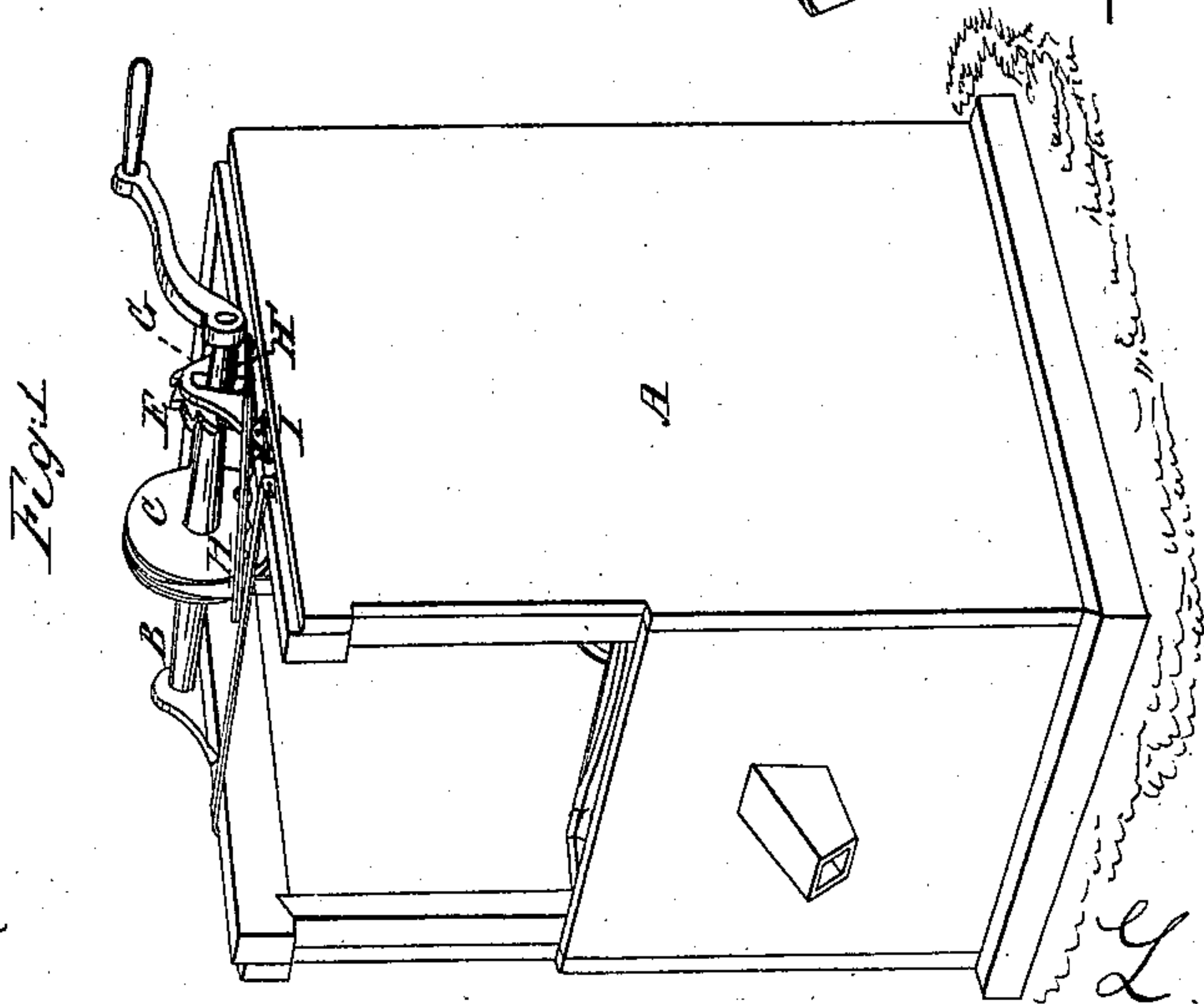
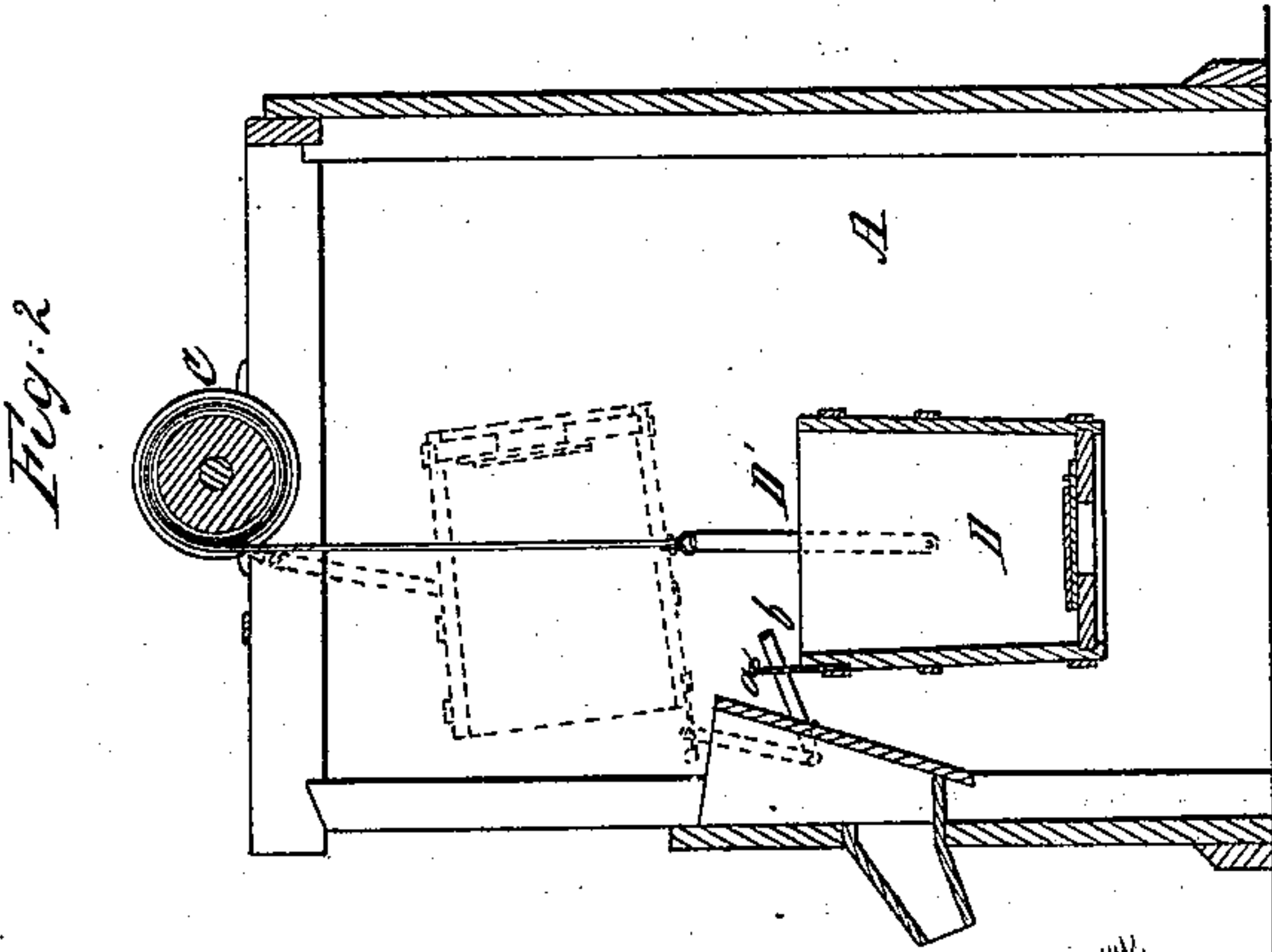
