

WATER-ELEVATOR.

No. 172,407

Patented Jan. 18, 1876.

Fig. 1

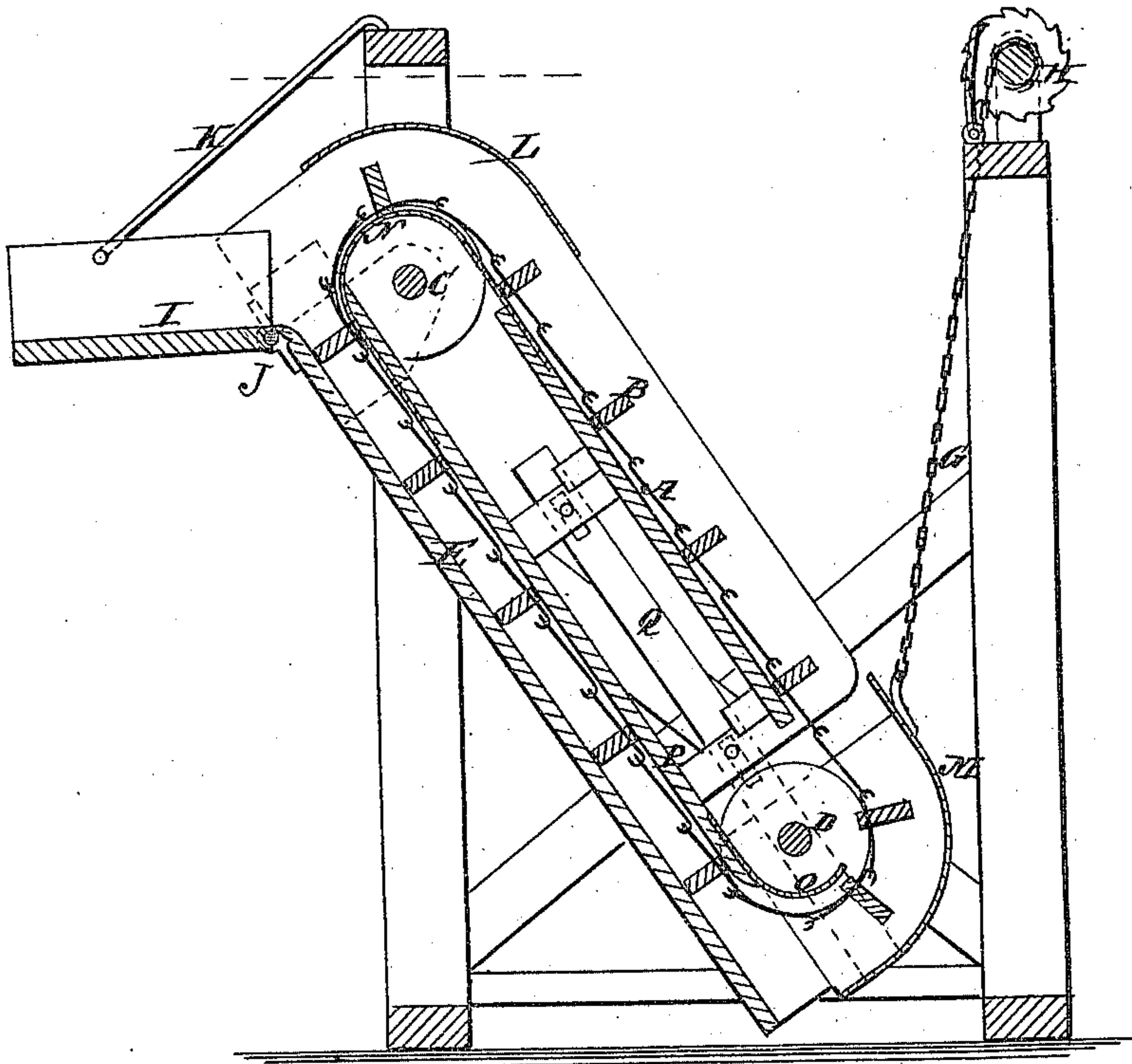


Fig. 2.

