

(No Model.)

S. H. RAYMOND.  
CARPET SWEEPER.

No. 564,648.

Patented July 28, 1896.

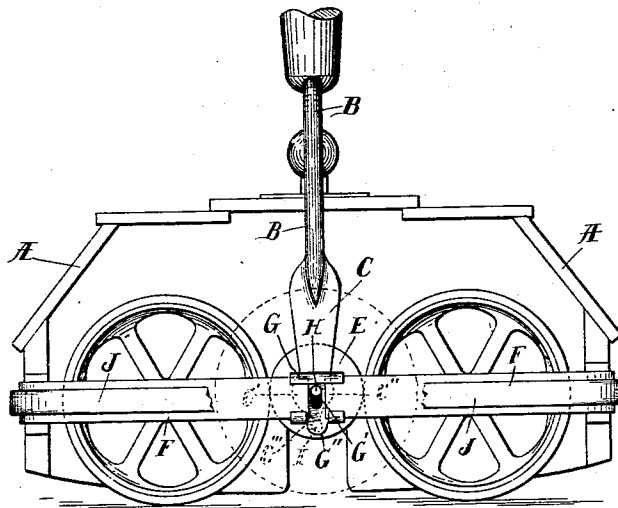


Fig. 1.

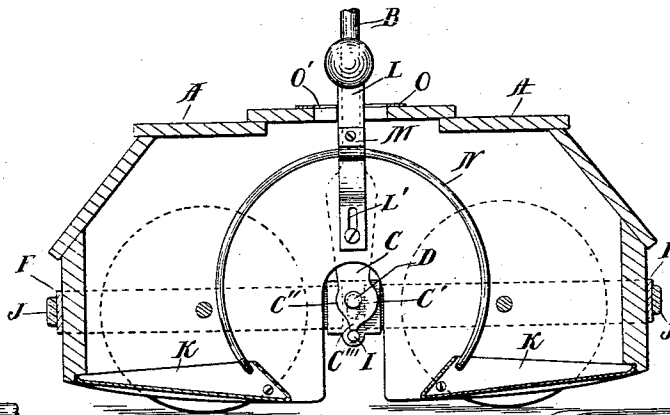


Fig. 2.

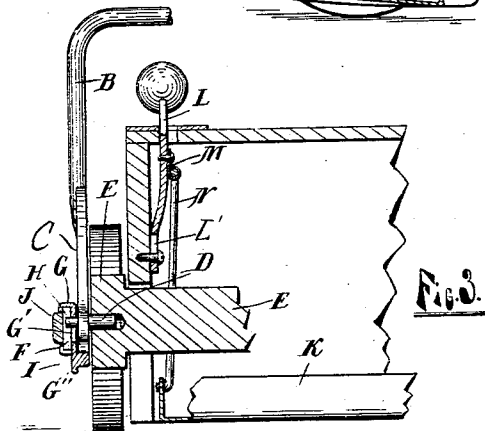


Fig. 3.

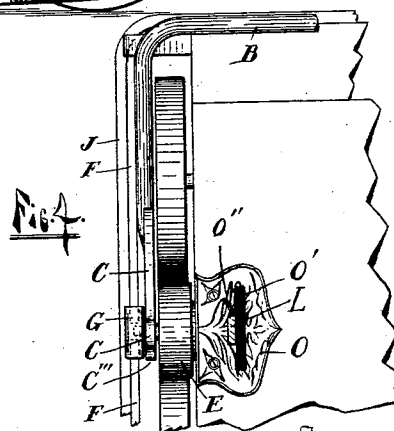


Fig. 4.

Witnesses

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# UNITED STATES PATENT OFFICE.

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. 564,648, dated July 28, 1896.

Application filed June 29, 1895. Serial No. 554,407. (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; Fig. 2, a transverse vertical section with the brush-shaft removed; Fig. 3, a longitudinal sectional detail of one end, and Fig. 4 a detail of the same in plan view.

Like letters refer to like parts in all of the figures.

A is a case of the usual form; B, the bail, having flattened ends C, each end terminating in a cam having a terminal projection C''', and a large side C', and a small side C'', both sides being concentric to the axis. From said axis extends inward a lug D, forming a journal for the brush-shaft E and an oppositely-extending lug H, which serves as a pivot for said bail.

F are guard-bars extending across the ends of the case outside the wheels, each of said bars being in two parts and having their adjacent ends slightly separated and flexibly connected by the clasp G, which clasp is formed of a plate the edges of which are loosely turned over the edges of said guard-bar to permit the same to spring laterally. Said clasp has a central vertical slot G', through which projects the lug H and a downwardly-extending portion G'', which is not folded, and to which the pin I is secured, said pin being engaged by the cam on the end of the bail and supporting the bail and brush. An elastic guard-band J extends around the case and guard-bars, passing between the overturned edges of said clasp G. When the

bail is moved to a vertical position, the projections C''' engage the pins I and raise the brush from the floor to prevent the bending of the bristles when the device is not in use. When the bail is turned from the vertical toward the small side C'' of the cams, the lugs H act as fulcrums to throw said projections out of engagement with said pins I, and as said projections are the point of support for said bail and brush the latter will be lowered as the sides C' of the cams engage said pins. The brush is thus normally adjusted in its lowest position for sweeping a floor or hard carpet. When the bail is turned in the opposite direction, said brush is lowered a less distance by reason of the greater radius of the sides C' over the side C'', and thus normally adjusted for soft carpet. Both of said sides being concentric with their axes or lugs H, changing the angle of said bail while inclined in one direction will not change the elevation of said brush. The bail and brush being supported at all times by the pins I on the clasps G, pressure on said bail will spring the guard-bars and lower the brush. By this arrangement the bail does not interfere with the elastic guard-band and said band is held in place by the overturned edges of the clasps G.

