

F. P. Hunt,

Chain-Pump Bucket,

Nº 103,619

Patented May 31, 1870.

Fig. 1

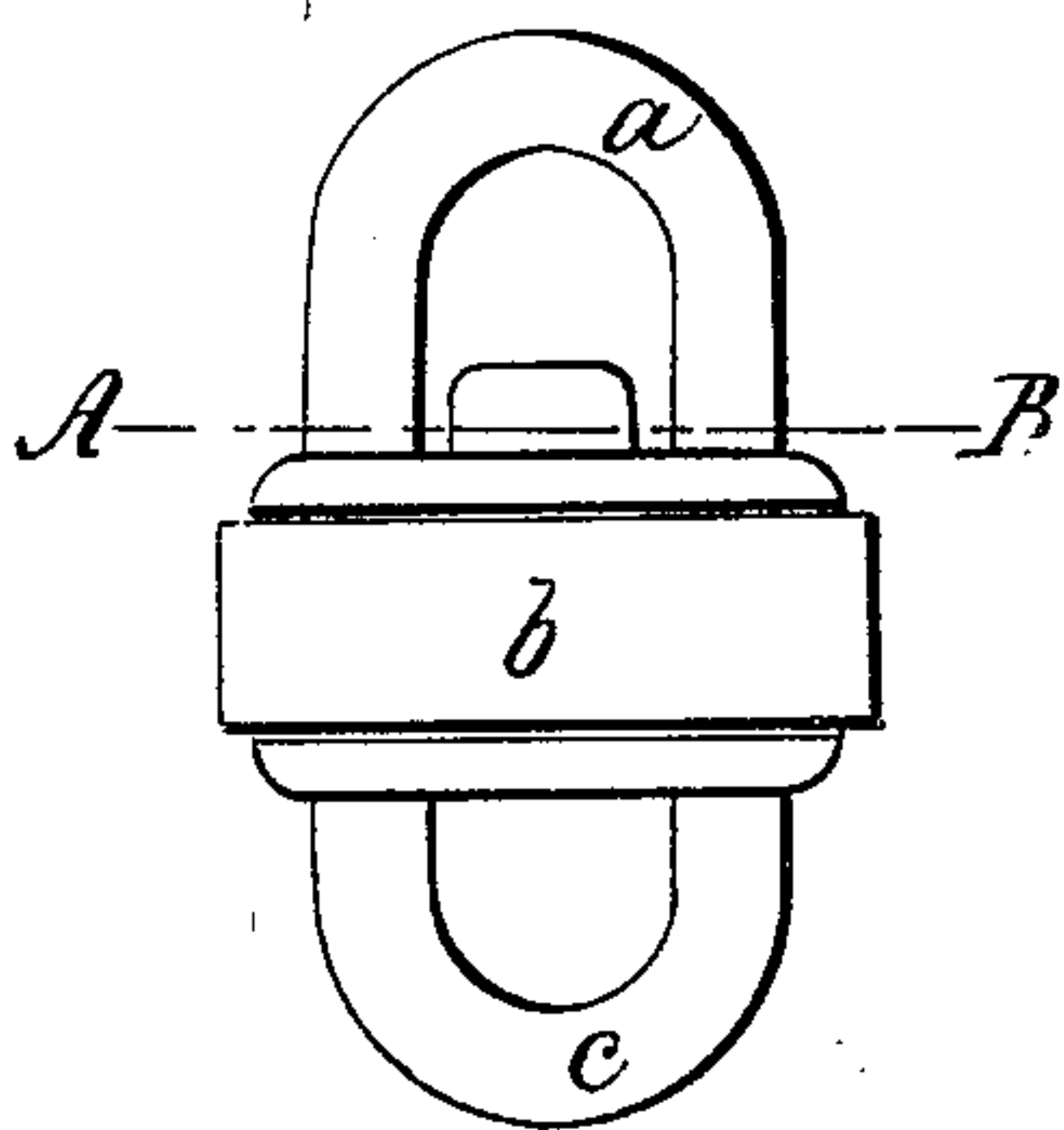


Fig. 3

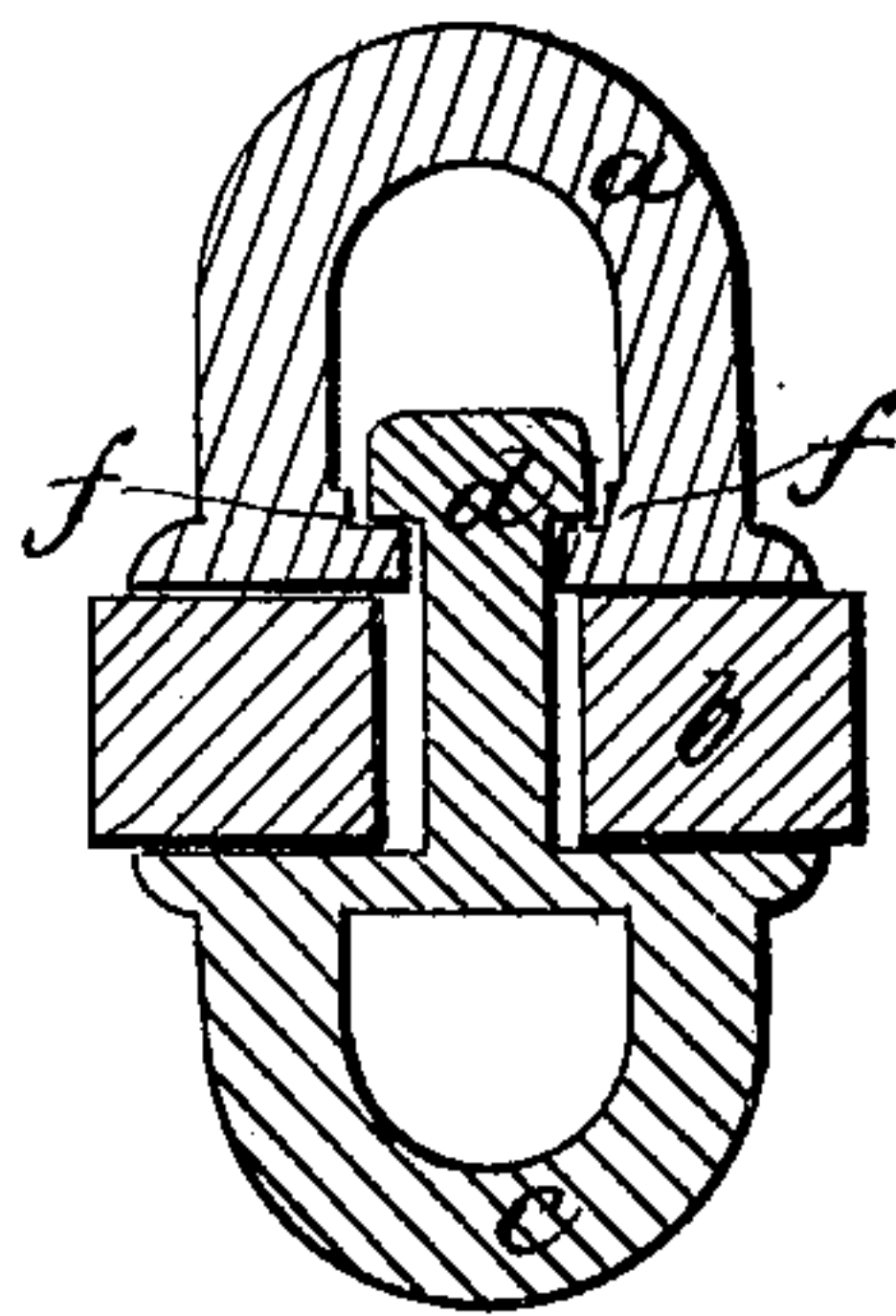


