

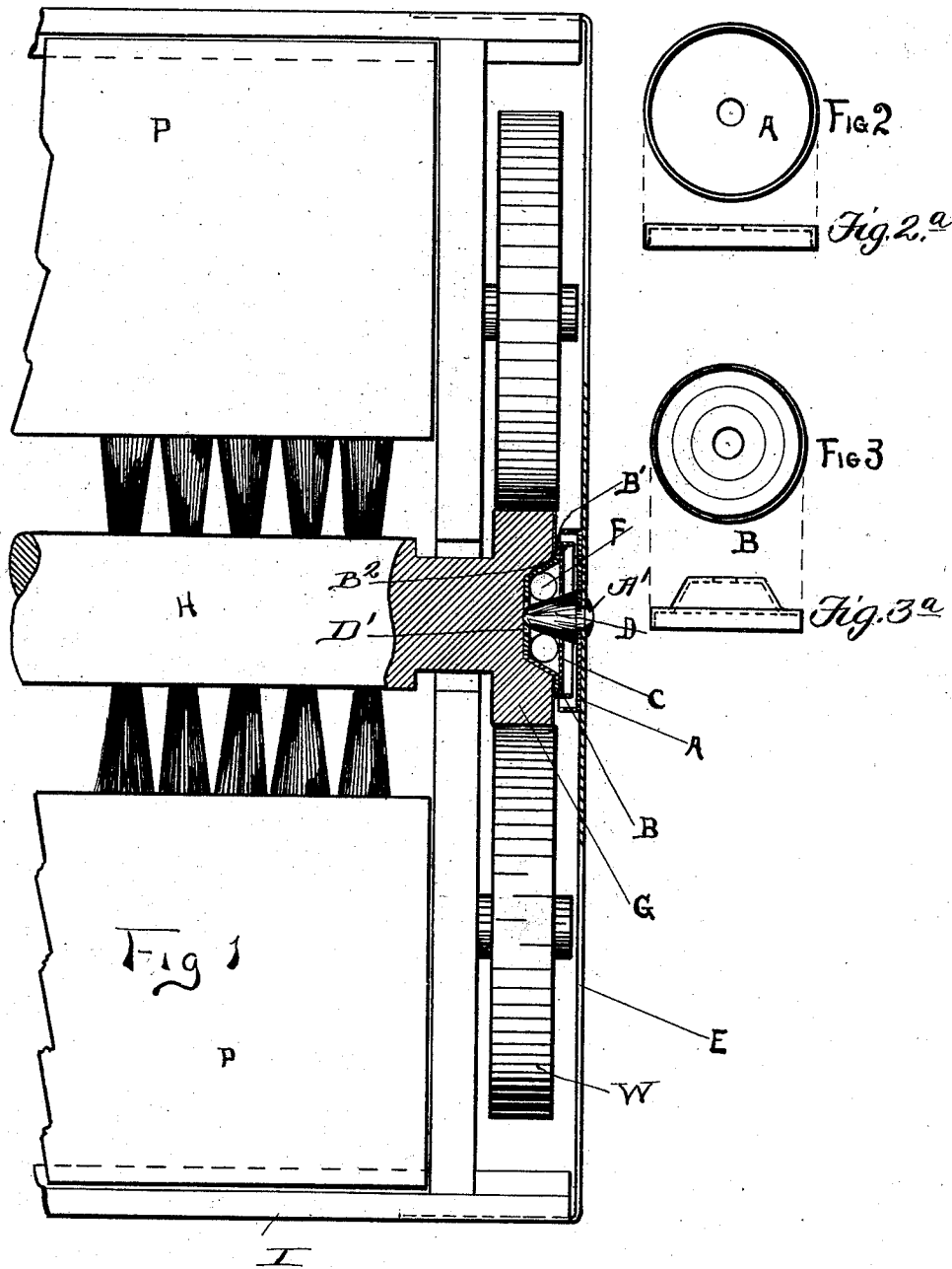
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Patented Dec. 30, 1902.

J. W. SHANAHAN & F. C. MASON.
BEARING FOR CARPET SWEEPERS.

(Application filed Mar. 11, 1901.)

(No Model.)



Witnesses

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UNITED STATES PATENT OFFICE.

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BEARING FOR CARPET-SWEEPERS.

SPECIFICATION forming part of Letters Patent No. 717,458, dated December 30, 1902.

Application filed March 11, 1901. Serial No. 50,716. (No model.)

