April 1, 1930. A. F. STEIERT ET AL 1,752,581

FLOOR WAXING AND POLISHING DEVICE

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Fig. 12.

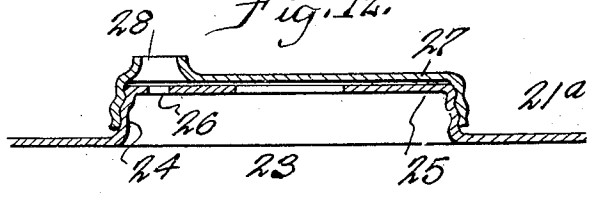


Fig. 1.

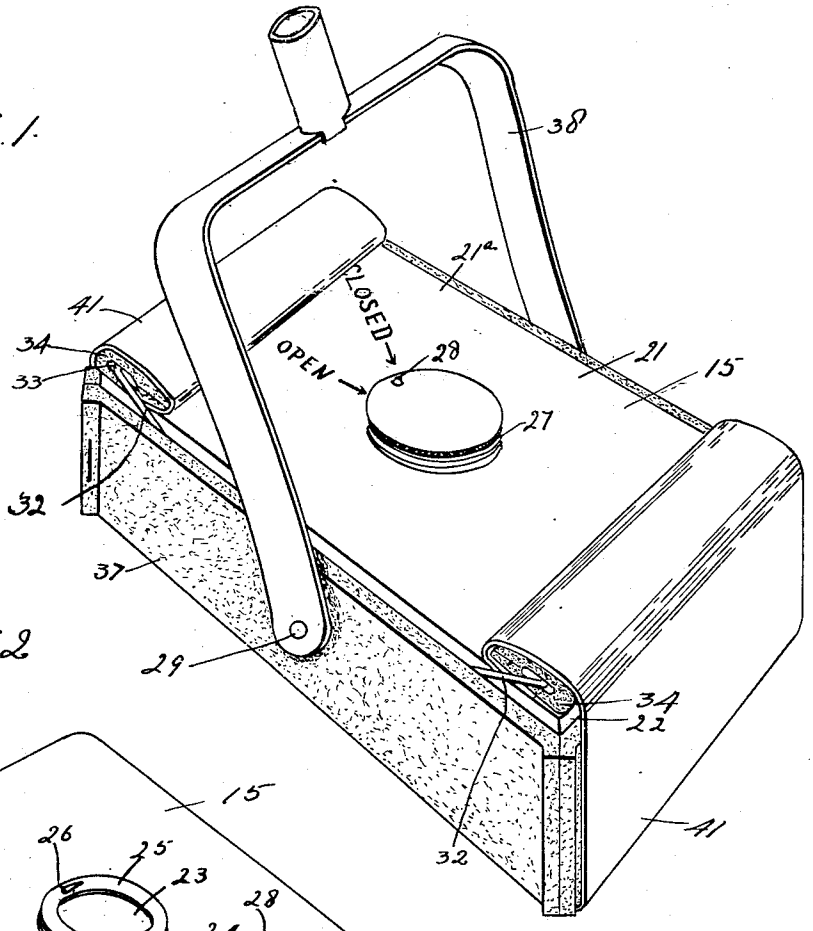
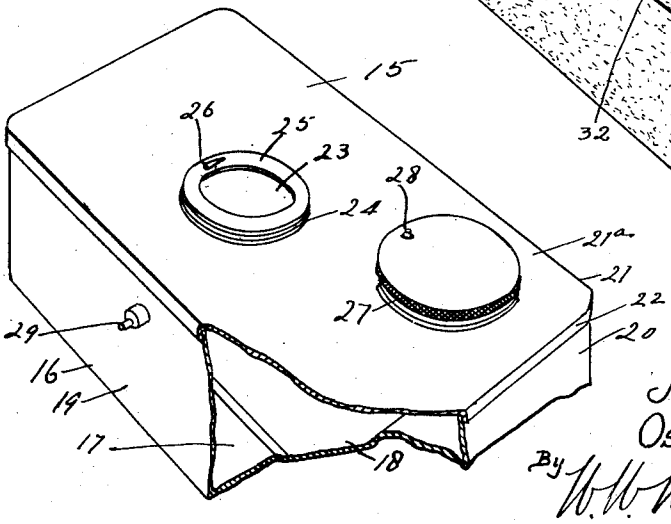


Fig. 2



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Fig. 3.

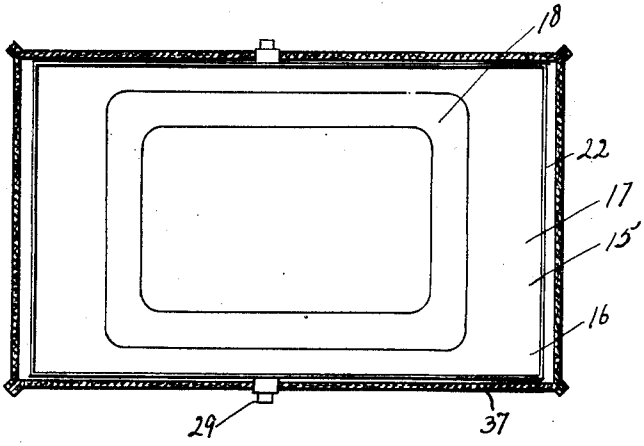


Fig. 4.

