J. C. Pray.

9309X

No Printed Specification Available

Sea Wall.

Patented Jan. 11, 1836.

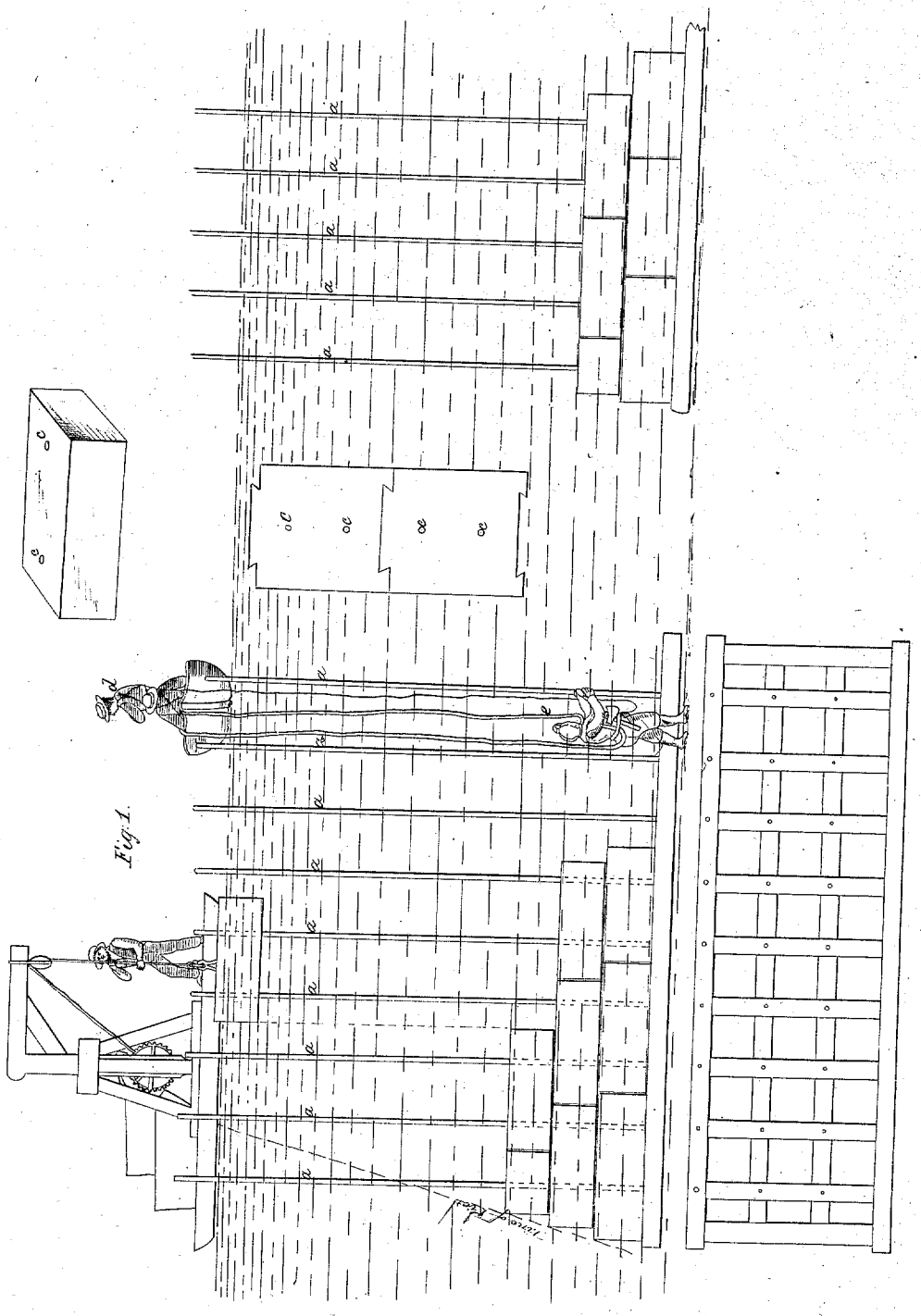


Fig. 1.

N. PETERS, PHOTO-LITHOGRAPHER, WASHINGTON, D. C.

9309x Jan 11, 1836

John G Bray of Brooklyn Kings Co

Letters Patent

The Schedule referred to in these Letters Patent and making part of the same containing a description in the words of the said John G Bray himself of his improvement on the construction of Wharves Piers &c Bridges and Breakwaters or artificial Harbours

To all to whom these presents shall come. Be it known that I John G Bray of the City of Brooklyn in the County of Kings and State of New York have invented a new and useful improvement in the Building and constructing of Wharves Piers &c Bridges and Breakwaters or artificial Harbours. and the following is a full and exact description of the said improvement. In the construction of all of the above works (which may be of stone or cast iron) it is intended to put the Blocks of stone or cast iron in their places by means of conductors secured in the foundation which is to be laid and put in place by means of the diving Bell. When the foundation is laid which is done with the greatest care. Rocky piers or pillars of any dimensions every may be reared thereon in the following manner

If a Wharf is intended to be formed Blocks of Granite many other hard stone or cast iron say eight or ten feet long and one or two feet square. perforate two of them with a conductor to each end of iron or copper say from one to two inches in diameter (or larger if found necessary) and so so placed that when the stone or other foundation is secured on the bottom the said conductors will project above the surface of the water. When that is done perforate two more stone or blocks of cast iron of the same size having holes through them so that they can be secured on the upper ends of the aforesaid conductors and passing down the same let them be placed transversely across the two first. The ends of each Block having been previously so cut or perforated that they may come together with a dove tail —— In the same way continue to place each Block, passing down over

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conducted by means of inlets through said Blocks successively accross each previous layer until the pillar is raised above the surface of the water. Let each succeeding tier of Blocks be so much shorter than the last that when the pier is raised to the surface of the water there may be a difference of four feet between the face and the top of the Pier this difference must be all on the outer side. For a wharf of twenty five or thirty feet wide three of these piers or pillars will be necessary. They may be placed ten feet from the abutment in a line and every twenty feet in length of wharf in line of these piers or pillars will be required. and if ten feet base they will be fifteen feet apart. When the said piers or pillars are raised a little above the surface of the water inches are to be inserted from one tier of piers or pillars to the other and over the tops of these inches after squaring the work may be laid heavy flagging. one of the stone need to be cut exactly for the description above described and also for the facing or finishing the upper part of the wharf. Upright wall placed eight or ten feet apart up and down the sides of the pillars to keep vessels from rubbing against the stone work. and instead of describing they must be dovetailed. Piers of Brick are intended to be built in the manner as one of the piers above described with this addition they must be tongued the base and be as nearly solid as ——— Excavating by artificial Harbour on the same principles with the difference. that instead of piers of timber there must be a mole of stone twenty feet to set upon and one hundred feet in thickness. this must be done in a compact manner and commenced in three and carried off into the Bay or lake in the direction which may be prescribed and be continued in the manner above mentioned.

In testimony that the above is a true specification of my said improvement as above described I hereto set my hand this seventeenth day of September in the year of our Lord one thousand eight Hundred and thirty five

Witnesses
Sam'l Denny
G Freeman

Sol. Wright

Sol. F. Wright

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