

(No Model.)

S. H. RAYMOND.
CARPET SWEEPER.

No. 567,508.

Patented Sept. 8, 1896.

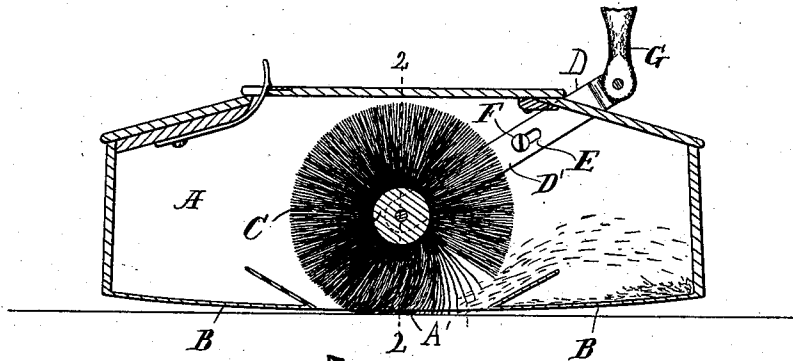


Fig. 1.

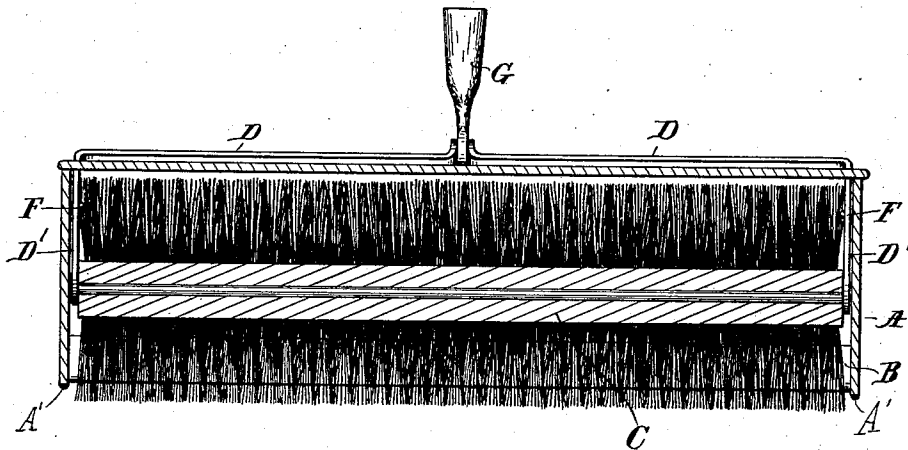


Fig. 2.

WITNESSES:

Lewis Q. Mander
Lois Moulton

INVENTOR

Silas H. Raymond
BY

Luther V. Moulton
ATTORNEY.

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. 567,508, dated September 8, 1896.

Application filed August 12, 1893. Serial No. 483,034. (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.

This invention relates to carpet-sweepers; and it consists in certain peculiarities in the construction thereof, substantially as herein-after described, and particularly pointed out in the subjoined claims.

The object of the invention is to simplify the construction and increase the effectiveness of carpet-sweepers. This object is accomplished by the construction illustrated in the accompanying drawings, in which—

Figure 1 is a vertical section, from front to rear, of a device embodying my invention; and Fig. 2, a transverse vertical section of the same on the line 2 2 of Fig. 1.

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

Heretofore in carpet-sweepers having rotary cylindrical brushes said brushes have been driven rapidly by some sort of mechanism in such manner that the bristles in contact with the carpet are drawn rapidly over the carpet in the direction that the device is moving, thus lifting the dust and other matter by a sort of scraping movement of the said bristles analogous to that of a broom.

In my improved device the bristles are not drawn over the surface of the carpet to any appreciable extent, and the brush rotates only by rolling over the surface of the carpet, and the sweeping is done solely by the flexibility of the bristles, the latter in the operation of the device being first thrust endwise into the body of the carpet and their movement temporarily retarded, thereby causing them to engage the dirt within the body of the carpet and be flexed and lift the same and deposit it forcibly in the dust-pans, as hereinafter more fully explained.

In the drawings, A represents the case, 50 which may be of any convenient form, and provided with the usual dust-pans B B at each side. Said case may be supported by any suitable means, but it is shown as arranged to slide upon suitable shoes or runners A' at each end. Near the middle of the case is a cylindrical brush C, which is preferably of quite flexible bristles set closely and uniformly on the shaft. Said brush is journaled in the respective arms of the yoke D, 60 which yoke is provided near the middle with a suitable handle-socket G. The respective parallel arms D' of said yoke extend through suitable openings in the case and are longitudinally movable therein. Said arms are also provided with slots E, through which pass studs F, which are fixed on the ends of the case. Said case is thus free to move diagonally upward upon the yoke-arms as the brush-shaft is pressed more closely to the floor 70 by increased pressure on the handle. The socket G is capable of being adjusted in an inclined position when sweeping and to a vertical position when out of use. Any suitable means for locking it in these positions relative to the yoke may be used, if deemed necessary. The brush is thus independently journaled in the arms of a yoke attached directly to the handle, the case being movable thereon. Any pressure applied to the handle falls solely on the brush and tends to thrust the bristles into the carpet and bend the same, which bristles, as the brush rolls forward, are released after being so deflected or bent. Said bristles in recovering their 85 normal radial position will thus pick up and throw any detachable particles of matter into the pan, as illustrated in Fig. 1. The sweeping is thus done by the resilient action of said bristles. This peculiar rolling motion of the brush thrusts the bristles endwise into the carpet and temporarily retards the movement thereof, so as to cause them to flex, and is especially effective in removing particles of sand and other like substances from the interstices of the same that would not be reached 95 by the usual movement of the brush. Incidentally I also am able to construct a much

cheaper device by dispensing with all the usual driving mechanism to rotate the brush.

What I claim is—

1. In combination with the case of a carpet-sweeper, and with a dust-pan therein, a cylindrical brush journaled in the case so as to be free to rotate therein in contradistinction to being positively driven, and means for moving the casing along the carpet and forcing the bristles of the freely-rotatable brush into the carpet, as and for the purpose set forth.

2. In a carpet-sweeper, the combination with the case, runners attached thereto, upon which the case slides, and the dust-pan, of a rotative brush in said case, a yoke, having arms within the lower ends of which said brush is journaled, said arms having elongated slots, studs, secured to the case, and projecting into said slots, and a handle socket, secured to said yoke.

3. The herein-described carpet-sweeper,

consisting of a case; a dust-pan, in said case; a brush in said case, said brush being rotated by contact of its bristles with the carpet and said bristles being of such length and flexibility that in the operation of the sweeper they each will be successively thrust endwise into the carpet and flexed laterally and caused to forcibly assume their normal radial position; a yoke, having arms formed with elongated slots within the lower ends of which yoke said brush is journaled; studs, secured to the case and projecting into said slots in the yoke-arms; a handle-socket secured to said yoke; and runners, secured to the case and upon which the same slides, substantially as shown and described.

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

SILAS H. RAYMOND.

Witnesses:

LEWIS E. FLANDERS,
LUTHER V. MOULTON.