(No Model.)

W. J. DREW.

CARPET SWEEPER.

No. 418,280. Patented Dec. 31, 1889.

Fig. 1.

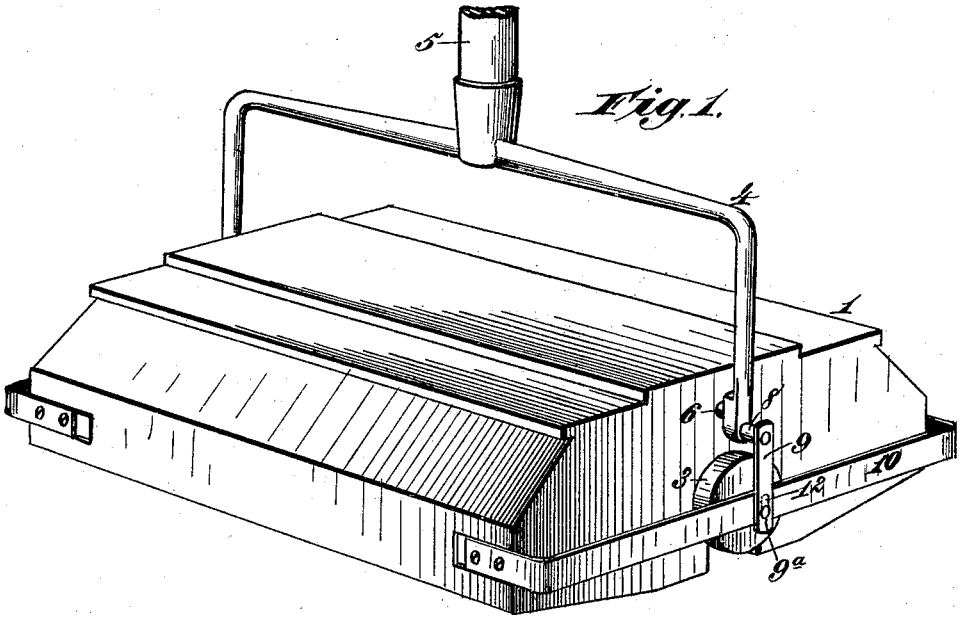


Fig. 2.

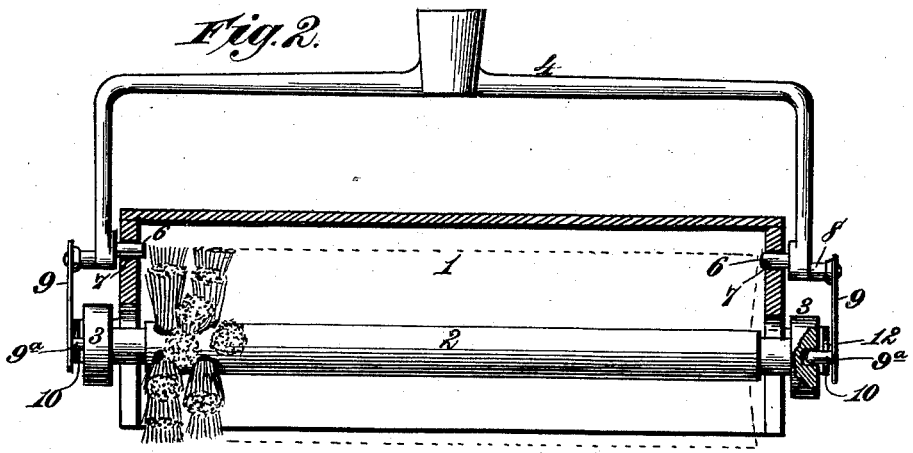
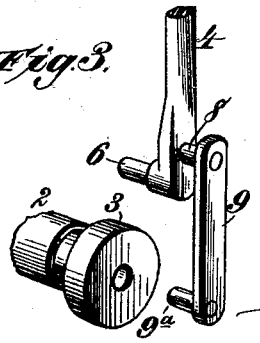


Fig. 3.



Witnesses.
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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. 418,280, dated December 31, 1889.

Application filed March 21, 1889. Serial No. 304,186. (No 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.

This invention relates to that type of carpet-sweepers wherein the rotary-brush shaft is raised and lowered independent of vertical movement of the sweeper-case by the swinging movement of the sweeper-handle.

