J. Lee,

Windlass Water Elevator.

No. 30,070, Patented Sept. 18, 1860.

Fig. 1.

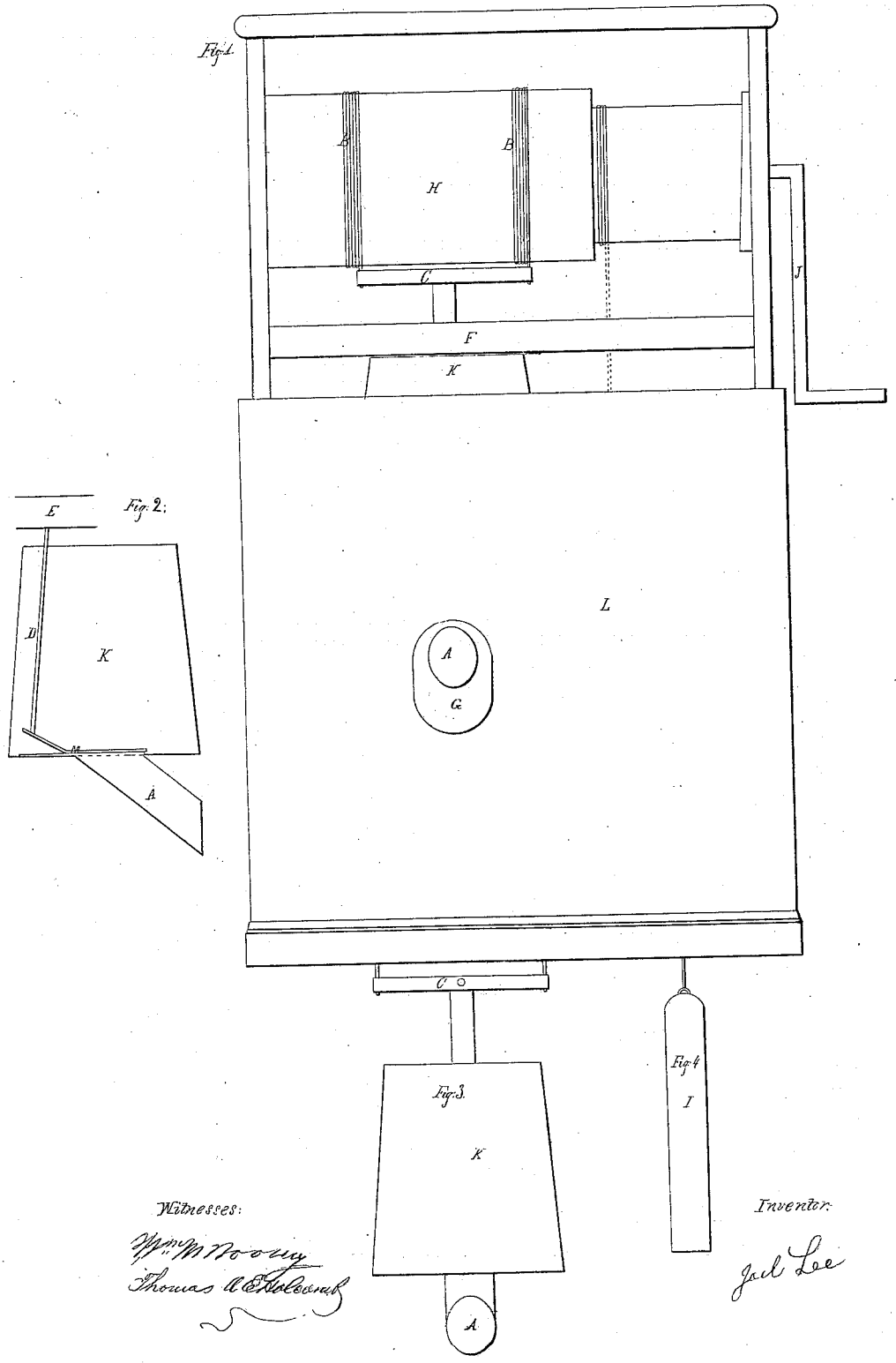


Fig. 2.

Fig. 3.

Fig. 4

Witnesses:

Wm. M. Dewey

Thomas A. Edwards

Inventor:

Jas. Lee

N. PETERS, PHOTO-LITHOGRAPHER, WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

JOEL LEE, OF GALESBURG, ILLINOIS.

METHOD OF RAISING WATER FROM WELLS, &c.

Specification of Letters Patent No. 30,070, dated September 18, 1860.

To all whom it may concern:

Be it known that I, JOEL LEE, of Galesburg, Knox county, and State of Illinois, have invented a new and useful Improvement in Water-Drawers; 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, in which—

Figure 1, is a front view. Fig. 2, is an internal view of the bucket. Fig. 3, a view of the bucket let down. Fig. 4, a view of the weight when down.

The nature of my invention consists in constructing and arranging the several parts of this machine in the manner hereinafter described.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

A represents the spout; B B the two ropes; C the equalizer; D the valve rod; E the bumper; F the cross piece; G the aperture in the curb; H the drum; I the weight; J the crank; K the bucket; L the curb, and M the valve.

When the drum is turned by means of the crank, both ropes are equally wound up, bringing the spout with precision at the aperture in the curb; at the same time, the valve rod is arrested by the bumper, which is attached to the curb beneath the drum; and the action of turning being continued a short space the bucket also is brought in contact with the bumper, and also with the cross piece, during which the valve is raised and the water immediately shoots from the spout through the aperture into the receiving vessel which is set under the aperture outside the curb. When the valve is closed, its rear portion is elevated, the rod is attached to this part, and extends upward through a bar at the top of the bucket, a little above said bar; hence, when it is stopped, and the bucket yet ascending until that also is checked by the bumper, the valve is opened.

The equalizer suspends the bucket at its center; the ropes are attached at, or toward its ends; its length is sufficient with respect to the width of the bucket, to prevent it from turning, and oscillating; and its distance above the bucket, to give play to its extremities, when one is lowered by any inequality in the length of the ropes.

The weight is used to reduce the power where a large drum is employed, as in case of a deep well, or where rapid motion is desired, but in ordinary cases may be dispensed with.

The lessening of the diameter of that part of the drum used for the weight, prevents it from descending as fast as the bucket ascends, thereby keeping its metallic substance out of the water.

What I claim as my invention and desire to secure by Letters Patent is—

The arrangement of the drum H, the cords or ropes, B, B, the equalizer C, the valve rod D, the valve M, the bumper E, and the weight I, with the curb, L, and the bucket, K, provided with spout A, substantially as and for the purpose specified.

JOEL LEE.

Attest:

THOS. A. E. HOLCOMB,

WM. M. WOOLLEY.