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No. 817,407.

PATENTED APR. 10, 1906.

C. W. SWANSON.

LOOR DRESSING DEVICE.

APPLICATION FILED JAN. 25, 1905.

2 SHEETS-SHEET 1.

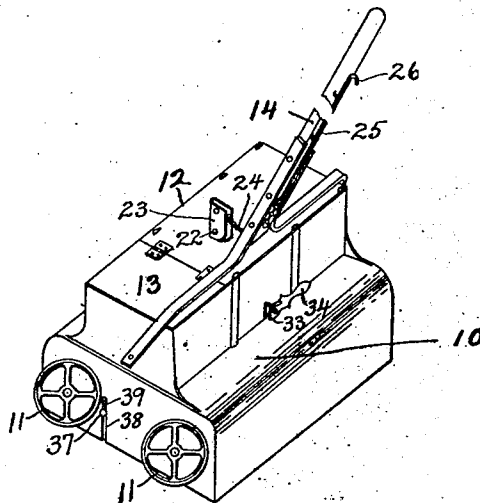


Fig. 1.

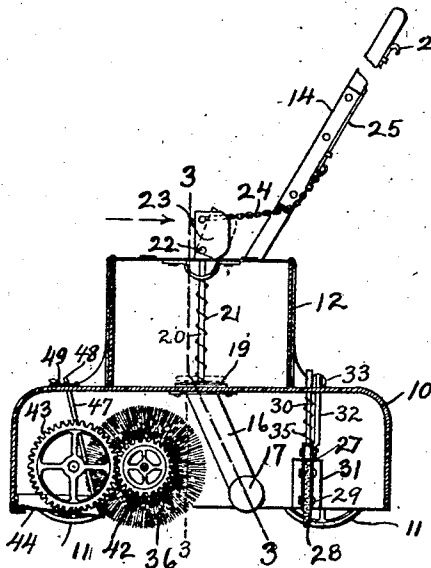


Fig. 2.

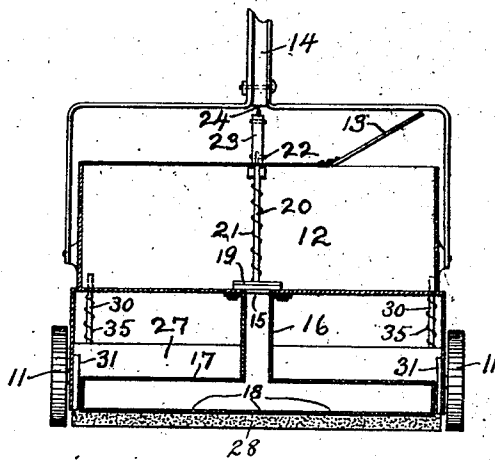


Fig. 3.

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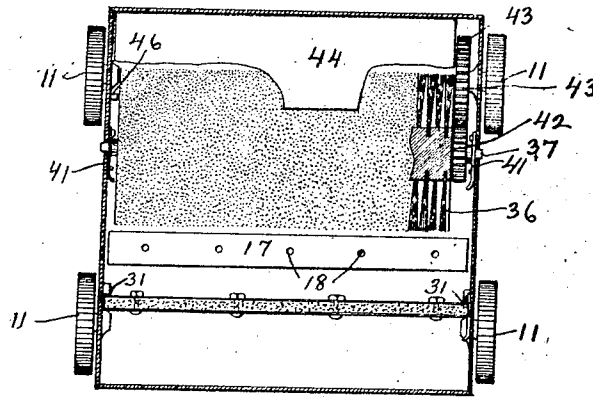


Fig. 4.

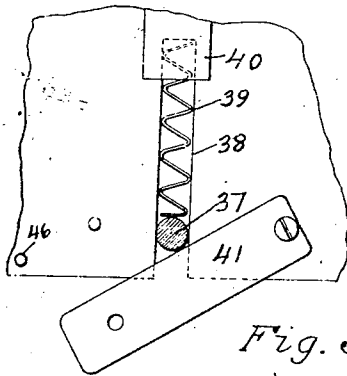


Fig. 5.

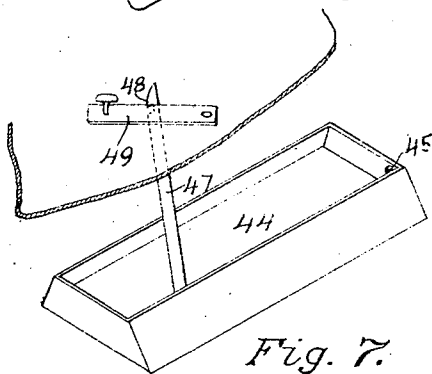


Fig. 7.

