

(No Model.)

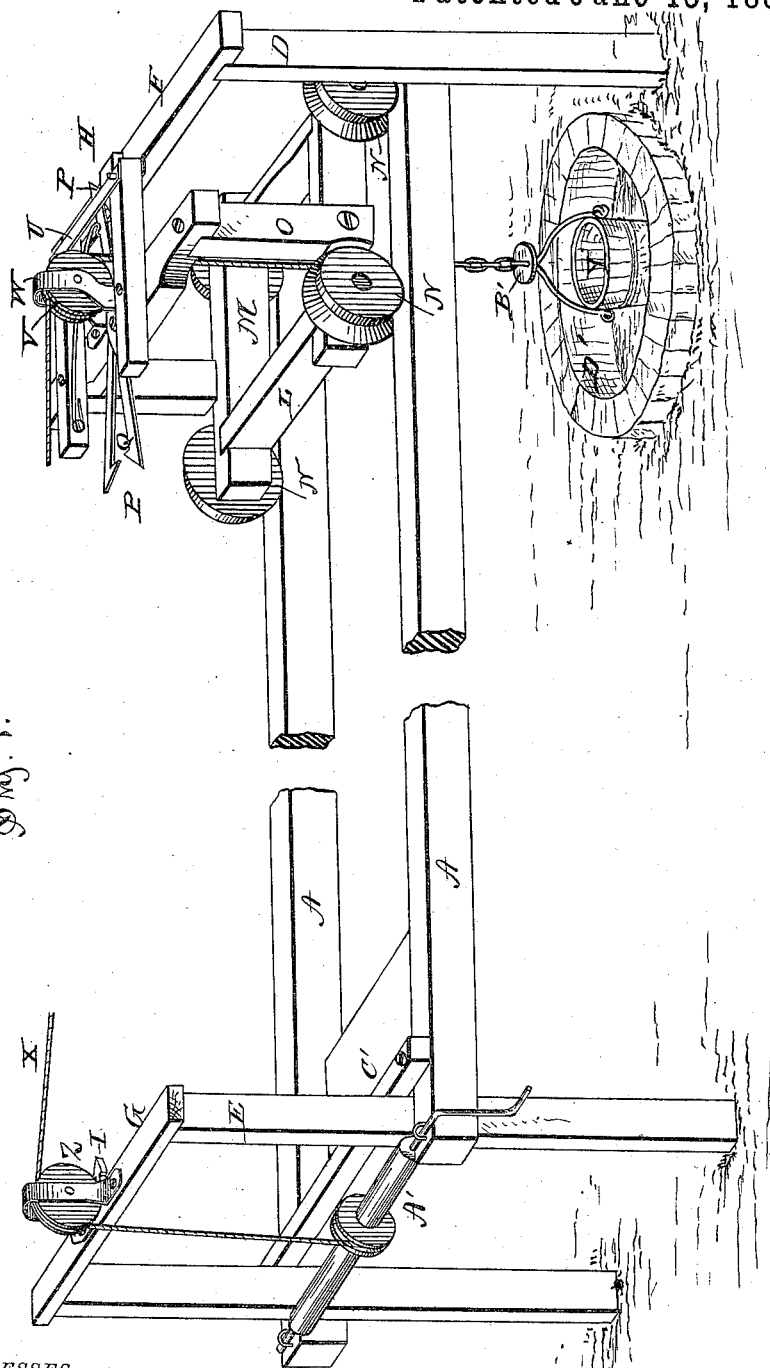
2 Sheets—Sheet 1.

J. S. FORD & P. RARICK.

WATER ELEVATOR AND CARRIER.

No. 343,808.

Patented June 15, 1886.



WITNESSES
H. L. Ostrander
Edward Stanton

INVENTORS.
Jesse S. Ford
Peter Rarick
By Louis Baggett & Co.
Attorneys.

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Fig. 2.

