

A. Bower,

Windlass Water Elevator,

N^o 24,925.

Patented Aug. 2, 1859.

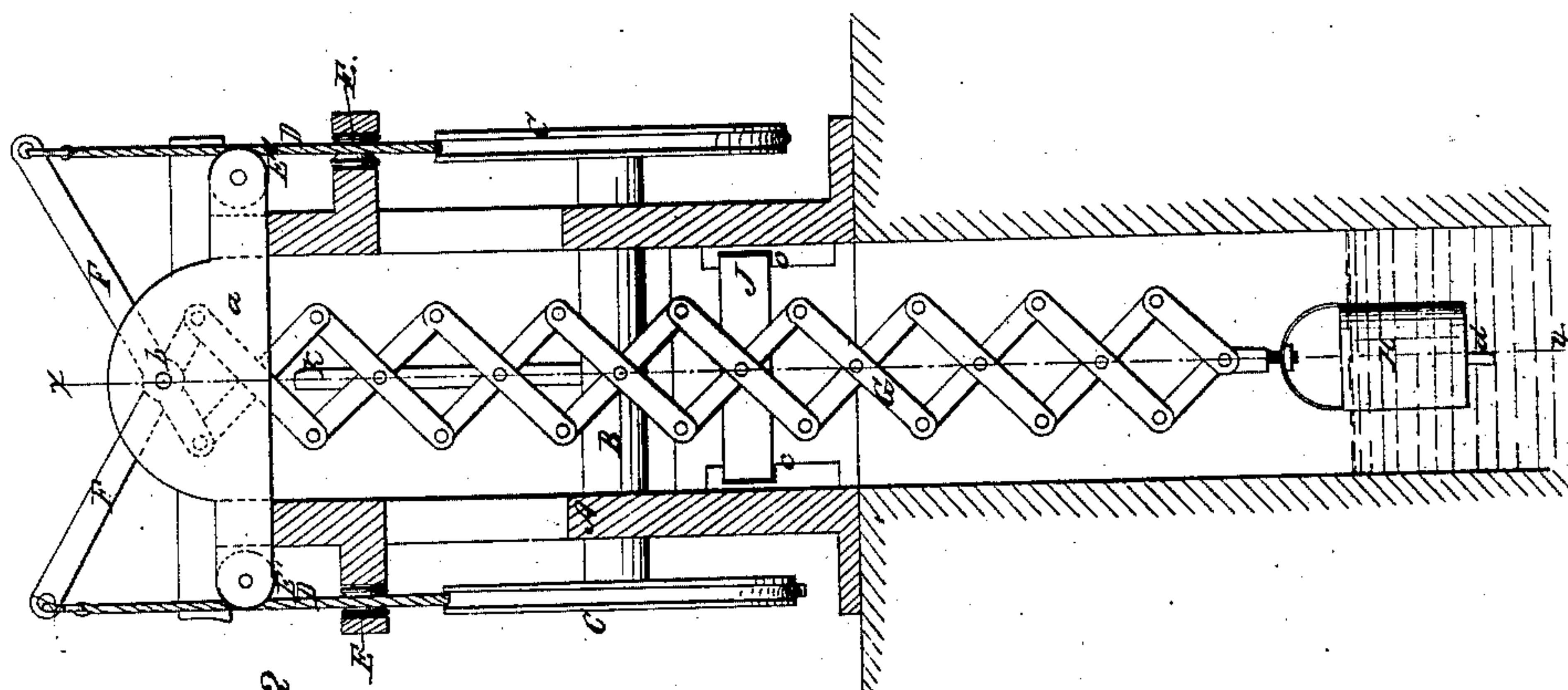


Fig. 2

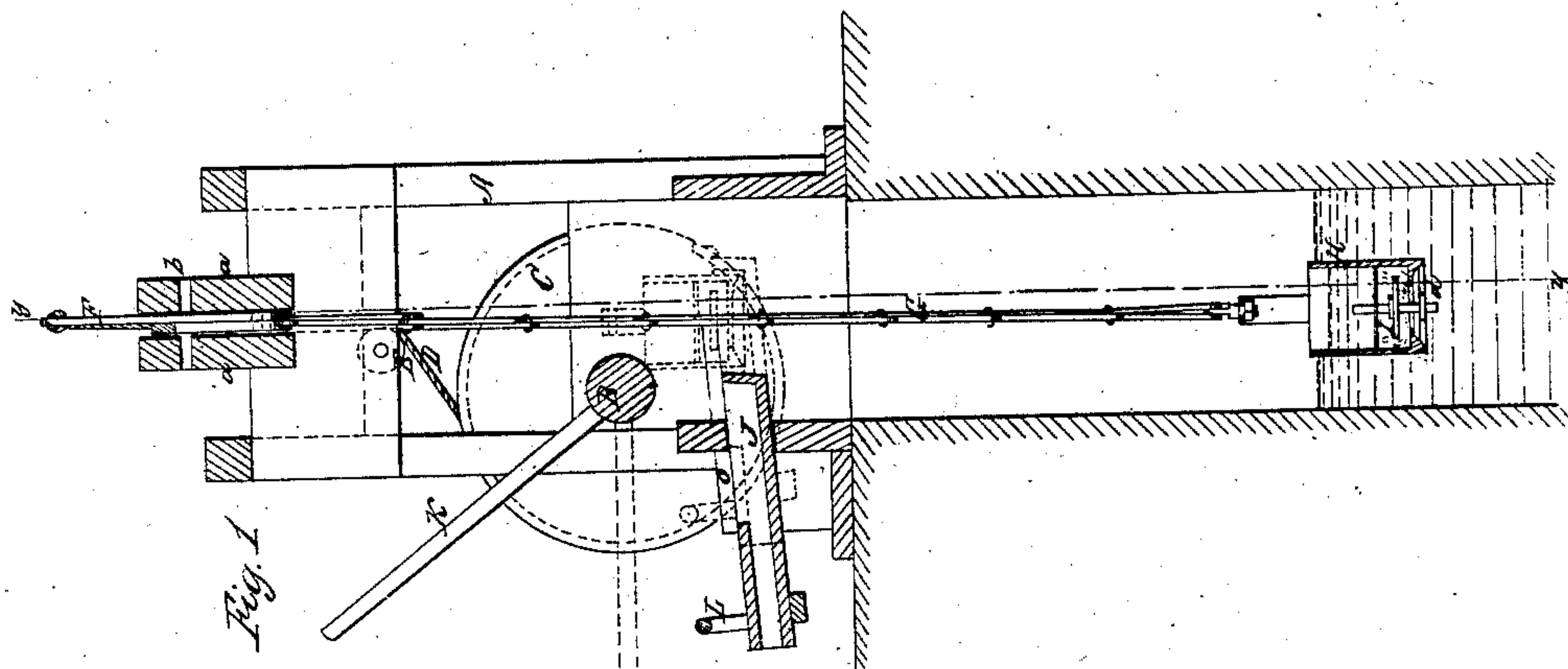


Fig. 1

Witnesses;
James Harriott,
Thomas & Pines

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UNITED STATES PATENT OFFICE.

ABRAHAM BOWER, OF PEKIN, ILLINOIS.

MACHINE FOR RAISING WATER, &c.

Specification of Letters Patent No. 24,925, dated August 2, 1859.

To all whom it may concern:

Be it known that I, ABRAHAM BOWER, of Pekin, in the county of Tazewell and State of Illinois, have invented a new and Improved Elevating Device; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1, is a vertical section of my invention taken in the line *x, x*, Fig. 2. Fig. 2, is a vertical section of ditto, taken in the line *y, y*, Fig. 1.

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

This invention consists in a combination of levers, bucket and slide trough substantially as hereinafter described whereby a very simple and efficient elevating device is obtained.

To enable those skilled in the art to fully understand and construct my invention I will proceed to describe it.

A, represents a framing which may be of rectangular or other form and placed directly over the spot where the substance or article is to be raised.

B, is a shaft which is placed horizontally in the lower part of the framing and has a pulley C, at each end. To each pulley C, a rope D, is attached and these ropes pass behind guide pulleys E, E, attached to the framing A, and by the side of pulleys E', which are placed between the ends of traverse pieces *a, a*, on the framing A.

Between the traverse pieces *a, a*, two cross levers F, F, are secured by a common fulcrum pin *b*, and the upper ends of the ropes D, are attached to the outer ends of these levers. The inner ends of the levers F, F, are attached to the upper end of the lazy tongs G, as shown clearly in Fig. 2, and to the lower end of the lazy tongs a bucket H, is attached the bottom of which is provided with a puppet valve I, which is shown clearly in Fig. 1.

In the lower part of the framing A, a slide trough J, is placed. This slide trough is slightly inclined and is fitted between suitable guides *c, c*, in the framing so that it may be shoved in and out, the trough when shoved in, being directly over the path of the movement of the bucket, and free from said path when drawn out from the framing.

