

J. WEIR.
Pulley-Blocks.

No. 158,448.

Patented Jan. 5, 1875.

Fig. 1.

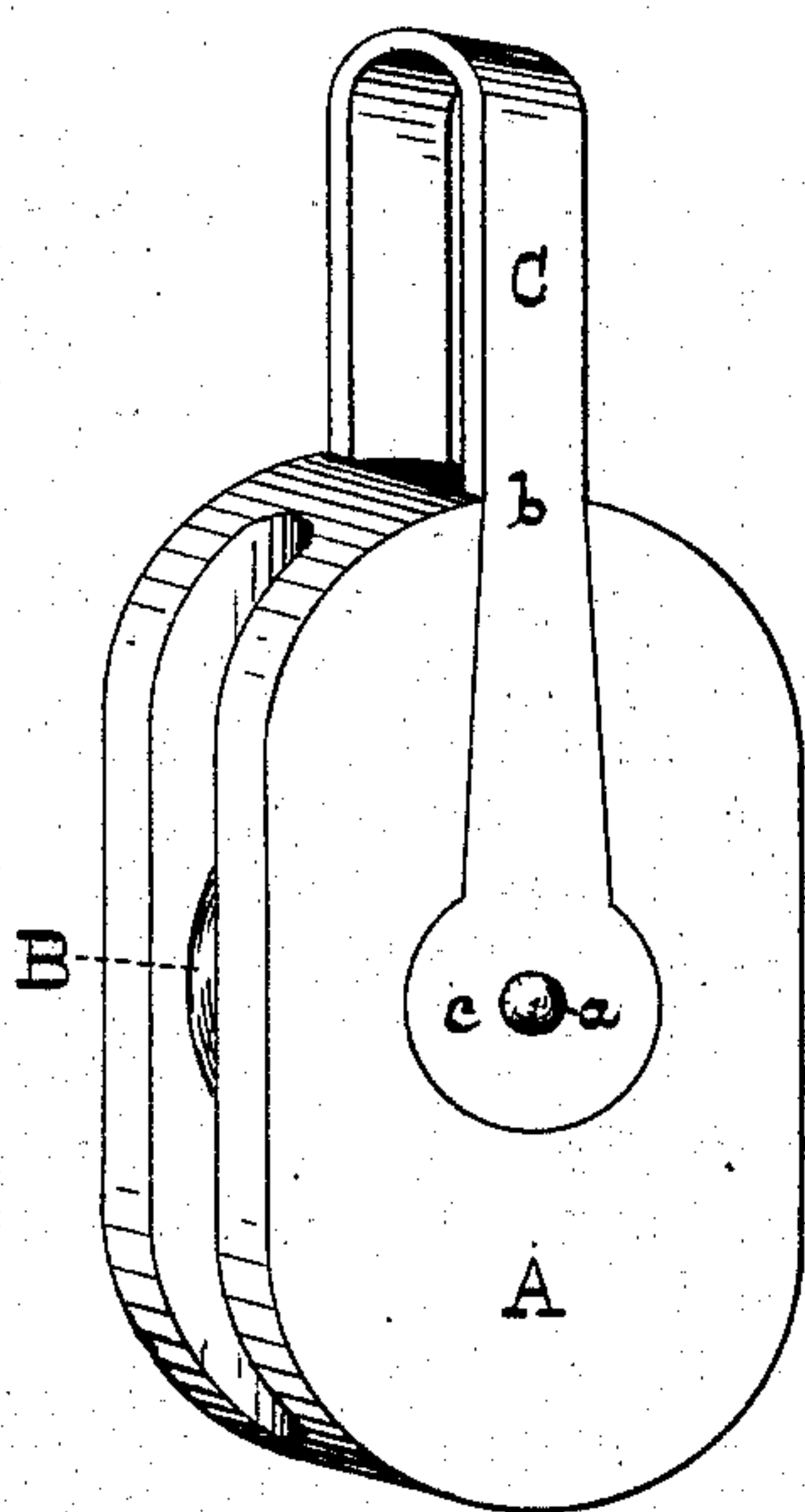
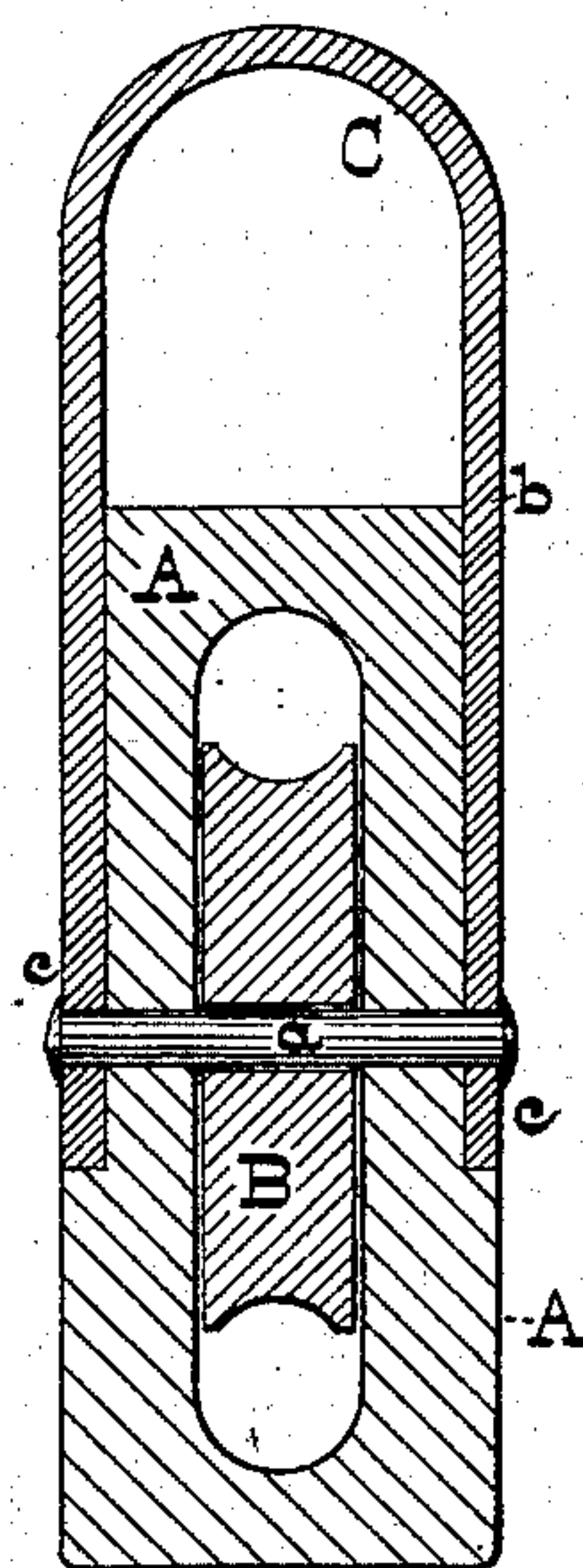


