

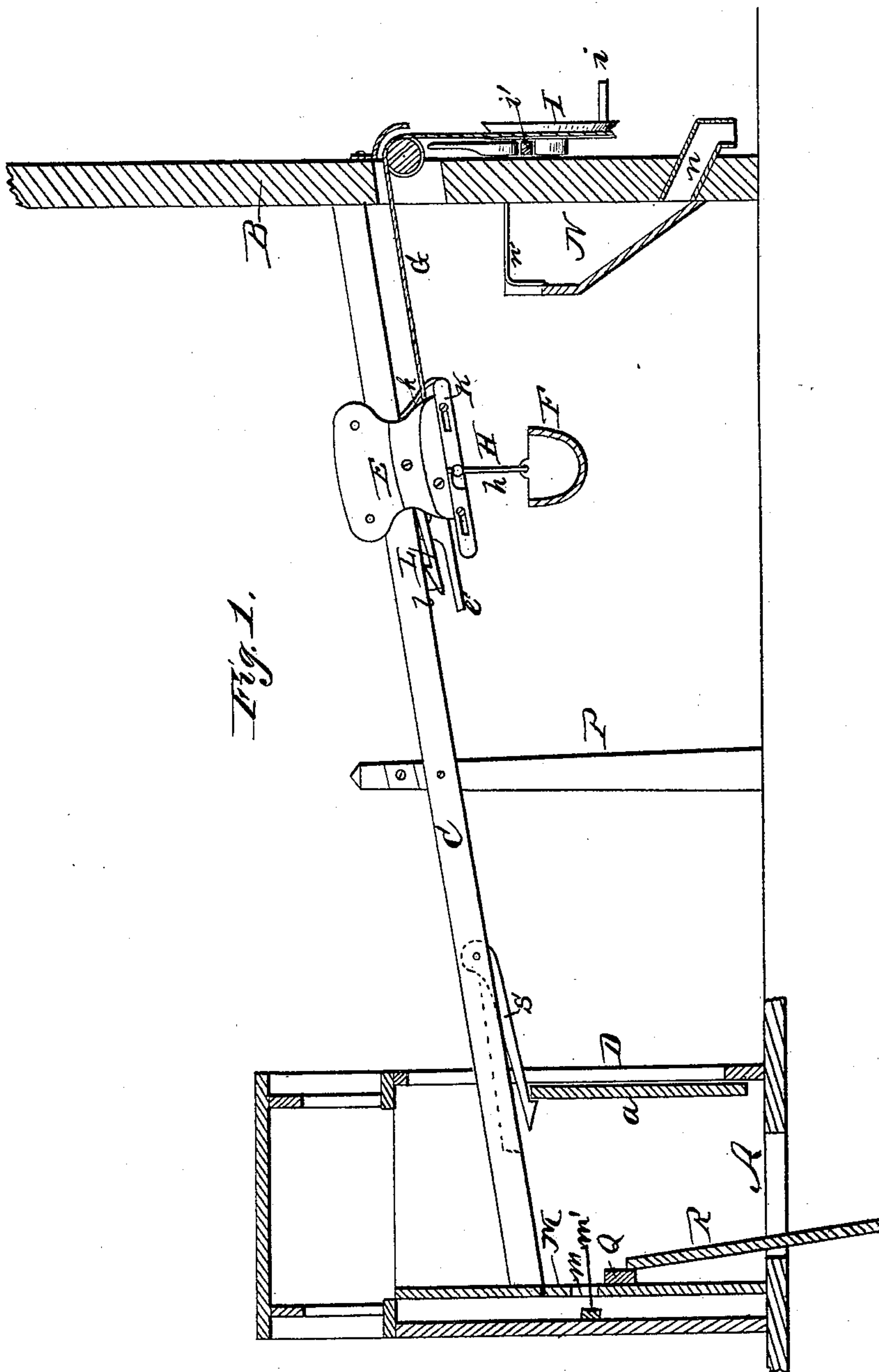
(No Model.)

2 Sheets—Sheet 1.

J. R. CLUXTON.
Water Elevator.

No. 234,538.

Patented Nov. 16, 1880.



