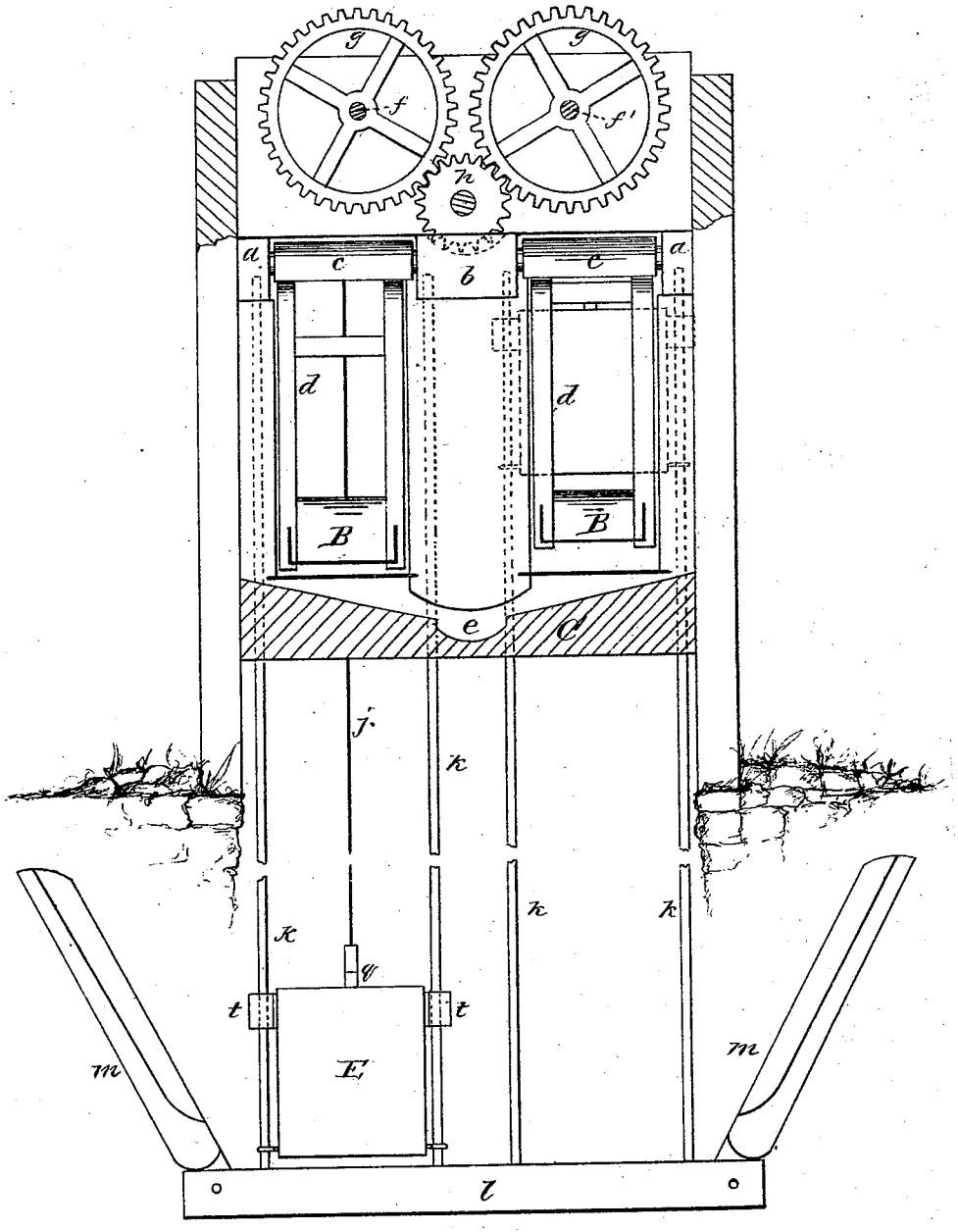
2 Sheets--Sheet 1.

J. H. VAN DYCK.

Water-Elevator.

No. 169,316. Patented Oct. 26, 1875.

Fig. 1.



WITNESSES:

T. D. D. Ourand

Nay E. Oliphant

INVENTOR.

John H. Van Dyck,

per Charles H. Fowler.

ATTORNEY.

J. H. VAN DYCK.

Water-Elevator.

No. 169,316. Patented Oct. 26, 1875.

Fig. 2.

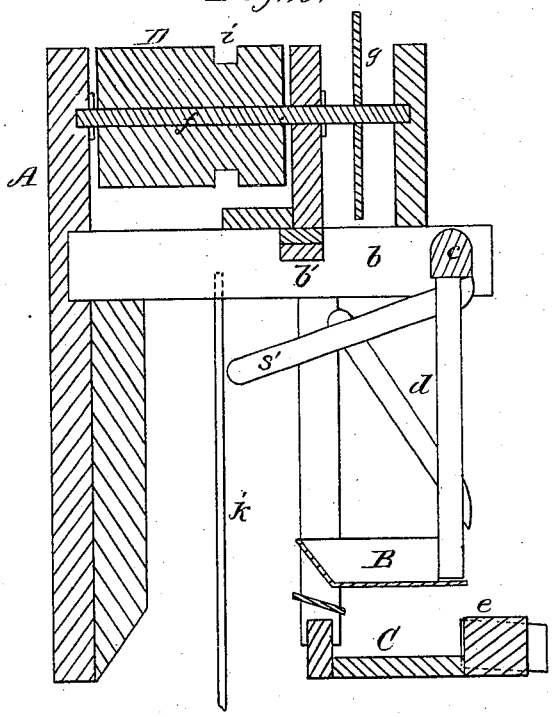


Fig. 3.

