(Model.)

W. J. DREW.

CARPET SWEEPER.

No. 376,028. Patented Jan. 3, 1888.

Fig. 1.

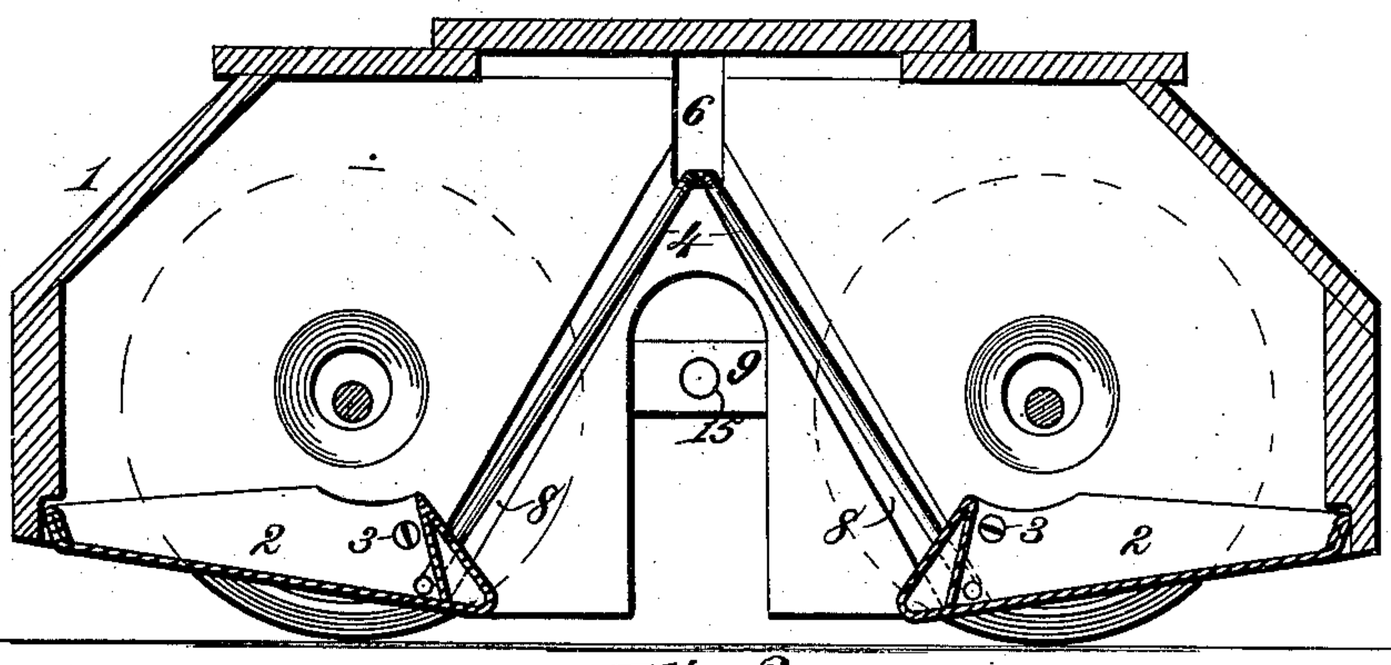


Fig. 2.

