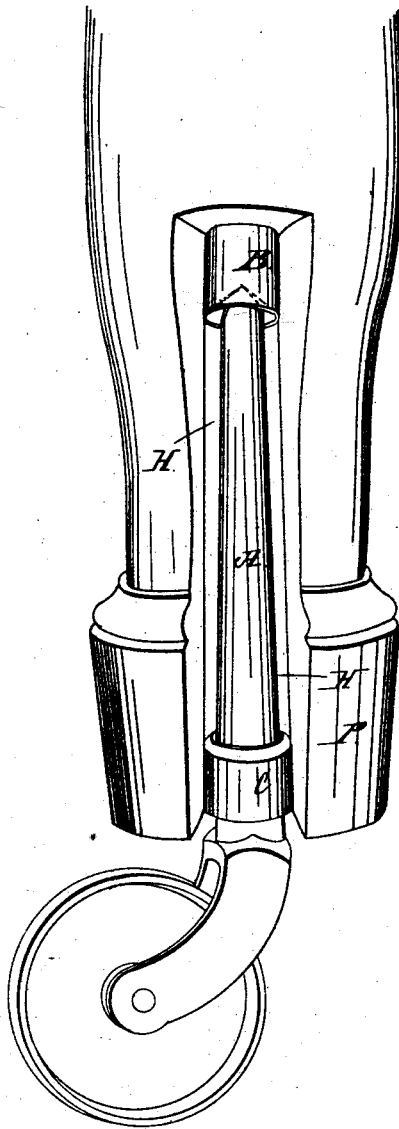


P, E. & J. A. BLAKE.

Caster.

No. 821.

Patented June 30, 1838.



Witnesses:

Henry Ives
Henry Munson

Inventors:

Phil Blake
Edw Blake
John A Blake

UNITED STATES PATENT OFFICE.

PHILOS BLAKE, ELI W. BLAKE, AND JNO. A. BLAKE, OF NEW HAVEN, CONNECTICUT.

MODE OF CONSTRUCTING CASTERS AND APPLYING THEM TO BEDSTEADS.

Specification forming part of Letters Patent No. 821, dated June 30, 1838; Reissued July 30, 1845, No. 74.

[FIRST PRINTED 1914.]

To all whom it may concern:

Be it known that we, PHILOS BLAKE, ELI W. BLAKE, and JOHN A. BLAKE, of New Haven, in the county of New Haven and State of Connecticut, have invented a new and useful Improvement in the Mode of Constructing Casters and Applying Them to Bedsteads; and we do hereby declare that the following is a full and exact description thereof.

Our improvement consists chiefly in the adoption of such a mode of constructing and applying casters that the length of the vertical axis (on which the excellence of casters very much depends) may be extended at pleasure without materially enhancing their cost; which is effected in the following manner: We make the roller of the caster of metal or other material in the same manner and form as the rollers of casters heretofore in use. The piece or part which receives the roller, like the corresponding part of casters heretofore in use, consists of two arms, one on each side of the roller, to receive the ends of the axis about which the roller revolves; which arms, running up obliquely, unite together beyond the rim of the roller, and being then rounded and extended upward perpendicularly, constitute the pintle or vertical axis of the caster. This pintle we make 4 inches long and $\frac{1}{2}$ inch diameter at the lower end; and tapering to a $\frac{1}{4}$ inch diameter near the upper end, it terminates in a conical point. The caster thus constructed we apply to the bedstead post in one of the following methods: We bore a hole $\frac{1}{2}$ inch diameter and nearly 4 inches deep into the center of the post. We then insert into this hole an instrument which cuts out a conical cavity in the wood at the bottom of the hole; the base of said cavity being nearly or quite equal to the diameter of the hole, and the angle of its vertex somewhat more obtuse than that of the conical point of the pintle. The pintle being then inserted, if the hole is of the proper depth, the weight of the bedstead will come wholly upon the point of the pintle, while the conical cavity in which it stands will maintain the coincidence of its axis with that of the post, in opposition to the lateral strain. This method is believed to be sufficient where the post is of hardwood as is usually the case;

or secondly; we bore the hole which is to receive the pintle $\frac{3}{8}$ of an inch deeper than above specified, and insert a cylinder of cast iron or other metal $\frac{3}{8}$ of an inch long, having a conical cavity in its lower or outer end, and being a little larger in diameter than the hole, so that it may be firmly held by the wood when driven to the bottom of the hole; thus giving a metallic bearing to the upper end of the pintle; or thirdly; in addition to the metallic bearing for the upper end of the pintle as just described, we make a metallic one for the lower end also, by simply bushing the lower end of the hole to the depth of half of an inch. This bush may consist of a strip of sheet iron of proper length bent around into a hoop, the ends being barely butted together. One edge of this hoop, being beveled off on the outside, and placed over the hole and driven in, the bush will be retained firmly by the compression of the wood. If the wood of the post be very hard the hole may require to be slightly enlarged at its outer extremity in order to receive the bush; or fourthly, we propose to dispense with the upper metallic bearing, retaining only the lower one, as on further experience we may find advisable. Casters applied in either of these methods may be instantly taken off and replaced at pleasure, which we esteem to be an advantage, especially in putting up and taking down the bedstead. If however it should be preferred to have them fastened in, this may be effected in several ways. The pintle instead of terminating in a conical point, may terminate in a wire or pivot running up through a hole in the upper metallic bearing and secured there by a collet over which it is riveted. Or the pintle may be encircled by a small flange near its lower extremity, and a piece of sheet iron, fastened to the bottom of the post, may reach under this flange. Or the flange may be located on the pintle above the bush which makes the lower metallic bearing, and this bush may be made in two semicircular pieces, which when put together embrace the pintle below the flange, and both may be introduced together into the hole in the post.

The caster constructed and applied as above described, differs from other casters heretofore known and used, in the follow-

ing essential and characteristic particulars, which, as applied to casters, we claim respectively as our invention and desire to secure by Letters Patent;—

5 1. In that the upper and lower bearings of the vertical axis, being distinct pieces, are both or either of them inserted or supported separately in a hole bored in the post or leg to receive that axis; the leg itself being re-
10 lied upon to hold them respectively in their proper position in relation to each other, or to the axis.

2. In that the upper end of the vertical axis sustains the weight of the bedstead in
15 the manner and under the circumstances as follows; to wit, by bearing either directly upon the wood at the bottom of a hole bored in the leg to receive that axis, or upon a distinct piece of iron inserted at the bottom
20 of said hole, and unconnected with the lower lateral bearing of the vertical axis.

3. In that the upper end of the vertical axis receives the weight of the bedstead and is at the same time controlled or governed in opposition to the lateral strain, in the
25 manner and under the circumstances following; to wit, by being formed into a conical point and inserted into a conical cavity in the wood at the bottom of a hole bored in the leg to receive that axis, or into a similar
30 cavity in a distinct piece of iron, inserted into such a hole and supported there separately from, or independently of, the lower lateral bearing of that axis.

New Haven, June 4th, 1838.

PHILOS BLAKE.
ELI W. BLAKE.
JOHN A. BLAKE.

Witnesses:

HENRY IVES,
HENRY MUNSON.