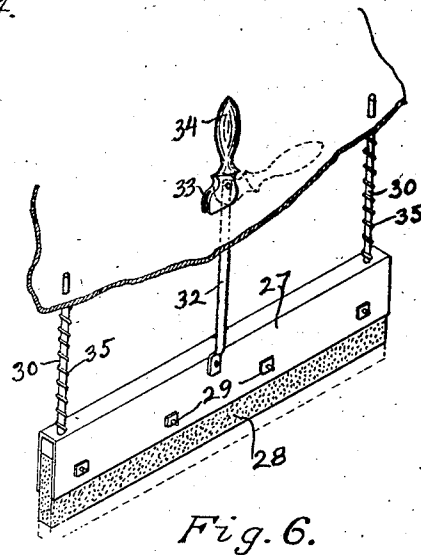


Fig. 6.

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UNITED STATES PATENT OFFICE.

CARL W. SWANSON, OF CHICAGO, ILLINOIS.

FLOOR-DRESSING DEVICE.

No. 817,407.

Specification of Letters Patent.

Patented April 10, 1906.

Application filed January 25, 1905, Serial No. 242,690.

To all whom it may concern:

Be it known that I, CARL W. SWANSON, a citizen of the United States, residing at Chicago, Illinois, have invented certain new and useful Improvements in Floor-Dressing Devices, of which the following is a specification.

My invention relates to devices for applying surface dressing to floors and the like, and more particularly to that class of floor-finishing devices intended to apply a filling material and a wax or similar surface dressing.

The leading object of my invention is to provide a simple and easily-manipulated implement of this character which may be used convertibly either as a device for applying a filler or as a waxing and polishing device.

To this and other minor ends my invention consists of a device of the character specified possessing the peculiarities of construction and novel arrangement of operating parts, substantially as hereinafter described, and more particularly pointed out in the claims.

My invention in its preferred mechanical form is illustrated in the accompanying drawings, wherein—

Figure 1 is a perspective view of the complete device. Fig. 2 shows a cross-section of the same. Fig. 3 is a longitudinal sectional view on the line 3 3 of Fig. 2. Fig. 4 is a bottom plan view, partly broken away. Fig. 5 is a detail fragmentary view illustrating the manner of mounting the rotary brush. Fig. 6 is a detail fragmentary view illustrating the manner of mounting the wiper bar or strip, and Fig. 7 is a detail fragmentary view illustrating the manner of mounting the receiving-pan that coöperates with the rotary brush.

In its general make-up the device of my invention comprises a hood-shaped casing mounted on wheels or rollers and containing the operating parts of the device, with a pivoted handle-bar by means of which it is adapted to be pushed over the surface treated thereby. Surmounting the hood is a receptacle for the material to be distributed, from which through a valve-controlled opening said material feeds by gravity to a delivery-chamber lying substantially in the plane of the lower open side of the hood, the latter also containing on one side of said delivery-chamber a vertically-adjustable distributing strip or bar adapted to spread the filling material, oil, wax, or other substance used and on the other side of said delivery-chamber a

rotary brush adapted to subsequently clean the oiled or filled floor or polish a waxed floor, removing surplus material therefrom. Suitable means are provided whereby either set of devices may be temporarily thrown out of action when the other set is in use.

Turning now to a more detailed and specific description of the device as it is displayed in the accompanying drawings, 10 designates the hood or casing of the generally rectangular form shown, which hood is mounted on wheels or rollers 11, of which there are two on each side. Surmounting the hood 10 is a box or receptacle 12, having a hinged cover 13. Pivoted to the ends of the receptacle 12 is a forked handle-bar 14, whereby the device may conveniently be pushed either end foremost, accordingly as the device is to be used for filling, oiling, or waxing, or for subsequently cleaning and polishing the floor. In the bottom of the receptacle 12 is an aperture 15, Fig. 3, and depending from said receptacle and communicating with said aperture is a tube 16, that terminates at its bottom in a transversely-disposed tube 17, communicating freely with the tube 16 and extending substantially from side to side of the hood. The tube 17, which constitutes a delivery-chamber from the receptacle 12, is provided on its lower side with a series of small distributing-apertures 18. Admission of material from receptacle 12 to tube 16 is controlled by a valve 19, seated over the aperture 15 and having a stem 20 passing upwardly through the top wall of the receptacle. A coil-spring 21, surrounding the stem 20, normally maintains the valve pressed to its seat, closing the aperture. The upper end of the valve-stem is pivoted at 22 in a fulcrum-block 23, that rests on the top wall of the receptacle, which block 23 is connected at its upper end, as by a chain 24, to the lower end of a slide-bar 25, mounted on the handle 14, said slide-bar having at its upper end a finger-hook 26. By this means when the valve is to be raised the slide-bar 25 is drawn upwardly, which through the chain 24 rocks the block 23 on one of its corners as a fulcrum, thereby elevating the valve-stem against the resistance of its closing-spring.

