March 24, 1953 W. M. ALLEN 2,632,583

DEVICE FOR APPLYING POWDERY MATERIAL TO FLOOR COVERINGS

Filed May 12, 1948

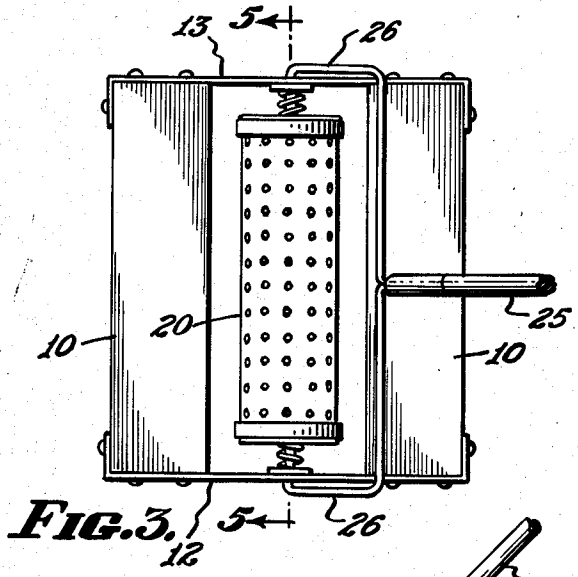


FIG. 3.

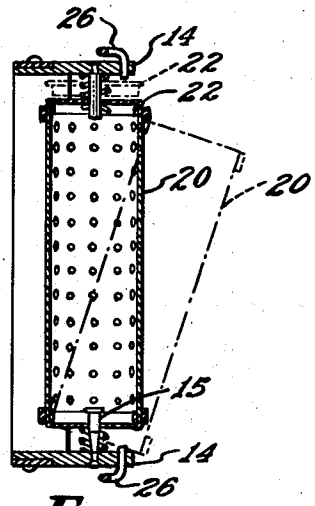


FIG. 5.

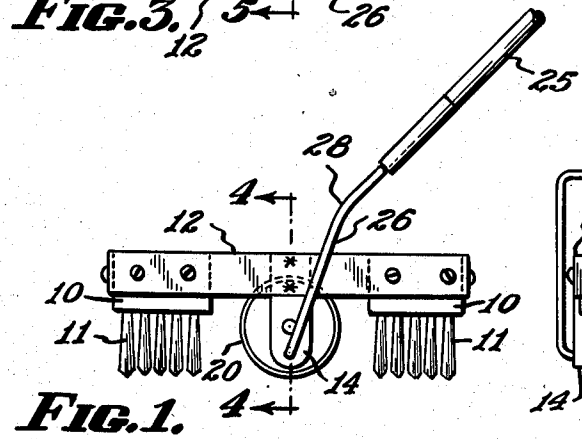


FIG. 1.

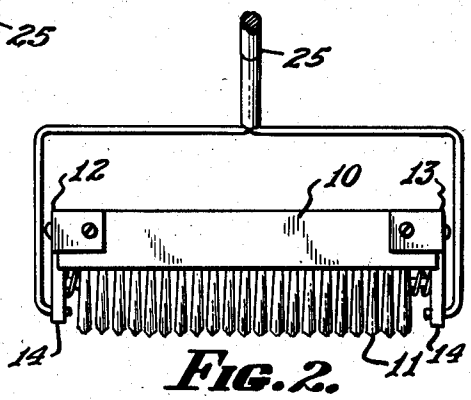


FIG. 2.

