

E. MOORE.
Concrete Skip.

No. 221,847.

Patented Nov. 18, 1879.

Fig. 2.

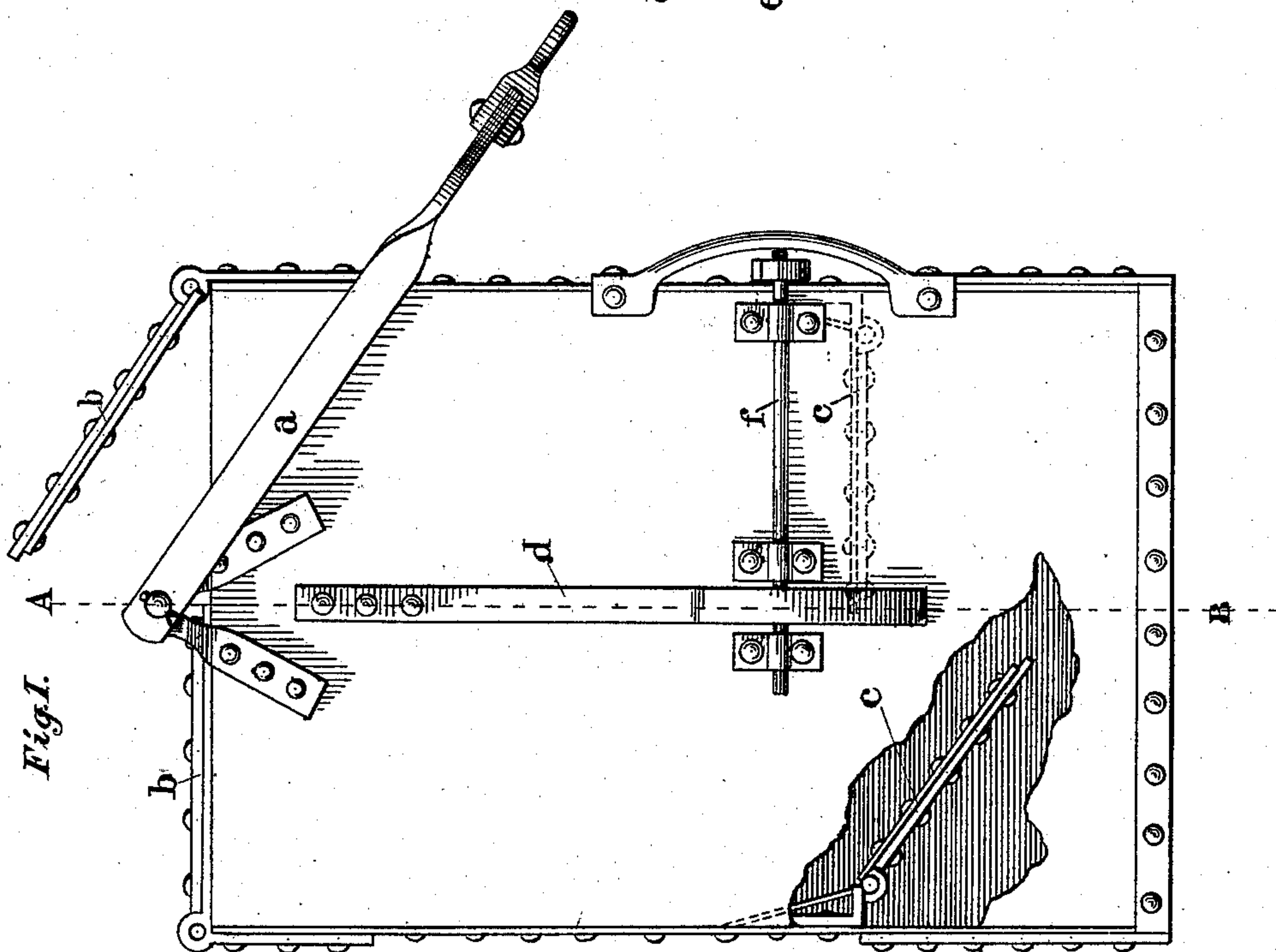
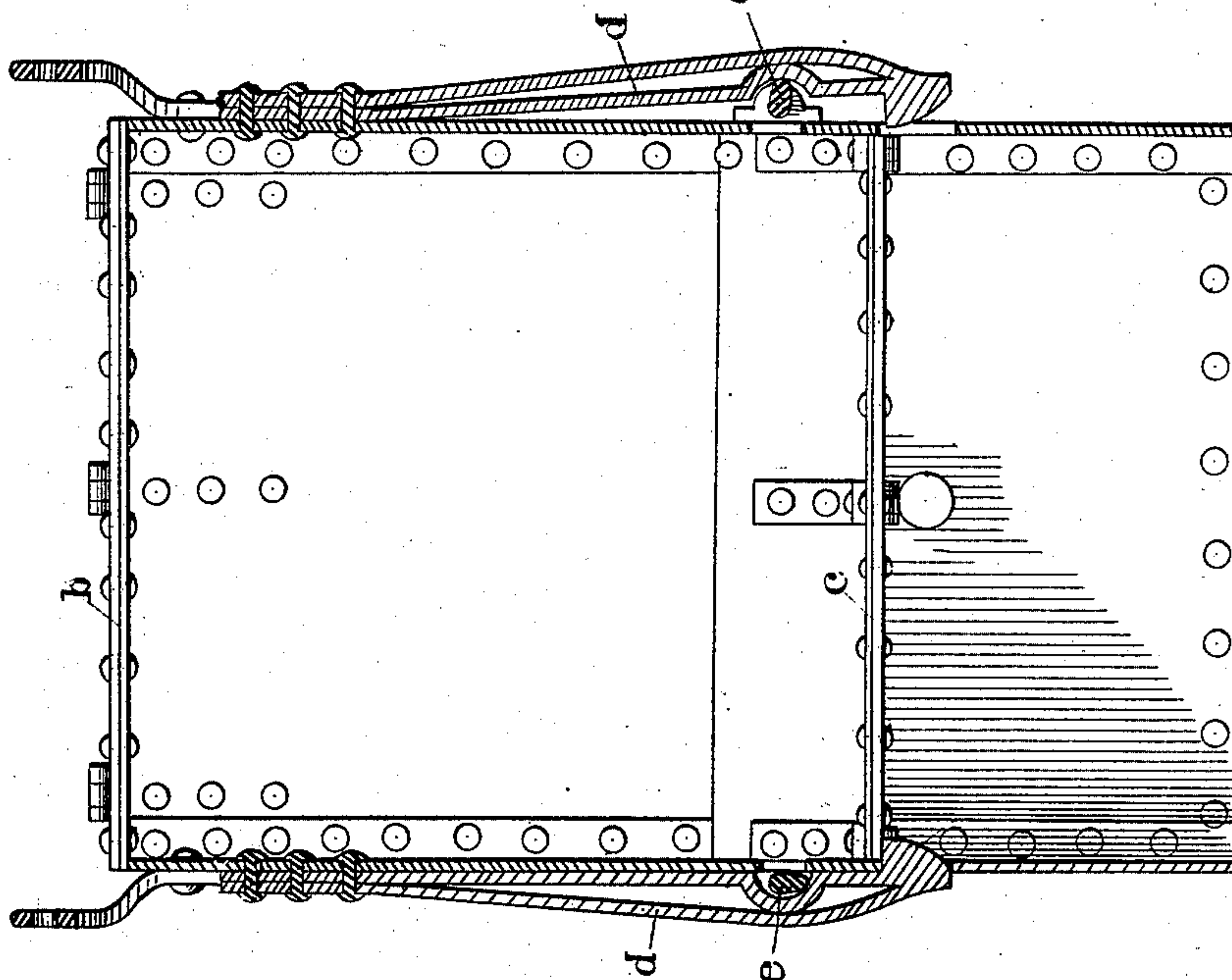


Fig. 1.