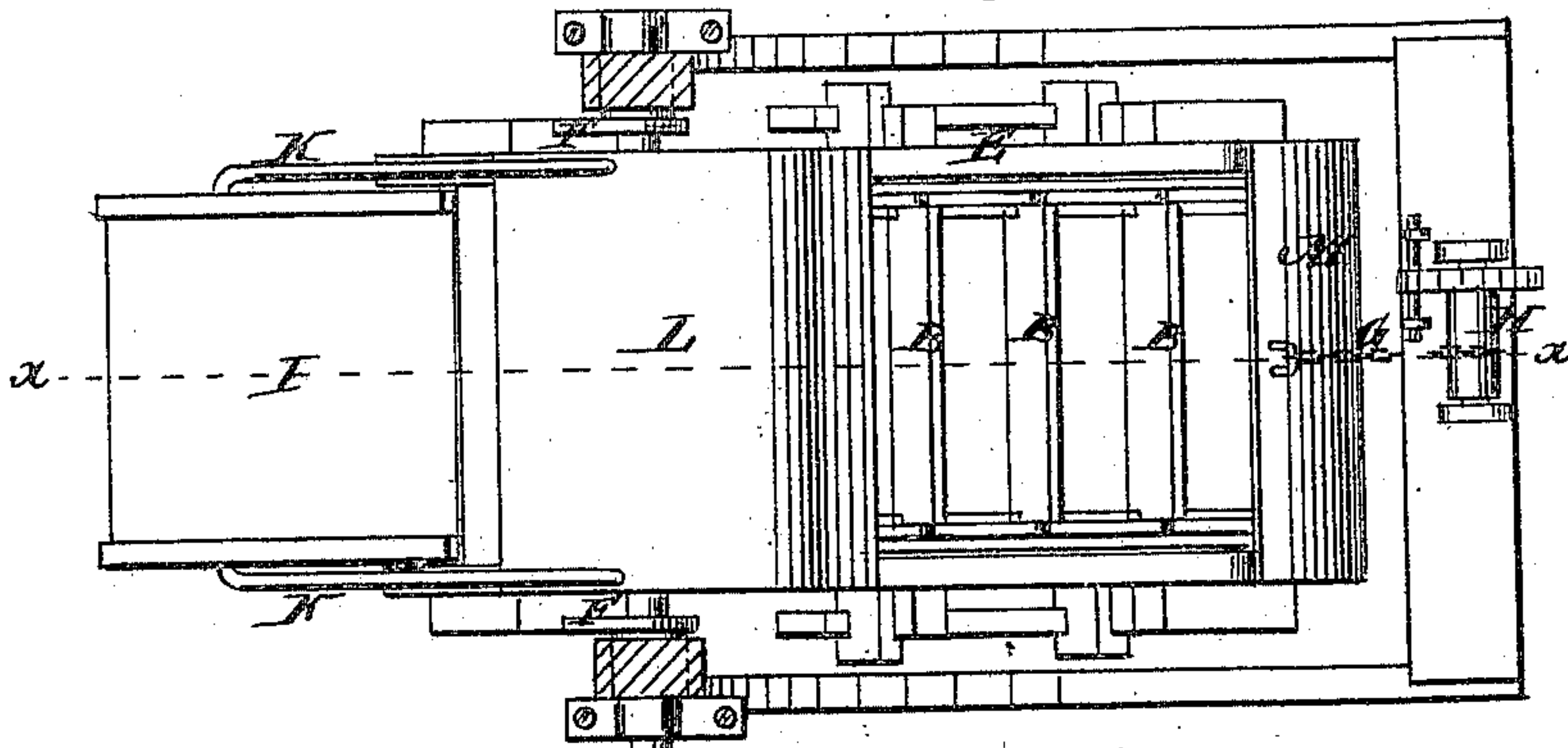


Fig. 3.

