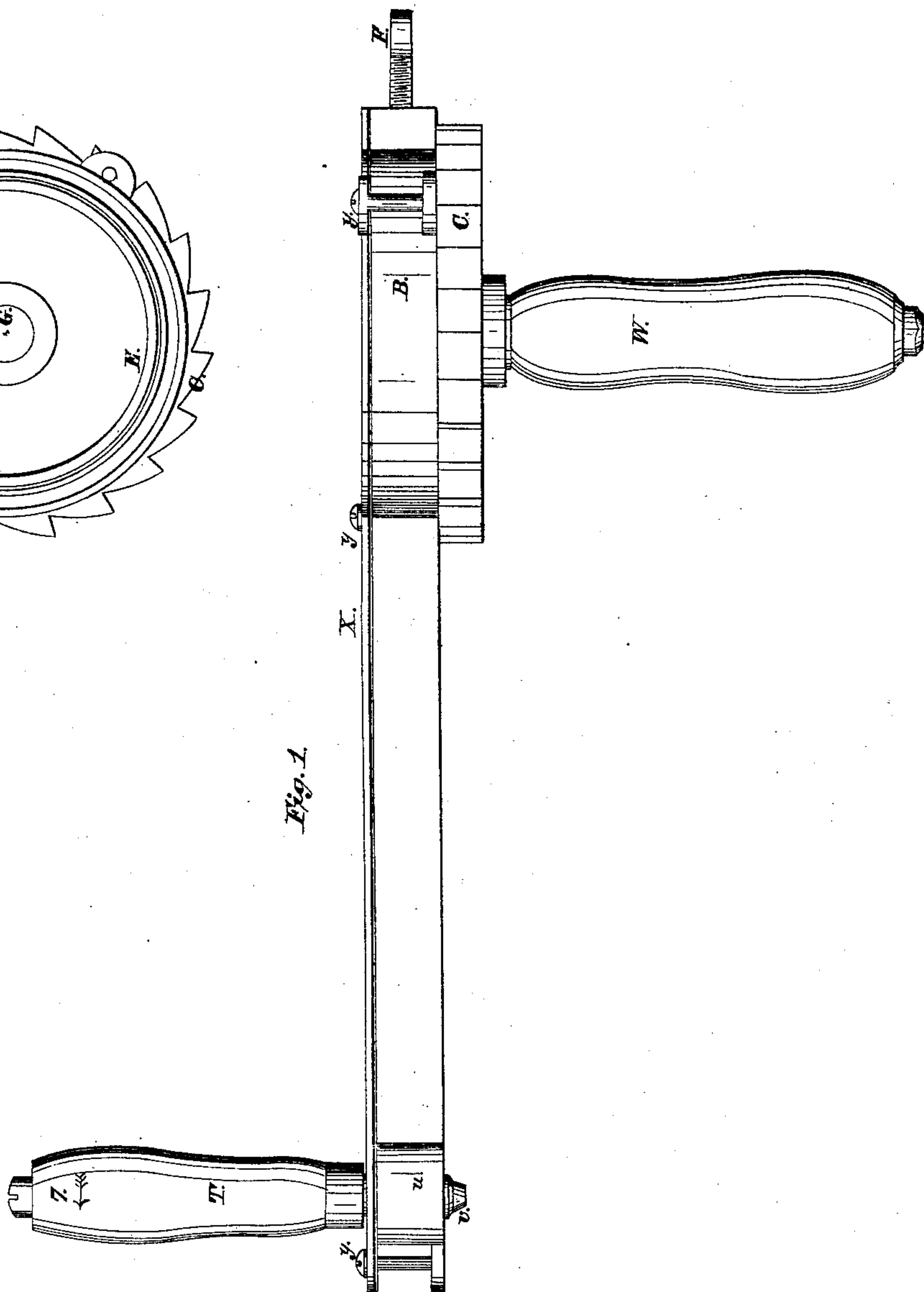
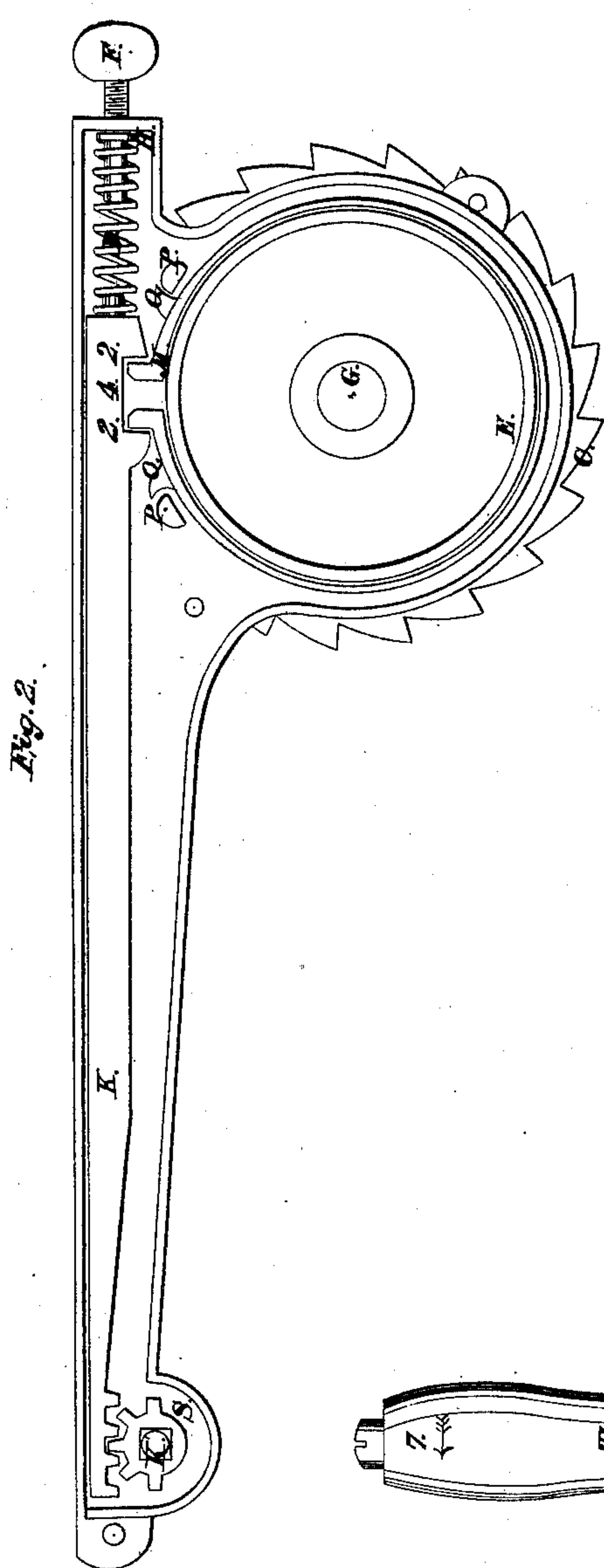


