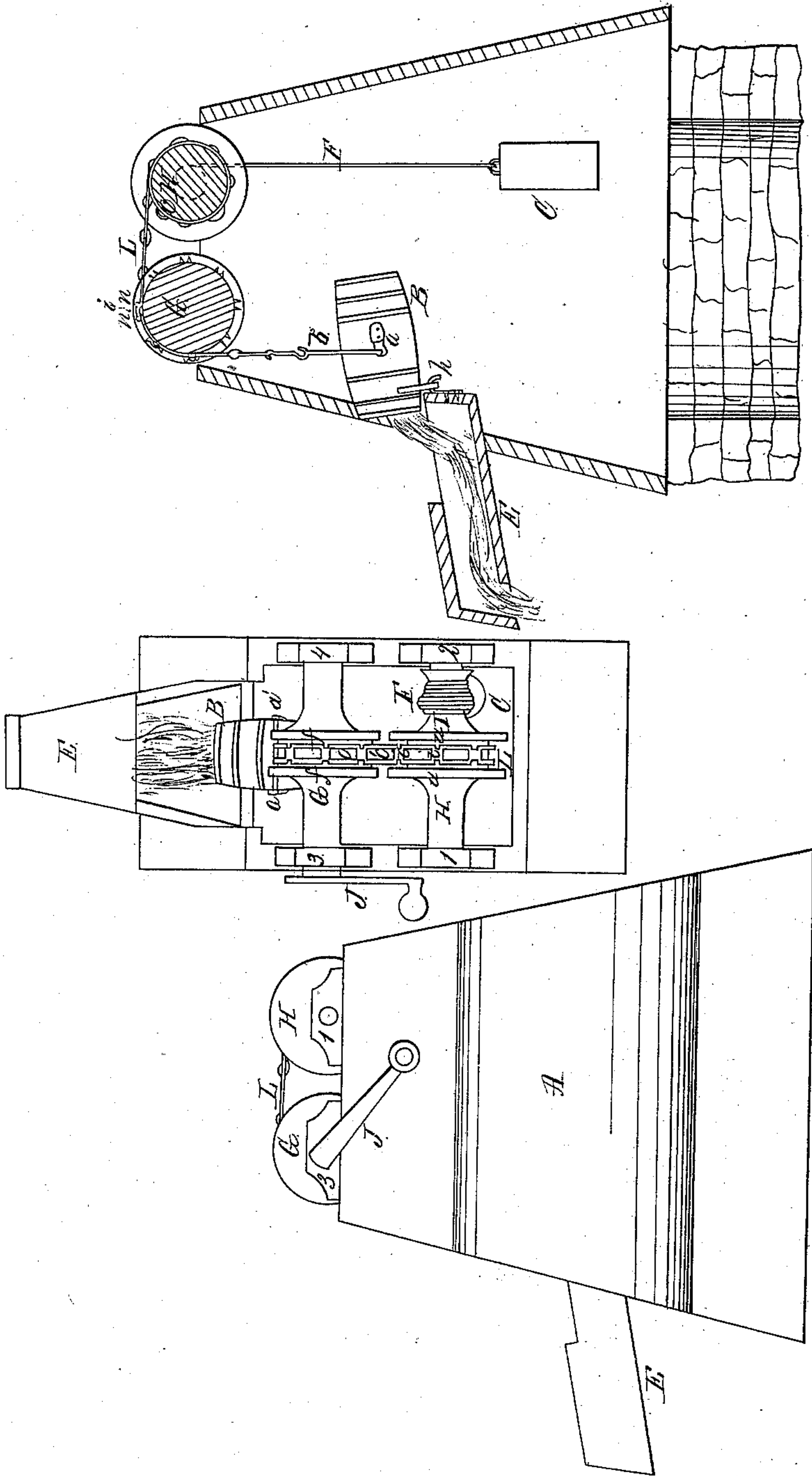


S. F. Jones,

Windlass Water Elevator,

No. 42,439,

Patented Apr. 19, 1864.



UNITED STATES PATENT OFFICE.

SAMUEL F. JONES, OF ST. PAUL, INDIANA, ASSIGNOR TO HIMSELF AND
ERASTUS L. FLOYD, OF SAME PLACE.

IMPROVEMENT IN WATER-ELEVATORS.

Specification forming part of Letters Patent No. 42,439, dated April 19, 1864; antedated
April 8, 1864.