Fig. 2.



Witnesses:

Arthur C. Fraser,
Chas. M. Higgins

Inventor:

John Weir,
Per Burke & Fraser,
Attorneys.

UNITED STATES PATENT OFFICE.

JOHN WEIR, OF NEW YORK, N. Y.

IMPROVEMENT IN PULLEY-BLOCKS.

Specification forming part of Letters Patent No. **158,448**, dated January 5, 1875; application filed December 12, 1874.

To all whom it may concern:

Be it known that I, JOHN WEIR, of the city, county, and State of New York, have invented certain Improvements in Pulley - Blocks, of which the following is a specification:

The principal object of my invention is to construct a cheap and durable block for general light purposes, although the principle of construction may be adapted to those used in hoisting heavy articles as well, because of its simplicity and strength.

In the drawings, Figure 1 is a perspective view of my invention. Fig. 2 is a longitudinal vertical section of the same through the line of the center of the sheave-axis.

Let A A represent the cheeks of an ordinary wooden block, connected at the ends by separate pieces, or the entire block may be made from one piece of wood, and mortised to receive an ordinary wood or iron sheave, B. This sheave is hung on a metal pin or axle, *a*, passed through the cheeks of the block, and terminating at the outer surface of the same.

The important feature of my invention consists in a novel U-shaped bail, C, by which the block may be suspended. The arms of this bail are let into the cheeks of the block flush, or nearly so, with the surface of the same. From the point *b* where the arm enters the wood to the center of the block, where it terminates in a circular boss, *c*, it has a gradual taper on both sides, being widest where it joins the boss. In the centers of these bosses *c c* the ends of the pin or axle *a* terminate, and are strongly riveted.

The bosses *c c* may be polygonal in form; but I prefer to make them circular, for the reason that it is easier to cut the wood away for their admission in this form than any other.

The object in giving taper to the arms of the bail C and providing the bosses *c c* is, to relieve the pin *a* of a portion of the strain in lifting. The taper of the arms acts as a dovetail, and the angle formed by the bosses *c c* with the tapered portions of the arms abuts against the wood of the cheeks, and assists in supporting the weight.

By permitting the arms of the bail C to extend only to the center of the sheave, or far enough to receive the pin on which the sheave turns, I save nearly one-half of the metal that would be required if a band were passed entirely around the block in the usual manner.

By riveting the pin *a* firmly at both ends into the bosses *c c* the block is firmly braced laterally.

I claim as my invention—

1. The U-shaped bail C, having tapered or flared extremities, embedded into the wood of the block, the said extremities receiving the riveted ends of the sheave-axle *a*, substantially in the manner shown, and for the purposes specified.

2. The U-shaped bail C, having tapered or flared extremities, with circular or polygonal bosses *c c*, to receive the riveted ends of the sheave-axle *a*, when the said extremities and bosses are embedded into the wood of the block, nearly or quite flush with the same, substantially in the manner shown, and for the purposes set forth.

In witness whereof I have hereunto signed my name in the presence of two subscribing witnesses.

JOHN WEIR.

Witnesses:

HENRY CONNETT,
ARTHUR C. FRASER.