No. 642,172. Patented Jan. 30, 1900.

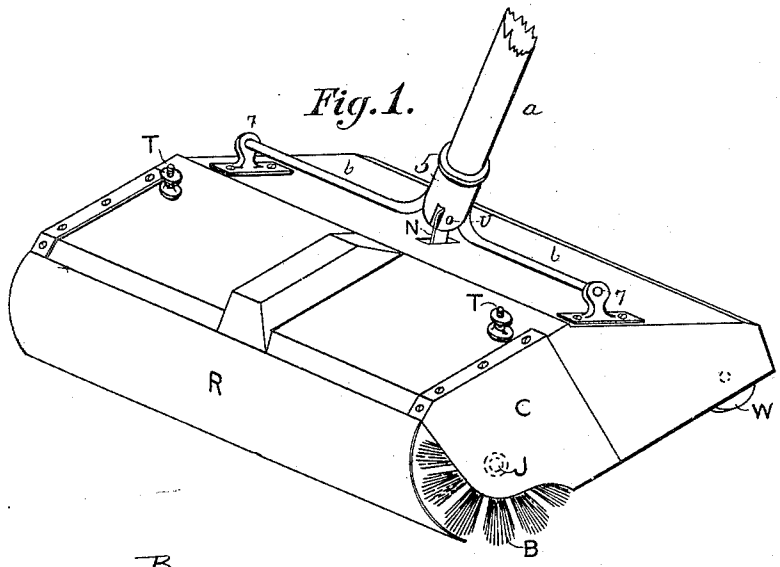
C. C. SWEITZER.

CARPET SWEEPER.

(Application filed May 27, 1899.)

(No Model.) 2 Sheets—Sheet 1.

Fig. 1.



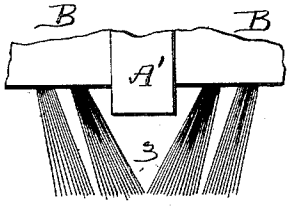


Fig. 8.

Fig. 2.

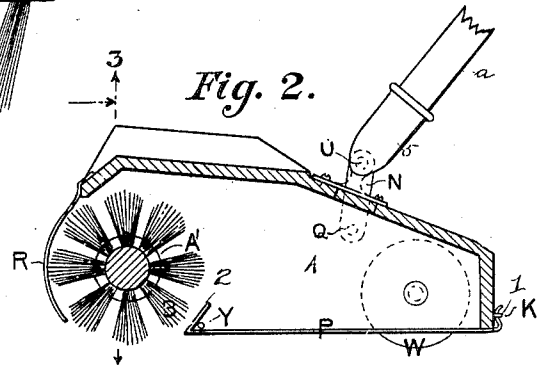
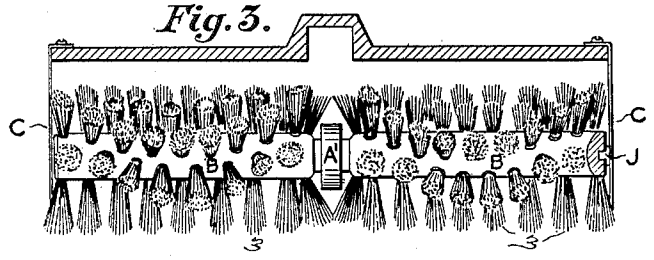


Fig. 3.



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Fig. 4.

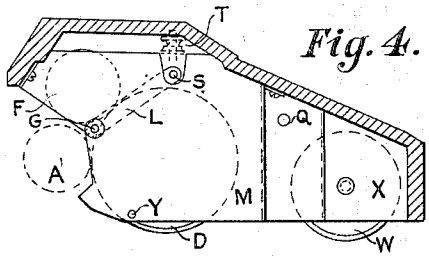


Fig. 5.

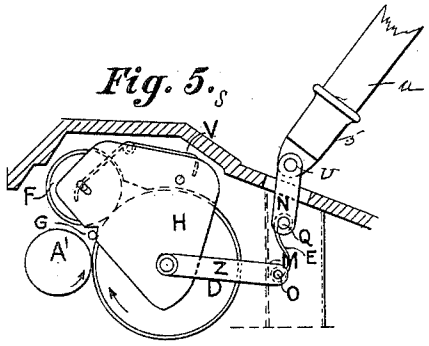


Fig. 6.