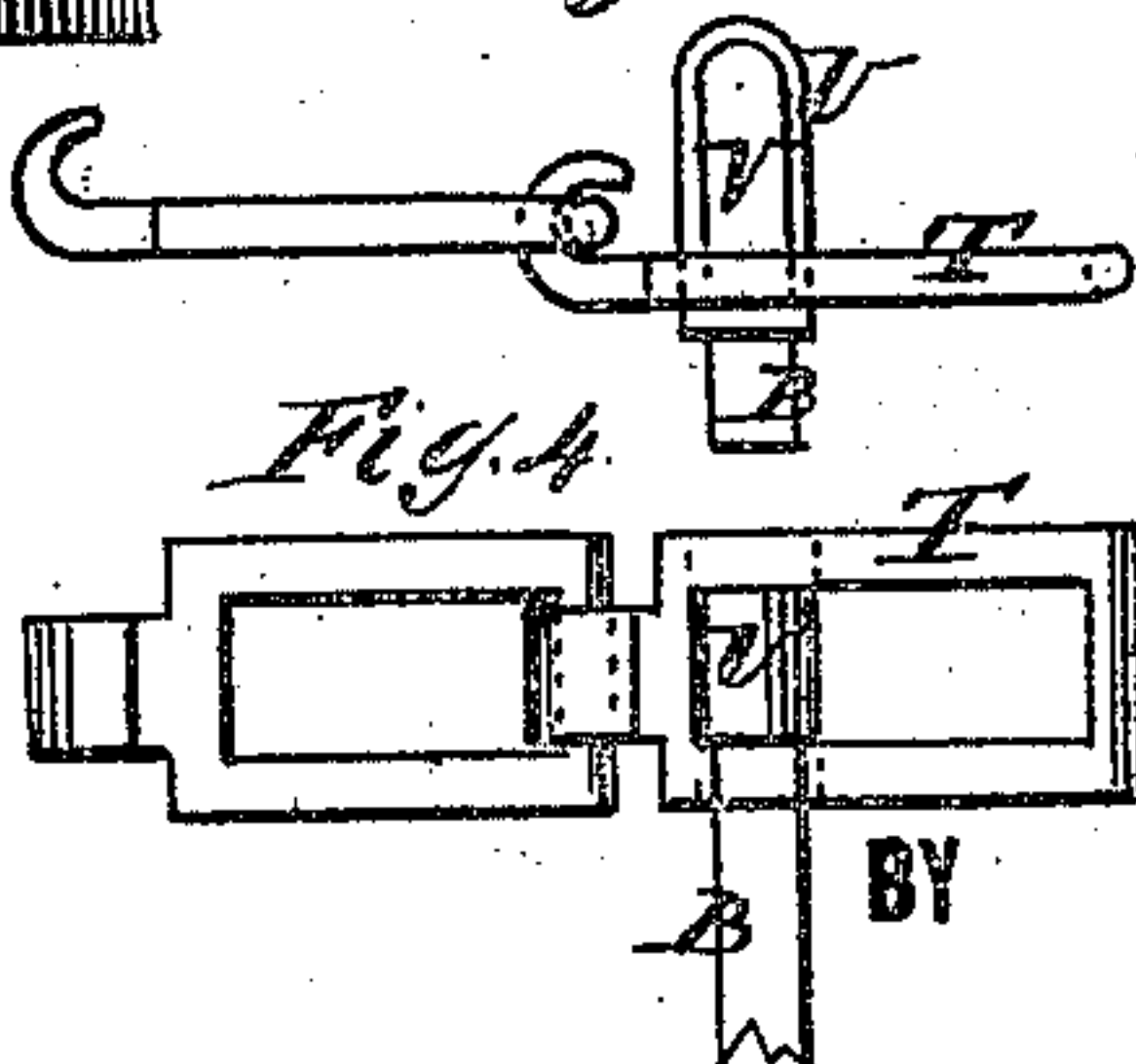


Fig. 5.