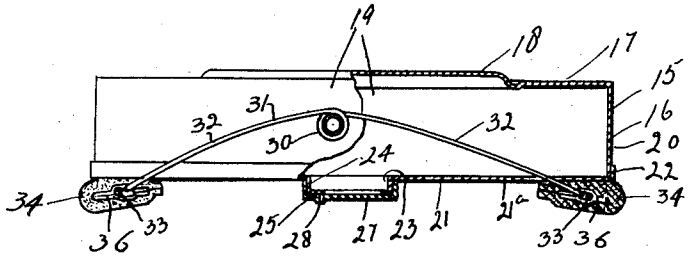


Fig. 5.

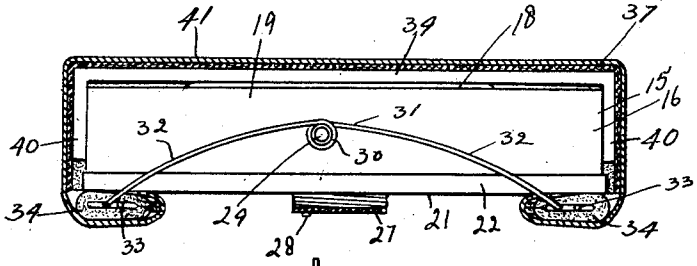


Fig. 6.

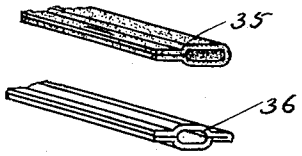


Fig. 7.

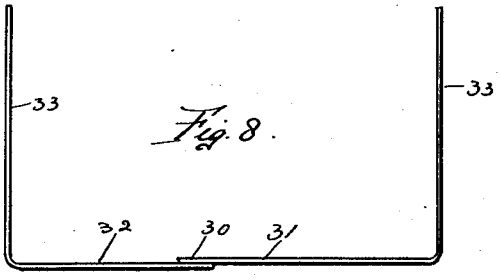


Fig. 8.

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FLOOR WAXING AND POLISHING DEVICE

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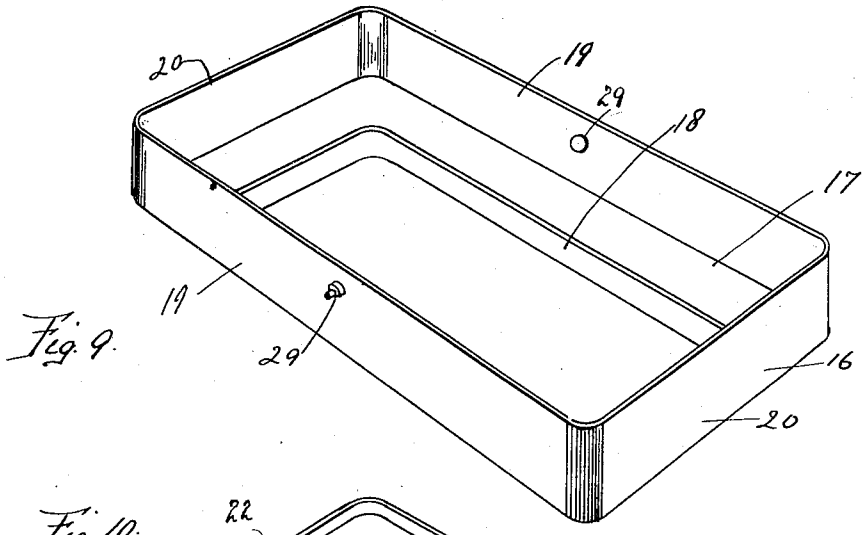


Fig. 9.

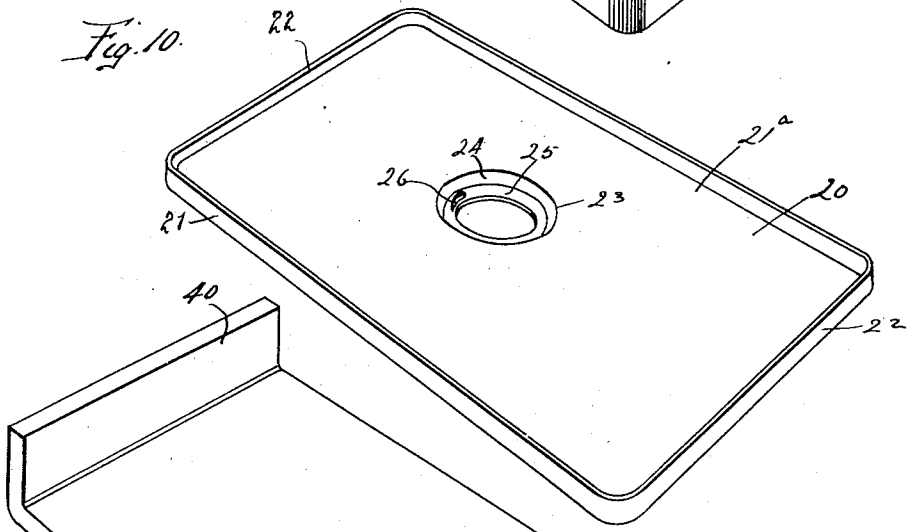


Fig. 10.

