M. R. BISSELL.
Carpet-Sweepers.

No. 199,612. Patented Jan. 29, 1878.

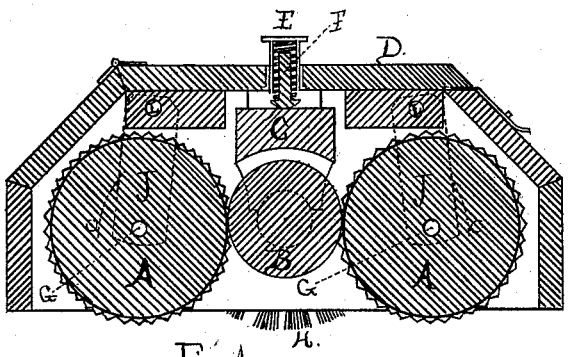

Fig. 1.

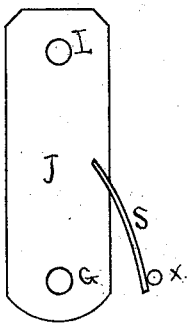

Fig. 2.

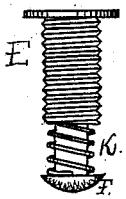

Fig 3.

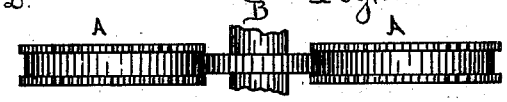

Fig. 4

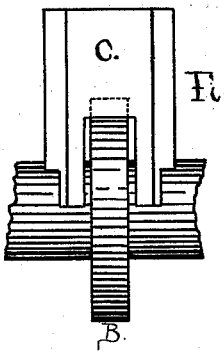

Fig. 5

Witnesses.
Charles A Renwick.
Fredric H. Paine

Inventor
Melville R. Bissell.

UNITED STATES PATENT OFFICE.

MELVILLE R. BISSELL, OF GRAND RAPIDS, MICHIGAN.

IMPROVEMENT IN CARPET-SWEEPERS.

Specification forming part of Letters Patent No. **199,612**, dated January 29, 1878; application filed December 3, 1877.

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 first part of my invention relates to a carpet-sweeper in which the drive-wheels are journaled into pendulum-bearings, each bearing being held in place by a spring, so as to press the drive-wheels against the friction-roller, rigidly attached to the brush-roller of the sweeper.

The second part of my invention relates to a bearing-block, which forms the bearing for the brush-roller, adjusted by means of a thumb-screw and spiral spring, so as to increase or decrease the pressure of the drive-wheels upon the friction-roller, at pleasure.

The object of my invention is to construct a simple and efficient noiseless carpet-sweeper, which will readily adapt itself to uneven surfaces.

Figure 1 is a sectional view of my invention, cut latitudinally through the center. Fig. 2 is one of the pendulum-bearings, on a larger scale than is shown in Fig. 1. Fig. 3 is a perspective view of the device for adjusting the bearing-block. Fig. 4 is a top view of the drive-wheels, friction-roller, and a part of the brush-roller; and Fig. 5 is a plan view of the bearing-block, showing the manner it rests upon the brush-roller on either side of the friction-roller.

In Fig. 1, J J represent the pendulum-bearings. Each bearing turns on a bolt at its upper end. (Shown by L L.) G G are the bearings proper of the drive-wheels. The pendulum-bearings J are provided each with a spring. (Shown in Fig. 2 by S.) The spring S is rigidly attached at its upper end to J, while its lower end rests against a pin in the casing, which pin is shown by *x* in Fig. 2. Thus the drive-wheels are pressed continually against the friction-roller. The friction-roller is between the drive-wheels, with its center above the centers of the drive-wheels, so that as it is pressed downward the wheels are pressed apart, and the friction-wheel receives a stronger pressure and the friction is increased.

The peculiar advantage resulting from the pendulum-bearings, in which the drive-wheels are hung, is that each wheel is wholly independent of the other, so that if one bearing or one of the springs should break, the operation of the machine will not be interrupted thereby. Furthermore, by providing each bearing with a separate spring, as shown, instead of connecting their ends by a single coiled spring, I not only attain the advantage mentioned, but also am able to remove the brush readily without disturbing any of the other parts.

I am aware that lever-bearings connected by a single spiral spring have been used; but they form no part of my invention.

C is the bearing-block, slotted so as to receive the friction-roller, as shown in Fig. 5, and grooved so as to fit upon the brush-roller, as shown in Fig. 1, thus forming the bearing for the brush-roller.

The bearing-block C is adjusted by means of the screw E, spiral spring K, and bolt F, all shown fully in Fig. 3. E engages with the nut in the top of the box, situated as shown in Fig. 1, and may be raised or lowered at pleasure. The screw E is hollow, and receives the spiral spring K. Within the spring K is the bolt or rod F.

Instead of placing the device F loosely within the spiral spring, it may be rigidly attached to the bearing-block, in which case no shoulder would be required. But Fig. 3 represents the bolt or rod F playing loosely in the spiral spring, the lower end of the bolt being enlarged, and forming a shoulder to receive the pressure of the spiral spring K, and its lower surface resting upon the upper surface of the bearing-block C.

It will be seen that, by raising or lowering the screw E, the bearing-block is adjusted vertically, and the pressure upon the friction-rollers is increased and decreased at pleasure.

The object of adjusting the bearing-block vertically is twofold: first, to increase the friction between the friction-roller and the drive-wheels, and second, to adapt the sweeper

to sweeping carpets, matting, or bare floors, or, in other words, to adapt it to light or heavy sweeping.

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

1. In a carpet-sweeper, the combination of the screw E, spiral spring K, and bolt F with the bearing-block C and friction-roller B, for the purpose of adjusting the block and roller vertically, substantially as and for the purpose described.

2. The pendulum-bearing J, provided with the spring S, in combination with the drive-wheels A, substantially as described.

MELVILLE R. BISSELL.

Witnesses:
EDWARD TAGGART,
E. EUGENE HASKINS.