

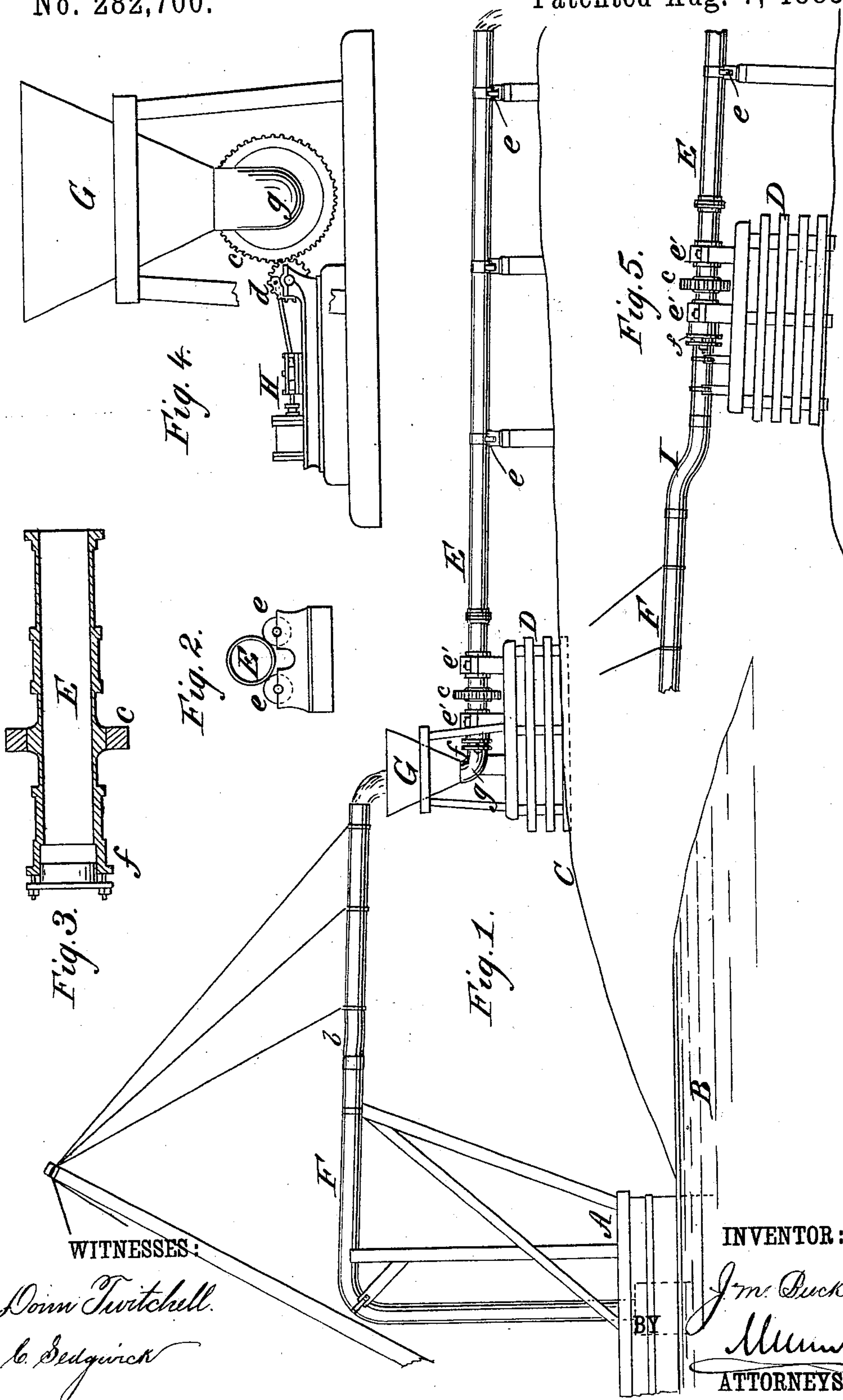
(No Model.)

J. M. BUCKLEY.

DISCHARGE PIPE FOR DREDGING AND OTHER MACHINES.

No. 282,700.