27 designates a hollow holder, preferably in the form of a channel strip or bar, the same containing a solid strip or bar 28 of felt or analogous material secured therein, as by bolts 29. This strip, which extends from

side to side of the hood and lies directly behind the delivery-tube 17, considered with respect to its cooperative relation to said tube, is mounted so as to slide vertically by means of stems 30 on either end, Fig. 6, passing through and guided in apertures in the top wall of the hood and by vertical slideways 31 on the inner faces of the side walls of the hood. The strip 28 and its holder 27 are supported and suspended vertically from the top wall of the hood by means of a central stem 32, passing upwardly through an aperture in said top wall and pivoted to a fulcrum-block 33, which latter has an operating-handle 34. Coiled springs 35 surround the stems 30 and normally tend to force the strip downwardly into the dotted-line position indicated in Fig. 6, which position is permitted when the fulcrum-block 33 is rocked to the dotted-line position shown.

36 is a cylindrical brush mounted on a shaft 37, the ends of which are confined in vertical slots 38 in the side walls of the hood-casing, said brush being located on the opposite side of the delivery-tube 17 from the distributing-bar 28. Compression-springs 39, mounted in said slots and housed at their upper ends in chambers 40, Fig. 5, bear down on the shaft of the brush tending to crowd the same into contact with the floor or other surface on which the device rests. To confine the bearings of the brush and elevate the latter out of engagement with the floor when not in use, bars or plates 41, hinged to the inner sides of the side walls of the hood and underlying the spindles of the brush, may be employed, as clearly shown in Figs. 4 and 5. The brush 36 is driven by means of a pinion 42, mounted on the shaft thereof near one end, said pinion being engaged and driven by a gear 43 on the inner end of the shaft of one of the supporting-wheels 11, as best shown in Fig. 4.

Behind the brush 36 is removably mounted a pan or tray 44, designed to cooperate therewith in collecting the dust, dirt, and superfluous dressing material distributed by the device. This tray is preferably of the form shown in Fig. 7 and is conveniently supported in a readily-removable way by means of an aperture 45 at one end adapted to engage a pin 46, Fig. 5, on one side wall of the hood, and by a hanger 47, secured to the tray near its other end and passing upwardly through an aperture in the top wall of the hood, said hanger having a latch-hook 48 at its upper end engaged by a pivoted latch-bar 49.

Assuming that the device is to be used to oil or fill a floor, the brush 36 is elevated into inoperative position by means of its pivoted shaft-supports 41. The receptacle 12 is filled with the oil or filler, the valve 19 being closed, and the distributing-bar 28 is lowered to operative position by throwing the handle 34 of the fulcrum-block 33 into the horizontal

position shown in Fig. 1 and by dotted lines in Fig. 6. The operator pulling upwardly on the sliding bar 25 rocks the fulcrum-block 23, and thereby raises the valve 19, allowing the oil or filler to flow into the delivery-chamber 17 and thence through the apertures 18 onto the floor in the desired quantities according to the extent to which the valve is thus raised for this purpose. Simultaneously with this operation the device is pushed over the floor after the manner of a carpet-sweeper, the strip or bar catching the material delivered from the chamber 17 and distributing the same uniformly, smoothly, and evenly over the surface of the floor, as well as pressing the same into the cracks and interstices of the wood. With his finger on the hooked end of the valve-controlling bar 25 the operator always has a sensitive and easily-manipulated means in hand for controlling the flow of the oil or filling material to the delivery-tube, thereby enabling him to nicely regulate the proper amount of material delivered according to the character or condition of the floor being treated. In waxing a floor the device is operated in the same manner as that already described, the oil or filler being substituted by melted wax, which will readily be spread by the apparatus before it has become too hard or set to flow freely. After the device has been thus used to apply the material to and distribute it over the floor and said material has become sufficiently hardened or set the device may be brought into service to clean and polish the oiled, filled, or waxed floor, as follows: The bar 28 is raised to inoperative position by elevating the handle 34, and the brush 36 is dropped to operative position by releasing one end of the supporting-bars 41, which latter operation carries the pinion 42 into engagement with its driving-pinion 43. By the handle 14 the device is pushed back and forth over the surface of the floor, the rapidly-rotating brush 36 sweeping up any dirt or surplus filling material into the tray 44 and, in the case of a waxed floor, imparting a high polish and finish thereto. The tray 44 is readily removable and replaceable by the means described when requiring to be emptied.

