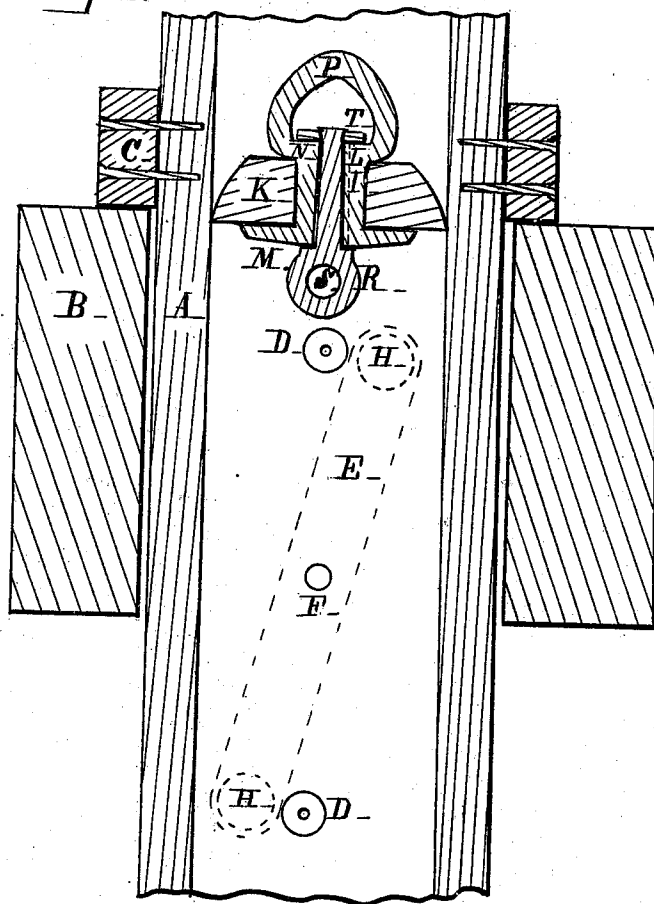


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CHAIN-PUMP.

No. 173,387.

Patented Feb. 15, 1876.

Fig. 1.



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UNITED STATES PATENT OFFICE.

MARVIN T. BROWN, OF KEOKUK, IOWA.

IMPROVEMENT IN CHAIN-PUMPS.

Specification forming part of Letters Patent No. **173,387**, dated February 15, 1876; application filed January 17, 1876.

To all whom it may concern:

Be it known that I, MARVIN THOMAS BROWN, of Keokuk, Lee county, Iowa, have invented a new and useful Improvement in Chain-Pumps, which is made substantially as set forth hereinafter, referring to the accompanying drawings, in which—

Figure 1 shows a section of a portion of the pump.

This invention relates to chain-pumps of the well-known style, and consists in features of hanging the tube, draining it to prevent freezing, and providing swivels and buckets together for the chain, &c.

The tube A is hung from the top without requiring supports at the bottom. The top platform is provided with two cross-timbers, B, between which the tube A is hung, fitting tolerable closely in the space. On each side of the tube blocks C are securely screwed onto the tube, so as to rest on the timbers B and support the weight, while at any time the tube may be freely drawn up. Near the top of the tube A a plug, D, is screwed into it securely. This has a small hole through it into the pump-chamber. A second like plug is inserted below at such depth as to be below freezing, both on one side of the tube. Midway between these plugs a bar, E, is pivoted at F to the tube on the same side. This has on each end rubber pads H, arranged so as to rest on the ends of the two plugs, and close the holes closely. This bar E is arranged so that it can be turned on its pivot with its ends off of the plugs. This leaves them open so that air enters at the top one and water es-

capes at the bottom. This is opened in winter to allow standing water to drain off, and in summer it is closed.

The rubber bucket K is made with a hole through its center. It is forced onto a metal holder, L, which has shoulders M N above and below, to hold the rubber securely in place. This has a link, P, to connect with the chain at its top end. The center of part L is hollow. Through this passes a part, R, from below. This has an eye, S, to connect with the chain below, and fits in part L, so as to turn freely in it as a swivel-joint, to prevent the chain getting twisted. The top of part R passes through a washer, T, and is riveted above it so as to turn freely. A groove, I, down the side of part R, furnishes a slight drip for water to escape.

I claim—

1. The chain-pump, having the supporting bars B and blocks C, combined with its tube A, and arranged to support the tube from the top, so that it may be freely withdrawn, substantially as set forth.
2. The chain-pump, having the tubular plugs D and the pivoted lever E, with its pads, combined with the tube, so as to form a water-escape for winter use, substantially as set forth.
3. The chain-pump bucket, having the swiveled link R L, combined with the rubber K and drip-groove I, substantially as set forth.

MARVIN THOMAS BROWN.

Witnesses:

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