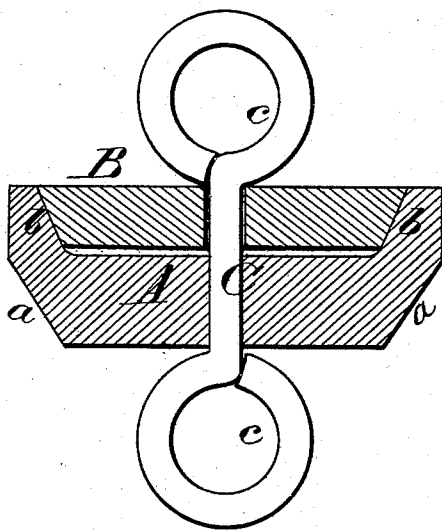


W. McGREW.
ENDLESS CHAIN-PUMP.

No. 172,142.

Patented Jan. 11, 1876.

Fig. 1



WITNESSES

Robert Everett
E. H. Bates

INVENTOR

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UNITED STATES PATENT OFFICE.

WESLEY MCGREW, OF XENIA, ILLINOIS.

IMPROVEMENT IN ENDLESS-CHAIN PUMPS.

Specification forming part of Letters Patent No. **172,142**, dated January 11, 1876; application filed December 4, 1875.

To all whom it may concern:

Be it known that I, WESLEY MCGREW, of Xenia, in the county of Clay and State of Illinois, have invented a new and valuable Improvement in Endless-Chain Pumps; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings making a part of this specification, and to the letters and figures of reference marked thereon.

The figure of the drawing is a representation of a section of my pump-valve.

This invention has relation to "lifting-buckets" for endless-chain pumps; and the nature of my invention consists in a bucket composed of gutta-percha, or other elastic substance, and a solid expanding disk, whereby the pressure of water being lifted will operate on said disk to expand the elastic portion of the bucket and keep its periphery closely pressed against the wall of the pump-tube, as will be hereinafter explained.

In the annexed drawing, A designates the circular body of the improved bucket, which is made of gutta-percha or any other suitable elastic material. The periphery of this portion A is beveled at *a*, and the upper side has a circular recess in it, which is bounded by upwardly-flaring walls *b*. B designates a circular piece of wood or metal, which has a beveled periphery, and is applied in the recess of the portion A. C designates the stem

of two eyes, *c c*, which stem passes centrally through the body portion A and circular piece B, and forms the connecting-link of the bucket.

It will be seen from the above description that the weight of a column of water in the pump-tube, acting on the piece B, will cause it to wedge itself into its recess and expand the elastic portion A, and cause it to work closely in the bore of said tube.

I am aware that a chain-pump bucket having a conical elastic shell fitted to a solid conical bore has heretofore been employed, and I therefore lay no claim to such invention.

What I claim as new, and desire to secure by Letters Patent, is—

The elastic circular perforated bucket A, beveled at *a*, and provided in its upper face with a recess, bounded by upwardly and outwardly flaring walls *b*, in combination with the circular perforated non-elastic disk B, having its periphery upwardly and outwardly beveled, and stem C, provided with eyes *c c*, substantially as described, and for the purpose set forth.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

W. MCGREW.

Witnesses:

THEOPHILUS SMITH,
SAML. E. PAINE.