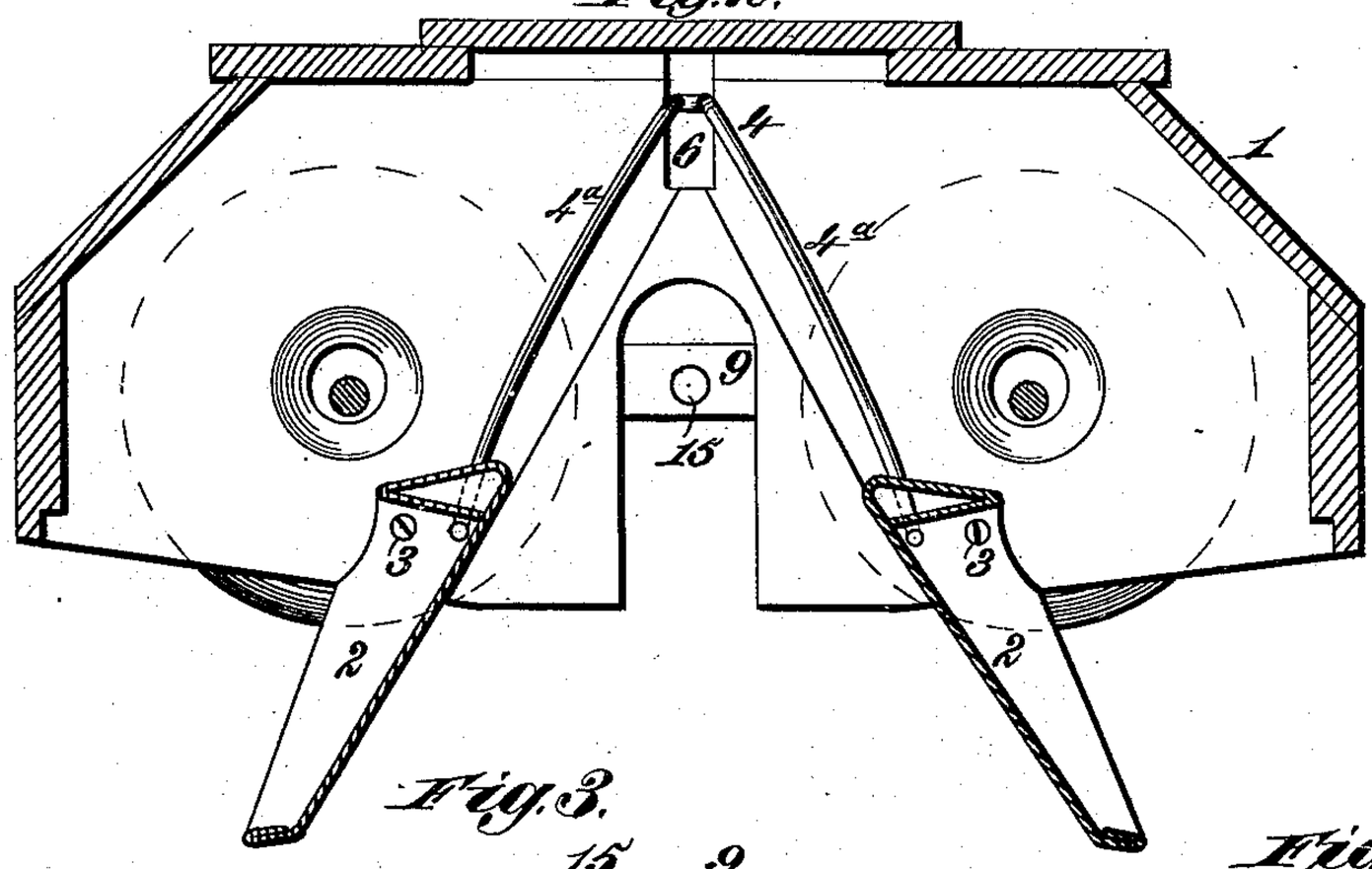


Fig. 3.

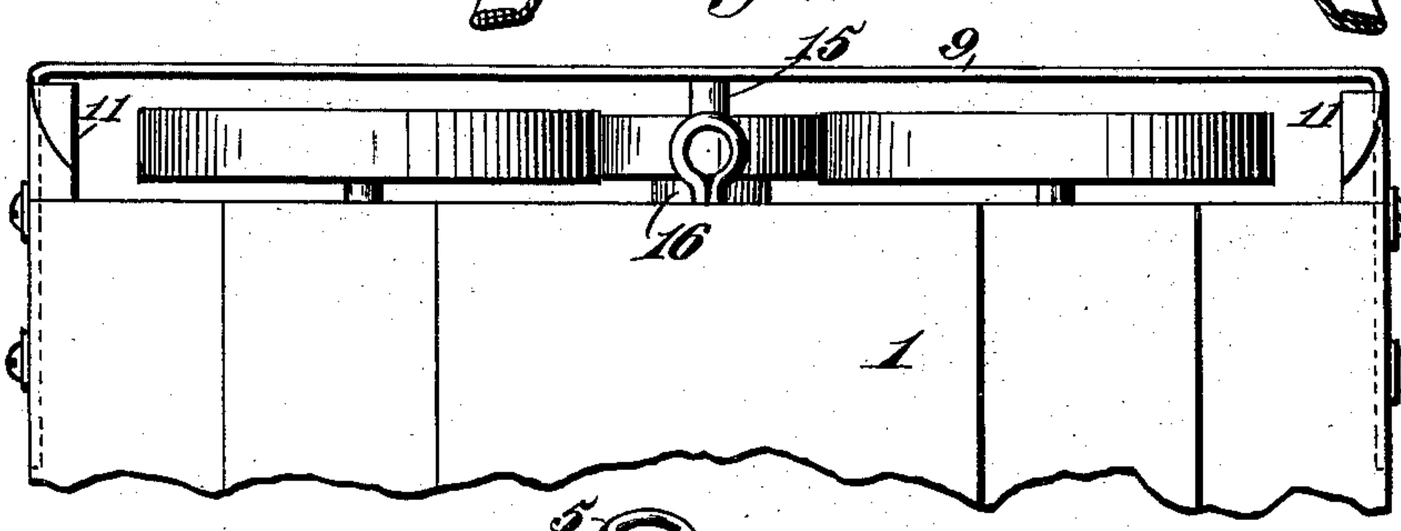


Fig. 4.