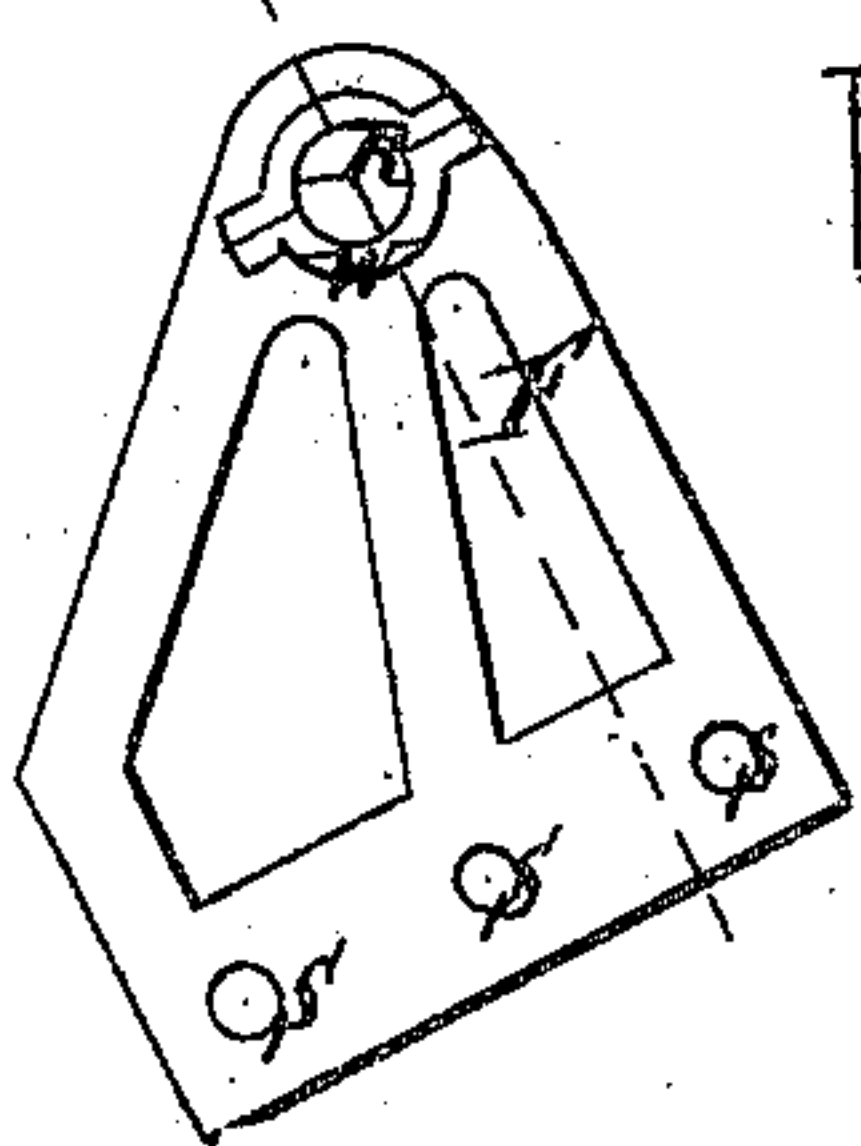


Fig. 6



WITNESSES:

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IMPROVEMENT IN WATER-ELEVATORS.

Specification forming part of Letters Patent No. **172,407**, dated January 18, 1876; application filed April 17, 1875.

To all whom it may concern:

Be it known that I, ANDREW B. FLOWERS, of Thibodeaux, in the parish of La Fourche and State of Louisiana, have invented a new and Improved Water-Elevator, of which the following is a specification:

The invention will first be described in connection with drawing, and then pointed out in the claims.

Figure 1 is a sectional elevation of my improved water-elevator, the section being taken on the line *xx* of Fig. 2. Fig. 2 is a plan view. Fig. 3 is a side elevation of a portion of the chain and a bucket. Fig. 4 is a plan view of Fig. 3. Fig. 5 is a side elevation of the bracket for connecting the case to the drum-shaft, and Fig. 6 is a sectional elevation of Fig. 5 on the line *yy*.

Similar letters of reference indicate corresponding parts.

A represents the endless chain, and B the buckets, working on pairs of pulleys, C and D, in a case, E, which is suspended upon the axis of the upper pulleys by the brackets F, so that the lower end may be raised and lowered, according to the height of the water, by a chain, G, and a windlass, H. I is a spout at the top of the case for receiving the water from the elevator, and discharging it into the receptacle. It is pivoted to the case at J, and suspended by rods K, so that it will shift automatically with the case as it is shifted by raising and lowering the lower end. L and M are the outside top and bottom guards to the buckets, and N and O the inside guards, arranged between the pairs of pulleys C and D, respectively, and concentrically with them. The guard L prevents the buckets from throwing water off upon the attendants. N prevents the water from falling back through the elevator. M and O confine the water, and prevent it from escaping from the buckets at the beginning of the ascent. Guards O and M are adjustable, O being attached to the partition P by bolts in slotted holes, to allow it to be shifted, and M being attached to the bars

Q, in which the lower drum is mounted, and which are attached to the case, so as to be shifted up and down, to adjust the tension of the chain. The brackets F, for suspending the case at the upper end, are cast with a journal-box, R, in which the shaft is fitted, and secured by caps W, bolted on, and they are provided with the screw-holes S, for screwing onto the case. These boxes form trunnions, whereon the case is suspended in the frame, and on which it turns independently of the drum-shaft when the lower end is shifted. The links T have a yoke, U, formed on the upper side, in which the ends V of the buckets are fitted for connecting the buckets to the chain, and holding them up edgewise. X is the driving-wheel, to which the power will be applied.

This improved elevator is designed to furnish a simple, cheap, and efficient apparatus for draining marshes, irrigating land, and the like.

By having the case suspended on the hollow pivots of the brackets or side plates, and the upper pulley-shaft arranged in the pivots, the case is always in line with the shaft, no matter how it may be shifted at the lower end on account of the height of the water.

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

1. The improved adjustable water-elevator, consisting of the case, endless chain, buckets, the chain G, windlass H, and the self-adjusting spout, combined and arranged substantially as specified.

2. The inside guards N and O, combined with the case, chain, and buckets, substantially as specified.

3. The outside guard M, connected to the adjustable side bars Q, for shifting with the pulleys D, substantially as specified.

ANDREW B. FLOWERS.

Witnesses:

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7/50 words.