From the foregoing it will be seen that my invention provides a simple and readily operable and adjustable device capable of effecting by a simple adjustment of its operating parts both the preliminary oiling, filling, or waxing of a floor and the subsequent cleaning and final surface dressing thereof.

It is evident that the apparatus hereinabove described might be considerably modified in respect to details of construction and relative arrangement of parts without departing from the principle of the invention or sacrificing any of the advantages thereof. Hence it is to be understood that the inven-

tion is not limited to the particular form of the apparatus herein shown except to the extent indicated in specific claims.

I claim—

1. In a floor-dressing device, the combination with an open-bottomed casing mounted on wheels and a pivoted handle for moving the same over the floor, of a delivery-chamber contained in said casing, a receptacle for floor-dressing material mounted directly upon said casing and communicating with said delivery-chamber, a valve controlling such communication, and flexible valve-operating means mounted on said handle, substantially as described.

2. In a floor-dressing device, the combination with an open-bottomed casing, of a delivery-chamber contained therein, a receptacle for floor-dressing material carried thereby having valve-controlled communication with said delivery-chamber, a bodily-movable spring-pressed wiper-bar also contained in said casing engaging the floor and cooperating with said delivery-chamber to distribute and rub into the floor the material discharged upon the latter, and a handle for moving said casing over the floor, substantially as described.

3. In a floor-dressing device, the combination with an open-bottomed casing, of a delivery-chamber contained therein, a receptacle for floor-dressing material carried thereby having valve-controlled communication with said delivery-chamber, a rotatable brush mounted in said casing to operate on the material discharged from said delivery-chamber, and a handle for operating said casing, substantially as described.

4. In a floor-dressing device, the combination with an open-bottomed casing, of a delivery-chamber contained therein, a receptacle for floor-dressing material carried thereby having valve-controlled communication with said delivery-chamber, a rotatable brush mounted in said casing to operate on the material discharged from said delivery-chamber, a pan or tray in rear of said brush to catch the sweepings from the latter, and a handle for operating said casing, substantially as described.

5. In a floor-dressing device, the combination with an open-bottomed casing, of a transversely-disposed delivery-chamber therein, a receptacle for floor-dressing material carried

thereby having valve-controlled communication with said delivery-chamber, a distributing-bar mounted in said casing on one side of said delivery-chamber, a rotatable brush mounted in said casing on the other side of said delivery-chamber, means whereby either said distributing-bar or said brush may be rendered inoperative when the other is operative, and a handle whereby said casing may be operated in either direction, substantially as described.

6. In a floor-dressing device, the combination with an open-bottomed casing, of a transversely-disposed delivery-chamber therein having a plurality of separated discharge-apertures in its under side, a superposed receptacle for floor-dressing material carried by said casing having valve-controlled communication with said delivery-chamber, a distributing-bar mounted in said casing on one side of said delivery-chamber, a rotatable brush mounted in said casing on the other side of said delivery-chamber, a pan or tray in rear of said brush to catch the sweepings from the latter, means whereby either said distributing-bar or said brush may be rendered idle while the other is active, and a handle whereby said casing may be operated in either direction, substantially as described.

7. A floor-dressing device comprising in combination the following instrumentalities: an open-bottomed casing mounted on wheels or rollers, a receptacle for material to be distributed surmounting said casing, a transversely-disposed delivery-chamber in said casing having valve-controlled communication with said receptacle, a vertically-movable distributing-bar mounted in said casing on one side of said delivery-chamber, a vertically-movable spring-pressed rotatable brush mounted in said casing on the other side of said delivery-chamber and geared to one of the wheels of the casing, a pan or tray in rear of said brush, means whereby either said distributing-bar or said brush may be bodily raised and supported out of operative position, an operating-handle pivotally connected to said casing, and valve-actuating means mounted on said handle, substantially as described.

CARL W. SWANSON.

Witnesses:

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