The invention has for its object to improve such carpet-sweepers; to simplify their construction and render the connection between the handle and brush-shaft more direct and substantial to better govern the position of the brush-shaft; to avoid the use of plates sliding vertically in guideways, which are objectionable, owing to friction, and to provide novel, simple, and efficient means for controlling the pressure of the brush on the surface traversed, and at the same time permit the brush-shaft to be conveniently and quickly removed and replaced when occasion demands or is desired.

The object of my invention I accomplish by the features of construction and combination of devices hereinafter described and claimed, reference being made to the accompanying drawings, in which—

Figure 1 is a perspective view showing sufficient of a carpet-sweeper to illustrate my invention; Fig. 2, a longitudinal central sectional view of the same, and Fig. 3 a detail perspective view showing a modification.

In order to enable those skilled in the art to make and use my invention, I will now describe the same in detail, referring to the drawings, where—

The numeral 1 indicates a sweeper-case, and 2 a brush-shaft having at each end a friction-wheel 3, which in practice is driven by the drive-wheels in any suitable or ordinary manner.

I do not deem it necessary to illustrate the dust-pans and drive-wheels of a sweeper, since they may be of any known type and constitute no part of the present invention.

The bail 4 of the sweeper-handle 5 is provided at its extremity with a pivot 6, journaled in a socket 7 in the end wall of the sweeper-case, so that the handle can be raised and lowered by swinging it in on the pivot. The bail is furnished with a stud or pin 8, located at one side of or eccentric to the pivot 6, and to said stud or pin is journaled the upper end of a link or plate 9, which at its lower end portion carries or is connected with an inwardly-projecting journal or bearing 9^a, that engages with the brush-shaft in any suitable manner to permit the latter to be freely revolved. In the example shown the journal or bearing is made as a cylindrical pin fixed to the link or plate and entering a socket in the end of the brush-shaft. The link or plate is so constructed or made of spring metal that it can yield laterally in a direction away from the end of the sweeper-case to disengage the journal or bearing from the brush-shaft, whereby the latter can be conveniently removed and replaced. I have shown both ends of the brush-shaft similarly constructed and supported; but for the purposes of my invention I will confine the description to one end.

The brush-shaft is capable of rising and falling, and it can be lowered as well as raised independent of any vertical movement of the sweeper-case by simply swinging the handle in the proper direction on or with its pivotal attachment to the sweeper-case.

In Figs. 1 and 2 the point of connection between the bail and the link or plate is below the axis of the bail-pivot 6, so that the brush is lower as the sweeper-handle is raised, and conversely, while in Fig. 3 the point of connection between the bail and the link or plate is above the axis of the bail-pivot, in consequence of which the brush-shaft will be lowered as the sweeper-handle is lowered, and conversely. The latter arrangement is, however, not so convenient in use as the arrangement of the parts to lower the brush-shaft by the rising movement of the sweeper-handle.

To provide a very desirable sweeper embodying my invention wherein the drive-wheels may be located outside the end wall of the case, I provide the horizontal elastic band 10, having its ends secured to the case and provided at or near the middle of its

length with a vertical slot 12, through which the journal or bearing of the link or plate extends to engage and support the end of the brush-shaft. The slot permits the rising and falling movements of the brush-shaft, while the side edges of the slot guide and retain the journal or bearing.

By the lateral crank or eccentric stud or pin of the bail to which the link or plate is journaled, I avoid providing the bail with an enlarged segmentally-slotted plate, and by my invention I also avoid the employment of a plate sliding vertically in guideways, which is objectionable, owing to frictional contact of the plates with the guides.

Having thus described my invention, what I claim is—

1. The combination, with a carpet-sweeper case and a brush-shaft, of a pivoted bail, a link or plate connected with the bail at one side of or eccentric to the pivot thereof, and a journal or bearing connecting the link or plate with the brush-shaft, substantially as described.

2. The combination, with a carpet-sweeper case and a brush-shaft, of a pivoted bail having a lateral stud or pin at one side of or eccentric to its pivot, and a laterally-yielding link or plate hung at its upper end portion to the eccentric stud or pin and provided at its lower end portion with a journal or bearing detachably engaging the brush-shaft, substantially as described.

3. The combination, with a sweeper-case and a brush-shaft, of a transverse band at each end, a bail pivoted to the case, a link or plate connected with the bail eccentric to the bail-pivot, and a journal or bearing connecting the link or plate with the brush-shaft, substantially as described.

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

WALTER J. DREW.

Witnesses:
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