Aug. 7, 1934. F. RIEBEL, JR 1,969,036

FLOOR TREATMENT DEVICE

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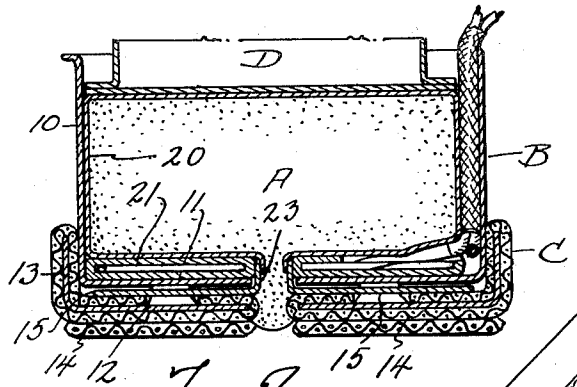


Fig. 2

Fig. 1

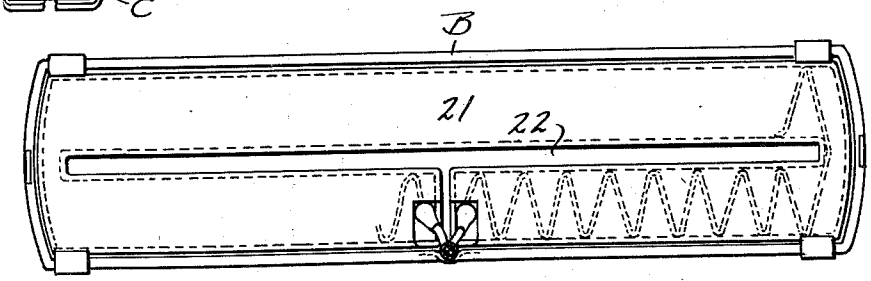


Fig. 3

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Fig. 4

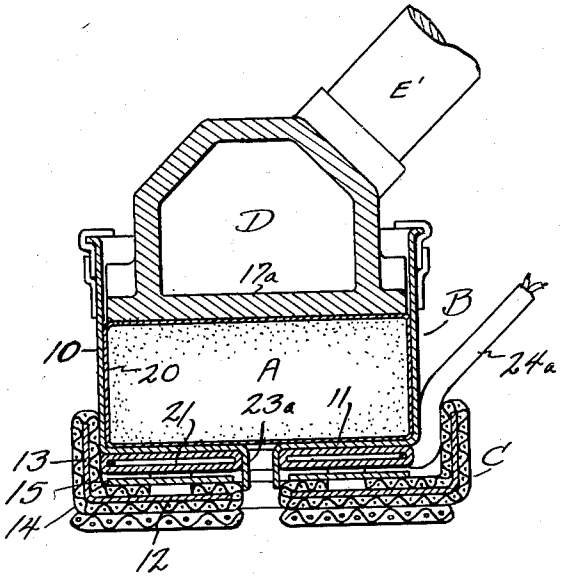


Fig. 5

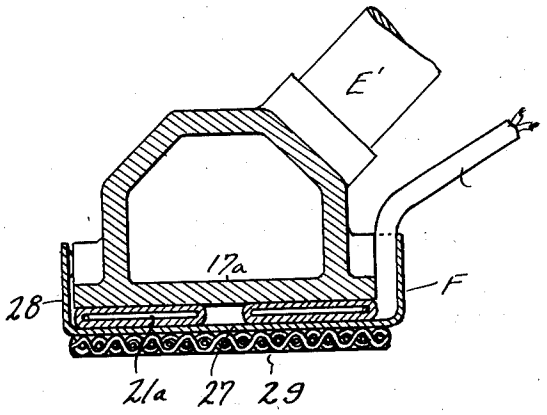
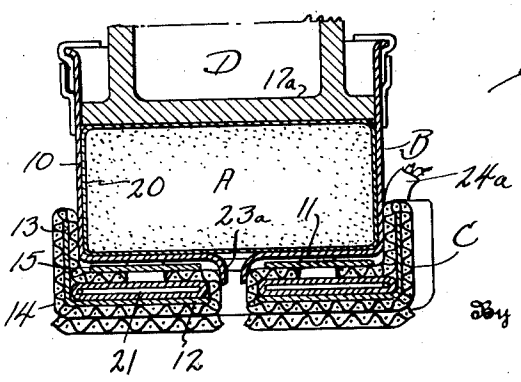


Fig. 6



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UNITED STATES PATENT OFFICE

1,969,036

FLOOR TREATMENT DEVICE

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Application March 24, 1932, Serial No. 600,962

10 Claims. (Cl. 91—39)

My invention relates to the waxing and polishing of floors and has for its object to provide a floor treatment device incorporating an electrically energized heating element between a floor contacting shoe and a handled weighted member.