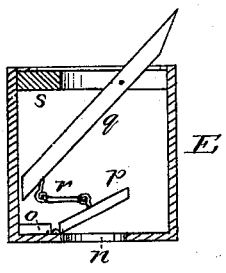
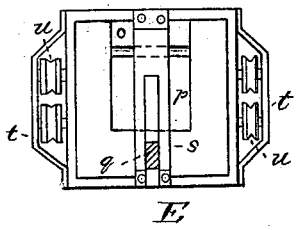


Fig. 4.



WITNESSES:

T. D. D. Durand

Nat. E. Oliphant

INVENTOR.

John H. Van Dyck,

per Charles H. Fowler.

ATTORNEY.

UNITED STATES PATENT OFFICE.

JOHN H. VAN DYCK, OF LEWINSVILLE, VIRGINIA.

IMPROVEMENT IN WATER-ELEVATORS.

Specification forming part of Letters Patent No. **169,316**, dated October 26, 1875; application filed October 4, 1875.

To all whom it may concern:

Be it known that I, JOHN H. VAN DYCK, of Lewinsville, in the county of Fairfax and State of Virginia, have invented a new and valuable Improvement in Water-Elevator; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawing is a representation of a front elevation of my improved water-elevator. Fig. 2 is a sectional view, showing the swinging spouts. Fig. 3 is a longitudinal vertical section of one of the buckets. Fig. 4 is a plan view of the same.

This invention has relation to windlass water-elevators; and its object is to produce a water-elevator of the class mentioned that will be effective in its operation, and at the same time durable and not easily injured or gotten out of repairs by continued use; and the invention consists in the combination and arrangement of the several parts hereinafter described, and subsequently pointed out in the claims.

In the drawings, A represents the frame to which the several operating parts are connected. Pivoted to cleats *a* upon the inner sides of this frame, and to a center-piece, *b*, are bars *c*, and to which are rigidly connected frames *d*, carrying at their lower end suitable spouts B. This arrangement admits of the spouts being swung out at the proper time during the ascent of the buckets, as will be hereinafter described.

Beneath or on a line under the spouts B is a trough, C, inclined from its ends to a common spout, *e*, through which the water is delivered to a suitable receptacle placed there to receive it.

Shafts *f f'*, carrying drums D, have their bearings in the sides of the frame A, and to their inner ends are secured suitable gear-wheels *g*, which are operated by a driving gear-wheel, *h*, having a shaft and crank attached thereto, as in the elevators of the ordinary construction.

The drums D may have annular grooves *i*, within which the cords or bands *j* fit.

From the cleats *a* and center-piece *b* project metal rods *k*, four in number, and pass downward to the bottom of the well, where they are secured to a cross-piece, *l*, to the ends of which are pivoted brace-pieces *m*, for securing the cross-piece *l* in a rigid manner to the bottom of the well.

The brace-pieces *m* are pivoted, so that they will admit of being swung out against the wall of the well, and afterward securely fastened thereto by spiking or in any other manner desired.

The buckets represented at E may be formed of metal or other suitable material, and have at the bottom an opening, *n*, through which the water passes in filling the bucket.

Secured to the bottom and side of the bucket is a cleat, *o*, to which is hinged a valve, *p*, the same being connected to a lever, *q*, by chain-links *r*, said lever pivoted at its upper end to a cross-piece, *s*, and operating the valve by its coming in contact with the under side of the block *b'*, secured to the cleats *a* and center-piece *b*.

The bucket, in its ascent, is brought against the bars *s'* of the frame *d*, which brings the spout B in position under the opening *n* of the bucket E previous to the discharge of the water.

To the sides of the bucket E are fastened bands *t*, to support friction-rollers *u*. At the lower end of the bucket are eyes *v*, through which the rods *k* pass.

If desired, friction-rollers may be used instead of the eyes.

The great advantage in the employment of guide-rods will be apparent from the fact that the buckets cannot, during their ascent, be swung against the sides of the wall of the well, and are thereby prevented from injury.

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

1. In a water-elevator, the cross-piece *l*, having pivoted to its ends brace-pieces *m*, for the purpose of securing the guide-rods *k* in position at the bottom of the well, substantially as set forth.

2. The buckets E, with valve *p* and lever *q*, and the guide-rods *k*, in combination with the swinging frames *d*, carrying spouts B and arms *s'*, and the blocks *b'*, substantially as and for the purpose specified.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

JOHN H. VAN DYCK.

Witnesses:
ALBERT PEACOCK,
NAT. E. OLIPHANT.