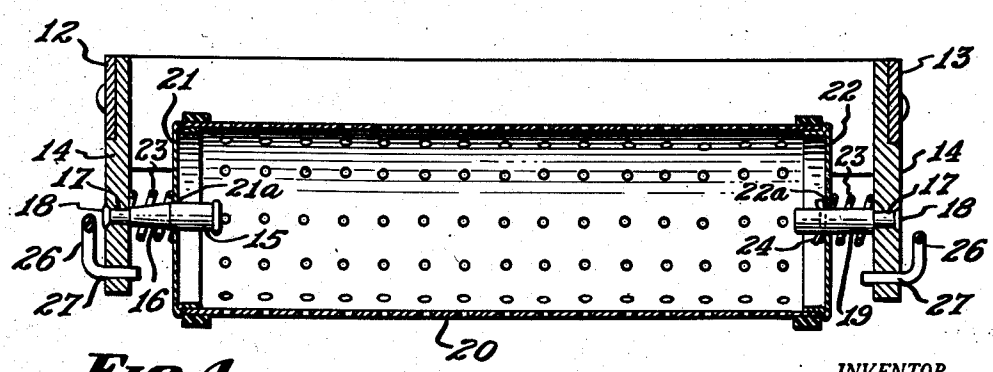


FIG. 4.

INVENTOR.
WILLIAM M. ALLEN.
BY
Allen & Allen
ATTORNEYS.

Patented Mar. 24, 1953

2,632,583

UNITED STATES PATENT OFFICE

2,632,583

DEVICE FOR APPLYING POWDERY MATERIAL TO FLOOR COVERINGS

William M. Allen, Glendale, Ohio, assignor to Model Crafter's, Inc., Hamilton, Ohio, a corporation of Ohio

Application May 12, 1948, Serial No. 26,654

2 Claims. (Cl. 222—169)

1

This invention relates to a device for the application of powdery material or the like to floor coverings, and particularly to carpets, rugs and the like.

There are available on the open market a number of products for dry cleaning rugs and carpets in the home. These materials are in a powdery or finely divided form. While I will refer to the material as a powdery material herein, it is to be understood that I mean to include any finely divided solid material where it can be in the form of fine flakes, granules or the like.

Such dry cleaning products are used by being scattered over the rug or carpet to be cleaned and working the material in the nap, and by removing the material after a predetermined time interval with a vacuum sweeper.

The great difficulty with the use of this material is getting an even distribution thereof over the rug or carpet and getting it thoroughly worked into the rug or carpet.

It is therefore an object of my present invention to provide a device for the purpose of applying such powdery material and working it into a rug or carpet, whereby the material is evenly distributed and whereby it is thoroughly worked in.

It is another object of my invention to provide a device as outlined above which is easy to use in that it is operated in a manner similar to a carpet sweeper.

It is a further object of my invention to provide an inexpensive device which is simple and inexpensive to manufacture which will require practically no maintenance and which will be easy to refill when necessary.

These and other objects of my invention which I shall discuss in more detail hereinafter, or which will be apparent to one skilled in the art upon reading this specification, I accomplish by that construction and arrangement of parts of which I shall now describe an exemplary embodiment.

Reference is made to the drawings forming a part hereof and in which Figure 1 is a side elevational view of the device.

Figure 2 is a rear elevational view of the same.

Figure 3 is a plan view of the same.

Figure 4 is a cross-sectional view on an enlarged scale taken on the line 4—4 of Figure 1, and

Figure 5 is a cross-sectional view taken on the line 5—5 of Figure 3.

Briefly, in the practice of my invention I provide a frame in which I mount a pair of brushes

2

and a rotatable foraminous cylinder. The frame may comprise the backs of the brushes themselves together with suitable strap material for securing them together. Thus, I have indicated brushes having the backs 10 of wood or the like, and the bristles 11. Frame members 12 and 13 which may be of any suitable material are secured to the backs 10 by means of screws or the like to provide a generally rectangular frame with the two brushes constituting opposite sides thereof.

Substantially central of the members 12 and 13 I provide depending ears 14, one on each side, and these depending ears may be suitably rabbeted as best seen in Figure 4, to provide for a smooth outer surface with the strap members 12 and 13. To each of the depending ears 14 there is secured a bearing stud and the studs are of slightly different configuration. The left-hand stud 15, as seen in Figure 4, is provided with a bearing portion, a tapered portion 16 and a reduced diameter portion 17, which extends through a suitable perforation in the member 14. The end of the portion 17 is then riveted over as indicated at 18 whereby the stud is secured to the frame member 14.