To all whom it may concern:

Be it known that we, JOHN W. SHANAHAN and FRANCIS C. MASON, citizens of the United States, residing at Grand Rapids, in the county of Kent and State of Michigan, have invented new and useful Improvements in Bearings for Carpet-Sweepers, of which the following is a specification.

This invention relates to certain new and useful improvements in bearings for carpet-sweepers; and the object thereof is to provide a bearing which will prevent the brush-roller from winding ravelings, hair, &c., and which will also prevent the introduction of dust into the bearing.

The invention consists of an outwardly-facing cup on the brush-roller having an annular rim or flange around its outer edge, an inwardly-facing stationary cup on the case of the carpet-sweeper having an annular rim or flange around its outer edge concentric to the rim or flange on said outwardly-facing cup, one of said cups fitted within the rim or flange on that of the other, and means coöperating with each of said cups to form a bearing between the same.

The invention also consists of an outwardly-extending revolving cup carried by the brush-roller, an inwardly-extending stationary cup carried by the case of the carpet-sweeper, the former extending within the latter, a pintle secured to the case of the carpet-sweeper and extending through both of the said cups, balls surrounding said pintle within the outwardly-extending cup, and a plate mounted within the outwardly-extending cup for retaining the balls in position.

The invention further consists of the novel combination and arrangement of parts herein after more specifically described, illustrated in the accompanying drawings, and particularly pointed out in the claim hereunto appended.

In describing the invention in detail reference is had to the accompanying drawings, forming a part of this specification, and wherein like letters of reference indicate corresponding parts throughout the several views, and in which—

Figure 1 denotes a plan view, partly in hori-

zontal section, of a carpet-sweeper, showing our improved bearings therefor. Figs. 2 and 2^a show a side elevation and bottom plan view, respectively, of the inwardly-extending cup carried by the sweeper-case; and Figs. 3 and 3^a illustrate like views of the outwardly-extending cup carried by the brush-roller.

Referring to the drawings by reference-letters, A denotes the inwardly-extending cup, which is substantially annular in contour and is suitably secured to the inner face of the ordinary elastic cross-bar E of the sweeper-case.

The reference-letter B indicates the outwardly-extending cup, which is usually secured to the pulley G on the brush-roller H. The outwardly-extending cup B has its inner portion formed substantially of the shape of a truncated cone and is seated or secured within a similar recess or cavity in the outer face of the pulley G. At the outer end of the truncated portion of the outwardly-extending cup B the latter is formed with an annular projecting flange B', lying in close contact with the outer face of the pulley G. This flange B' terminates in an outwardly-extending rim B². The latter extends within the cup A.

The bottom of the cup A is formed with an opening, through which extends a fastening means A' for securing the pintle D in position. This pintle D is substantially cone shape, and its inner end extends into the opening D', formed in the bottom of the cup B, and engages the pulley G, as shown.

Mounted within the truncated portion of the cup G and surrounding the pintle D are the balls F, which are retained in position by means of the annular plate C, arranged within the cup B and engaging the flange B'. This plate C is formed with an opening, so that the pintle D may extend therethrough, as well as arresting the outward movement of the plate to prevent the dislodgment of the balls F.

The reference-letter I denotes the sweeper-case, P the pans, and W the driving-wheels, which may be supported in any desirable manner.

The cups A and B are made, preferably, of

metal, and the latter is fitted within the former as closely as possible, but not close enough to prevent the cup carried by the pulley of the brush-roller from revolving readily within the cup A without coming into contact therewith. The plate C also prevents the introduction of dirt or ravelings to the truncated portion of the cup B. The rims of the cups also prevent the introduction of ravelings and dirt to the bearings.

In the example of our invention illustrated in the drawings we have shown the cup B extending within the cup A. It will be evident that the cup A may extend within the cup B, if desired, as the same results would be produced thereby.

Having thus fully described our invention, what we claim as new, and desire to secure by Letters Patent, is—

In a bearing for carpet-sweepers, two parts, one of which is rotatable, a cup suitably con-

nected to the latter part and consisting of a circular plate having a truncated portion and a concentric flange, a cup on the other of said parts and consisting of a circular plate having a concentric flange, the cup on the rotatable part projecting into the cup on the fixed part, a pintle extending through the said cups, balls mounted in the truncated portion of the cup on the rotatable part and adapted to surround the said pintle, and a plate mounted within the cup upon the rotatable part and adapted to retain the balls in the truncated portion.

In testimony whereof we have hereunto set our hands in presence of two subscribing witnesses.

JOHN W. SHANAHAN.
FRANCIS C. MASON.

Witnesses:

FRED. MCR. DEANE,
JAMES B. DAVIES.