

(No Model.)

A. WYCKOFF.  
BUCKET FOR CHAIN PUMPS.

No. 343,685.

Patented June 15, 1886.

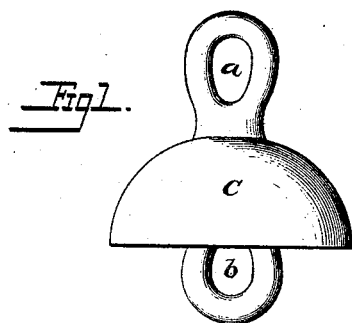


Fig. 2.

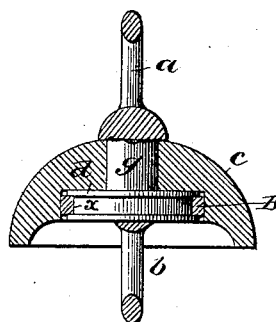


Fig. 4.

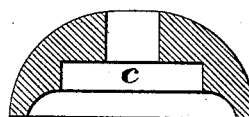


Fig. 3.

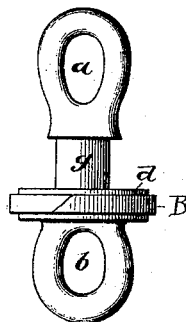


Fig. 5.

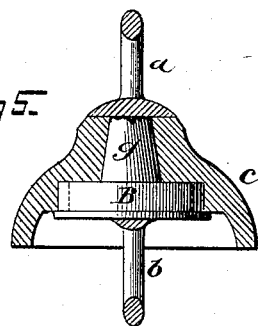
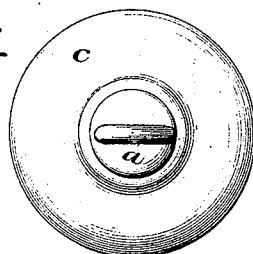


Fig. 6.



Attests:

*John F. Hinkel Jr*  
*J. J. M. C. C. C.*

*A. Wyckoff*

Inventor:  
*By Arthur Freeman*  
*Atty.*

# UNITED STATES PATENT OFFICE.

ARCALOUS WYCKOFF, OF ELMIRA, NEW YORK.

## BUCKET FOR CHAIN-PUMPS.

SPECIFICATION forming part of Letters Patent No. 343,685, dated June 15, 1886.

Application filed March 9, 1886. Serial No. 194,626. (No model.)

*To all whom it may concern:*

Be it known that I, ARCALOUS WYCKOFF, a citizen of the United States, and a resident of Elmira, in the county of Chemung and State of New York, have invented certain new and useful Improvements in Buckets for Chain-Pumps, of which the following is a specification.

My invention is a bucket for pumps, which is provided with a hub supporting a flexible or elastic piston, and a seat to receive a ring, whereby the piston may be expanded from time to time as it is reduced by wear.

In the drawings, Figure 1 is a side view of my improved bucket. Fig. 2 is a vertical section; Fig. 3, a detached view of the link portion of the bucket; Fig. 4, a detached section of the piston; Fig. 5, a section showing a modification. Fig. 6 is a plan of Fig. 5.

The improved bucket consists of a link having two loops or eyes, *a b*, stem *g*, and preferably formed in one piece, hub *d*, and a flexible piston or washer, *e*, approximating a cup shape, encircling at its upper extremity the stem *g*, while its enlarged open end fits over and around the hub. The eyes are of any suitable form for connection in the line of chain, and the hub has a peripheral groove, *x*. When the bucket is new, the piston will fit closely the bore of the pump; but, as the piston becomes worn from use, it becomes loose, so as to permit the passage of water round its periphery. To remedy this without removing the piston, I insert in the groove *x* a ring, *B*, of leather, rubber, metal, or other material, of such thickness that it will force the piston outward at its enlarged end from the hub, and expand the same until it fits the bore. As the piston is further reduced by wear, it may be further expanded by the insertion of a thicker ring. By this means I am enabled to very quickly repair any leak-

age resulting from the wear of pistons, and to use the pistons very much longer than would otherwise be possible.

The ring *B*, when of metal or leather, may be a split ring; but when it is elastic it may be a continuous ring, and it may be held in place by its own contractile action, by the pressure of the piston, or by securing devices, as screws or clamps.

It will be evident that the ring may be used in connection with different forms of link-pieces from that described.

In Figs. 1 to 4 the hub is in the form of a disk with a peripheral groove. In Fig. 5 it is a cylinder with a lower flange or lip, and other forms of hub may be made to constitute seats for the rings.

Without limiting myself to the precise construction and arrangement of parts shown, I claim—

1. The combination, in a pump-bucket, of a link provided with a hub having a peripheral seat, and a flexible washer or piston approximating a cup shape, as described, and extending at its enlarged end over the hub, and an expansion-ring upon said seat, substantially as described.

2. The combination, in a pump-bucket, of a link provided with a hub having an annular seat, and the loops or eyes *a b*, formed in one piece with the link, a cup shaped piston fitting at its upper portion round the stem and extending over and around said hub at its open end, and an expanding-ring fitting the said seat in the hub, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

A. WYCKOFF.

Witnesses:

E. L. WYCKOFF,  
MARCIA DERBY.