

Mr. Robinson, in describing some dredging operations of the Morris Cummings Company, stated that the Company charged 20 cents currency, or 9d. per cubic yard of silt composed of sand and sewage. But the 9d. included the removal of the material from the punts to the railway wagons by a grapple bucket worked from the shore, its carriage some miles by rail, and also its further disposal over a swamp to raise it. I have before me an account of the charges made by the "Hercules," New South Wales Government dredge, for "lifting, towing, and disposing" of 13,640 tons, or 10,230 cubic yards of material similar to the above, which amount to £744, or nearly 17½d. per cubic yard. The 9d. of the American account included a large profit, but the cost in the colonial account is, I suspect, alone capable of being estimated. Again, when I stated that contracts were carried out at 10½ cents, or 4½d. per cubic yard, the amount included a very considerable profit, while the 4d. per cubic yard of Mr. Portus's estimate is the bare cost. I saw a large contract being carried out for the United States Government for 15 cents, or 6½d. per cubic yard, where the material was so tenacious that, instead of depositing it, as in the New York case, direct from the punts into the railway wagons, it had to be returned to the water alongside the pier to soften it before it was placed in the wagons, to be afterwards distributed over the island on which the navy yards at Philadelphia are erected. I had an opportunity of examining this account in the books of the American Dredging Company, and, after all costs, including interest of money, repairs, wear and tear, &c., had been deducted, I was surprised to find "dredging" so good a business.

I might here conclude, but as the confident statements made by Mr. Portus have a tendency to mislead the minds of persons in authority, and as the subject is too important to be lightly brushed aside, I will refer seriatim to the points which Mr. Portus has endeavoured to make.

In noticing the carefully-written report of the most eminent civil engineer in the United States in regard to dredging and harbour improvements, Mr. Portus refers to him as a gentleman in the "employ" of the American Dredging Company. He might as well refer to Sir John Hawkshaw, or to any other distinguished engineer in the same terms when he is retained by any company to advise on its operations. This is, however, not material to the issue; but when he says that the report goes no further than to compare "some days' work in the United States with the returns of British and Continental machines," he wholly misrepresents what Mr. Prindle has demonstrated, which is, that, as compared with the best Clyde dredge, the No. 4 American (iron) dredger costs only £6,500, as against £17,653 of the other; it can raise material from a depth of 50 feet, instead of from 30 feet only; it uses 25 per cent. less coal; it requires a crew of seven in place of twelve to work it; and when both are dredging the same good-lifting material, the American raises 374 cubic yards per engine hour, while the Clyde dredger raises no more than 236 cubic yards in the same time. And the American dredger does all this without involving its owners in a third of the expense for repairs which its rival does. Mr. Portus may rest assured that the "actual cost" is to be found in the figures given above, and not in contract prices, which include profits.

The dredge under the command of Mr. Portus does good work as compared with the Clyde dredges, but he is wholly mistaken if he imagines that the hard sand in the river near Newcastle is at all similar to the "till" referred to in Mr. Prindle's report, which is a provincial name for hard tough clay. The Australian dredge cost upwards of £30,000, £49,200 having been spent on dredge, tug, and punts; and at its best cannot lift more than 150 cubic yards of sand per engine hour, with a crew of fifteen, while, judging by English prices, an American dredge might be built in this colony for a sum not exceeding £10,000 which will do double the work with half the hands, and in stormy weather will not be compelled to leave off work, nor be subject to so much wear.

When Mr. Portus asserts that his one dredge can do more work during the same period than the whole fleet (fourteen) of the American Company's dredges, he simply discredits himself. Can folly farther go than to imagine that the most prosperous dredging company in the world would maintain an establishment of fourteen dredges, thirty or forty great punts, and the necessary steam-tugs, to dispose of during the year 550,000 cubic yards of such good dredging material as is to be found at Newcastle or at the Sydney Heads? How, too, a dredge which requires so few repairs can be called "short lived," I do not understand.

But in discussing this question we have much more authoritative figures to guide us than Mr. Portus gives. The Assembly has voted in committee for this year's dredging services the following amounts:—

|                                                 |     |     |     |     |                |
|-------------------------------------------------|-----|-----|-----|-----|----------------|
| Salaries of dredges and tugs                    | ... | ... | ... | ... | £18,038        |
| Contingencies, including coals, repairs, &c.... | ... | ... | ... | ... | 37,559         |
| Landing silt and forming ground                 | ... | ... | ... | ... | 5,000          |
|                                                 |     |     |     |     | <u>£60,597</u> |

These sums represent, at 1s. per cubic yard, 1,211,940 cubic yards of dredging material.

How many cubic yards all the Government dredges in New South Wales lift during the year I have no means of accurately knowing, but I think I may safely assume that they do not exceed 2,000,000, at a cost of 7½d. per cubic yard; and this without any allowance for interest of money on capital, and for many other expenses which a private person would have to consider before he could declare a profit.

I trust that I have shown that, although I am not an engineer, I can come to a better conclusion on the evidence than Mr. Portus.

I have, &c.,

AUGUSTUS MORRIS.

Sydney, 4th September.