

E. P. Haskell, Sand Band.

No. 84,185.

Patented Nov 17, 1868

Fig. 1.

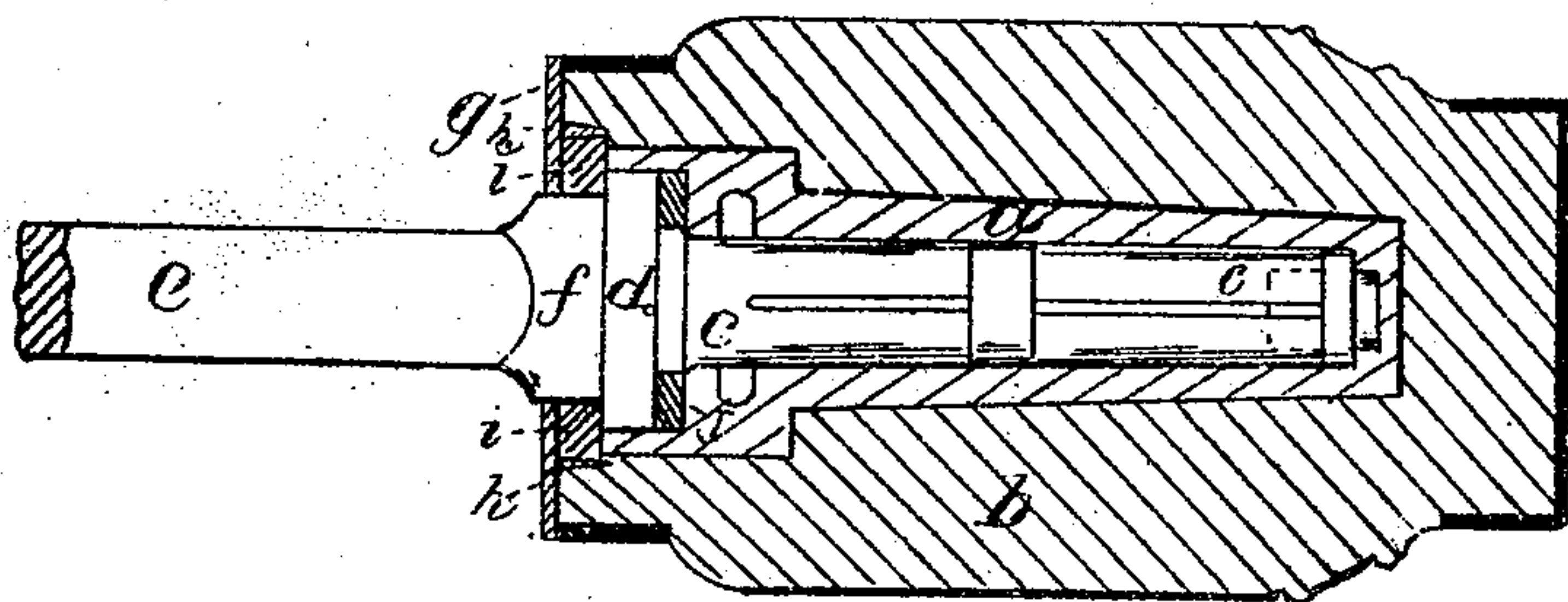
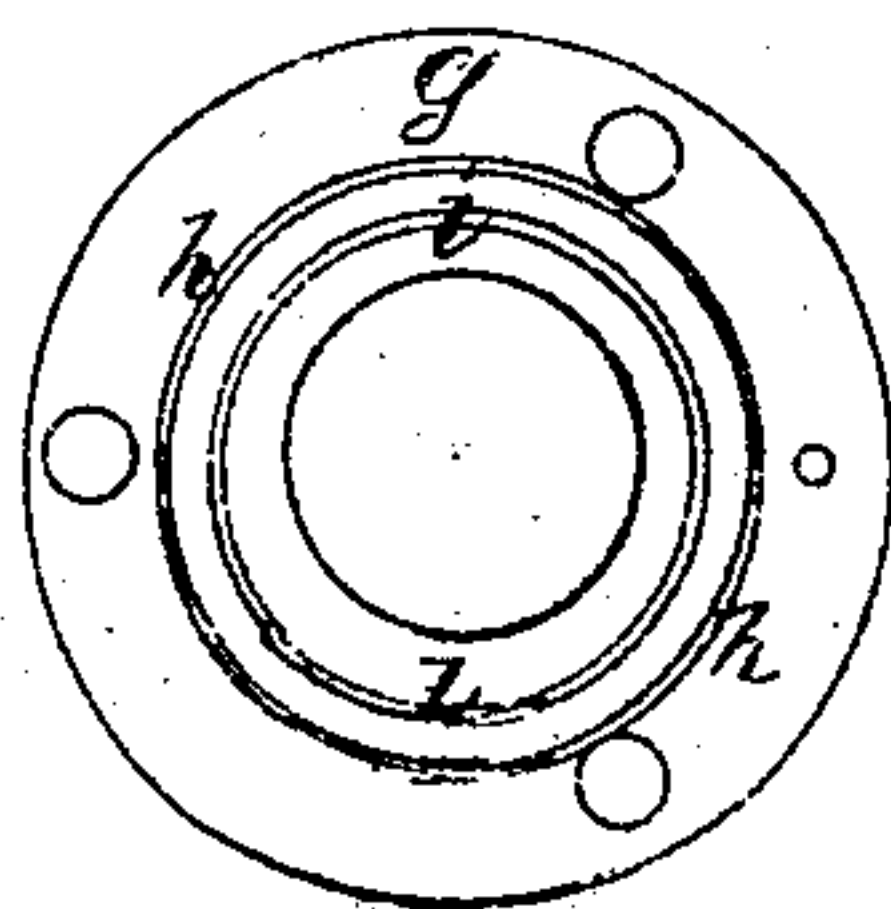


