

WILLIAM HUTCHISON.

Buckets for Chain Pumps.

No. 125,051.

Patented March 26, 1872.

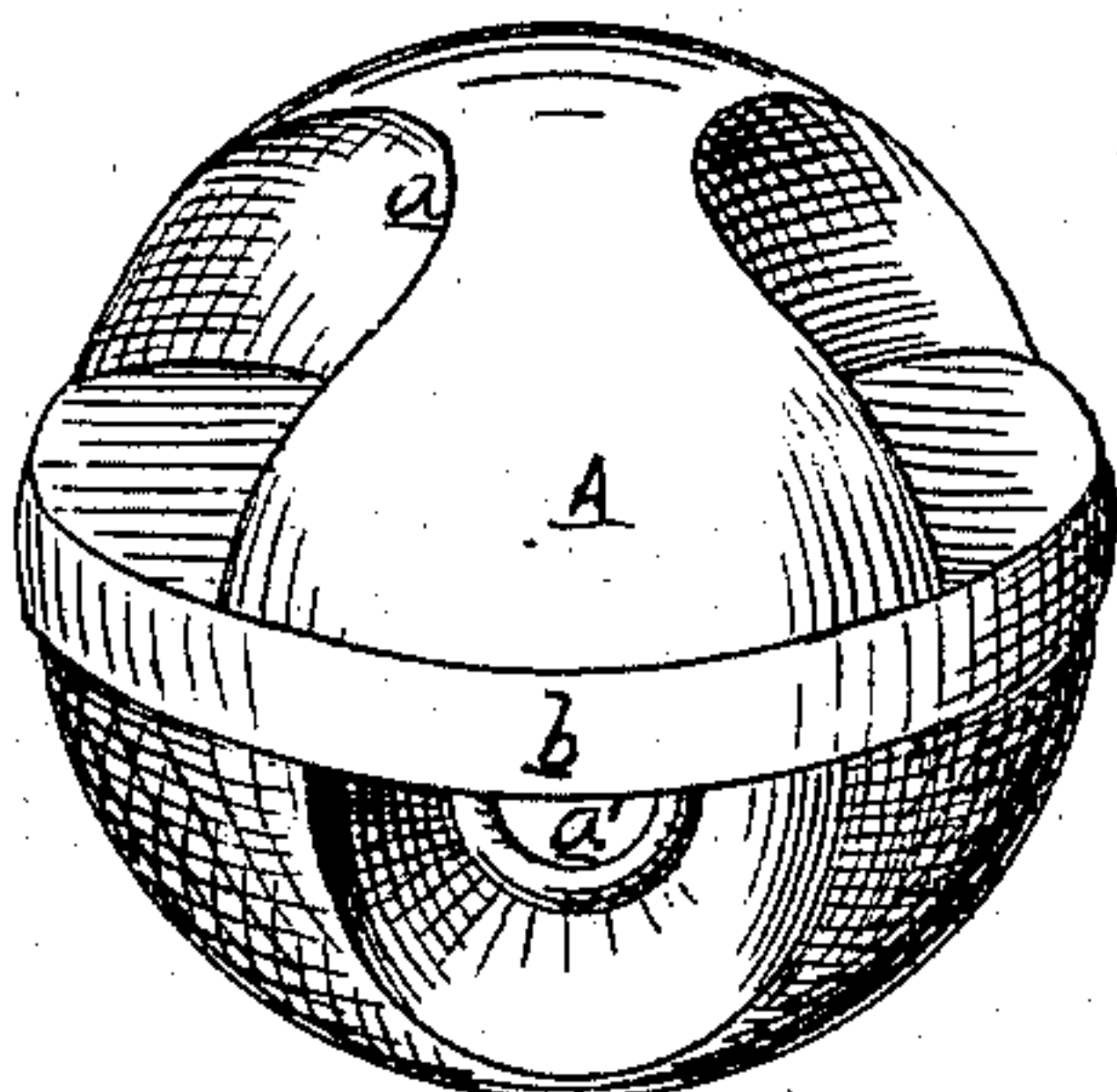


Fig. 1

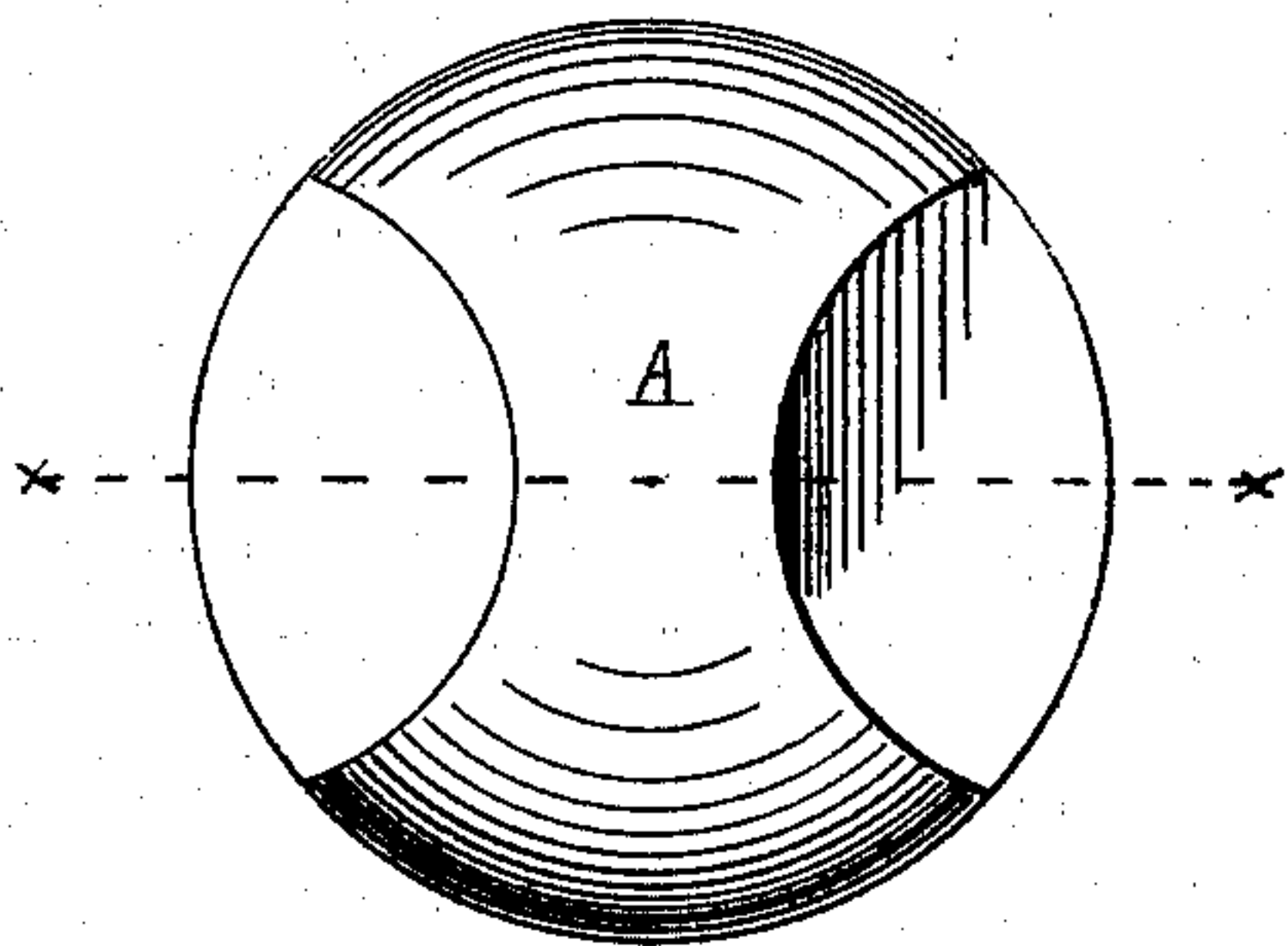


Fig. 2

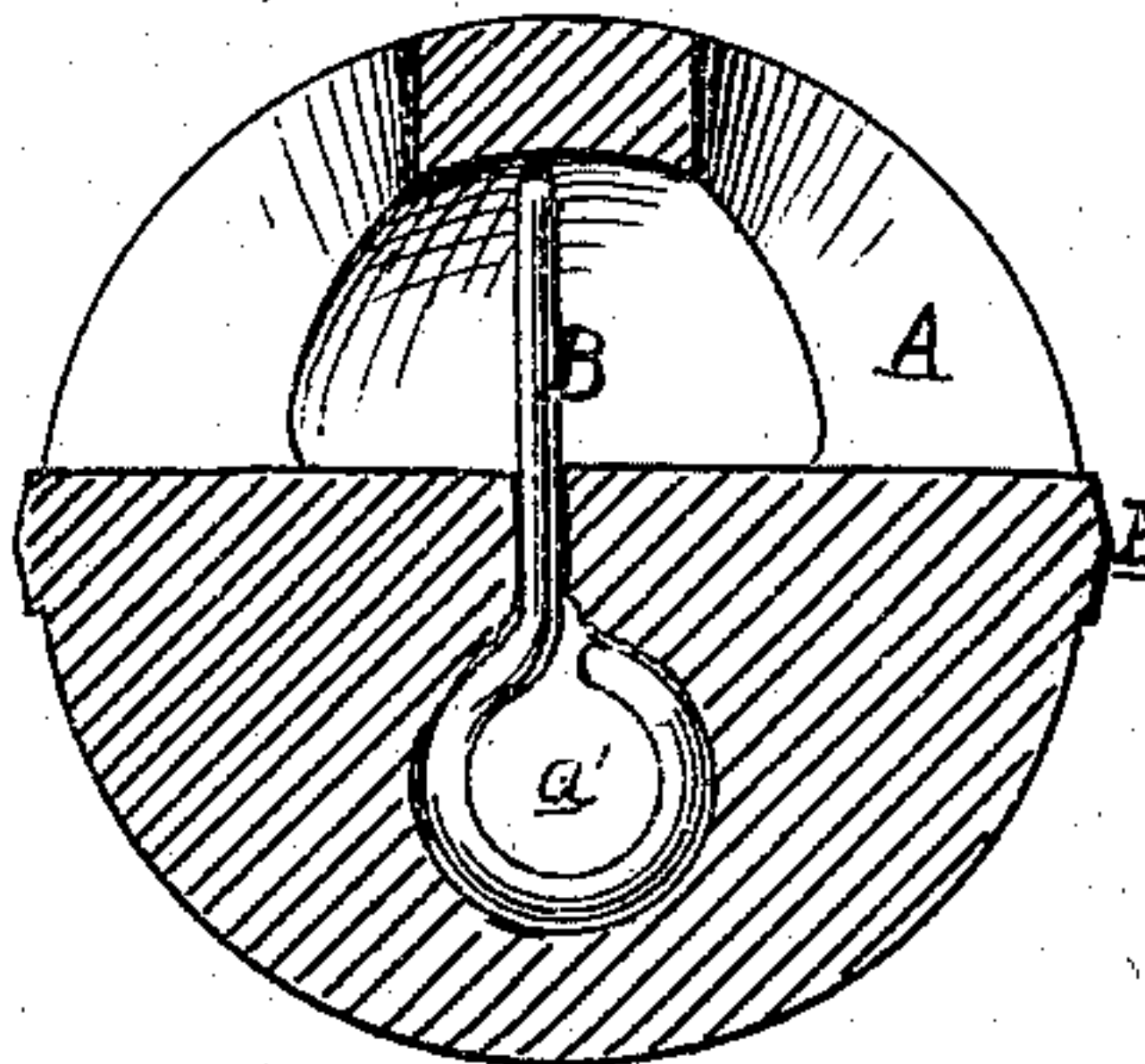


Fig. 3.



Fig. 4.

ATTEST:

Harry S. Sprague.

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UNITED STATES PATENT OFFICE.

WILLIAM HUTCHISON, OF BELLEVILLE, MICHIGAN.

IMPROVEMENT IN BUCKETS FOR CHAIN-PUMPS.

Specification forming part of Letters Patent No. 125,051, dated March 26, 1872.

To whom it may concern:

Be it known that I, WILLIAM HUTCHISON, of Belleville, in the county of Wayne and State of Michigan, have invented a new and useful Improvement in Buckets for Chain-Pumps; and I do declare that the following is a true and accurate description thereof, reference being had to the accompanying drawing and to the letters of reference marked thereon and being a part of this specification, in which—

