

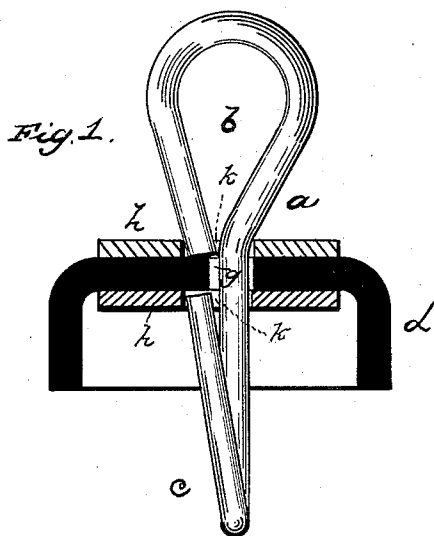
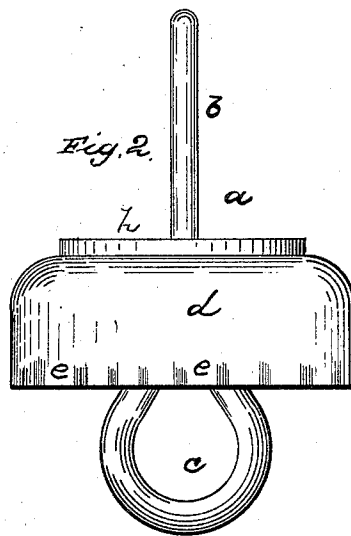
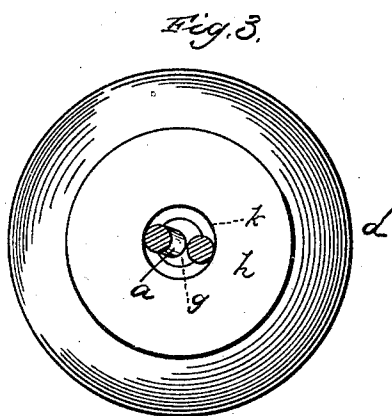
(No Model.)

J. J. GARDNER.

PUMP.

No. 299,373.

Patented May 27, 1884.



WITNESSES
E. H. Bates.
John T. Morrow.

INVENTOR
John J. Gardner.
by Anderson Smith.
his ATTORNEYS

UNITED STATES PATENT OFFICE.

JOHN J. GARDNER, OF NORTH MADISON, INDIANA.

PUMP.

SPECIFICATION forming part of Letters Patent No. 299,373, dated May 27, 1884.

Application filed June 11, 1883. (No model.)

To all whom it may concern:

Be it known that I, JOHN J. GARDNER, a citizen of the United States, residing at North Madison, in the county of Jefferson and State of Indiana, have invented certain new and useful Improvements in Pumps; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

Figure 1 of the drawings is a vertical sectional view. Fig. 2 is a side view, and Fig. 3 is a plan view.

This invention has relation to chain-pump buckets; and it consists in the construction and novel arrangement of the common wire link, having opposite end loops twisted at relative right angles, the leather or rubber disk, and the upper and lower washers, said disk and washers having central apertures of larger diameter than the link-wire, and adapted, when engaged therewith, to provide a drip-passage, all as hereinafter set forth.

In the accompanying drawings, the letter *a* designates a link, having an upper loop, *b*, and a lower loop, *c*, the ends of the wire being secured to the middle of the link in forming the loops.

d represents a disk of leather or rubber, which is cut a little larger in diameter than the bore of the pump-tube, so that it will become crimped on the edge, as at *e*, when worked in the tube. A central aperture, *g*, is cut in the disk, said aperture being of larger diameter than that of the wire of the link *a*. *h* indicates a washer, having a central opening, *k*, of larger diameter than the link-wire.

In constructing the bucket or pump-button, one loop of the link is opened out to enable the washer *h* to be placed on the middle portion of the link in contact with the inner portion of the other loop. Then the rubber or

leather disk is applied, and upon this another washer *h*, after which that end of the link which was opened out is closed up again in loop form, the wire end being forced into the central opening or eye of the second washer, so that all the parts are held firmly together.

In this manner a simple and durable pump-bucket can be readily and cheaply made by any mechanic.

The bucket will be found efficient in its operation, as the washers hold its middle portion firm, and its crimped edge fits closely to the wall of the pump-tube. The longitudinal openings in the disk and washers provide a drip-passage to prevent freezing. As the crimp of the buckets will not allow them to move readily backward on the pump-tube, no latch or ratchet is required in connection with the pump-gear. The rubber or leather disk should be made of material of uniform thickness, and it will have some elasticity or spring action at the crimped margin. When the bucket is worn on the outside of its rim portion, it may be reversed and crimped in the other direction. In this manner it can be made to last twice as long as an ordinary single-surface bucket.

Having described this invention, what I claim, and desire to secure by Letters Patent, is—

The chain-pump bucket consisting of the wire link *a*, having a loop at opposite ends thereof twisted at right angles with relation to each other, the rubber or leather disk thereon between the loops, and the washers on each side of said disk, both washers and disk having central apertures of larger diameter than the link-wire to provide a drip-passage, substantially as specified.

In testimony whereof I affix my signature in presence of two witnesses.

JOHN J. GARDNER.

Witnesses:

JOHN G. MOORE,

WILLIAM H. LAMSON.