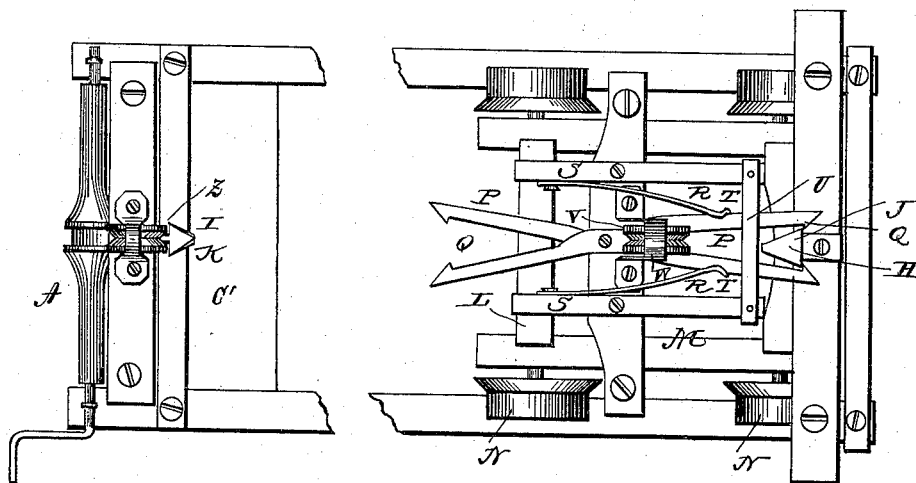
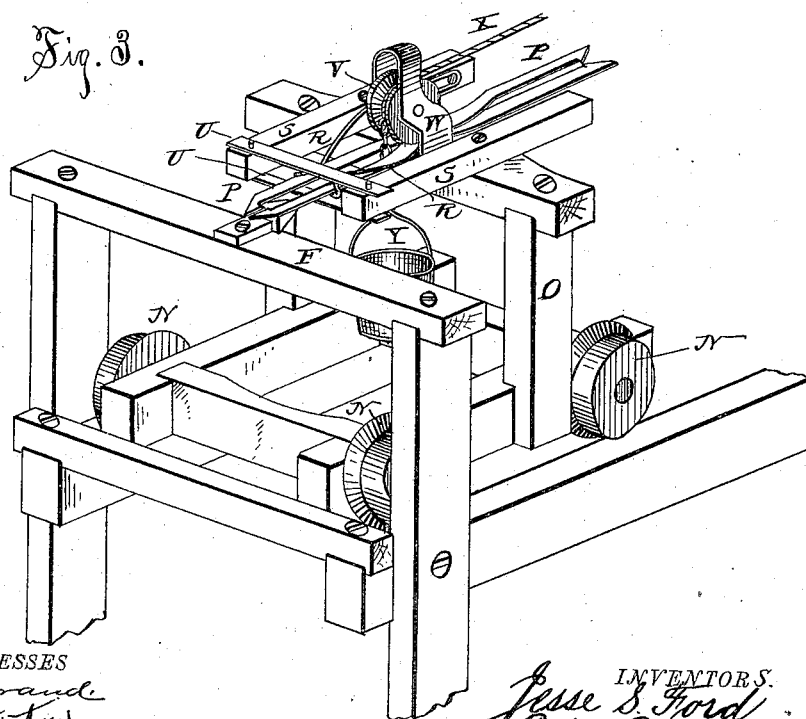


Fig. 3.



WITNESSES
F. L. O'Connell
Edward Stanton

INVENTORS
Jesse S. Ford
Peter Rarick
By Louis Ragger & Co.
Attorneys.

UNITED STATES PATENT OFFICE.

JESSE S. FORD, OF OHIO COUNTY, AND PETER RARICK, OF OWENSBOROUGH,
KENTUCKY.

WATER ELEVATOR AND CARRIER.

SPECIFICATION forming part of Letters Patent No. 343,808, dated June 15, 1886.

Application filed March 15, 1886. Serial No. 195,188. (No model.)

To all whom it may concern:

Be it known that we, JESSE S. FORD, of Ohio county, State of Kentucky, and PETER RARICK, of Owensborough, in the county of Daviess and State of Kentucky, have invented certain new and useful Improvements in Water Elevators and Carriers; and we do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification, and in which—

Figure 1 is a perspective view of our improved water elevator and carrier. Fig. 2 is a plan view of the same; and Fig. 3 is a perspective detail view of the carriage and bucket at the end of the track, showing the catches raised from the wedge, so as to allow the carriage and bucket to be drawn over the track.

Similar letters of reference indicate corresponding parts in all the figures.

Our invention has relation to that class of water elevators and carriers in which a carriage travels upon an inclined track having its incline toward the well, and in which the carriage is provided with means for clamping the rope of the bucket, holding it suspended while traveling over the track, and with means for tripping these clamps when the carriage arrives at either end of the track; and it consists in the improved construction and combination of parts of such an apparatus, as hereinafter more fully described and claimed.

In the accompanying drawings, the letters A A indicate the rails of the track, which may be made of wood, iron, ropes, or wires, and which rails are supported upon cross-pieces B upon the upper ends of upright posts C, the said cross-pieces and the posts forming T-shaped supports. Upright frames D and E are formed at the ends of the track, having cross-pieces F and G at their tops above the track, and wedges H and I are secured to the middles of these top pieces projecting toward each other. The wedge H at the lower end of the track is formed with laterally-projecting shoulders J at the lower edges of its converging sides, and the wedge I at the upper end

of the track is formed with similar shoulders, K, at the upper edges of the converging sides.