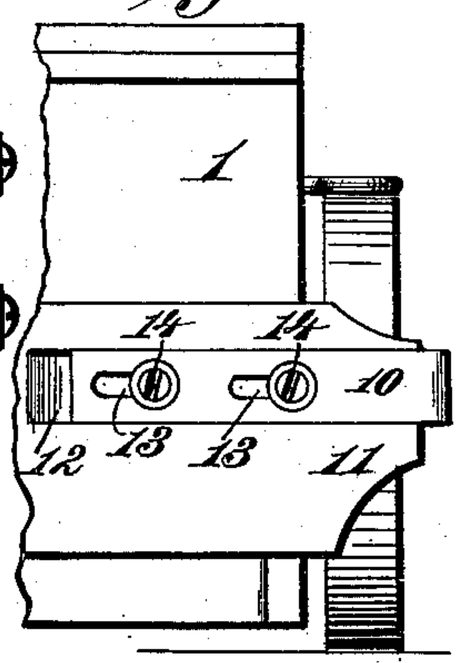
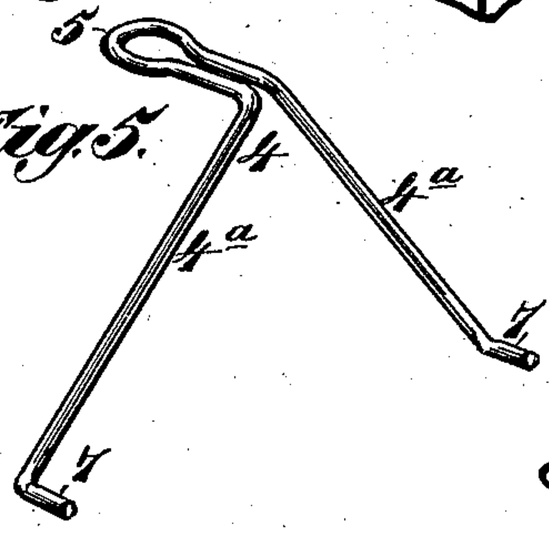


Fig. 5.



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UNITED STATES PATENT OFFICE.

WALTER J. DREW, OF GRAND RAPIDS, MICHIGAN, ASSIGNOR TO THE BISSELL CARPET SWEEPER COMPANY, OF SAME PLACE.

CARPET-SWEEPER.

SPECIFICATION forming part of Letters Patent No. 376,028, dated January 3, 1888.

Application filed March 19, 1887. Serial No. 231,534. (Model.)

To all whom it may concern:

Be it known that I, WALTER J. DREW, a citizen of the United States, residing at Grand Rapids, in the county of Kent and State of Michigan, have invented new and useful Improvements in Carpet-Sweepers, of which the following is a specification.

My invention relates to carpet-sweepers, and the purpose thereof is to provide a simple, novel, and effective device for operating the pans to dump the sweepings, whereby both pans are opened and closed simultaneously, the closing movement being effected by the spring-tension of the device itself.

It is also a purpose of my invention to combine with the sweeper-casing a novel support for the pintle or end bearing on which the brush-shaft revolves, whereby the pintle may be easily and instantly removed from engagement to release the brush and enable it to be removed from the sweeper.

To these ends my invention consists in the combination, with the pivotally-mounted dust-pans of a carpet-sweeper, of a wire connected to said pans at its ends and having its middle portion accessible to the operator through an opening in the casing, whereby it may be raised or lowered to revolve the pans, said wire being bent and connected with the dust-pans under tension to hold them in position to receive the sweepings.

The invention also consists in a rigid support or bar embracing the sides of the sweeper-casing and adjustable thereon, said bar being provided with a pintle or bearing which supports the end of the brush-shaft, whereby the bar may slide upon the casing to withdrew the pintle from engagement and release the brush.

