(No Model.)

W. J. DREW.

CARPET SWEEPER.

No. 422,508. Patented Mar. 4, 1890.

Fig. 1.

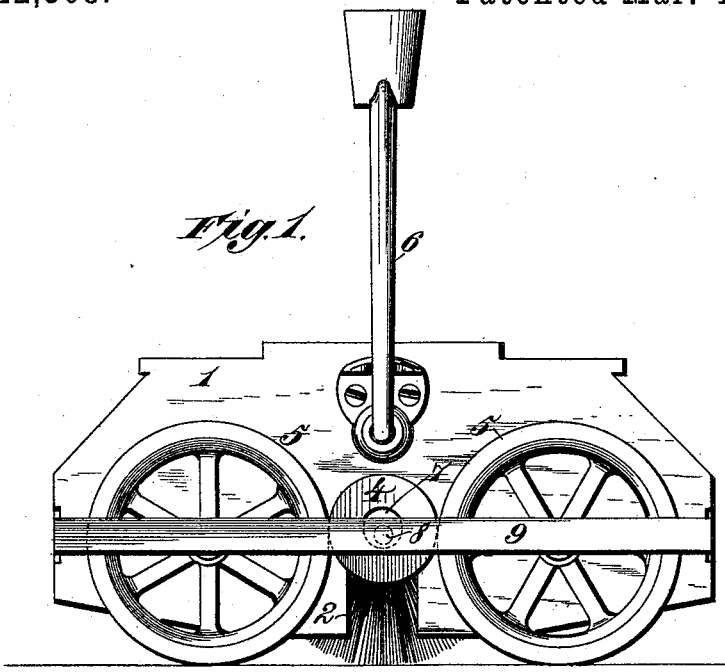
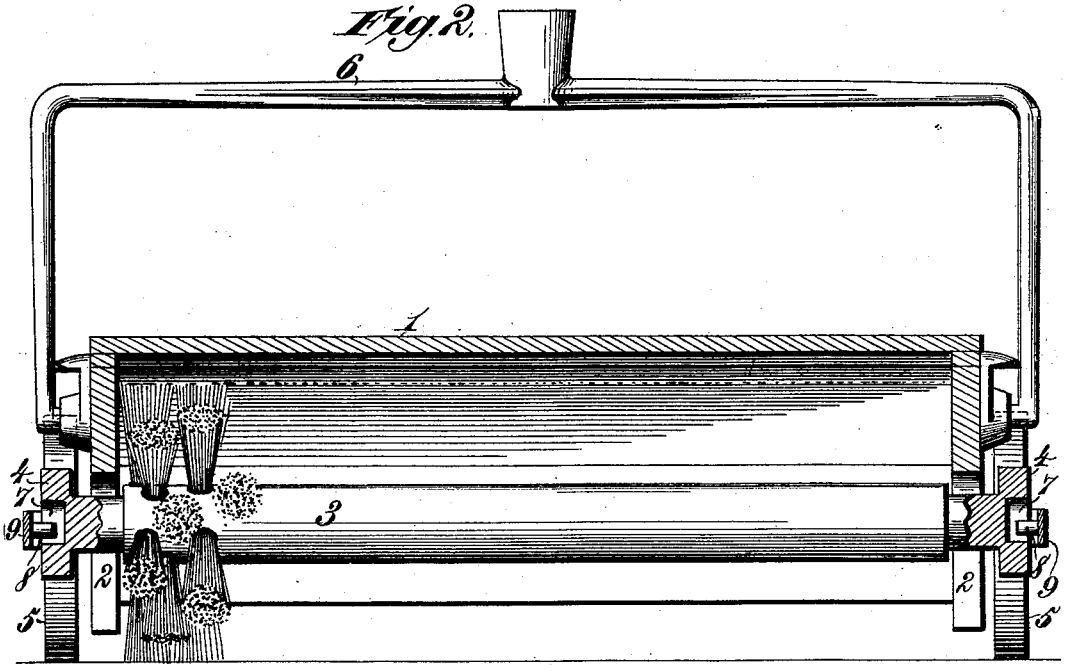


Fig. 2.



Witnesses.
Albert Emmett.
J. A. Rutherford.

Inventor.
Walter J. Drew.
By James L. Norris.
Atty.

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. 422,508, dated March 4, 1890.

Application filed July 8, 1889. Serial No. 316,770. (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 which are provided with rotary brush-carrying shafts adapted to automatically adjust themselves to the surface traversed independent of any vertical movement of the sweeper-case.

The object of the present invention is to improve the prior constructions and provide novel, simple, and economical means for maintaining a brush-shaft within a carpet-sweeper casing while permitting such shaft to gravitate and place the brush in contact with the floor, whereby the brush is self-adjusting to the surface traversed and can rise and fall independent of any vertical movement of the sweeper-case and of any movement of the pivots or pintles which maintain the brush-shaft in the case.

The object of the 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 an end elevation of sufficient of a carpet-sweeper to illustrate my invention, and Fig. 2 is a longitudinal sectional view taken centrally through the brush-shaft.

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, wherein—

The numeral 1 indicates a sweeper-case having its end walls provided with vertical slots 2, for the rising and falling motions of a brush-shaft 3, having attached friction-wheels 4, revolved by frictional contact with the drive-wheels 5. The handle-carrying bail 6 is pivoted to the sweeper-case in any manner suitable for the conditions required. The brush-shaft is provided at each end with an enlarged circular recess 7, that constitutes a bearing for a non-rotary pintle 8, which is of a diameter considerably less than the diameter of the circular bearing, in such manner that when the pintles are in the bearings the brush-shaft can freely rise and fall to conform itself to the surface traversed independent of any movement of the pintles, which latter, as regards rotary or vertical movements, are stationary or immovable.

The diameter of the circular bearing for a pintle is preferably about twice the diameter (or more) of the pintle, in order to permit a sufficiently wide range of vertical movement of the brush-shaft.

The sweeper-case is provided at each end with a transverse elastic band 9, and the pintles are immovably fixed on the bands for the purpose of detaching the brush by springing the middle portion of one of the elastic bands laterally away from the end of the case to remove a pintle from an enlarged circular bearing in the brush-shaft; but I do not confine myself to the pintles on the spring-bands, as such pintles can be otherwise fixed or immovably held and supported against rotary movement, so that the brush-shaft can freely rise and fall independent of any movement of the pintles and independent of any vertical movement of the sweeper-case.

I can employ my invention in connection with sweeper-casings and drive mechanisms of any known type, and by the simple contrivances shown and described the brush is made self-adjusting in a very economical manner, whereby a desirable sweeper can be manufactured at comparatively small expense.

I do not confine myself to a non-rotary pintle and enlarged circular bearing at each end of the brush-shaft.

Having thus described my invention, what I claim is—

1. In combination with a carpet-sweeper having a non-rotary pintle, a self-adjusting brush-shaft having a rigidly-attached pulley loosely mounted on the pintle and rising and falling with the brush-shaft independent of any movement of such pintle and of any vertical movement of the sweeper-case, substantially as described.

2. In a carpet-sweeper, the combination, with a sweeper-case, of a self-adjusting brush-

shaft having an enlarged circular bearing, a non-rotary pintle of a diameter less than the bearing which permits the brush-shaft to rise and fall independent of any movement of the pintle to adjust itself automatically to the surface traversed, and means for operating the brush-shaft, substantially as described.

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

WALTER J. DREW.

Witnesses:
ARTHUR C. DENISON,
CHAS. B. JUDD.