work then going on in the harbour of New York; but I observe in the *Herald* of Saturday that the question has been again revived by Mr. Augustus Morris, who furnishes a letter from a gentleman in the employ of the American Dredging Company, comparing some days' work in the United States with the returns of British and Continental machines.

These special performances during brief periods with "good lifting material" (mud) have but little value when they are given with the view of comparing the merits of dredges with others working under altogether different conditions—hard sand having to be lifted here, a material which, even according to Mr. Rendle, can only be dredged at half the speed at which mud is brought up. The actual cost per ton is what we have to look to, and some light is thrown upon this by your reporter, who has told us that "the rate of dredging (mud) in New York harbour to a depth of 25 feet, and removing the silt, is 10d. per yard, and that the Company have taken a contract to dredge out 500,000 tons at Baltimore, so as to give a depth of 20 feet, at 5½d. per yard, this price including the removing of the mud three miles away."

In a previous letter I stated that the dredge I have charge of (designed by the Engineer-in-Chief for Harbours and Rivers, and built in Sydney) had lifted 92,215 tons of hard sand in a month, at a total cost of (including coal, stores, wages, repairs, and interest on the value of the plant) 3d. per ton, or 4d. per cubic yard—this rate covering the expense of towing the barges to sea. During the month just passed (August), a still larger quantity has been dredged at a cost even less than the rate stated above, while, notwithstanding all the delays incidental to stormy weather, no less than one million and a half tons have been lifted by this one machine since it started dredging, about two years ago—an amount of work, I venture to assert, equal to the performance during the same period of the whole fleet (fourteen) of American clam-shell dredges put together. No extensive plant of "fifty mechanics and labourers and a steam hammer," such as the American Dredging Company have to employ, has been found necessary to uphold the machinery employed in effecting these results, the repairs, with trifling exceptions, having been performed by the dredge's crew.

Into the question of first cost I will be quite prepared to enter when Mr. Morris is in a position to let us know how many of the primitive-built and short-lived machines of his friends over the water it has taken to dredge 1,500,000 tons of sand in two years?

That the clam-shell dredge may be a convenient machine for removing mud and sewage from alongside jetties I am willing to concede; but I think the day is far distant when, for general purposes, it is likely to supersede the continuous discharging elevator dredge, which has proved so successful on the Clyde, the St. Lawrence, the Suez Canal, and in New South Wales.

Newcastle.

A. B. PORTUS.

Enclosure 2 in No. 3.

AMERICAN SYSTEM OF DREDGING.

To the Editor of the *Herald*.

SIR,—Your correspondent Mr. A. B. Portus, refers in to-day's *Herald* with complacency to a former letter of his which he is pleased to think, at the time, sets at rest the relative efficiency of American and what he calls "Australian" dredges, very much to the advantage of the latter.