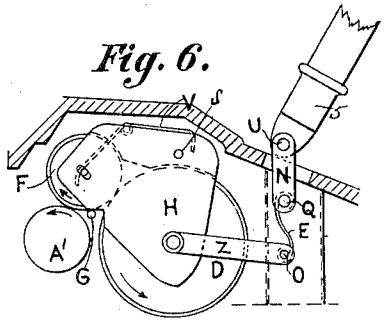
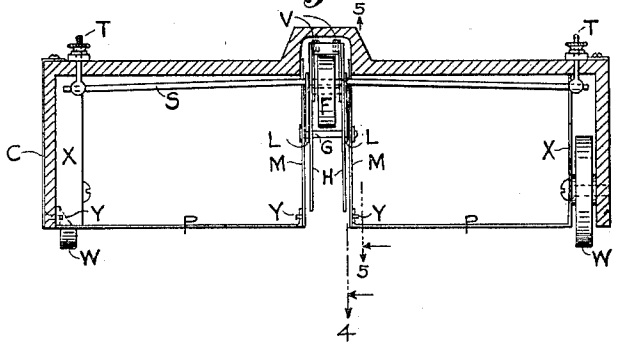


Fig. 7.



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UNITED STATES PATENT OFFICE.

CHARLES C. SWEITZER, OF MISHAWAKA, INDIANA, ASSIGNOR, BY DIRECT AND MESNE ASSIGNMENTS, OF THREE-FOURTHS TO W. S. HEMPERLEY, OF HARRISBURG, AND CHARLES R. HARRIS, OF WILLIAMSPORT, PENNSYLVANIA.

CARPET-SWEEPER.

SPECIFICATION forming part of Letters Patent No. 642,172, dated January 30, 1900.

Application filed May 27, 1899. Serial No. 718,580. (No model.)

To all whom it may concern:

Be it known that I, CHARLES C. SWEITZER, a resident of Mishawaka, in the county of St. Joseph and State of Indiana, 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 an improvement in carpet-sweepers, the object of the invention being to provide a carpet-sweeper which will revolve the brush always in the same direction regardless of the direction in which the machine is moved.

A further object is to provide a carpet-sweeper which will effectually sweep the corners and base-board of a room.

A further object is to provide a carpet-sweeper which will be most effectual when in operation and which can be readily cleaned or emptied after having been used.

With these objects in view the invention consists in certain novel features of construction and combinations and arrangements of parts, as will be more fully hereinafter described, and pointed out in the claims.

In the accompanying drawings, Figure 1 is a perspective view. Fig. 2 is a transverse view taken to one side of the center. Fig. 3 is a longitudinal sectional view to one side of the brush. Figs. 4, 5, and 6 are views showing the details of the operating mechanism. Fig. 7 is a longitudinal sectional view showing parts of the operating mechanism, and Fig. 8 is a detail view of a portion of the brush.

A represents the frame or body of my sweeper, open at the bottom and provided on its front end with a flexible curtain R (preferably of rubber) and on its sides at its forward portion with sheet-metal flaps C C, secured to the body A, as shown.

Secured to the top of the body A and disposed parallel with and in proximity to the side portions thereof are partitions X X, between which and the sides of the body are revolubly mounted wheels or rollers W W, adapted to project beneath the body and bear on the carpet or floor. Parallel upright sheets or partitions M M are secured to the top of the body A, near the center thereof, and are spaced apart and disposed parallel with plates or partitions X X, as shown. A dust-pan P is pivotally connected at its sides at its front end by means of ears on the pan and pins Y, passing loosely through said ears and into the partitions M and X, and said pan is provided on its rear end with a spring-catch K, adapted to engage a keeper 1 on the body A of the sweeper to hold the pan in proper position. The inner end of the pan P is provided with an inclined inwardly-projecting flange or guard 2 to prevent the escape of dirt after having been brushed or swept therein.

The flaps C are provided with inwardly-projecting pintles J, disposed in the socketed ends of my improved brush or sweeper B to constitute bearings therefor. The sweeper B is provided centrally with a friction-wheel A', and between said friction-wheel and the ends thereof is provided with a series of brushes 3, extending entirely around the sweeper or brush B, and the end and central brushes 3 are disposed at an angle and made longer than the other brushes 3, so that when the brushes are cut off straight to form a flat bearing-face for the brush they will sweep beyond the ends of the body A and meet at the central point under the friction-wheel to sweep every part of the floor over which it moves.