Attest:

C. Clarence Poole
Warren Seely

Inventor:

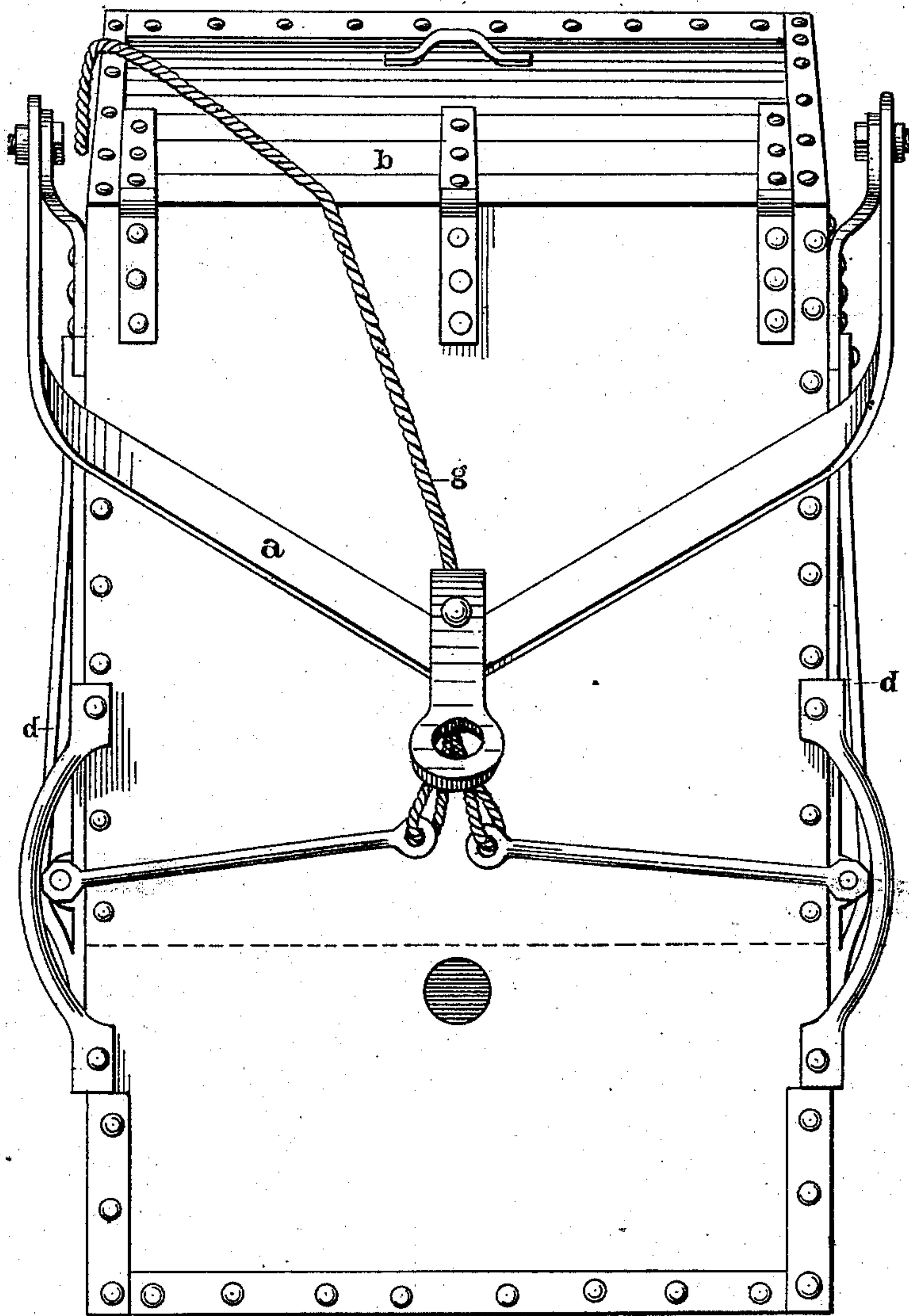
Edward Moore
by Ellis Spear
Atty

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Fig. 3.