The carriage L, which travels upon the track, is composed of a rectangular frame, M, having four or more flanged wheels, N, which travel upon the rails, and an upright frame, O, is secured transversely upon this wheeled frame. Clamping-levers P P are pivoted crossing each other upon the middle of the top piece of the upright frame, and the ends of these levers are beveled inward and formed with inwardly-projecting and inwardly-facing shoulders Q, and the free ends of two springs, R R, which are secured to the inner sides of the upper ends of two longitudinal bars, S S, secured parallel to each other upon the top piece of the upright frame, bear against the outer edges of the lower arms of the clamping-levers, forcing them together, the ends of the springs being bent to form doubled hooks T, which straddle the edges of the levers and slide upon them. The lower ends of the two longitudinal bars upon the top of the upright frame are connected by two flat bars, U U, which serve as guides for the lower ends of the levers, which project between them.

A pulley, V, is journaled in an upright frame, W, upon the middle of the top piece of the upright frame of the carriage, and the rope or chain X, for the bucket Y, passes over this pulley down between the lower arms of the clamping-levers, while the other portion of the rope or chain passes over a pulley, Z, journaled upon the top of the frame at the upper end of the track to a windlass, A', around which it may be wound.

The bucket rope or chain is provided immediately above the bail of the bucket with a washer or plate, B', which may bear against the under sides of the lower arms of the levers when the rope is wound upon the windlass and the bucket hoisted up.

When the carriage is at the upper end of the track, the clamping-levers engage the wedge with their upper arms, bearing with their shoulders against the rear end of the wedge, retaining the carriage there, and the bucket which is allowed to descend, as the rope or chain is not clamped by the levers, rests upon a bench or trough, C', at that end of the track.

When the bucket rope or chain is drawn upward upon the windlass, raising the bucket from the bench, the washer or plate upon the said rope or chain will bear against the lower
 5 sides of the lower arms of the levers and raise the said ends and lower the upper ends, which will slide off the wedge and close, clamping the rope or chain. By unwinding the rope or
 10 chain from the windlass the carriage may travel down the incline of the track, and will arrive at the lower end of the track, where the lower ends of the clamping-levers will strike the wedge with their beveled ends, and guided
 15 by the flanges at the upper edges of the wedge the ends of the levers will be spread, allowing the bucket to descend into the well D', and causing the shoulders of the levers to hook behind the rear end of the lever. When the
 20 bucket is full, it may again be raised, and when the plate strikes the levers the ends will be raised off from the wedge, the levers will close, and the carriage will be drawn up the incline of the track.

The entire apparatus is simple of construction and is not liable to either suffer from much wear or to get out of order, as the parts composing the apparatus are few and may be made of any desired degree of strength.

Having thus described our invention, we claim and desire to secure by Letters Patent of
 30 the United States—

1. In a water elevator and carrier, the combination of a track having wedges at its upper and lower ends pointing toward each other,
 35 a carriage upon the track having clamping-levers with beveled ends pivoted to the carriage and crossing each other at their springs, and a bucket chain or rope having a bucket at its end and passing up between the lower
 40 arms of the clamping-levers and over pulleys upon the carriage and upper end of the track to a windlass, as and for the purpose shown and set forth.

2. In a water elevator and carrier, the combination of a carriage having two pivoted
 45 clamping-levers crossing each other on the frame, and formed with inwardly-beveled

ends having inwardly-projecting and facing shoulders, and having springs for forcing them together upon the frame, a track having
 50 wedges at its ends for spreading the ends of the levers and for engaging their shoulders, and a bucket chain or rope passing over a pulley at the end of the track and over a pulley upon the carriage down between the lower
 55 arms of the levers, and provided with a bucket at its end and with a plate or washer above the bucket for bearing against the under sides of the lower arms of the levers, as and for the purpose shown and set forth. 60

3. In a water elevator and carrier, the combination of a carriage having an upright frame provided with two longitudinal bars upon its top connected at their lower ends by two
 65 flat bars, and provided with an upright pulley, two clamping-levers having their ends beveled inward and provided with inwardly-projecting and facing shoulders pivoted and crossing each other upon the top piece,
 70 two springs secured to the rear ends of the longitudinal bars and bearing with their free ends against the lower arms of the levers, an inclined track for the carriage having upright frames at its ends provided with wedges upon their top pieces pointing toward each
 75 other, and provided with a pulley upon the top piece at the upper end and with a windlass at the same end, and a bucket chain or rope passing from the windlass over the pulley at the upper end of the track and over the
 80 pulley upon the carriage down between the lower arms of the levers, and provided with the bucket at its end and with a plate or washer above the bail of the bucket, as and for the purpose shown and set forth. 85

In testimony that we claim the foregoing as our own we have hereunto affixed our signature in presence of two witnesses.

JESSE S. FORD.
 PETER RARICK.

Witnesses:

J. B. KARR,
 R. A. HOGAN.