Witnesses:
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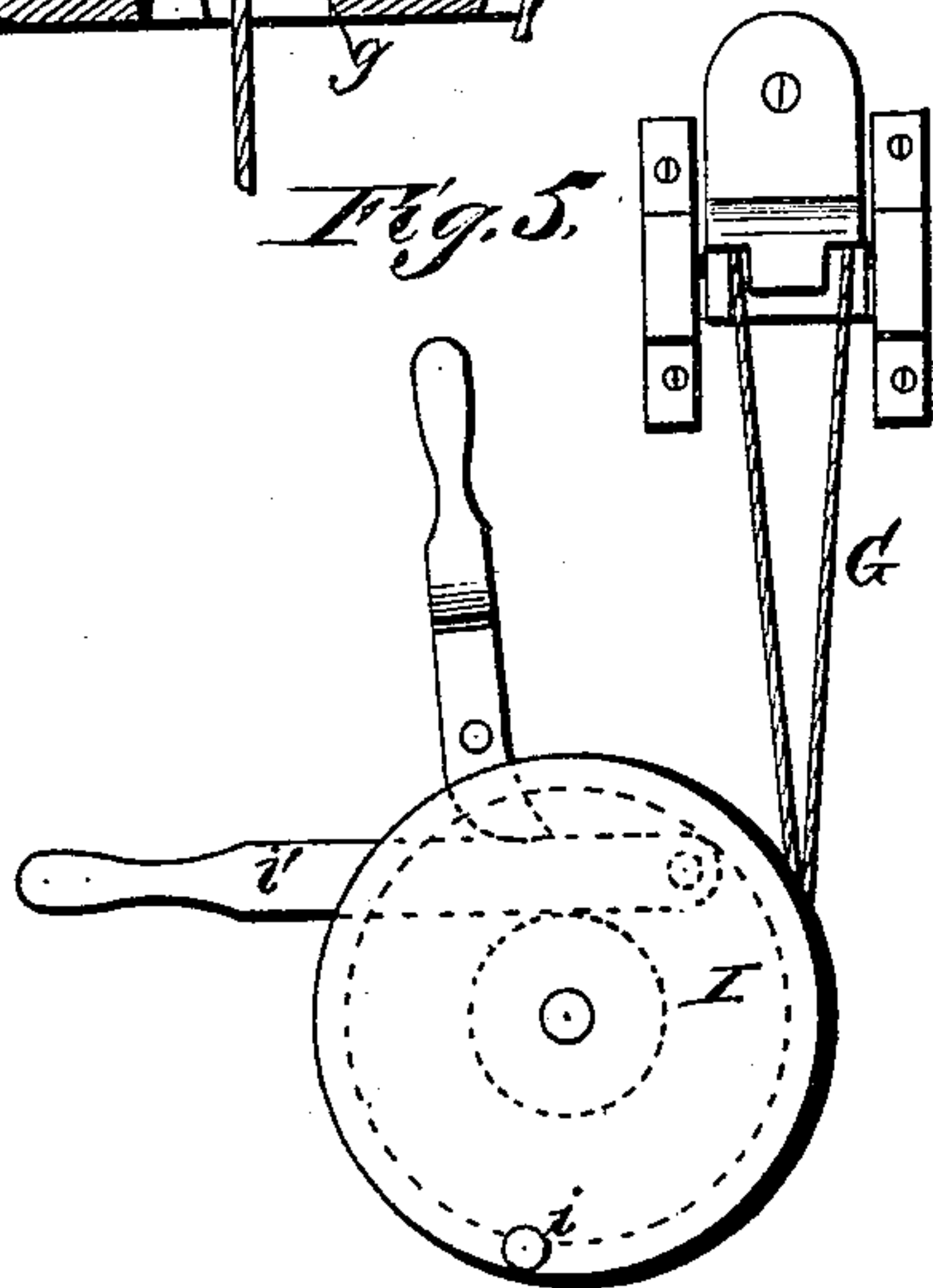
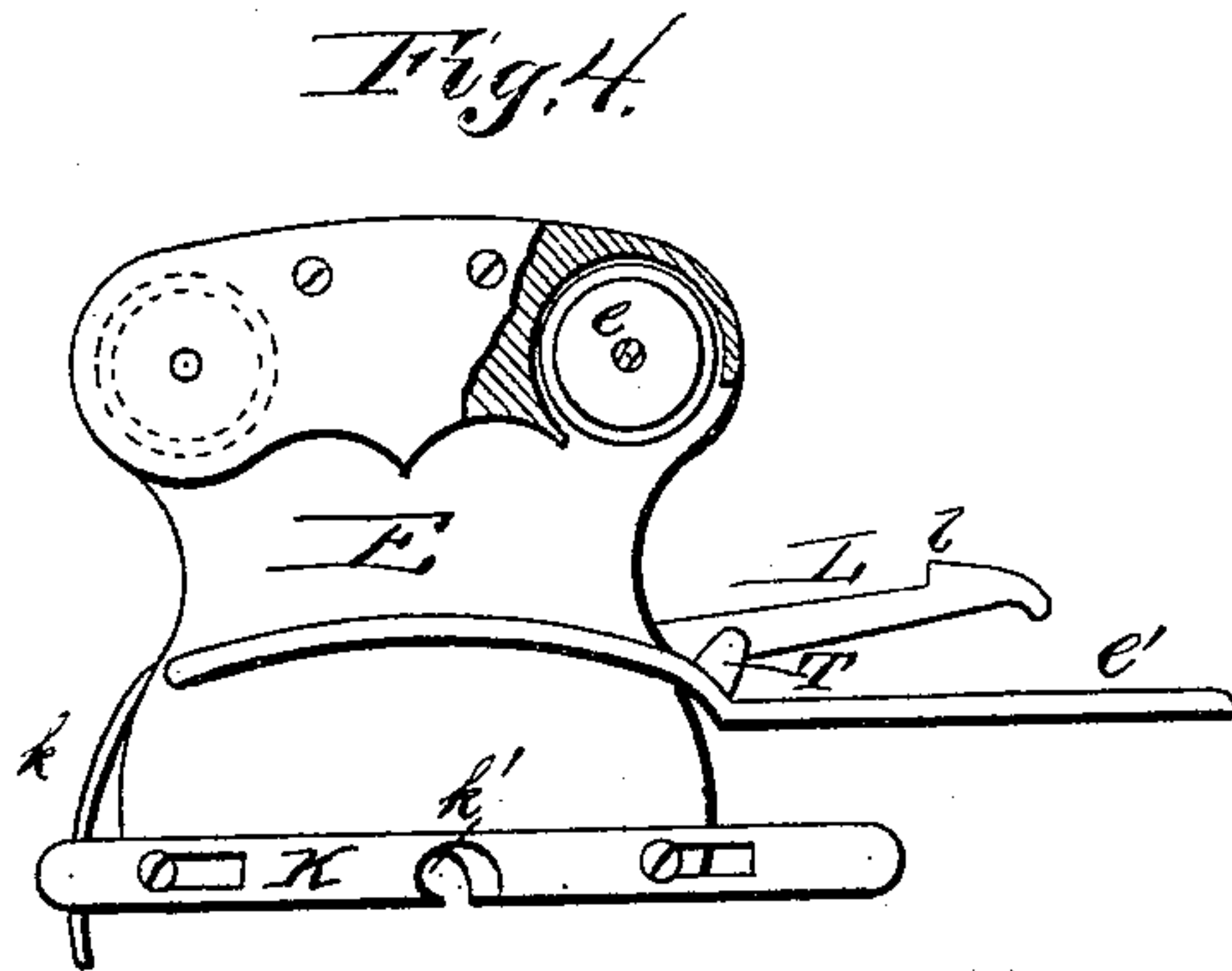