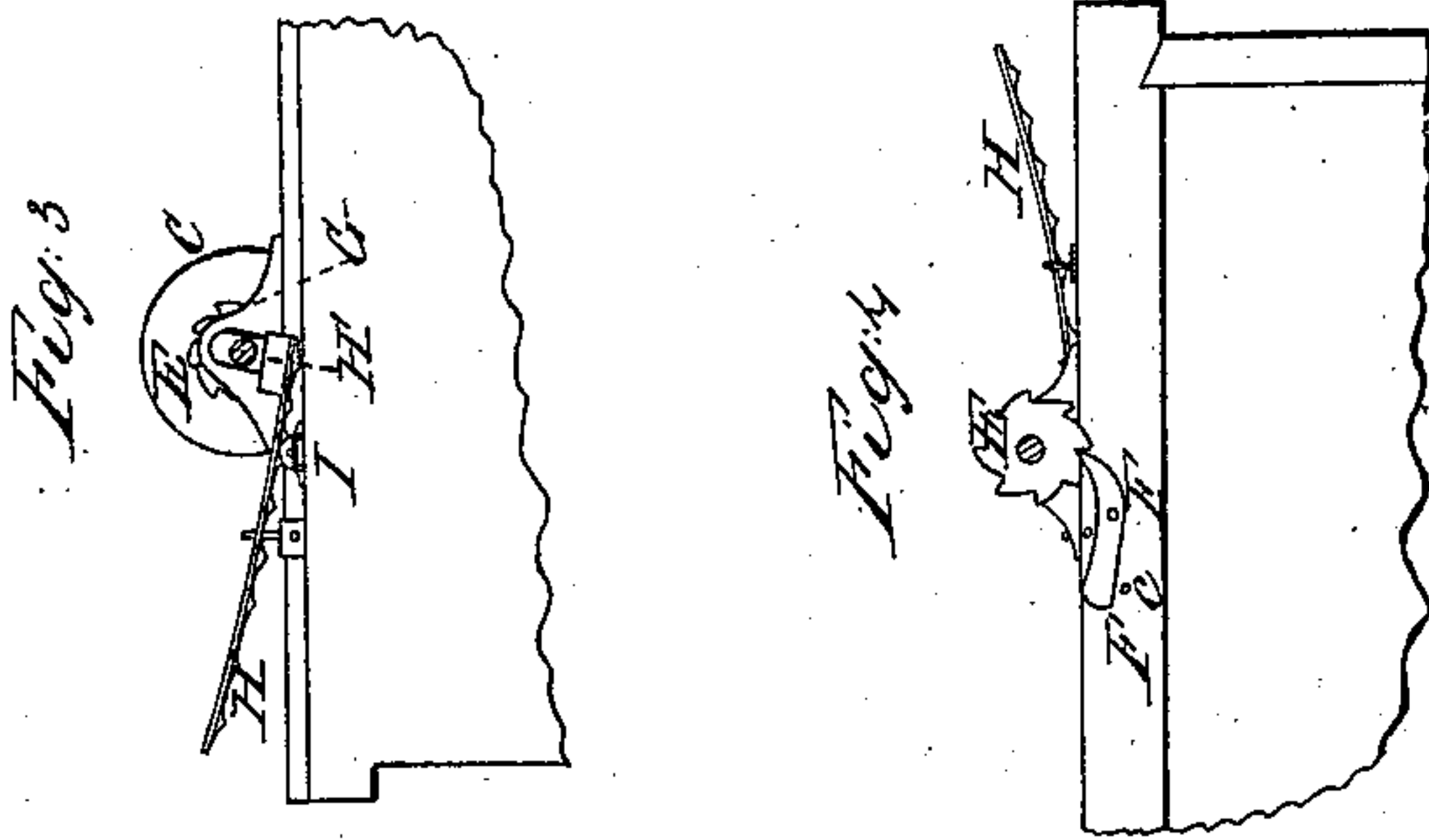