A further object is to provide a floor treatment device adaptable particularly for use in connection with a suction cleaner, and embodying a heating element energized through a branch circuit or extension cord plugged into the motor of such cleaner.

A further object of my invention is to provide in combination, a body of wax, a receptacle-like applicator member in which said body is carried, a presser head acting against said body of wax, an apertured distributing shoe incorporated in or attachable to the distributor receptacle, and a heating element interposed between said shoe and the body of wax so as to transmit heat thereto for facilitating the feeding of wax through said aperture.

With these and other objects in view my invention consists in the combination and construction and arrangement of the various parts thereof, whereby the objects contemplated are attained, as more fully set forth in the accompanying specification, pointed out in my claims, and illustrated in the accompanying drawings, in which:

Fig. 1 is a side elevation of a suction cleaner embodying the present invention.

Fig. 2 is a transverse sectional view taken centrally through the applicator device.

Fig. 3 is a plan view of the distributor receptacle with the heating element in place therein.

Fig. 4 is a sectional view similar to Fig. 2 of a somewhat modified form of the device.

Fig. 5 is a similar sectional view of a further modified form of the invention, embodying a polishing device.

Fig. 6 is a sectional view similar to Fig. 2, of a modified form of the invention.

In Figs. 1 to 3 inclusive, I have illustrated the invention embodied in a waxer comprising a body of wax or a wax filled collapsible dispensing container "A", a distributor receptacle "B", a distributor shoe "C", and a presser head "D".

The receptacle "B", which may be of sheet metal, has the side walls 10, a bottom wall 11 provided with a central longitudinal aperture as shown.

The distributor shoe "C" comprises a sheet metal shell including a bottom wall 12, centrally and longitudinally apertured in registry with the aperture of the receptacle bottom 11, and a peripheral flange 13 adapted to receive the bottom portion of the receptacle "B". Two fabric pads 14 are secured around the respective halves of the distributor shoe shell by means of a pair of clamp plates 15.

The presser head "D" is secured by means of yokes 16 to the suction nozzle 17 of a common type of suction cleaner "E" which may be regarded as the handle or holder for the waxing instrument.

The motor 18 of the cleaner is supplied with current by the usual motor cord 19.

The numeral 20 indicates the collapsible dispensing container in which the body of wax "A" is contained. This may be of cellophane or any other material having equivalent strength and thinness of texture. The container is slit longitudinally to register with the aperture in the receptacle "B".

I provide a thin, flat heating element 21 which lies flatly against the bottom wall 11 either within the receptacle "B", as shown in Fig. 2, in which case it is positioned between the bottom wall 11 and the bottom wall of the container 20, or below the receptacle "B" as shown in Fig. 4, where it is positioned between the lower face of the bottom wall 11 and the distributor shoe "C".

The heating element 21 has a slot 22 to register with the slot in the bottom of the distributor receptacle, and the clamp plate 15, in the form shown in Fig. 2, is provided with upwardly projecting lips 23 defining its central aperture, and extending through the slot 22 of the heating element, being positioned snugly with relation to the edges of said slot 22. The slit edges of the container 20 will be forced downwardly between the lips 23 and will form a seal therewith to prevent the extrusion of wax into contact with the heating element.

In the form shown in Fig. 4, lips 23*a* are formed onto the bottom wall 11 of the receptacle "B", and are extended downwardly through the slot 22 of the heating element to form a seal with the edges of the distributor shoe "C" defining its aperture.

Current carrying wires 24 are attached to the heating element, and connected by means of a separable plug 25 to a suitable outlet socket 26 embodied in the motor 18 and connected in parallel with the motor cord 19.

