

E. Brazelton.

Dredger.

N^o 21,060.

Patented Aug. 3, 1858.

FIG. 1.

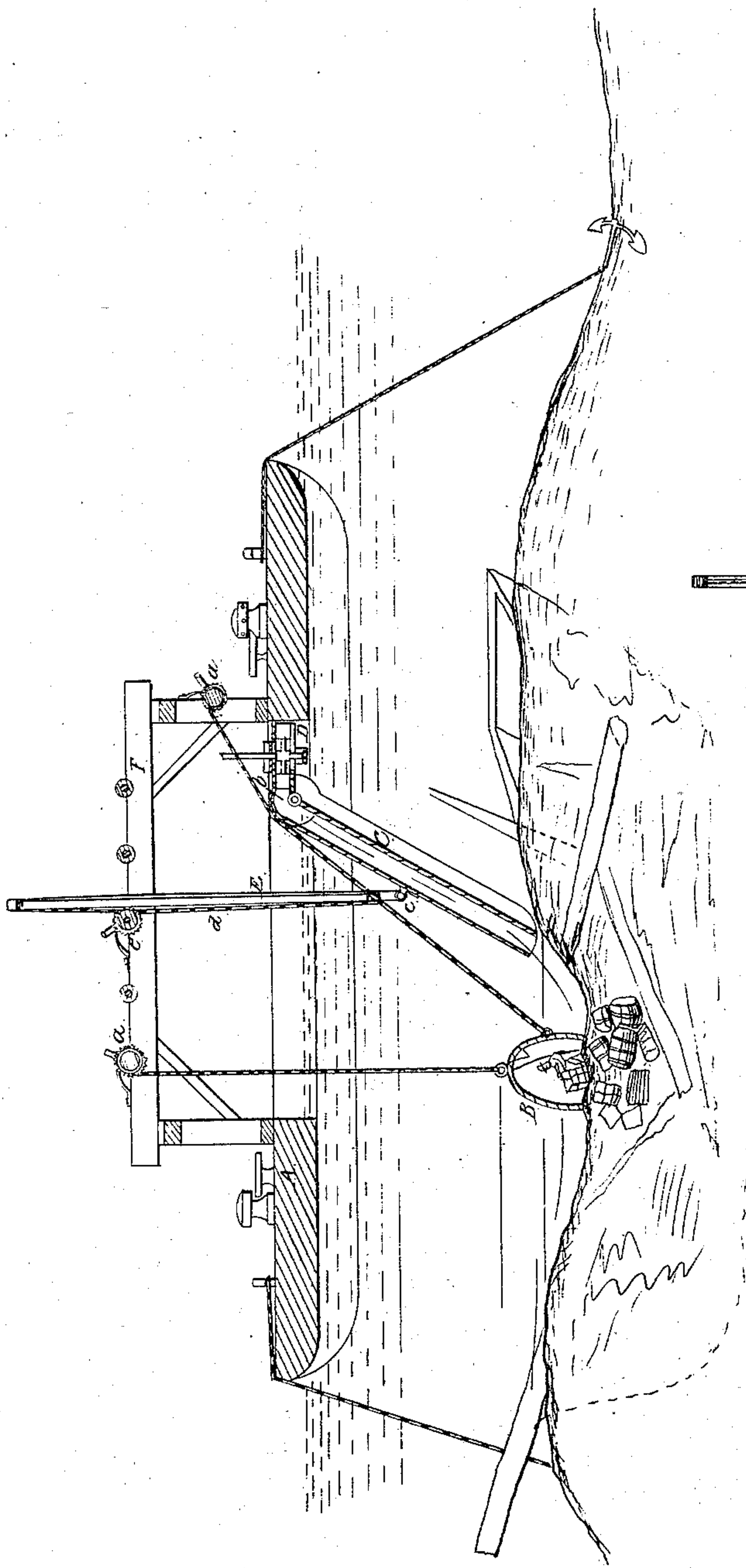
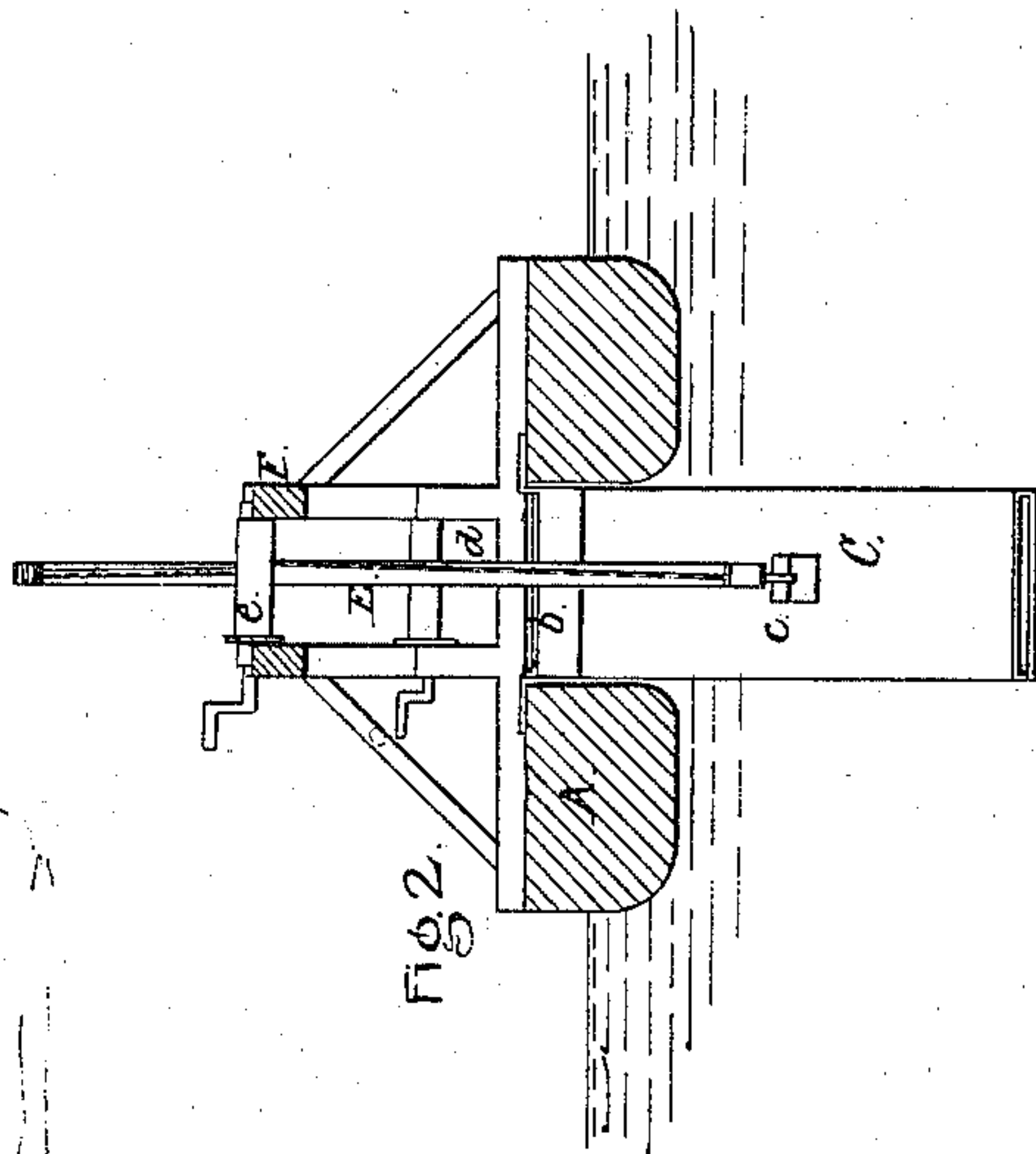