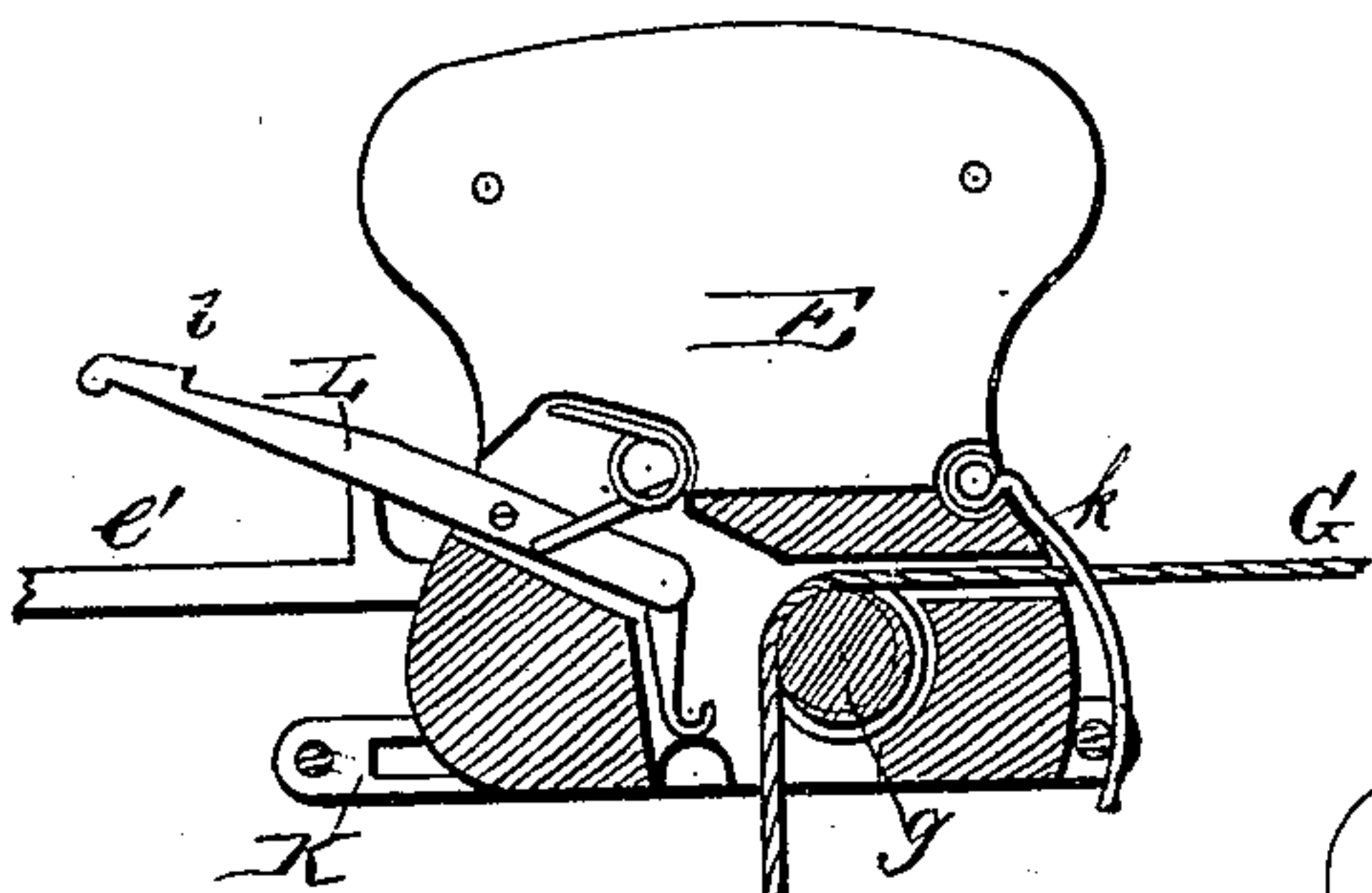
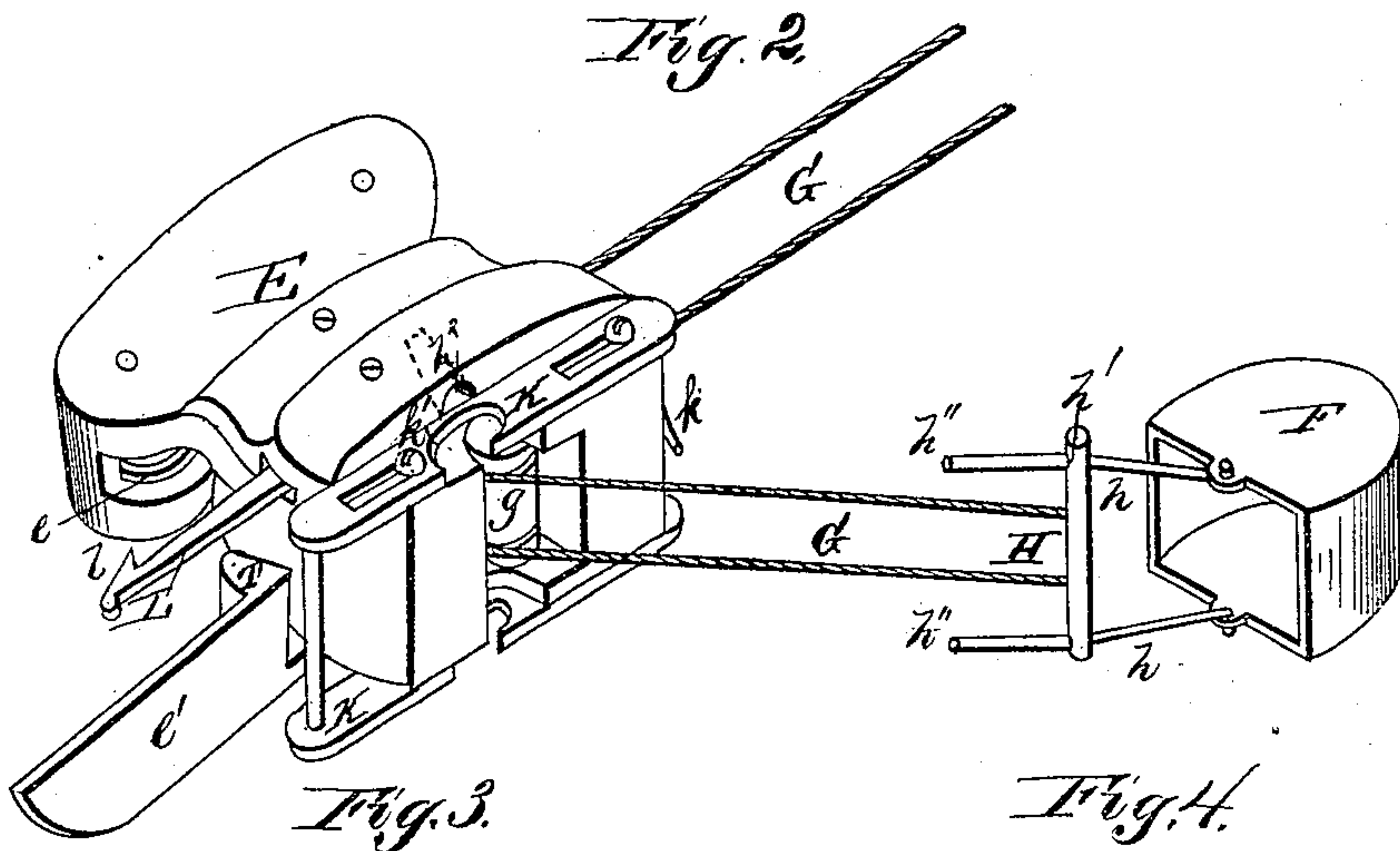
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2 Sheets—Sheet 2.