A frame H is disposed between the partitions M M and is pivotally mounted on a spring-rod S, passing through the partitions and frame and supported at its ends in suitable eyebolts, which project through the top of the body and are provided on their upper ends with thumb-nuts T to regulate the position of the eyebolts, and hence the tension of the spring-rod S. A large wheel D is revolubly mounted in the lower part of the frame H and is held in contact with the carpet or ground by the spring-rod S. A small wheel F is also revolubly mounted in the frame H, the journals of said wheel F being disposed in

slots in the frame and held in engagement with the wheel D by springs V, which bear against the journals of the wheel F.

The frame H is provided at its front edge with notches in which a cross-bar G is disposed, and the cross-bar G is connected with the spring-rod S by means of links L L, as shown.

Links Z Z are pivotally connected at the lower portion of the frame H (or to the journals of the wheel D) and project rearwardly, where they are connected with a shaft Q by means of spring-arms E E. A link N is secured to the shaft Q and projects through a slot in the top of the body A and is disposed in a recess in the end of a sleeve 5 and pivotally secured therein by means of a pin U. The sleeve 5 is provided on opposite sides with horizontally-disposed arms 6, which are pivotally mounted at their ends in brackets 7, secured to the body A. A suitable handle *a* is secured in the sleeve or socket-piece 5.

The operation of my improved sweeper is as follows: When the sweeper is pushed forward, the link N will be turned to push the lower end of the springs E rearward, and hence pulls the links Z and frame H rearward, thus bringing the small wheel F into engagement with the friction-wheel A′ of the brush or sweeper B to turn the latter and sweep the dirt into the pan P, as shown in Fig. 6. When the sweeper is pulled back, the handle will cause the upper end of link N to move rearwardly to turn the shaft Q and transmit motion through the springs E and links Z to the frame H and force the large wheel D into engagement with the friction-wheel A′ of the brush to revolve the latter in the same direction as when the sweeper was pushed forward, as shown in Fig. 5.

Various slight changes might be resorted to in the general form and arrangement of the several parts described without departing from the spirit and scope of my invention, and hence I would have it understood that I do not wish to limit myself to the precise details set forth, but consider myself at liberty to make such slight changes and alterations as fairly fall within the spirit and scope of my invention.

Having fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a sweeper, the combination with a revoluble brush, of a wheel in the sweeper adapted to engage the surface to be swept, another wheel in the sweeper in engagement with said first-mentioned wheel and means for throwing either of said wheels into engagement with the brush to revolve the latter.

2. In a sweeper, the combination with a revoluble brush, of a frame disposed in proximity to the brush, two wheels revolubly mounted in said frame and engaging each other, one adapted to engage the surface to be swept, and means for throwing one or the other of said wheels into engagement with the brush to turn the latter.

3. In a sweeper, the combination with a body, of a brush revolubly mounted in the body, a frame pivotally supported in the body, two wheels revolubly mounted in the frame in engagement or mesh with each other and one of said wheels adapted to engage the surface to be swept, a link pivotally connected to the frame, another link pivotally connected to the body, a spring connecting said links, and a handle connected to the last-mentioned link so that when the handle is thrust in one direction it will operate the frame to throw one or the other of the wheels into position to actuate the brush.

4. In a sweeper, the combination with a body and a revoluble brush, of a frame pivotally mounted in the body having notches therein, a cross-bar disposed in said notches, links connecting said cross-bar with the pivotal support of the frame, wheels revolubly mounted in the frame, and means for moving said frame so as to throw one of said wheels into engagement with the brush to revolve the latter.

5. In a sweeper, the combination with a body, of a brush revolubly mounted in said body comprising a cylindrical shaft, a central friction-wheel on said brush, brushes around the shaft, the brushes on the end and central portion of the shaft made longer than the rest and project beyond the ends thereof and inclosing the friction-wheel, and the periphery of the completed brush made smooth to engage a broad surface of ground, and means in said body for engaging the friction-wheel to revolve the brush.

6. In a carpet-sweeper, the combination with a body, and a brush revolubly mounted therein, a spring-rod adjustably mounted in the body, a frame pivotally supported on said rod, wheels revolubly mounted in said frame and means for throwing one of said wheels into engagement with the brush to revolve the same.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

CHAS C. SWEITZER.

Witnesses:
S. W. FOSTER,
R. S. FERGUSON.