Fig. 2.



Witnesses
P. B. Medder
M. W. Frothingham.

E. P. Haskell,
by his Atty
Crosby, Halsted & Gould

United States Patent Office.

EDWARD P. HASKELL, OF NEW BEDFORD, MASSACHUSETTS, ASSIGNOR TO THE HALE
PATENT-WASHER COMPANY, OF SAME PLACE.

Letters Patent No. 84,185, dated November 17, 1868.

IMPROVEMENT IN AXLE-BOXES.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, EDWARD P. HASKELL, of New Bedford, in the county of Bristol, and State of Massachusetts, have invented an Improvement in that Class of Axle-Boxes known as Full Axle-Boxes; and I do hereby declare that the following, taken in connection with the drawings, which accompany and form part of this specification, is a description of my invention sufficient to enable those skilled in the art to practise it.

The axle-arm used with such boxes has, as is well known, a collar between the arm and the axle-body, which collar is finished on both faces, as well as on its periphery, and there is also a cylindrically-finished part of the axle-body, where it adjoins the collar.

Figure 1 of the drawing shows, in longitudinal central section, a common full patent axle-box, with my improvement added thereto, *a* being the box fixed in the hub *b*; *c* being the axle-arm; *d*, the axle-collar; *e*, the axle-body; and *f*, the cylindrical part of the axle-body, adjoining the collar.

The box and hub have been kept from end-play on the axle-arm by washers on each side of the collar *d*; and the trouble experienced with such washers has been, that the one nearest the axle-body has not been supported at its perimeter, except by contact with the bodies of the bolts which hold the hub-plate *g* to the hub.

As the bolts used for this purpose are remote from the axle, and near the perimeter of the hub, it follows that the plate-washer has had to be made very wide, to obtain even the slight support afforded by contact of the washer with the bolts.

Where leather washers are used, this great width of washer consumes unnecessarily an expensive material; and where bent wooden washers are used, their great width renders their bending a matter of considerable difficulty.

The plate-washer, when made of leather, and not being afforded continuity of support at its periphery, is, by endwise movements of the box on the axle,

rapidly spread outward and made thin by said movements; and it is to obviate this defect that my invention is made, whereby I am enabled to diminish the width of the plate-washer, thus reducing the cost of its material, and whereby I prevent the thinning of the washer by outward spread, or, in fact, in any other way than by the actual wear and compression of its material.

My invention consists in a hub-plate formed with an internally-projecting ring, of such internal diameter as to embrace the periphery of the plate-washer, whether of leather, wood, or other material, subject to expand under the blows given in the endwise movement of the wheel.

In the drawing, the plate *g* is shown as made with an internally-projecting ring, *h*, and the plate-washer *i* is made to fit with the ring *h*, and upon the periphery of the part *f* of the axle *e*.

The other washer, *j*, is, as usual in all full patent axle-boxes, contained in the enlarged part of the box, and between its shoulder and the outer face of the axle-collar, in which space the washer has no chance to spread.

My improved hub-plate is shown in elevation in Figure 2, in which figure, as well as in fig. 1, a bent wooden washer is shown, with its periphery in contact with the interior of the ring *h*.

It will be observed that, whilst the interior of the ring confines the washer in its place, its outer face, by its close contact with the hub to which it may be applied, prevents all possibility of lateral displacement, either of the hub itself or of the washer.

I claim, for employment with axle-boxes and washers, the hub-plate *g*, constructed with the internally-projecting ring or flange *h*, substantially as and for the purpose described.

EDWARD P. HASKELL.

Witnesses:

JOHN H. THOMSON,
A. B. RICKETSON.