To all whom it may concern:

Be it known that I, SAMUEL F. JONES, of St. Paul, in the county of Decatur and State of Indiana, have invented a new and Improved Water-Drawer; and I do hereby declare that the following is a clear, full, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, in which—

Figure 1 is a plan or top view. Fig. 2 is a vertical section, showing the position of the bucket B and weight C. Fig. 3 is a front elevation.

The nature of my invention consists in the construction and arrangement of the several parts of a water-drawer, as hereinafter fully described and shown.

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

The curb A should be made one foot by three feet at the base, three feet high, and one foot by two feet at the top. The spout E is placed in the center of the front end of the curb, about fourteen inches from the bottom. It is nailed fast to the curb, with the wide end projecting about two inches inside of the curb. The front end of the curb, above the spout, should be left open. The wheel G is about ten inches in diameter, provided with flanges *ff*, Fig. 1, at each edge of the rim, about one inch high, and one inch and a half apart. The rim of said wheel is provided with cogs *nn*, Fig. 2. Between the flanges the said cogs are set alternately two inches and three-fourths of an inch apart, and should be about one inch and a quarter wide and half inch high. This wheel should be cast or otherwise made fast to the axle. Said axle has its bearings 3 4, Fig. 1. These are secured to the top edges of the curb. At the right-hand end of this axle the crank J is secured. The spool H is about six inches in diameter, provided with deep flanges *uu*, Fig. 1. This spool is arranged in the rear of the wheel G, and is provided with a hook, *e*, Fig. 2. To this hook the upper end of the chain L is attached. On the left hand of said spool, and on the same axle, the spool I, Fig. 1, is arranged. This spool is about three inches in diameter. On it the cord F is wound. The weight C, Fig.

2, is attached to the lower end of said cord, and equalizes the weight of the chain and bucket on the wheel G. The axle upon which these spools are arranged is provided with bearings 1 2, Fig. 1. These are also secured to the top edges of the curb. The upper end of the cord F is attached to the spool near the outer end, and winds on the spool toward the center, and is wound on from the back part of the spool. The chain L is made with square links *oo*, Fig. 1, an inch and a quarter by two inches. These links are connected together by rolls *ii*, of heavy band-iron, cut in suitable lengths and rolled with the edges together. The bucket B, Fig. 2, is attached to the lower end of said chain. When the cord F is wound on its spool, and the weight C is nearly wound up, then attach the upper end of the chain to the hook *e* on the spool H, and as the weight runs down it will wind the chain on the spool H, which brings the bucket up. The chain lies over the wheel G, between the flanges, with the rolls *ii* in Fig. 2 resting between the cogs *nn*. These cogs prevent the chain from slipping when the bucket is let down or drawn up. The bucket B is provided with ears *aa*, Fig. 1, to which the bale *b*, Fig. 2, is attached. These ears should be placed about three-fifths of the height of the bucket from the bottom, so that the bucket will tip easily. The rib *r* is attached to the outside of the bucket, about two inches from the top. It should extend around the bucket about four inches, and stand out from the bucket about one inch, leaving a space between it and the bucket. Near the upper edge of the inner end of the spout the hook *h* is secured.

The operation of my water-drawer is as follows: The attendant, after setting his vessel under the spout, takes hold of the crank and turns toward him. This lets the bucket down into the well by unwinding the chain from around the spool H and winding the cord F upon its spool at the same time. The chain and cord wind on their respective spools alternately, the spools being arranged on the same axle. When the bucket fills with water, the attendant reverses the motion, which raises the bucket. As the bucket is being raised, the weight runs down and winds the chain from the wheel G on the spool H. As the

bucket is drawn up, the rib *r* is caught by the hook *h*, and as the bucket is raised higher it tips and pours its contents into the spout. When this is done, the attendant lets go the crank, and the bucket will remain where it is left, the weight and bucket being equalized, the attendant only having to raise the weight of the water.

From the above-described arrangement of the several parts, it will be seen that a cheap and durable water drawer is produced.

I do not claim any of the parts, when separately considered; but

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

A water-elevator, comprising the wheel *G*, spool *H*, spool *I*, chain *L*, weight *C*, and bucket *B*, all substantially as arranged and combined.

SAMUEL F. JONES.

Witnesses:

C. H. MADISON,
JAMES S. KING.