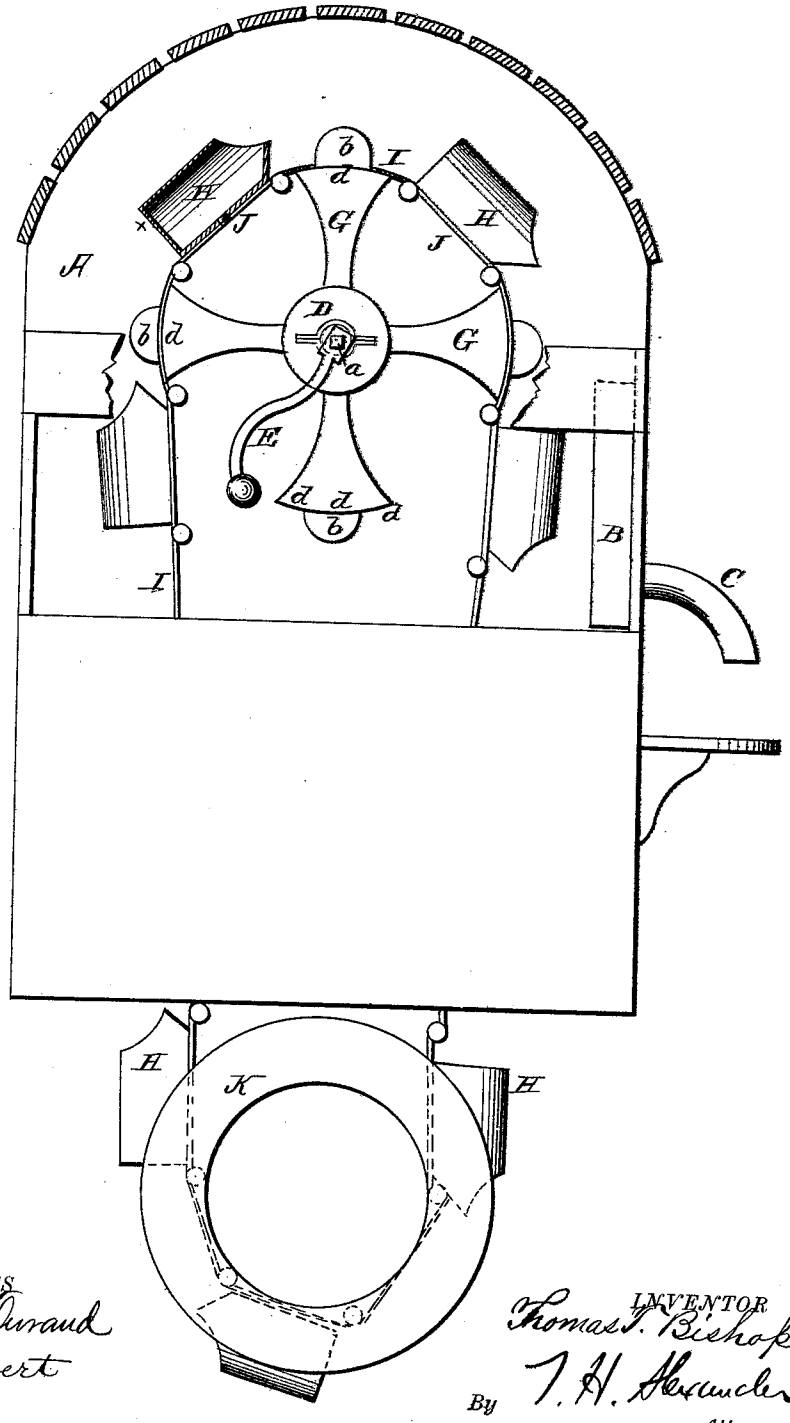
T. T. BISHOP.

WATER ELEVATOR AND PURIFIER

No. 181,134. Patented Aug. 15, 1876.



WITNESSES

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THOMAS T. BISHOP, OF ATLANTA, GEORGIA.

IMPROVEMENT IN WATER ELEVATORS AND PURIFIERS.

Specification forming part of Letters Patent No. **181,134**, dated August 15, 1876; application filed July 17, 1876.

To all whom it may concern:

Be it known that I, THOMAS T. BISHOP, of Atlanta, in the county of Fulton and State of Georgia, have invented certain new and useful Improvements in Water Elevators and Purifiers; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form part of this specification.

The nature of my invention consists in the construction and arrangement of a water elevator and purifier, as will be hereinafter more fully set forth.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawing, which represents a side elevation of my invention.

A represents the well-house erected over the well, and of any suitable construction, provided at one end with a conductor, B, and spout C. In this well-house is a short shaft, *a*, provided with a crank, E, and to the shaft is secured the operating-wheel, which consists of a hub, D, with a series of arms, G G, projecting radially therefrom at equal distances apart. Each arm G forms at its outer end a semicircular tenon, *b*, with broad flat shoulders *d* all around the same. This wheel operates the endless chain composed of alternate plates I and J, hinged together at their end. The plates I of this chain have central slots through them for the passage of the tenons *b* upon the ends of the wheel-arms G. The plates J have each a bucket, H, secured to them, said bucket being substantially of the form shown, and has in the bottom an air-vent *x*.

K represents a flanged wheel, which is placed inside of the endless chain, below the operating-wheel D G, and serves to hold the chain, with its buckets, down into the water.

By turning the crank E the wheel D G is rotated, operating the endless chain and bringing the buckets successively up full of water, and causing them to discharge the same in the conductor B, from whence it passes out through the spout C. As each bucket thus passes down into the water it is full of air, and as the water enters the bucket the air is expelled through the air-vent *x*; but as the air, of course, cannot escape until after the bucket is entirely immersed, it will be seen that the air will be dispersed in the water, which purifies the water and keeps it constantly fresh and sweet.

In the construction of the endless chain, I propose to form the plates I with a T-shaped head at each end, and the plates J with corresponding slots for the same to engage in; and, also, to construct the buckets with tongues to pass through slots in the plates J, and then clinched on the under side thereof.

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

The combination of the elevating-wheel, composed of the hub D, with radial-shouldered arms G, having rounded tenons *b;* the endless chain, composed of the alternate slotted plates I and solid plates J hinged together; the buckets H, provided with vents *x* and secured to the solid plates J, and the flanged wheel K, all constructed substantially as and for the purposes herein set forth.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

THOMAS T. BISHOP.

Witnesses:

JNO. S. HALLIDAY, Jr.,

PENNO BROWN.