The presser head "D" serves to exert pressure against the wax filled collapsible container to extrude the wax through the distributor shoe to a surface being treated. The heating element provides heat in the region where the wax is flowing

downwardly, thus facilitating the flow without softening the entire body of wax.

As the wax flows through the aperture in the heating element, it will be reduced to a still more fluid state, and the application to the floor surface is thus considerably facilitated.

Furthermore, with the use of this arrangement, a wax having a much higher carnauba content may be employed, and the resulting finish is considerably superior to that produced with a more diluted wax.

In Fig. 4, I have illustrated an alternative form of waxer in which a weighted presser head 17*a*, and an ordinary wooden handle "E'", are employed. In this case, the current carrying cord 24*a* will be of considerable length and may be plugged directly into a wall socket or the like.

In Fig. 5, I have illustrated the same type of presser head 17*a* and handle "E'", in connection with a polisher head "F" comprising a sheet metal shell having the bottom wall 27 and side flange 28 receiving the lower portion of the presser head 17*a*. A polishing pad 29 is secured to the bottom wall 27.

A thin, flat heating element 21*a* is disposed between the presser head 17*a* and the bottom wall 27. The same heating element as is used with the waxer shown in Fig. 4, may be employed in connection with the polisher shown in Fig. 5, and the presser head 17*a* also forms a common part of each device.

The heated polisher facilitates the polishing of a waxed surface by hastening the evaporation of the solvent.

Instead of being simply received between the shoe "C" and receptacle "B", the heating element 21 may be embodied in the shoe as an integral part thereof, as shown in Fig. 6.

I claim as my invention:

1. A surfacing material applicator comprising a reservoir having an opening in its bottom for feeding the material, and a heating element lying flatly against said bottom and provided with an opening registering with said opening in said bottom, for applying heat to said material only in the region of application.

2. A surfacing material applicator comprising a reservoir having an opening in its bottom for feeding the material, a presser head, a suction cleaner on the floor tool of which said head is carried, a heating element in flat contact with said bottom and provided with an opening registering with said opening in said bottom, and a current carrying wire attached to the cleaner motor and connected with said heating element.

3. A wax applicator comprising a reservoir provided with a feed opening in its bottom, a presser head movable in the reservoir, a wax filled collapsible dispensing container interposed between said reservoir and presser head, and a heating element in contact with said bottom and apertured in registry with said opening, for applying heat to the wax only in the region of application.

4. A wax applicator comprising a reservoir provided with a feed opening in its bottom, a presser head movable in the reservoir, a wax filled collapsible dispensing container interposed between said reservoir and presser head, and a heating element interposed between said container and the bottom of said reservoir, for applying heat to the wax only in the region of application.

5. A surfacing material applicator comprising a reservoir provided with a feed opening in its bottom, a distributor shoe provided with an opening registering with said feed opening, and a heating element interposed between said shoe and reservoir, for applying heat to the material only in the region of application.

6. A surfacing material applicator comprising a reservoir provided with a feed opening in its bottom, a distributor shoe provided with an opening registering with said feed opening, and a heating element interposed between said shoe and reservoir, and provided with an opening registering with said openings in the shoe and receptacle respectively, for applying heat to the material only in the region of application.

7. A polisher comprising a handled head, a polishing shoe attached thereto, and a thin, flat heating element interposed between said head and shoe and lying flatly in contact with said shoe.

8. A polish applicator comprising a floor engaging shoe provided with an extrusion mouth, receptacle and pressure means in conjunction with said shoe for holding and extruding a body of polish through the shoe and a heating element embodied in said shoe and encircling said mouth.

9. A wax applicator comprising a reservoir provided with a feed opening in its bottom, a presser head movable in the reservoir, a wax filled collapsible dispensing container interposed between said reservoir and presser head, and a thin, flat heating element interposed between said container and the bottom of said reservoir for applying heat to the wax only in the region of application.

10. A wax applicator comprising a reservoir provided with a feed opening in its bottom, a distributor shoe provided with an opening registering with said feed opening, and a thin, flat heating element interposed between said shoe and reservoir for applying heat to the wax only in the region of application.

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