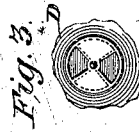
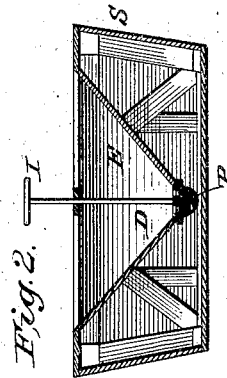
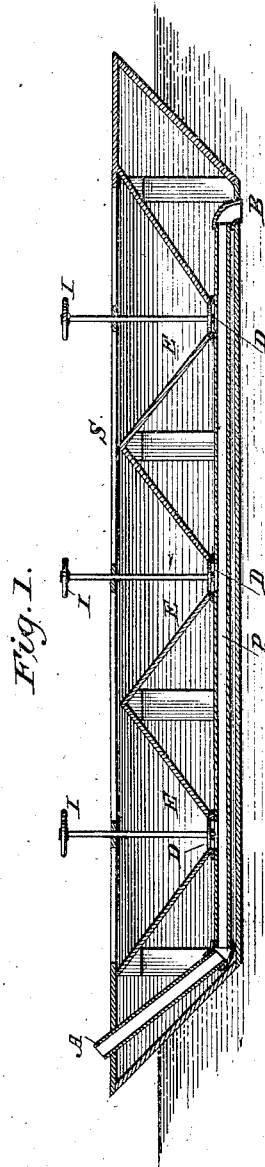


(No Model.)

W. OSBORN.
SCOW.

No. 418,421.

Patented Dec. 31, 1889.



WITNESSES:

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UNITED STATES PATENT OFFICE.

WILLIAM OSBORN, OF DULUTH, MINNESOTA.

SCOW.

SPECIFICATION forming part of Letters Patent No. 418,421, dated December 31, 1889.

Application filed January 9, 1889. Serial No. 295,849. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM OSBORN, a citizen of the United States, residing at Duluth, in the county of St. Louis and State of Minnesota, have invented certain new and useful Improvements in Devices for Conveying Earth, Sand, &c.; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to a device for conveying sand or any substance that will flow with its own gravity; and it has for its object to provide a simple and cheap way of unloading a scow.

My invention further consists in the peculiar construction and arrangement of parts, as will hereinafter be fully explained, and particularly pointed out in the claims, reference being had to the accompanying drawings, in which—

Figure 1 is a longitudinal section. Fig. 2 is a cross-section taken on line C C, Fig. 1; and Figs. 3 and 4 are detail views of the valve.

S is a scow, having on the inside, near the bottom and parallel therewith, a pipe P, of any desired size, extending from one end of it to the other. Said pipe is so constructed that the end of it near the stern is passed through the bottom of the scow, thereby coming in contact with the water below, as at B, and the other end inclined upward and through the deck of the scow, as at A, the portion above the deck designed to be attached to a suction-pump. Now, the body portion of the scow is divided into compartments E, as shown in Figs. 1 and 2, said compartments or hoppers being formed with inclined walls, and having outlets at their lower ends communicating with the suction-pipe P and controlled from on deck by a hand-wheel I, whereby the sand or earth in the hopper may be let into the suction-pipe.

Figs. 3 and 4 are views of the valve I have shown as used for this purpose, it being a rotary valve; but it is evident that almost any kind of valve might be used for the same purpose.

I do not confine myself to only three hoppers in the scow, for there could be any desired number.

The operation of my device is as follows: Supposing the hoppers to be full of sand and a pump attached at A, it is set in motion, which causes a flow of water through the pipe P, entering at B and discharging at the pump. Now, to remove the sand from the hoppers—say an equal amount from each hopper—partly open the valve of each one, which will allow the sand to flow through and unite with the stream in the pipe, and thereby be carried to and discharged at the outlet. It will also be seen that one hopper at a time may be discharged with the same facility.

From the foregoing description, taken in connection with the drawings, the operation and advantages of my improvement will readily be understood.

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

1. The combination, with the mud or sand hopper having a valved outlet in its bottom through which the material falls by gravity, of a suction-pipe under the hopper and into which its outlet opens, said pipe being open at one end for the entrance of water and open at its opposite end for the discharge of the water and material from the hopper, substantially as set forth.

2. The combination, with a scow having compartments therein communicating with a suction-pipe located just below the compartments in the bottom portion of the scow, of valves connecting said compartments and pipe, said pipe open at both ends and communicating at one end with the water below the scow, substantially as and for the purpose set forth.

In testimony whereof I affix my signature in presence of two witnesses.

WILLIAM OSBORN.

Witnesses:

JOHN H. LOGIE,
S. GEO. STEVENS.