G. Race,
Windlass Water Elevator.

N^o 35,891.

Patented July 15, 1862.



Attest:
J. H. Mullips
A. B. Klink

Inventor:
George Race

UNITED STATES PATENT OFFICE.

GEORGE RACE, OF NORWICH, NEW YORK.

IMPROVEMENT IN WATER-ELEVATORS.

Specification forming part of Letters Patent No. 35,891, dated July 15, 1862.

To all whom it may concern:

Be it known that I, GEORGE RACE, of Norwich, Chenango county, New York, have invented a new and useful Improvement in Windlasses for the Purpose of Elevating Water; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, which form a part of this specification.

Similar letters indicate the same portions of my invention in each figure shown in the said drawings.

The object of this invention is to obtain a means of elevating water which can be operated with greater facility than any method known to your petitioner.

The invention relates to that class of water-elevators in which a windlass and bucket are employed; and it consists in the employment or use of a ratchet placed loosely on the windlass-shaft, in connection with a wheel permanently attached to the windlass-shaft and inclosed within a barrel attached to the ratchet, said wheel being acted upon by a friction band or clutch, which band is so arranged as to be operated at pleasure by means of a ratchet-lever, to which the handle is attached by means of the cogged wheel or pinion permanently attached to the said handle, as hereinafter described, whereby the bucket may be elevated by rotating the crank and released at any time or suddenly stopped, its descent being under the perfect control of the operator.

To enable those skilled in the art to fully understand and construct my invention, I will proceed to a more particular description of the same.

Figure 1 shows a perspective view of my invention, and Fig. 2 shows a side view of the same with the plate *x* removed.

G is the shaft to which the wheel E is permanently attached, which shaft also constitutes the drum W, having an ordinary spool attached to the same, upon which the rope holding the bucket may be wound.

C is the ratchet placed loosely upon said shaft G.

M is a friction band or clutch open at one side and having a projection on either side of the said opening, as shown at 2 2, which projections fit into a recess in the ratchet-lever K, which recess is shown at 4. On either side of the projections 2 2 is a lug or stop upon said

friction-band, (marked O O;) which are in contact with the stops P P, as occasion may require.

K is the ratchet-lever already mentioned, having at one end a number of cogs which admit of its being operated by the pinion S, attached to the handle T, passing through a square opening, as shown at K', and fastened on the opposite side by a convenient nut, B'. At the other end of said ratchet-lever is a projection sufficient to hold the spiral spring D, which plays upon and the pressure of which is regulated by the thumb-screw F, which has a collar, H, upon its inner side.

X is a metallic plate covering the entire surface of the windlass, or one side of the same, and is fastened by means of screws Y Y.

From the description given it will be seen that by turning the crank in the direction indicated by the arrow 1 the wheel E moves easily within the friction-band M; but at any time the operator may choose, by a slight movement of the hand he can turn the pinion S either way, and cause the ratchet-lever K to so act as to bring the projections 2 2 nearer together, and thus diminish the size of the band, producing any amount of friction desired, thus retarding the descending bucket, or stopping it entirely. It will also be seen that by means of the thumb-screw F and the spring D, I can adjust the loose band or friction-clutch so that it will hold any required weight without producing additional action upon the band M through the medium of the ratchet-lever K.

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

1. A hollow crank having a ratchet wheel permanently attached thereto, as described.
2. The loose friction band or clutch having projections and stops, substantially as set forth, and operated by means of a ratchet-lever.
3. The ratchet-lever, constructed as described, and operated by means of the pinion S or its equivalent, and arranged with reference to the spring D and thumb-screw F, as described.

GEORGE RACE.

Witnesses:

D. A. HARROVER,
THOMAS C. DONN.