T. R. PICKERING.

SHAFT-HANGERS.

No. 185,188. Patented Dec. 12, 1876.

Fig: 1.

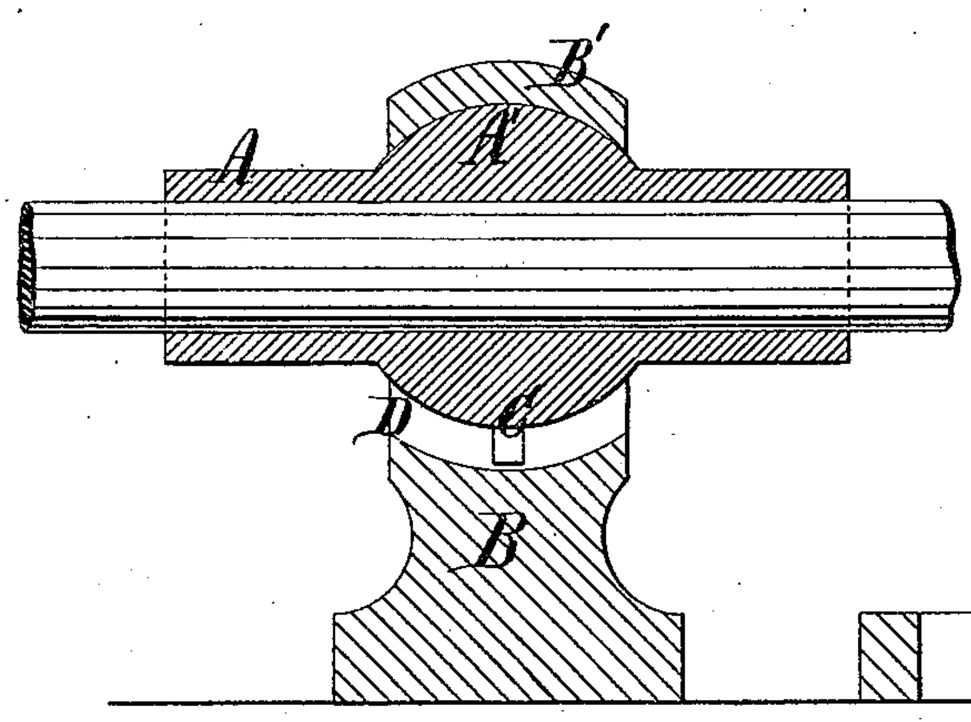
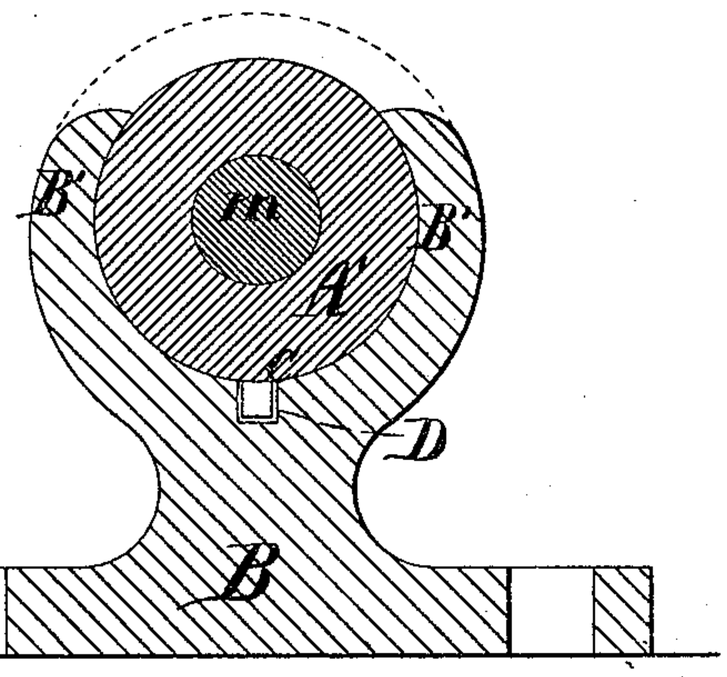


Fig: 2.



Witnesses:

Chas. C. Stetson

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Inventor:

Thomas R. Pickering

by his attorney

V. D. Stetson

UNITED STATES PATENT OFFICE.

THOMAS R. PICKERING, OF PORTLAND, CONNECTICUT.

IMPROVEMENT IN SHAFT-HANGERS.

Specification forming part of Letters Patent No. **185,188**, dated December 12, 1876; application filed April 13, 1875.

To all whom it may concern:

Be it known that I, THOMAS R. PICKERING, of the town of Portland, in the county of Middlesex and State of Connecticut, have invented certain Improvements in Shaft-Hangers, of which the following is a specification:

As heretofore constructed shaft hangers or brackets have always been made in two or more parts, such parts being fitted and bolted or otherwise confined together.

My invention is designed to avoid the labor and expense involved in such complexity. I construct a spherical self-adjusting box, making this part in one piece or more pieces, as may be most convenient, and encircling it within a bracket or hanger cast in one piece around the other. The bracket may consequently be made lighter, stronger, and cheaper than has heretofore been known.

I cast the box and hanger fitting closely each to the other—that is to say, I first cast and properly prepare one, and then cast the other one thereto, thus avoiding much labor and expense.

In the accompanying drawing, Figure 1 is a longitudinal section illustrative of my invention, and Fig. 2 is a nearly corresponding cross-section.

In constructing the self-adjusting box and hanger or bracket I first cast the box A A′ with its central part A′ spherical, and with projection or pin C. The interior of this box is then fitted to its shaft *m*, either by boring or by being properly prepared for the reception of anti-friction metal, the object being to allow the shaft to extend through the box and turn freely therein. This box is equipped with a core to form the groove D, and is then placed in a mold adapted to produce the bracket B B′. The foot B is adapted, as usual, for bolting upon any fixed object, as a beam or floor. The part B′ encircles the spherical part A′ of the box, and its interior corresponds in form to the prepared box. This hanger-pattern is so made as to cause the spherical part A′ of the box A A′ C to be encircled by metal in a continuous piece when the casting is completed by pouring in the melted iron.

The spherical part of the box need not be entirely inclosed within the outer casting B B′, as it will suffice if supported, as shown in strong lines in Fig. 2, or it may be continued quite around, as shown in dotted lines.

It may be desirable to coat the spherical part of the box with a clay wash, such as is used in foundries for coating cores with; or the support may be cast first, and the box then cast in it, the shrinkage of the box within the other casting, in the latter case, allowing the coating to be dispensed with. The pin C prevents the box A from revolving; but the pin may vibrate in the groove to accommodate any permanent or temporary deflection of the shaft.

I attach much importance to the facts: first, the hanger or bracket is cast in one piece of metal; second, it is adapted for bolting upon the floor; third, it encircles the box; and, fourth, it allows the pin to vibrate.

I am aware that hangers have been before constructed in parts bolted and fitted together; also, that boxes have been made with their central part spherical, and with the pin C and groove D to prevent turning; such therefore I do not claim.

What I claim is—

The hanger or bracket B B′, cast around and adapted to be used in combination with the box A A′ C, as and for the purposes specified.

In testimony whereof I have hereunto set my hand this 30th day of March, 1875, in the presence of two subscribing witnesses.

THOMAS R. PICKERING.

Witnesses:

R. H. PASCALL,

H. A. CORNWALL.