Figure 1 is a perspective view of my improved bucket. Fig. 2 is a plan. Fig. 3 is a cross-section on the line $x x$ in Fig. 1; and Fig. 4 is a perspective view of the link.

Similar letters of reference indicate corresponding parts in the several figures.

This invention relates to an improvement in that class of chain-pump buckets which are constructed wholly in part of India rubber; and it consists in so constructing the rubber bucket that it shall form a link in the chain, inclosing a metallic link, on which the stress is exerted in raising water.

In the drawing, A represents my bucket proper, being in the general form of a sphere, of India rubber, with two parallel parabolic segments cut out therefrom at the top of the bucket, and two similar sections taken from the under side of the bucket, but at right angles with the upper ones, so that when the

bridges or thin parts left between the cavities formed by the described sections are pierced, as they are, there will be formed a link, a , at the top, and another, a' , at the bottom of the bucket. As these links would not possess sufficient strength to withstand the strain to which they would be subjected in practice, I introduce into the mold in which the bucket is to be cast, the wire-link B, Fig. 4, around which the rubber is poured, which link is hooked at each end into the chain, and thus relieves the links of the bucket from undue stress. In casting the bucket, a slightly-projecting zone, b , is formed on the sphere, to fill the bore of the chain-tube.

When worn, the bucket may be reversed in the chain for further use. No drip-hole need be made in the bucket, as the standing water will pass down about the shank of the metallic link.

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

The rubber bucket A and link-loops $a a'$, inclosing the metallic link B, substantially as described.

WM. HUTCHISON.

Witnesses:

H. F. EBERTS,
H. S. SPRAGUE.