FIG. 2.



UNITED STATES PATENT OFFICE.

E. BRAZELTON, OF ST. LOUIS, MISSOURI.

METHOD OF REMOVING SUBMARINE DEPOSITS.

Specification of Letters Patent No. 21,060, dated August 3, 1858.

To all whom it may concern:

Be it known that I, ELI BRAZELTON, of St. Louis, in the State of Missouri, have invented a new and Improved Submarine Excavating Device; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1, is a side sectional view of my improvement, in operating or working order, the boat to which it is attached being bisected longitudinally, Fig. 2, is an end view of ditto, the boat being bisected transversely.

Similar letters of reference indicate corresponding parts in the two figures.

This invention is designed for removing mud, sand or gravel from within the holds of sunken vessels and also any sunken or submerged articles designed to be raised.

The invention consists in effecting the object by forcing a stream of water directly over the objects to be raised, or causing the stream to act at such spots that the sand will be washed away by said stream, and the articles exposed or rendered accessible to sub-marine divers.

To enable those skilled in the art to fully understand and use my invention I will proceed to describe it.

A, represents a boat of any proper construction suitable for the operating of a diving bell B, the boat of course being provided with the usual or necessary windlasses *a, a*, for raising and lowering the bell. The diving bell boats ordinarily used will probably answer and consequently a minute description of them is not necessary.

To the boat A, a tube C, is attached, and the upper end or part of this tube has a joint *b*, in it by which the tube may be adjusted in different positions as occasion may require. The upper end of the tube C, above the joint *b*, is connected with a rotary pump D, and this pump may be driven by a steam engine or other motive power. Wind or animal power might be used, but steam would probably be preferable. The tube C, has one end of a spar E, connected to it by a joint *c*, and a chain *d*, is attached to both ends of the spar E, said chain passing around a windlass *e*, which is placed on a framing F, on the boat. By operating the windlass *e*, the tube C, may be raised and lowered and its lower end adjusted at desired spots as circumstances may require.

The tube C, may be of quadrilateral form, and metal plate would probably be the most preferable material of which to construct it.

The operation is as follows: Suppose it is designed to raise the cargo of a sunken vessel G, Fig. 1, which is embedded in sand and the interstices within filled by it. The boat A, is anchored directly over the wreck, and the tube C, is lowered so that its lower end will be over the spot where the first excavation is to be made. The pump D, is then put in operation, and a stream of water is forced down on the wreck, the current of water washing away the sand and exposing the articles or portions of the cargo within, so that the same will be accessible to the workman within the bell B, see Fig. 1, in which the direction of the current forced down through the pipe C, is indicated by the red arrows. The sand may be removed from any part of the vessel, that is, washed out by the force of the current and the articles or portions of the cargo at any desired part fully exposed.

The invention will prove valuable in raising the cargoes of wrecks, for the sand cannot be removed therefrom by dredging machines, and in the western rivers, Mississippi and Missouri, for instance, a wreck will be filled with sand in a very short time. The invention is also applicable for clearing sand, mud, or gravel from any submerged articles, or to make excavations in harbors or rivers for laying foundations for piers or dikes.

I would remark that the tube C, may be secured to the center of the boat A, and fitted within a trunk thereon, as shown in the drawing.

Having thus described my invention what I claim as new and desire to secure by Letters Patent, is,

Removing sand, mud or gravel from within sunken wrecks, or from submerged articles, with a view of raising the same, by means of a current of water forced by any proper means through a tube or spout by which the current is directed to and made to act at the desired spots, substantially as described.

ELI BRAZELTON.

Witnesses:

JAMES SWENEY,
SAM'L H. LITTLE.