Attest:

Clarence Poole
Warren Seely

Inventor:

Edward Moore
by Eli Spear
Att'y

UNITED STATES PATENT OFFICE.

EDWARD MOORE, OF PORTLAND, MAINE, ASSIGNOR OF ONE-HALF OF HIS
RIGHT TO AUGUSTUS RYKER WRIGHT, OF GENEVA, NEW YORK.

IMPROVEMENT IN CONCRETE-SKIPS.

Specification forming part of Letters Patent No. **221,847**, dated November 18, 1879; application filed
May 6, 1879.

To all whom it may concern:

Be it known that I, EDWARD MOORE, of Portland, Cumberland county, Maine, have invented an Improvement in Concrete-Skips, of which the following is a specification.

My invention relates to skips for laying concrete under water; and the object of the invention is to secure the placing of the mass of concrete contained in the skip in its proper position without subjecting it to the washing action of the water in which it is placed.

Heretofore, so far as I am aware, no apparatus has been provided by which the mass of concrete could be held laterally in place and protected from the action of water upon the sides when discharged from the lower opening of the skip and deposited in its place. The effect of this washing action is well known to those skilled in the art, and need not be described.

My invention consists, essentially, in extending the open end of the skip below the valves which sustain the load of concrete, so that these valves may be opened to permit the escape of the concrete after the skip has been lowered to the place where the concrete is to be deposited.

In the drawings accompanying this specification, Figure 1 is a side view, showing spring and cam rod; Fig. 2, a cross-section of same on dotted line A B, showing the action of the cams on the springs; Fig. 3, a side view, showing trip-rods and line attached.

The skip is made of sheet metal, of dimensions suited to the size of the block to be laid. It is provided with a bail, *a*, centrally attached, and adapted to be turned down, as shown in Fig. 1, over the side when it is necessary to fill the skip with the concrete material.

The skip is filled at the top by opening the doors *b b*. Before this material is introduced the valves *c c* are closed. They are held in place by the springs *d d*, the lower ends of which are formed with catches and with inclined faces, so that the spring acts in the manner of a latch, as shown in Fig. 2. These springs are fixed upon the outside at their upper ends, and a small opening is made in the shell for the admission of the catch upon the end of the spring, said catch projecting beyond the inner surface of the shell. These springs are arranged exactly opposite each other, and in such position as to

slightly overlap and hold up both the valves. Each spring is thrown outward to release the valves by means of a cam, *e*, on a rod, *f*. These two rods are turned at right angles and brought together, as shown in Fig. 3, and there connected to a cord, *g*, which may be passed up over the end of the boom which supports the skip, and thence to the hand of the operator. The skip is extended below these valves sufficiently to protect the block of concrete when it is dropped by releasing the catches and the falling of the valves.

The valves are pivoted a few inches from the walls of the skip, and may swing back so as to hang vertically, or nearly so, when dropped.

Inclined surfaces may be provided above the valves, as shown in Fig. 1, to guide the mass of concrete down over the fixed edges, to which the valves are hinged.

The part below the valves I prefer to make about one-half the length of the part above, for ordinary work, about eighteen inches. This gives a sufficient space for the valves to swing in when the skip is lowered to the place where the block of concrete is to be laid.

The walls of the skip below the valves exclude from contact with the concrete all the water except the small amount inclosed when the skip reaches its place of unloading. The concrete is thus permitted to drop into its place without any wash or rush of water from the body of water surrounding the skip.

The water inclosed in that part of the skip below the valves rises, when the valves are open, into the upper part of the skip. This is so small in quantity that it occasions no serious disturbance.

Openings may be made in the side of the skip for the entrance of a bar to raise the valves into place.

What I claim as my invention is—

1. A concrete-skip provided with valves for holding the concrete and allowing it be deposited in place, said valves being located above the open mouth of the skip, as set forth.

2. The combination of the valve, the spring-catches, and the releasing cams and rods, as set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

Witnesses: EDWARD MOORE.

GUSTAVUS S. TRENALD,
PHILIP J. GODFREY.