J. R. CLUXTON.
Water Elevator.

No. 234,538.

Patented Nov. 16, 1880.



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UNITED STATES PATENT OFFICE.

JAMES R. CLUXTON, OF HILLSBOROUGH, OHIO.

WATER-ELEVATOR.

SPECIFICATION forming part of Letters Patent No. 234,538, dated November 16, 1880.

Application filed September 28, 1880. (No model.)

To all whom it may concern:

Be it known that I, JAMES R. CLUXTON, of Hillsborough, in the county of Highland and State of Ohio, have invented certain new and useful Improvements in Water-Elevators; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form part of this specification, in which—

Figure 1 is a side elevation of my carrier in position for use; Fig. 2, a perspective view of the carrier and bucket; and Figs. 3, 4, and 5 are details thereof.

The nature of my present invention relates to means for enabling a person within a house to draw water from a well located outside of the house and to bring it up to the house by a bucket.

To such end my invention consists in the features of construction and combination hereinafter fully described, and particularly pointed out in the several annexed clauses of claim.

In the annexed drawings, A designates the curb of a well or cistern, and B the side of a house into which it is desired to bring water from the well.

The letter C represents an elevated track, inclining downwardly from the house to the well-curb, which latter it enters through a doorway, D. The carriage or bucket-carrier E, which traverses this inclined track to and from the well, is provided with anti-friction rollers *e e*, resting upon the top side of the track, so that the bucket-carrier will run easily along the track.

The bucket F, in which the water is drawn from the well and conveyed up to the house, is suspended from the bucket-carrier by means of the cords or chains G G, which are secured at one end to a drum or pulley wheel within the house, and at their other ends attached to the bail of the bucket, the said cords or chains passing through openings in the carrier and also over a double-grooved pulley, *g*, journaled within the same.

The bail H, to which the bucket is hinged, is composed of the two vertical rods *h h* and a horizontal cross-bar, *h'*, secured to the vertical side rods at a point somewhat below their

upper ends, *h''*, and the cords or chains just mentioned are connected in any suitable manner with this cross-bar of the bail.

The pulley-wheel I within the house, and which is employed for winding up or unwinding the cords, has a handle, *i*, for operating it, and a suitable brake-lever, *i'*, is employed for checking the rotation of the pulley.

When the pulley within the house is turned so as to exert a requisite degree of tension upon the cords, which pass out through an opening in the side of the house and over a pulley arranged in said opening, the bucket will be drawn up to the carrier, so that the ends *h''* of the bail of the bucket will extend up into openings *h²* formed in the carrier. While in this position the bucket is supported by a sliding frame, K, which is normally held forward by a spring, *k*, so that the cross-bar of the bail will be engaged by notches *k'* formed in the side bars of the sliding frame. Also, while in this position the cross-bar of the bucket-bail bears up against the lower end of a bell-crank lever, L, which is pivoted within a mortise formed in the carrier. The upper end of this bell-crank lever extends out from the carrier in the direction of the well, and is formed with a catch, *l*, upon such end, which is depressed so long as the lower end of the bell-crank lever is raised by the action of the cross-bar of the bail thereon.

The well-curb is provided with a hinged door, *a*, and the carriage is constructed with an arm, *e'*, which projects out from the carrier or carriage so as to strike against the door and open it in order to allow the carrier to pass into the curb over the well, and also to prevent the catch portion of the bell-crank lever from coming in contact with the door. Within the well-curb is arranged a staple or a cross-bar, M, with a recess, *m*, for engaging the catch end of the bell-crank lever after the carrier has entered within the well-curb, and a suitable stop, *m'*, is provided for arresting the motion of the carriage or carrier after the engagement of such catch with the staple or recess.

A chute, N, is arranged against the outer side of the house in a position under the upper end of the track, and a spout, *n*, is arranged to lead from such chute into the house

in order to convey water into the house from said chute. This chute is also provided with the bent rods n' , which serve to tip the bucket in the manner presently described, and the
 5 bucket is properly weighted, so as to insure its dipping water from the well after it has been lowered to a sufficient depth within the latter.

The track is supported between the house
 10 and the well by one or more posts, P, according to the distance between the two.