In the accompanying drawings, Figure 1 is a sectional elevation of the inner face of the end of the casing, the brush being removed. Fig. 2 is a sectional view showing the operation of the device for dumping the pans. Fig. 3 is a plan view of the end of the sweeper, the brush and shaft being shown in dotted lines. Fig. 4 is a partial side elevation of the casing shown in Fig. 3. Fig. 5 is a perspective view of the device for dumping the dust-pans detached.

In the said drawings, the reference-numeral 1 designates the sweeper-casing, which is of any suitable construction, having pans 2, of the usual form, pivotally mounted upon bearings 3. Within the casing and lying closely against the end thereof is a single integral piece of wire, 4, preferably bent at or about its middle point to form a loop, 5, by which it may be grasped, and beyond this point the wire may be of the form shown—that is to say, diverging—though this particular shape is not absolutely essential. The portion 5, which may be bent outward at right angles to the divergent portions, is placed in a central vertical slot, 6, in the end of the casing in such manner that the eye or loop projects outside. The divergent portions 4^a are carried past the ends of the pans, between the latter and the end wall of the casing, and are connected with said pans, a convenient form of connection being by the bent ends 7 of said wire engaging with openings in the ends of the pans, the point of engagement being below and a little behind the pivotal bearings 3. Slots 8 may be cut in the end wall of the casing to permit the wire to pass the end of the dust-pans without obstructing their motion. It is desirable that the ends of the wire should be connected with the pans under spring-tension in order that they may be at all times retained in position to receive the sweepings.

To operate the device the finger is placed beneath the loop 5, and it is lifted until it moves to the top of the slot 6. This movement raises the wheel of each pan, and by their pivotal movement the ends of the wires 4^a are caused to approach each other, whereby, upon releasing the loop 5, the pans will be instantly closed by the tension of said wires. It is evident that the wires 4^a, instead of diverging in the manner shown, might be bent to form a part of a circle. It is also evident that the ends may be connected to the pans in front of the pivotal bearings 3, in which case the wire loop 5 would be moved downward in order to open the pans, the spring-tension of the wire being exerted in the manner already set forth. It will be seen that I might omit the loop 5 and the outwardly-projecting portion of the wire and attach a separate piece instead to serve as a hand-hold. By using

the construction shown in Fig. 5, however, I secure a torsional elasticity located in the outwardly-projecting portions between the loop 5 and the wires 4^a.

Referring to Figs. 3 and 4, the numeral 9 denotes a rigid bar which extends horizontally across the end of the casing. The ends 10 of said bar are bent at right angles to the body portion, and embrace the side walls, 11, of the sweeper-case, slots 12 being preferably cut therein in order to give flush surfaces. Slots 13 are formed in the ends 10 to receive attaching-screws 14. Upon the central part of the bar 9 is mounted a pintle or bearing, 15, projecting inwardly and adapted to enter the end of the brush shaft 16. I may place a washer of metal, rubber, or other suitable material under the heads of the screws 14, or between the casing and the ends 10, whereby the frictional contact of the latter may be rendered sufficient to prevent their accidental displacement, while readily permitting the necessary adjustment. This friction also may be increased or lessened by means of the screws 14. This device not only affords a firm bearing for the brush, which may be easily and instantly withdrawn to release the latter, but it also affords a guard for the wheels which support the casing and drive the brush-shaft.

Having thus described my invention, what I claim is—

1. In a carpet-sweeper, the combination, with a casing and the pivotally-mounted dust-pans, of a vertically-sliding single piece of spring-wire formed with divergent arms connected, respectively, at their ends under tension to said pans, and provided with a hand-hold extending through the casing, whereby said wire may be moved up or down to open and close the pans, substantially as described.

2. In a carpet-sweeper, the combination, with the casing having a slot or opening in its end and provided with pivotally-mounted pans, of a vertically-sliding piece of elastic wire bent upon itself at or about the middle and then outwardly to form a hand-hold projecting from the slot in the casing, the ends of said wire being connected with the ends of the pans under tension, substantially as described.

3. The combination, with a carpet-sweeper case and its brush-shaft, of a rigid bar having a central pintle or bearing to support the end of the brush-shaft, and provided with bent ends engaging the side walls of the sweeper-case and adjustable longitudinally with reference to the case, and adapted by such adjustment to release and permit the removal of the brush-shaft from its bearing, substantially as described.

4. The combination, with a carpet-sweeper case and its brush-shaft, of a rigid bar having a central pintle or bearing and bent ends embracing the side walls and provided with longitudinal slots, and attaching devices passing through the slots to adjust the bent ends longitudinally with reference to the case, and by such adjustment release and permit the removal of the brush-shaft from its bearings, substantially as described.

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

WALTER J. DREW.

Witnesses:
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