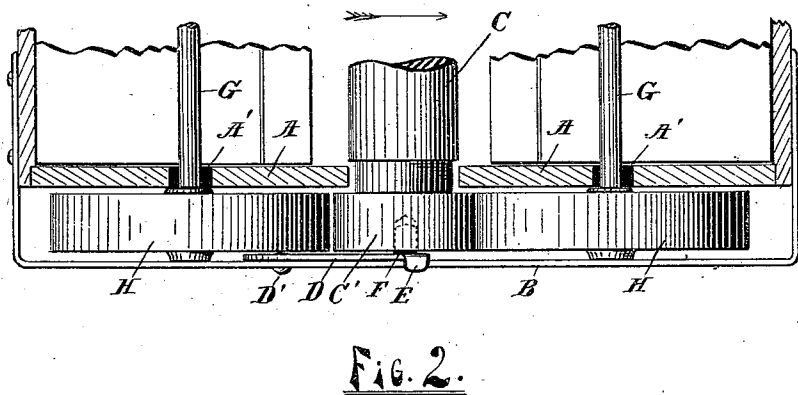
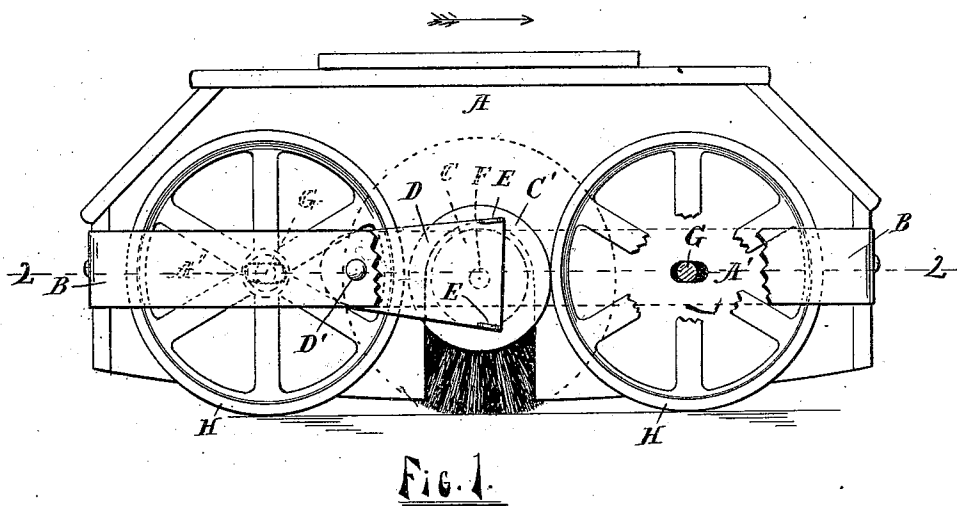


(No Model.)

S. H. RAYMOND.
CARPET SWEEPER.

No. 555,052.

Patented Feb. 18, 1896.



WITNESSES:

Lewis E. Flanders
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SILAS H. RAYMOND, OF GRAND RAPIDS, MICHIGAN, ASSIGNOR TO T. STEWART WHITE, THOMAS FRIANT, GAIUS W. PERKINS, AND CHARLES J. REED, OF SAME PLACE.

CARPET-SWEEPER.

SPECIFICATION forming part of Letters Patent No. 555,052, dated February 18, 1896.

Application filed September 21, 1894. Serial No. 523,708. (No model.)

To all whom it may concern:

Be it known that I, SILAS H. RAYMOND, a citizen of the United States, residing at Grand Rapids, in the county of Kent and State of Michigan, have invented certain new and useful Improvements in Carpet-Sweepers; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to improvements in carpet-sweepers, and its object is to provide the same with certain new and useful features hereinafter more fully described, and particularly pointed out in the claims, reference being had to the accompanying drawings, in which—

Figure 1 is an end elevation of a device embodying my invention with parts broken away to show the construction, and Fig. 2 a plan view of one end of the same with the case in horizontal section on the line 2 2 of Fig. 1.

Like letters refer to like parts in both figures.

A represents the end walls of the case, having horizontally-elongated openings A', in which are inserted rods G, on the ends of which rods are the supporting and driving wheels H, arranged at each side of the brush-shaft pulleys C' on the brush-shaft C, which shaft is journaled on a stud F in the movable end of a plate D, which plate is pivoted near one end at D' to the guard-bar B and has its free end vertically movable, whereby the brush is free to rise and fall within certain limits determined by outward-projecting lugs E, which engage the respective edges of said guard-bar B.

When in action the brush rests upon the floor or carpet and contacts the same by its own weight alone and is free to rise and fall to follow any unevenness of the same or any variation in the softness of the carpet. The brush thus "floats" on the surface to be swept and is pressed in contact with the same by its own gravity alone. Such contact is not decreased or increased by unevenness of the surface or variations of softness or hardness of the carpet or pressure on the bail. The work is thus light and uniform, reducing the wear on the carpet and brush respectively to a minimum and doing satisfactory work on

soft and hard carpets alike without attention or change of pressure or adjustment of the parts.

As the device is moved in either direction the rods G tend to move in the openings A' in the opposite direction. This brings the leading wheels only in contact with the brush-pulleys, and the trailing wheels move out of contact with the same. This tends to lift the brush as the resistance increases, and thus when said brush engages any carpet having a long or soft nap it does not penetrate the same too deeply to the injury of the same or stalling of the brush, but any tendency to do so at once makes resistance to rotation, which resistance tends to increase the lifting action of the driving-wheels on the brush, and thus very soft carpets are brushed more lightly than harder ones by an automatic action of the device itself.

I do not claim broadly herein the brush-shaft freely movable vertically and contacting the carpet by its gravity, and the drive-wheels located on opposite sides of the brush-shaft pulleys and freely movable horizontally, as the same are made the subject-matter of my pending application, Serial No. 525,715, filed October 12, 1894.

What I claim is—

1. In a carpet-sweeper, the combination with the case having vertically-elongated openings, and horizontally-elongated openings, and the brush-shaft freely movable up and down within said vertical openings and having pulleys at its ends, of plates each pivotally connected at one end with the casing and having its opposite movable end engaging the end of the brush-shaft, and the drive-wheels on opposite sides of said pulleys, said drive-wheels being mounted in rods freely movable toward and from the brush-shaft within said horizontal openings, substantially as described, whereby said pulleys will be engaged and the brush-shaft driven only by the forward wheels and the trailing wheels will always be out of engagement with the same, for the purpose specified.

2. In a carpet-sweeper, a case having horizontally-enlarged openings and guard-bars, rods freely movable in said openings, drive-wheels on said rods, a brush-shaft having pulleys to engage said drive-wheels, and plates

having vertically-movable ends provided with journals for the brush-shaft, the other ends of said plates being pivoted to said guard-bars.

3. In a carpet-sweeper, the casing provided
5 with guard-bars and having horizontally-enlarged openings, rods freely movable within said openings, drive-wheels mounted on said rods, plates pivoted near one end to the guard-bars and vertically movable at the other ends,
10 said plates having lugs or stops at their movable ends engaging said guard-bars, journals

on the movable ends of said plates, and a brush-shaft mounted on said journals and having pulleys engaging said drive-wheels, substantially as described.

In testimony whereof I affix my signature
in presence of two witnesses.

15

SILAS H. RAYMOND.

Witnesses:

LUTHER V. MOULTON,
LEWIS E. FLANDERS.