Patented Aug. 7, 1883.



WITNESSES:

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JAMES M. BUCKLEY, OF PORTLAND, OREGON.

DISCHARGE-PIPE FOR DREDGING AND OTHER MACHINES.

SPECIFICATION forming part of Letters Patent No. 282,700, dated August 7, 1883.

Application filed February 5, 1883. (No model.)

To all whom it may concern:

Be it known that I, JAMES M. BUCKLEY, of Portland, in the county of Multnomah and State of Oregon, have invented certain new and useful Improvements in Discharge-Pipes for Dredging and other Machines, of which the following is a full, clear, and exact description.

This invention consists in a revolving discharge-pipe and its connections, as hereinafter described, for dredging-machines, sand-pumps, and excavators, whereby the material passing through said pipe is prevented from settling therein, thereby aiding the water in its discharging action and reducing the volume of water necessary to force the earthy or analogous material through the discharge-pipe.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 represents a side elevation of a revolving discharge-pipe connected with a hopper; and a discharge-pipe from a dredging or excavating machine arranged to deliver into said hopper. Fig. 2 is an end view, upon a larger scale, of said revolving discharge-pipe, with the roller support on which it rests. Fig. 3 is a longitudinal section of a portion or length of the revolving discharge-pipe, with gear for rotating the same, and a stuffing-box for connecting it with the pipe from the hopper. Fig. 4 is an end view of the revolving discharge-pipe with its hopper-connection, together with engine and gears for driving said pipe. Fig. 5 is a side view of the revolving discharge-pipe, connected by a flexible attachment, without the interposition of a hopper, with the main or stationary discharge-pipe from the said pump or dredging-machine.

Referring, in the first instance, or more particularly to Figs. 1, 2, 3, and 4 of the drawings, A indicates a dredging-machine of any suitable construction, and B the water on which it floats; C, a bank alongside of said water, and D a frame erected on such bank for support of a receiving-hopper and gear

end or portion of the revolving or rotary discharge-pipe E.

F is the main or stationary discharge-pipe from the excavator or dredging-machine, which may have a flexible joint-piece, *b*, to provide for the adjustment of its delivery end relatively to a hopper, G, into which the water and material to be discharged are delivered from the pipe F.

The revolving discharge-pipe E, which carries off the material that passes through the hopper, is driven or rotated by an engine, H, or other motor, through gearing *c d*, or otherwise. Said pipe E is mainly supported on roller-bearings *e e*, to provide for its easy rotation, and has a stuffing-box, *f*, on its inlet end, for connection with and arrangement around the outlet-pipe *g* from the hopper. The receiving section or length of the revolving discharge-pipe E is made sufficiently heavy to carry the stuffing-box *f*, gear *c*, and to work steady in close bearings *e'*, and the remaining portion of said pipe may be connected to it by flanges or otherwise. By said pipe E being thus fitted to revolve at its stuffing-box end around the discharge-pipe from the hopper, a ready clearance is provided for the material discharged by the dredging-machine, excavator, or sand-pump, and the quantity of water necessary to carry off the discharge is materially reduced.

Fig. 5 shows substantially the same arrangement as in Fig. 1, so far as the revolving pipe E, with its stuffing-box *f* and gear *c*, is concerned; but instead of said pipe connecting with an outlet-pipe from a hopper, it is connected direct or in a close manner by a flexible attachment or hose, I, with the pipe F of the dredging or other machine.

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

1. The rotary discharge-pipe E, for dredging and other analogous machines, constructed or provided with a gear-wheel, *c*, and with a stuffing-box, *f*, arranged at or near its receiving end, essentially as described.

2. The combination of the close bearings *e' e'* and roller-bearings *e e* with the rotary discharge-pipe *E*, the wheel or gear *c* thereon, and the stuffing-box *f*, substantially as specified.

3. In discharging connections or attachments for dredging and other analogous machines, the combination of the hopper *G*,

with its outlet-pipe *g*, the rotary discharge-pipe *E*, the stuffing-box *f*, the gearing *c*, and the bearings *e e'*, essentially as and for the purposes shown and described.

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Witnesses:

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