

M. R. BISSELL.
 CARPET-SWEEPER.

No. 182,346.

Patented Sept. 19, 1876.

Fig. 1.

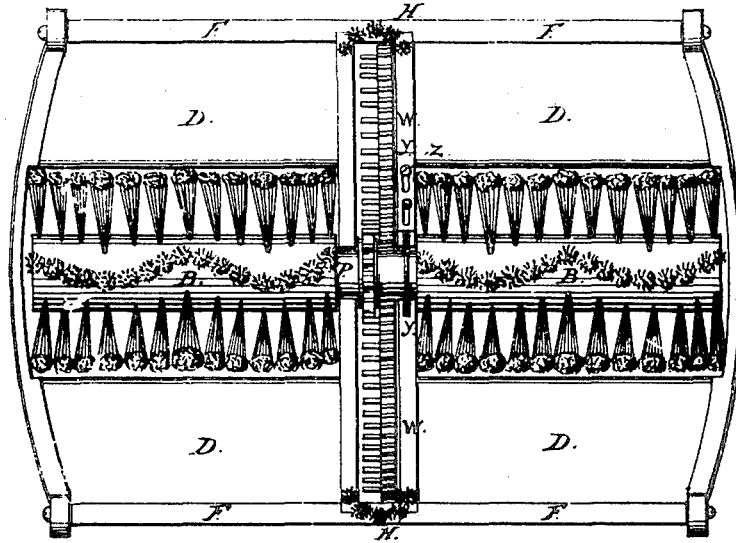


Fig. 2.

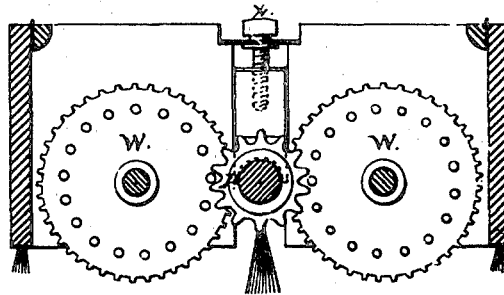


Fig. 6.

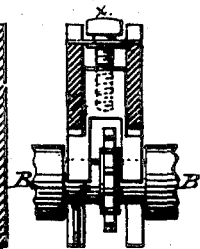
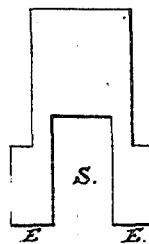
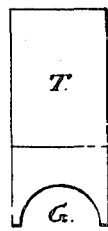


Fig. 5. Fig. 3. Fig. 4.



WITNESSES

J. W. Howard
Henry H. Garnett

INVENTOR

M. R. Bissell
G. H. Bell
 Attorney

UNITED STATES PATENT OFFICE

MELVILLE R. BISSELL, OF GRAND RAPIDS, MICHIGAN.

IMPROVEMENT IN CARPET-SWEEPERS.

Specification forming part of Letters Patent No. 152,346, dated September 19, 1876; application filed June 6, 1876.

To all whom it may concern:

Be it known that I, MELVILLE R. BISSELL, of the city of Grand Rapids, county of Kent and State of Michigan, have invented certain new and useful Improvements in Carpet-Sweepers, of which the following is a specification:

The nature of my invention relates to a carpet-sweeper in which the brush-roller has no end bearings, but is operated by one or more cog-wheels and pinion at or near the center of the roller, and has its bearings adjacent to and on either side of the wheels, as more fully described hereafter.

The object of my invention is to adapt it to sweeping carpets and floors with uneven surfaces more readily than the ordinary sweeper.

In the drawings, Figure 1 is a view from the under side of the sweeper, showing the brush-roller with the operating cog-wheels and bearings. Fig. 2 shows a section cut through between the bearings; Figs. 3 and 4, the adjustable bearings; Fig. 5, an adjustable and removable slide arranged beneath the brush-roller in order to hold it in place, and also to allow of its easy removal; and Fig. 6, a detail view, partly in section, showing the journals of the brush-roller and the adjustable bearings.

In Fig. 1, F F represent the frame of the sweeper, constructed with curved ends, as shown, in order to facilitate sweeping close to the sides of the room or furniture. W W are the driving-wheels, which in the drawings are shown as crown-wheels with side cogs or pins, which engage with the cogs of pinion P, and thus operate the brush-roller B B. D D are dust-pans, and H H are tufts of brush projecting from either edge of the frame, designed to brush the dust aside from the cog-wheels and bearings of the brush-roller.

In Fig. 2, X shows the set-screw, by means of which the bearings are raised and lowered. P shows the pinion and the manner of its engagement with the cog-wheel.

Instead of using the crown-wheels W W, as shown, ordinary cog-wheels may be used, and in some cases such wheels may be preferable.

In Fig. 3, T is a block adjusted vertically

by means of set-screw X, in Fig. 2, and is slotted at the bottom and grooved out, as shown by G, and thus forms two bearings for the brush-roller. The slot is shown by S in Fig. 4 and the bearings by E E in Fig. 4. The set-screw X may, however, be omitted entirely, in which case the brush-shaft will rise and fall in accordance with the irregularities of the floor-surface, carrying the bearing-block E E with it.

Fig. 5 is an adjustable slide fitting into cross-piece Y Y, so as to hold the brush-roller in place. It may be held in place by means of the slide Z, or in any other suitable manner, so as to be readily removed.

The cog-wheels W W act not only as supporting-wheels, but as driving wheels operating the roller. The supporting wheels being near the center of the brush-roller, the frame may be tilted either way, so as to fit to uneven surfaces and to press more upon one portion of the floor or carpet than on another, thus enabling the operator to catch small refuse-matter and to sweep the carpet more closely than with any other sweeper in use.

The bearings being near the center of the brush-roller, which roller plays loosely in the grooves, allows a tilting motion to the brush-roller, independent of the frame, which causes it to adjust itself more closely to the floor or carpet.

At each corner of the frame, on the under side, is a small friction roller, as shown, and around the curved ends may be placed an india-rubber band to prevent marring the furniture.

In order to make the dust-box tight, I fit a strip of india-rubber into the upper edge of the frame, being inserted in a beveled slot, so as to make a close-fitting joint when the cover is pressed down upon them.

Having thus described my invention, what I claim to have invented and desire to secure by Letters Patent, is—

1. The combination of the driving-wheels W W, pinion P, and brush-roller B B, having its bearings near the center, substantially as and for the purpose described.

2. The brush-roller B B, having central bearings only, in combination with the adjust-

able bearings E E, and set-screw X, for the purpose specified.

3. In a carpet-sweeper, the brush-roller B B, having central bearings, with no end bearings, for the purpose described.

4. The brush or tufts H H, in combination with the frame F F, as described.

5. In combination with the brush-shaft of

a carpet-sweeper, having its bearings at the center of said shaft, the bearing-block E E, as and for the purpose set forth.

MELVILLE R. BISSELL.

Witnesses:

C. A. RENWICK,

EDWARD TAGGART.