W. WEHRES.

Chain-Pump.

No. 167,286. Patented Aug. 31, 1875.

Fig: 1.

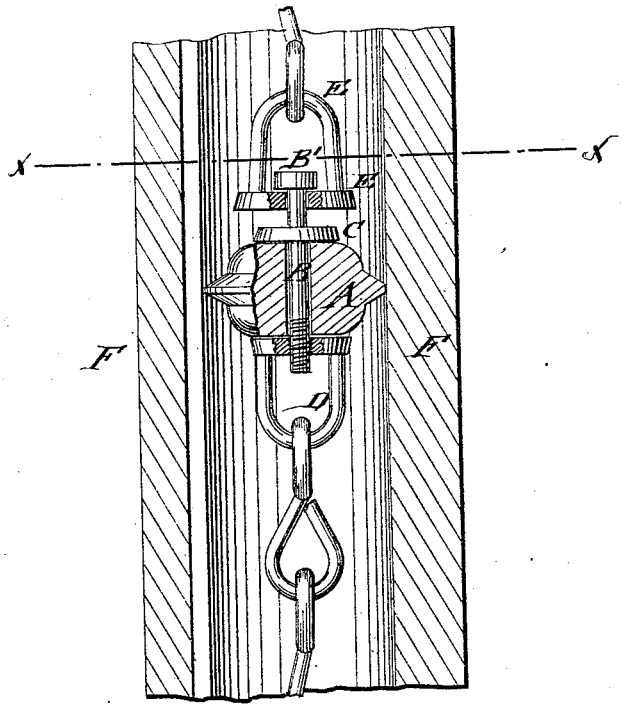
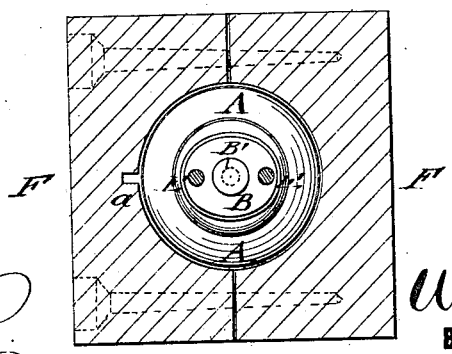


Fig: 2



WITNESSES:

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BY

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UNITED STATES PATENT OFFICE.

WILLIAM WEHRES, OF EVANSVILLE, INDIANA.

IMPROVEMENT IN CHAIN-PUMPS.

Specification forming part of Letters Patent No. **167,286**, dated August 31, 1875; application filed July 10, 1875.

To all whom it may concern:

Be it known that I, WILLIAM WEHRES, of Evansville, in the county of Vanderburg and State of Indiana, have invented a new and Improved Chain-Pump, of which the following is a specification:

In the accompanying drawing, Figure 1 represents a vertical central section of my improved chain-pump, barrel, and bucket; and Fig. 2 is a horizontal section of the same, on the line *x x*, Fig. 1.

Similar letters of reference indicate corresponding parts.

My invention refers to an improved bucket for chain-pumps that has not only the advantage of fitting always closely to the barrel, so as to convey the water in very effective manner, but which is also readily repaired by unscrewing the swivel-connection with the chain.

The invention consists of a bucket which is made of rubber or other elastic material, and symmetrical shape, and attached to a central bolt, to be held between a disk of the same and a binding-swivel screwing thereon, the bolt and swivel turning readily in a swivel at the other end of the bucket. The pump-barrel has a longitudinal water-drop groove or channel.

A in the drawing represents a bucket for chain-pumps, which is made of rubber, and of symmetrical shape at both sides of its central projecting and tapering flange part, so that it can be used in either position for being attached to the connecting-chain. The bucket A is centrally perforated, and a bolt, B, passed through the same, a disk-plate, C, of the bolt bearing on one side of the bucket, and the base-plate of swivel D, that is screwed onto the threaded end of the bolt, on the other side of the bucket. By screwing the swivel D more or less tightly on the bolt, the bucket is more or less compressed and expanded in radial direction, admitting thereby the accurate fitting of the same to the pump-barrel, and its readjustment on being worn out by use by being expanded by pressure. The bucket-bolt B is extended beyond disk C, and suspended by a collar, B, at the end of the extension from a swivel, E, which allows the easy untwisting of the chain, as one end of the bucket is perfectly loose, so that there is no chance of the chain working itself off the wheel. Whenever the rubber is worn out it can be easily replaced by unscrewing the binding-swivel, and slipping the new bucket on the bolt. No link requires to be opened, and the chain is not interfered with at all. The pump barrel or tube P is provided with a longitudinal groove or water-drop, *a*, for the purpose of avoiding the cutting of the bucket, which would be more or less closed by the swelling of the barrel when placed in the water. The smooth inside of the barrel, in connection with the elastic fitting of the buckets, admits the easy and quick throwing of water with comparatively little effort.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

The combination bucket A and nut-yoke D, swivel-yoke E of a bolt, B, having head B′, flange-plate C, and end screw working in a plate of nut-yoke D, as and for the purpose specified.

WILLIAM WEHRES.

Witnesses:

HENRY KOCH,

FRED. HERBERT.