To the shaft B, a lever K, is attached, and a handle L, is attached to the front or outer end of the slide trough J.

The operation is as follows: Suppose the device be used as a water elevator, the framing A, being placed over a well or cistern. The operator draws out the slide trough J, and the bucket H, descends by its own gravity or in consequence of the operator raising lever K, the latter manipulation being necessary if the bucket be counterpoised which may be done by attaching weights to the levers F, F, or to the pulleys C, C. The bucket H, descends rapidly and as it strikes the surface of the water, the valve I, opens and the bucket fills. The operator then depresses the lever K, and the filled bucket rapidly rises the valve I, being closed by the weight of water in the bucket. When the bucket H, passes above the level of the slide trough J, the operator shoves the trough inward underneath the bucket and the latter is allowed to descend and rest in the trough, the valve I, being opened in consequence of the valve stem *d*, striking the bottom of the trough, the stem *d*, being allowed to project below the bottom of the bucket, for such purpose, see red lines Fig. 1. As the valve I, opens the water in the bucket passes out into the trough J, and is discharged into a proper receptacle placed to receive it at the outer end of the trough. If another bucket of water is to be drawn the operator slightly elevates the bucket H, draws out the trough J, and allows the bucket H, to descend again.

By this invention it will be seen that a very simple and efficient elevating device is obtained and one that admits of a very general application for elevating purposes.

I do not claim separately or in themselves considered the lazy tong system of levers G, for they are a common and well known device; but,

I do claim as new and desire to secure by Letters Patent,

The combination of the lazy tongs G, the slide trough J, and valvular bucket H, arranged for joint operation substantially as and for the purpose set forth.

ABRAHAM BOWER.

Witnesses:

JAMES HARRIOTT,
THOMAS C. REEVES.