K K are pans of the usual form and pivoted to the case. L is a slightly-flexible push-lever pivoted to the case near its lower end by a screw which passes through a longitudinal slot L', and to which lever is pivoted at M spring-arms N, having their lower ends secured to said pans and operating to open them or to hold them in a closed position.

To the top of the case is secured a plate O, which has a slot O', in which said lever is freely movable, said slot having a lateral opening O'' to receive said lever when in mid-position. When downward pressure is applied to said lever, it will move longitudinally in said lateral opening, which serves as a guide, and both pans will be opened simultaneously; but when it is desirable to open but one pan, said lever is forced out of said lateral opening into said slot and moved toward one end of the same, and as the arms connecting the lever with the pans move laterally with the former only the pan on the

side toward which said lever is moved is opened. Said lever being held against the side of said slot and opening by its spring action prevents vibration and consequent noise.

5 Having thus fully described my invention, what I claim is—

1. In a carpet-sweeper, the combination with the case, and the brush, of a bail upon which said brush is journaled, a cam operated by said bail and formed with surfaces of different radii, and a pin engaged by said cam; whereby when the bail is placed at the same angle on each side of the perpendicular, the brush will be adjusted to different elevations, substantially as described.

2. In combination with a carpet-sweeper casing, a bail, a brush journaled on said bail, a guard-bar divided into two parts, means connecting said parts and supporting said bail and a cam on said bail engaging said connecting means, substantially as described.

3. In a carpet-sweeper in combination, a guard-bar divided into two parts, a clasp connecting said parts, and a bail and brush supported by said clasp and adapted to be raised and lowered by the flexibility of said bar, substantially as described.

4. In a carpet-sweeper, in combination, a case, a guard-bar consisting of two parts, a clasp having its edges turned outward over the edges of said parts and connecting the same and a guard-band engaging said case and bar and passing between said edges of said clasp, substantially as described.

5. In a carpet-sweeper, in combination a case a bail, having flattened ends, cams on said ends, divided guard-bars, clasps connecting the parts of said bars, central vertical slots in said clasps, outwardly-projecting lugs on said bail engaging said slots, inwardly-projecting lugs on said bail, a brush journaled on said latter lugs, and projections on said clasps engaged by said cams, substantially as described.

6. In a carpet-sweeper, the combination with the case and pivoted dust-pans, of a pivoted lever movable oppositely in either direction from a central position, and arms attached to said lever and moving therewith and also connected to said pans, whereby the pans may be independently dumped, as described.

7. The combination with the case and pivoted dust-pans, of the pivoted and vertically-movable pan-dumping lever extending through guide-slots in the case, and the spring connecting the pivoted ends of said

dust-pans and pivotally connected with said lever.

8. In combination with a carpet-sweeper casing, dust-pans pivoted thereto, a lever 60 having a slot in its lower end, a pivot-screw in said slot attaching the lever to the case, a spring pivoted to said lever, and connected to said pans, and a plate having a slot and a lateral opening adapted to receive said lever, substantially as described.

9. The combination with the casing having an elongated opening, and the dust-pans pivoted in said casing, of a lever movable within said opening from a central position toward 70 either side of the casing, and a spring connecting the pivoted ends of said pans and attached to said lever and moving therewith, substantially as described, whereby the pans may be dumped one at a time, as specified.

10. The combination with the case, and the brush-shaft, of a pivoted bail supporting said brush-shaft, said bail having a projection at its lower end and cam-surfaces at opposite sides of its pivot, and a pin supported 80 adjacent to the same and designed to be engaged by said projection and cam-surfaces of the bail.

11. The combination with the case and the brush-shaft, of a pivoted bail supporting 85 said brush-shaft, said bail having cam-surfaces of different radii at opposite sides of its pivot and also having a terminal projection extending below said cam-surfaces, and a pin, supported adjacent to said projection, 90 and designed to be engaged by the same and by said cam-surfaces, whereby the brush will be held clear of the floor when the bail is vertical and may be adjusted to sweep differently by changing the inclination of the 95 bail, as specified.

12. In a carpet-sweeper, in combination with a case, having dust-pans pivoted near their inner angles, an upwardly-curved spring pivoted at its respective ends to the respective 100 dust-pans, and a lever pivoted to said case at one end and attached near its middle to the middle of said spring, whereby each pan is separately opened by moving said lever toward the same, substantially as described. 105

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

SILAS H. RAYMOND.

Witnesses:

LEWIS E. FLANDERS,  
LOIS MOULTON.