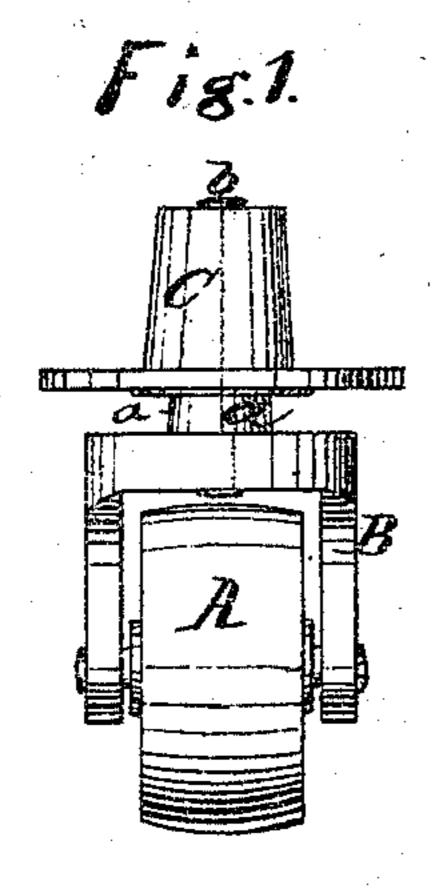
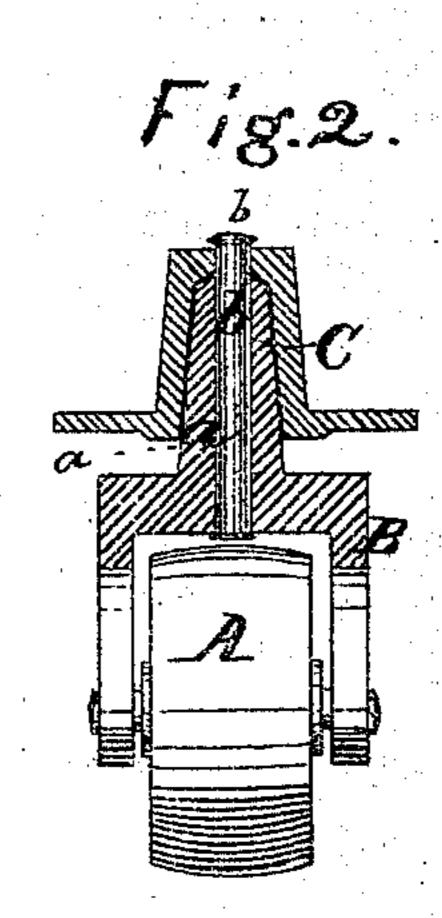


No. 120,568.

Patented Nov. 7, 1871.

## Caster,





Witnesses.

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John Bradbury, By James Shepard. Allo

## United States Patent Office.

JOHN BRADBURY, OF BERLIN, ASSIGNOR TO HART MANUFACTURING COMPANY, OF KENSINGTON, CONNECTICUT.

## IMPROVEMENT IN CASTERS.

Specification forming part of Letters Patent No. 120,568, dated November 7, 1871.

To all whom it may concern:

Be it known that I, John Bradbury, of Berlin, in the county of Hartford and State of Connecticut, have invented certain new and useful Improvements in Casters, of which the following is a specification:

My invention consists of the improved construction of the stud of a caster-frame whereby a superior article is produced at a less cost than that of the ordinary caster-frame.

In the accompanying drawing, Figure 1 is a front elevation of a caster embodying my improvement. Fig. 2 is a longitudinal section of

the same partly in elevation.

A designates the roller; B, the frame; and C the socket, all of substantially the same form as in the ordinary caster. The stud a is of cast metal, being a part of the frame B. The tenon b on the end of the stud a is of wrought metal or wire. The stud a and frame B are made as follows: A small core print is formed in the mold at the center of the end of stud a, and at the under side of the frame B, both points being directly opposite each other. A wire or pin, b', Fig. 2, is then placed in the mold with its ends resting in said prints when the mold is filled, thus casting the stud a and frame B onto the pin b', which pin extends entirely through the frame and stud. The stud a is made tapering to facilitate casting the stud and socket C, both the large and small hole in the latter being cast. The lower end of the pin b' is upset or riveted, so as to prevent it from being withdrawn from the frame B. The socket C is placed upon the stud a, as shown, when the tenon b is headed so as to secure the socket in place. In ordinary casters the stud is wholly of wrought metal, being riveted at both ends, one of which is riveted into a hole

made to receive it in the frame B, and the other end is headed to secure the socket in place. This stud being straight both of the holes in the socket are necessarily drilled instead of being cast, as

in my improvement.

By my invention the labor of milling both ends of the stud and of drilling the several holes in the socket and frame are dispensed with, and, therefore, the caster is produced at a less cost. By making the pin extend entirely through both the stud and frame, and riveting its lower end, it is secured beyond any possibility of becoming loose or detached by accident. The cast metal of the stud is less liable to "blow" than it would be if the pin extended only part way through the same, as it is a well known fact that castings are very liable to blow around the end of a wire cast therein. A small "blow-hole" would cause a pin extending only part way through the stud and frame to become loose and detached, while a blow-hole of the same size will do no harm in a stud and frame in which the pin extends entirely through said parts, as in the latter case it is firmly supported at each end of the casting. or if unsound is readily detected. The extension of the pin b' entirely through the stud and frame is, therefore, considered as a very essential point in my invention or improvement.

I claim as my invention—

The improvement in caster-frames herein described, consisting of the cast-metal frame B and stud a cast in a single piece around the pin b', the said pin extending entirely through the stud and frame, as shown and specified.

JOHN BRADBURY.

Witnesses:

J. H. Upson, Langdon J. Peck.

(24)