The stud 19 at the right-hand side of Figure 4 is secured to its frame member 14 in the same manner as indicated at 17 and 18, but the major portion of the stud is of cylindrical form.

The foraminated cylinder is indicated generally at 20 and it is provided with the end caps 21 and 22. The cap 21 is secured to the cylinder 20 in any suitable manner as by soldering, spot welding or press fitting. The cap 22 is detachable from the cylinder. Each of the end caps is provided with a perforation 21a for the passage of the studs 15 and 19 respectively. Each stud is also provided with a small compression spring 23 between the respective end cap and the respective frame member 14. The end cap 22 is retained on its stud 19 by a cotter pin, or the like, 24.

It will now be clear that if it is desired to fill the cylinder 20, the cylinder may be bodily axially moved toward the left of Figure 4 against the compression of the spring, whereupon the cylinder is detached from the cap 22 since the latter is retained on the stud 19 by the cotter pin 24. Then, as best seen in Figure 5 in broken lines, the cylinder 20 may be moved out at an angle by virtue of the taper or reduced diameter portion 16. It will be clear that instead of moving the cylinder bodily to the left of Figure 4 for disengagement from the cap 22, the cap 22 may be

moved toward the right against its spring **23**, as also shown in broken lines in Figure 5.

The number of holes in the cylinder, their spacing and their diameter, will of course vary with the material being used. For the ordinary powdered dry cleaning material currently available, I have found a suitable hole diameter to be about 9/64", and with a cylinder 3" in diameter and 10" long I have found that 16 rows of 12 holes per row work very well. The holes could, of course, be non-circular.

For moving the device back and forth over the rug or carpet I provide it with a handle member indicated generally at **25**, and having a bail-like portion **26**, the inturned ends **27** of the bail-like portion **26** are pivotally mounted in the depending ears **14** below the axis of the cylinder, that is, below the studs **15** and **19**. I have found that the device works best when the bail-like portion is provided with a bend as at **28** of about 30° so that the portion **25** makes an angle to the horizontal about 30° less than the portion **26**.

With the construction shown, I have found that when the device is pulled toward the user after a forward motion, it tends to drag on the brush nearest the user, thus raising the cylinder off the rug so that it no longer rotates. In this way I achieve a working-in by the brush without excessive dispensing action by the cylinder.

The mechanism for opening the cylinder for filling purposes may be varied considerably without departing from my invention.

It will be clear that numerous modifications in my device may be made without departing from the spirit of my invention, and I therefore do not intend to limit myself except as set forth in the following claims.

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

1. In a device for applying powdery material and working it into floor coverings, comprising a frame provided with axially aligned bearing studs; a foraminous cylinder, end caps for said cylinder mounted on said studs, one of said end caps being secured to said cylinder and the other end cap being detachable therefrom, each end cap being rotatably secured to its bearing stud, each of said studs being provided with a spring between said frame and the respective end cap, whereby said cylinder may be moved axially away from said detachable end cap for refilling of said cylinder.

2. A device according to claim 1, in which that bearing stud on which the secured end cap bears is of reduced diameter adjacent said frame, whereby when said cylinder is moved axially away from said detachable end cap, said cylinder may be swung outward for ready filling.

WILLIAM M. ALLEN.

REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
154,651	Davis	Sept. 1, 1874
892,962	Lancaster	July 7, 1908
1,141,478	Mount	June 1, 1915
1,651,271	Hann	Nov. 29, 1927
1,862,347	Hawks	June 7, 1932
2,135,077	Hove	Nov. 1, 1938
2,222,909	Cascio	Nov. 26, 1940

FOREIGN PATENTS

Number	Country	Date
117,415	Austria	Apr. 25, 1930