Fig. 2

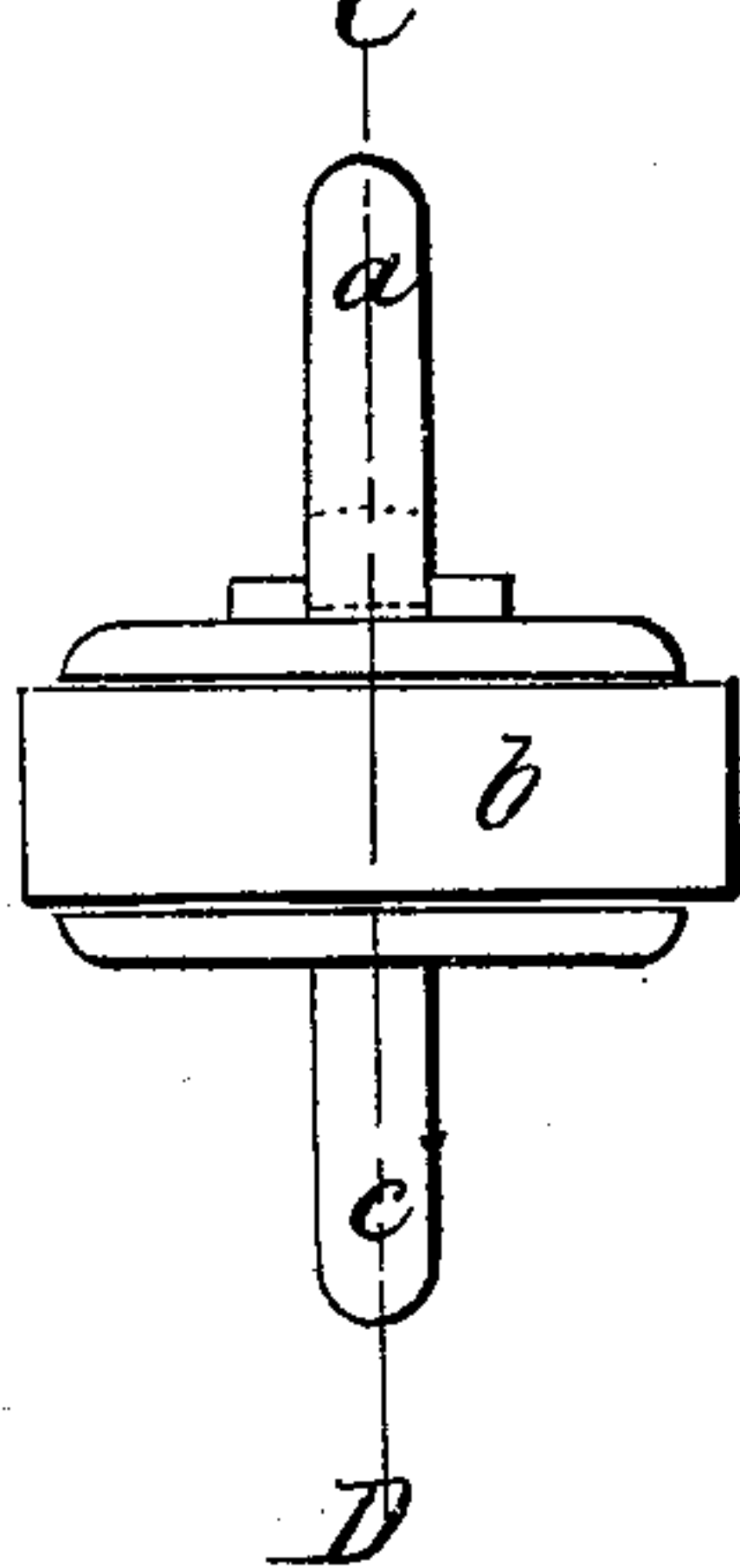
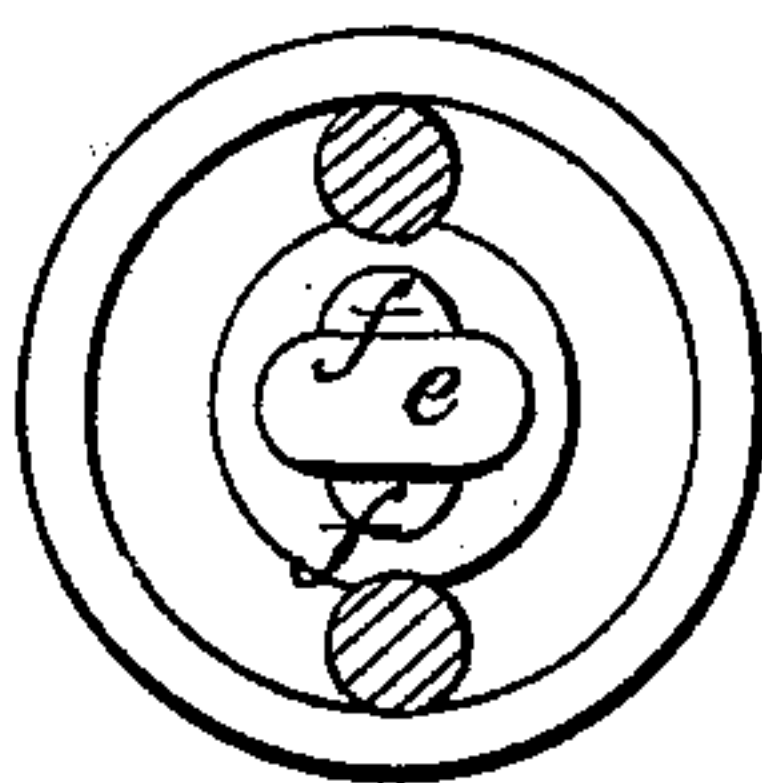