The operation of drawing water from the well and bringing it up to and into the house is as follows: The bucket being supported by
 15 the engagement of the movable frame of the carrier with the cross-bar of the bail, the brake is released from the pulley-wheel I by a person within the house and the carrier allowed to run down the track to the well, the cords
 20 paying off from said pulley-wheel as the carrier moves along. When the carrier reaches the well-curb its projecting arm or guard strikes against and opens the door, and the carrier continues on its journey until it passes
 25 within the curb and brings the bucket directly over the well or cistern. As the carrier arrives at this point its movable frame strikes against an abutment, Q, within the curb, and is forced back against the spring-pressure,
 30 which has hitherto thrown it forward, so that the cross-bar of the bucket-bail will be released from the notches in said movable frame, and thus the bucket be left suspended only by the
 35 cords, and consequently free to descend by gravity into the well. As the movable frame of the carrier strikes against and is forced back by the abutment the catch end of the bell-crank lever engages the staple or recess in the bar located within the well-curb, and
 40 hence holds the carriage and prevents the spring from forcing the movable frame forward so long as the bucket is thus detached from the carrier. After the bucket has been filled with water the operator within the house
 45 winds the cords upon the pulley-wheel I, and thereby raises the bucket until the top ends of the vertical side bars of the bucket-bail enter the recesses in the carrier, and the cross-bar of said bail strikes against the lower end of
 50 the bell-crank lever, so as to vibrate the same and free the catch of said lever from its engagement with the staple or bar within the curb. The spring, acting against the movable frame of the carrier, now forces the frame forward, so that its notches will engage the cross-
 55 bar of the bucket-bail, and thereby connect the bucket with the carrier. A continuance in the winding of the cords upon the pulley-wheel I draws the carrier with the filled bucket
 60 up the track, the door of the curb closing after the carrier by means of a spring or weight. When the carrier arrives over the chute, which is arranged against the outside of the house, the bucket will be tipped by reason of the bent
 65 rods of the chute so as to empty the water,

which, flowing into the chute, passes through the spout into the house. The upper ends of the side rods of the bucket-bail extend into recesses in the carrier, as before mentioned, and by reason of such connection prevent the
 70 bail from swinging while the bucket is being drawn upon and tipped by the bent rods of the chute, such bearings for the bail-rods being essential to the above operation.

It will thus be seen that a person within the
 75 house can readily obtain water from a well or cistern of any depth and at any reasonable distance from the house without going to the well.

In connection with the above-described ap-
 80 paratus I employ a guide, R, which extends down into the well, and along which the bucket slides in ascending or descending. The object of this guide is to prevent the bucket from ro-
 85 tating, and hence the vertical side rods of the bucket-bail will be maintained in the position requisite for their entry into the recesses in the carrier.

Upon the under side of the inclined track is a latch, S, for the door, and the carrier is pro-
 90 vided with a projection, T, which strikes against and raises said latch.

Having thus described my invention, what I claim, and desire to secure by Letters Pat-
 95 ent, is—

1. The combination, with an inclined track, a bucket-carrier to traverse the same, and cords which connect the bucket with the carrier and the house, of a movable frame affixed
 100 to the carrier and adapted to engage the bail of the bucket so as to secure the bucket to the carrier, and an abutment located within the well, against which the movable frame strikes to release the bucket from the carrier, sub-
 105 stantially as and for the purposes set forth.

2. The combination, with the inclined track between the house and a well, of the bucket-carrier E, the bucket suspended from the carrier by a cord or cords passing through the carrier and into the house to a pulley-wheel,
 110 I, the movable frame K, affixed to the carrier and arranged to automatically engage the bail of the bucket, and the bell-crank lever L, pivoted within the carrier, substantially as described.

3. The bucket-carrier E, provided with a movable frame, K, having notches k' , a spring arranged to act against said frame, and a bell-crank lever, L, with a catch at its end, which projects out from the carrier, substantially as
 120 described.

4. The combination, with the inclined track leading from the house to a well or cistern, of the bucket-carrier E, arranged upon said track and provided with an arm for opening a door
 125 of the well-curb, substantially as described.

5. The combination, with the inclined track leading from the house to a well or cistern, of the bucket-carrier provided with a pivoted bell-crank lever and a movable notched frame,
 130

and the bucket provided with a bail composed
of vertical side rods having their upper ends
adapted to enter recesses in the carrier, and
a cross-bar adapted to act against the lower
5 end of the bell-crank lever when the bucket
is connected with the carrier by the movable
frame, substantially as described.

In testimony that I claim the foregoing as
my own I affix my signature in presence of
two witnesses.

JAMES R. CLUXTON.

Witnesses:

W. C. MCARTHUR,

H. A. HALL.