Windlass Water Elevator

N^o 36/89.

Patented Aug. 12, 1862.



Witnesses
Julius H Brown
J. Brainerd

Inventor

L. J. Adams

UNITED STATES PATENT OFFICE.

L. J. ADAMS, OF CLEVELAND, ASSIGNOR TO HIMSELF AND C. L. PETTEE,
OF ROCHESTER, OHIO.

IMPROVEMENT IN WATER-ELEVATORS.

Specification forming part of Letters Patent No. 36,189, dated August 12, 1862.

To all whom it may concern:

Be it known that I, L. J. ADAMS, of Cleveland, in the county of Cuyahoga and State of Ohio, have invented new and useful Improvements in Water-Drawers; and I do hereby declare that the following is a full and complete description of the construction and operation of the same, reference being had to the accompanying drawings, making part of this specification, in which--

Figure 1 is a perspective view. Fig. 2 is a vertical section, and Figs. 3 and 4 are detached sections.

Like letters refer to like parts in the several views.

The nature of my invention relates to the arrangement of the pawl and ratchet to the elongated box for the crank end of the windlass-shaft, and to the compound lever and brake for raising the shaft and ratchet clear from the pawl while the bucket descends; and to the arrangement of the pawl and ratchet, whereby the pawl is always in contact with the teeth of the ratchet when the bucket is rising, thus effectually guarding against the rapid and dangerous descent of the bucket by the hand slipping off the crank.

A is the curb. This is made of frame and boards in the usual box form. The windlass B is attached transversely across the top of the curb.

C is the windlass-wheel around which the belt strap or chain winds that raises the bucket.

D is the bucket. This is hung by the bail D' at a point near the middle, so that it may be easily tipped or thrown to a horizontal position, as indicated by the red lines in Fig. 2. In order to tip the bucket for the purpose of discharging the water, a finger, a, is secured to the front side of the bucket, which passes inside of a hinged rod, b, and as the bucket rises it is discharged of its water in the manner shown in the figure.

E is a ratchet-wheel, which is placed on the inside of the curb upon the crank end of the shaft. The pawl F is also placed on the inside

of the curb and below the ratchet-wheel. The heel of the pawl projects back from the fulcrum-pin and forms a balance-weight, as seen at F', this part resting upon a pin, c, which prevents it from dropping below that point.

G is a box with an elongated opening, in which the crank end of the windlass-shaft rests, and in which the shaft can rise just enough for the teeth of the ratchet-wheel to clear the toe of the pawl F.

When the bucket is ascending, the journal rests in the bottom of the elongated opening in the box G, and when in this position the toe of the pawl F is constantly in contact with the teeth of the ratchet-wheel E, so that if the hand of the operator should slip from the crank the bucket could not descend, for the pawl would hold it at any point.

H is a lever having its fulcrum I upon the top of the curb about six inches forward of the elongated box G, the long arm extending nearly to the front corner. The short arm has a packing, H', upon the upper side, which, by depressing the long arm, both raises the shaft and ratchet-wheel beyond the reach of the pawl, and acts as a brake to prevent the too rapid descent of the bucket into the well. When the long arm of the lever H is released, the weight of the windlass and bucket keeps the shaft upon the bottom of the elongated opening in the box G, the toe of the pawl at the same time resting in contact with the ratchet-wheel.

What I claim as my improvement, and desire to secure by Letters Patent, is--

1. The counterbalance-pawl F and ratchet-wheel E, in combination with the elongated opening in the box G, operating as and for the purpose specified.

2. The elongated opening in the box G, in combination with the lever H and packing H', operating as and for the purpose specified.

L. J. ADAMS.

Witnesses:

JULIUS H. BROWN,
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