Fig. 4



Witnesses

C. H. W. Parkhurst

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UNITED STATES PATENT OFFICE.

FREDERICK P. HUNT, OF NORTHBOROUGH, MASSACHUSETTS.

IMPROVEMENT IN CHAIN-PUMP BUCKETS.

Specification forming part of Letters Patent No. **103,619**, dated May 31, 1870.

I, FREDERICK P. HUNT, of Northborough, county of Worcester, State of Massachusetts, have invented a new Improvement in the Construction of Buckets in Chain-Pumps, of which the following is a specification:

Nature and Object of the Invention.

The present invention relates to the combination of three or more members to constitute a bucket for chain-pumps in such a manner that the middle ones are held in their proper place by the outside ones, which can be instantly detached for repairs, &c.

Description of the Accompanying Drawings.

Figure 1 is an elevation of a bucket complete, showing a side view of the upper and lower bails. Fig. 2 is an elevation of the same, showing an edge view of the bails aforesaid; Fig. 3, a vertical section through all the members from C to D in Fig. 2. Fig. 4 is a top view of the upper member of said bucket, the bail being removed, cut through the red line from A to B in Fig. 1.

General Description.

a is the upper member of the bucket, having an oval bail into which the link of the chain is secured.

b is the middle or intermediate member, to be composed of rubber, leather, or any flexible material, to serve as a packing while passing through the smooth metallic tube of the chain-pump.

c is the lower or the third member, having a bail to receive the chain below and a T-shaped key, *d*, which passes through the member *b* and locks in the member *a*.

e is a top view of the opening in the member *a*, through which the head of the key *d* passes.

f f are depressions in said member *a*, of a suitable shape to receive the head of the key *d*.

Having described the manner in which the devices composing my invention are arranged and constructed, I will now show how the same operate together.

The members *a* and *c* being made of malleable iron, and the member *b*, a round flexible washer, made of a suitable thickness, and provided with a hole in the center, through which the key *d* of member *c* is passed, then through the opening *e* in member *a*. This being done by the use of a suitable instrument, the flexible member *b* is compressed sufficiently to allow the member *a* to be turned one-quarter of a revolution. The instrument is then removed, and the head of the key *d* rests in the depressions *f f*, and the bucket is complete.

It may be proper here to say that buckets now in use, composed of three members held together by bolts or screws, are liable to rust together so firmly that they cannot be separated without breaking said bolts or screws; and that my invention consists in so constructing the members *a* and *c* as to form a compound swivel-joint in the chain, and by the use of the intermediate member *b* constitutes a bucket without a bolt or screw, which can be taken apart by twisting the chain just one-fourth of one revolution, and without the use of a wrench, and never can be rusted to prevent its being done instantly.

Claim.

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

The members *a* and *c*, with the key *d*, depressions *f f*, and flexible annulus *b*, substantially as described, and for the purpose herein set forth.

F. P. HUNT.

Witnesses:

SAMUEL HARD,

H. H. BRINKERHOFF.