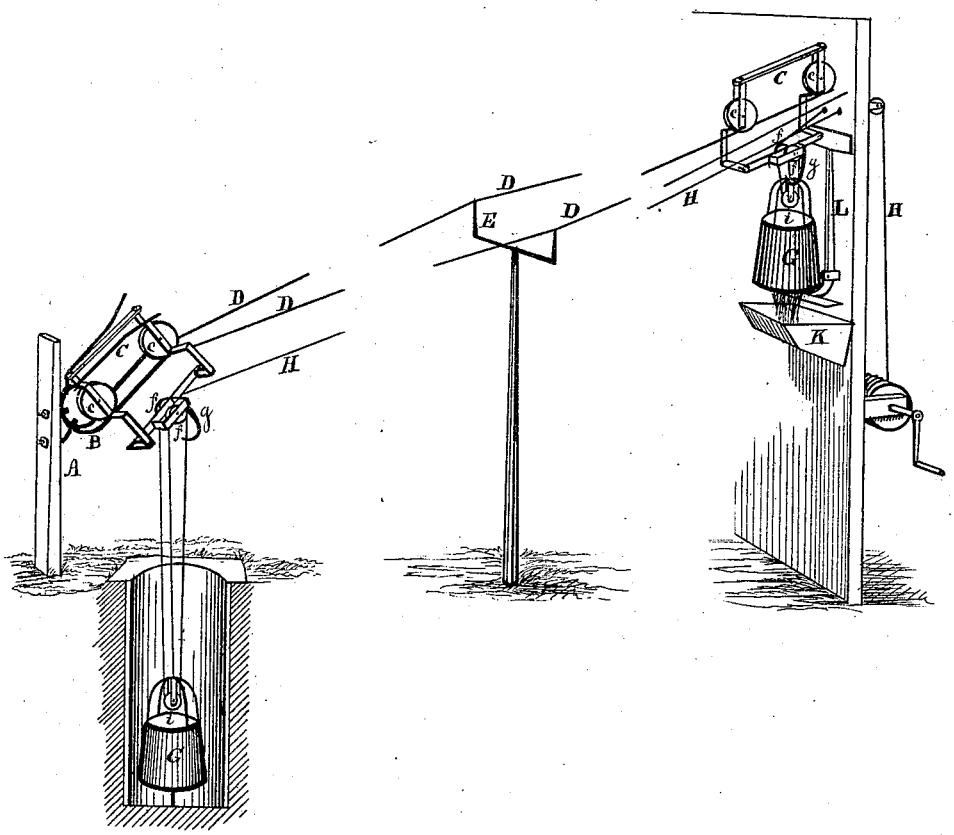
J. M. BAIN.

WATER-ELEVATOR.

No. 181.551 Patented Aug. 29, 1876.



Witnesses

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JAMES M. BAIN, OF HIGHLAND, (SAGO P. O.,) OHIO.

IMPROVEMENT IN WATER-ELEVATORS.

Specification forming part of Letters Patent No. **181,551**, dated August 29, 1876; application filed February 4, 1876.

To all whom it may concern:

Be it known that I, JAMES M. BAIN, of Highland, (Sago P. O.,) in the county of Muskingum and State of Ohio, have invented a new Water-Elevator, of which the following is a specification:

This invention relates to an apparatus for elevating and conveying water from springs, wells, or streams to houses, barns, factories, or upper apartments thereof, said springs, wells, or streams being located at variable distances and lower levels from the receivers.

Said apparatus consists of buckets attached to a rope by which they are lowered into and elevated from the water-source, and are then conveyed by the said rope, drawing a carriage over a wire tramway to the receiving places, and are there emptied by a tripping device opening a valve in the bottom of the buckets, the said rope being attached to and operated by a windlass at the said receiving places, all as hereinafter fully described and claimed.

The accompanying drawing illustrates my invention.

A is a post, which should be firmly set in the ground beside the well, spring, or stream. B is a yoke, fixed to the said post so as to be over the well, in which the carriage C rests while the bucket is being lowered into and raised from the well. From the two lower arms of the said yoke extend wires D D, which are supported at intervals by posts having arms E on their tops for that purpose, said wires reaching to and secured at the receiving place, these wires forming the tracks on which the carriages C travel. The carriage C consists of a frame made of bar-iron, having two grooved wheels, *c c*, which ride upon the wire D. The joints of said frame are loose, so as to allow the carriage to readily conform to the curvature of the track. On the lower bar of the carriage are attached two small pulleys, *f f*, and a hook, *g*. A rope, H, is attached to the bucket G and passes over the pulleys *f f* on the carriage and the pulley *i* under the bail of the bucket, thence upward to the house through the wall, and is there attached to a drum and windlass, J, and may have a second carriage and bucket attached at its other end, so that while one bucket is traveling toward the house the other is traveling back to the well. Thus one carriage and bucket will compensate for the weight of the other. At the side of the house, immediately over a trough, K, is placed a right-angled tilting-lever, L, suspended at the angle in such a manner that when the carriage and bucket arrive at the emptying place the carriage strikes against the upper arm of the lever, causing the lower arm thereof to lift the valve in the bottom of the bucket, and thus discharge its contents into the trough K, from which it may be conducted by a pipe to a receptacle inside of the house.

At one of the intermediate posts may be arranged a tilting-lever, which can be thrown into position, when desired, for emptying the buckets into a trough for watering cattle.

The mode of operating this apparatus is as follows: In winding the rope the bucket at the well is elevated thereby until it reaches the carriage, when the carriage is then drawn upward along the wire track, the hook *g* catching in the bail, and holds the bucket suspended therein until it arrives back again at the yoke B, which, being set on the post at a considerable pitch, causes the carriage to tilt over sufficiently to release the bucket from the hook.

This apparatus combines simplicity and durability, being constructed almost entirely of iron, is not liable to warp or get out of order, and the carriages, running on a single track, are not liable to get off by reason of sagging or other inequalities thereof.

Having described my invention, I claim—

1. In a water-elevator, having a tramway over which the water is carried in buckets, the yoke B, located over the source of water-supply and adapted to receive and tilt the bucket-carriage, thereby depositing said bucket in the well or other water source, substantially as described.

2. The carriage C, provided with a hook, *g*, in combination with the yoke B, cord H, and bucket G, whereby said bucket is automatically connected with and disconnected from said hook, substantially as shown and described.

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Witnesses:
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