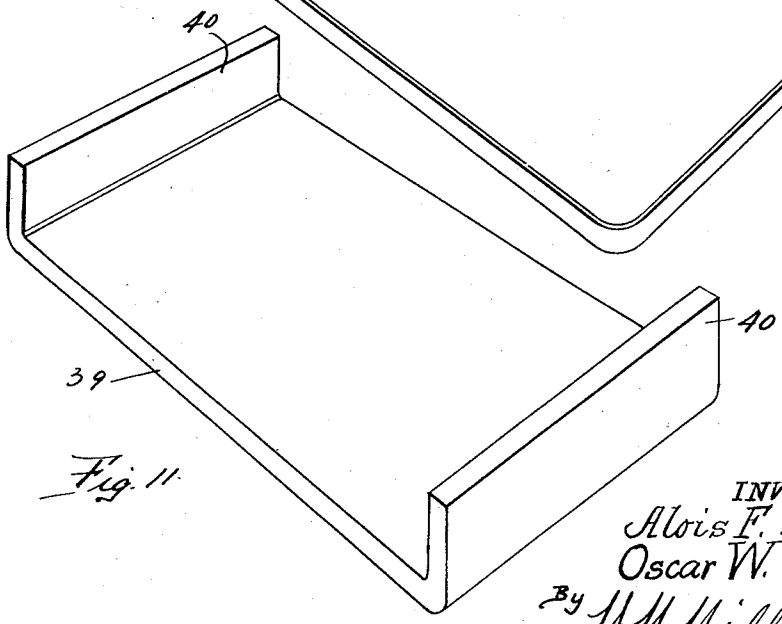


Fig. 11.

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UNITED STATES PATENT OFFICE

ALOIS F. STEIERT AND OSCAR W. LINKE, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNORS TO S. L. PRODUCTS COMPANY, OF PHILADELPHIA, PENNSYLVANIA, A CORPORATION OF DELAWARE

FLOOR WAXING AND POLISHING DEVICE

Application filed November 6, 1925. Serial No. 67,243.

Our invention relates to new and useful improvements in a floor waxing and polishing device, and has for its primary object the provision of an exceedingly simple and effective device of this character, whereby wax or other floor-treating fluid may be applied by flexing a portion of a container and by oscillating said container during the application operations.

Another object of our invention is to provide an improved valve structure for regulating the amount of fluid to be forcibly ejected and to prevent the fluid from coming in contact with the outside of the valve device so that the outside of the latter is kept free from the fluid at all times.

A further object of our invention is to provide an unique arrangement of applicators whereby the latter are held under spring tension against a face of the container or receptacle and which are also capable of rotary motion to facilitate the placement of a cloth about the receptacle and the applicators.

A still further object of our invention is to provide an improved receptacle for devices of this character.

Further objects of the invention are the production of an improved applicator structure; the provision of means for thickening or giving body to the applicators and to furnish means for adding the necessary weight to the device without having the weight attached directly to the receptacle.

With these ends in view, this invention consists in the details of construction and combination of elements hereinafter set forth and then specifically designated by the claims.

In order that those skilled in the arts to which this invention appertains, may understand how to make and use the same, we will describe its construction in detail, referring by numerals to the accompanying drawings forming a part of this application, in which:

Fig. 1, is a perspective view of a floor waxing and polishing device embodying our invention.

Fig. 2, is a perspective view of the receptacle per se, with a portion broken away and the cap for the filling opening which constitutes one portion of the improved valve structure removed from the filling opening and shown lying upon the top of the receptacle.

Fig. 3, is a plan view of the device with the handle structure and applicators removed, and the jacket pad shown in section.

Fig. 4, is a longitudinal sectional view of the device without the handle, weight and jacket pad with a portion of the near side wall left in elevation.

Fig. 5, is a side elevation of the device with the jacket pad and the polishing cloth shown in section.

Fig. 6, is a fragmentary perspective view of one means for thickening or giving body to the applicators.

Fig. 7, is a similar view of another form of thickening member.

Fig. 8, is a plan view of one of the springs to hold the applicators in place.

Fig. 9, is a perspective view of the body of the receptacle.

Fig. 10, is a perspective view of the receptacle cover.

Fig. 11, is a perspective view of one form of weight.

Fig. 12 is an enlarged fragmentary section of the receptacle in the region of the filling opening.

In carrying out our invention as here embodied, 15 represents a receptacle or container, preferably rectangular in shape, and including a body 16, Fig. 9, drawn from a single piece of metal, and including what is termed a bottom wall 17, having a central flexible portion 18, side walls 19 and end walls 20. Over the open portion of the body is disposed a cover 21, also drawn from a single piece of metal, and including what is termed the top wall 21ª, with a flange 22, projecting therefrom around all edges so as to overlap the end and side walls of the body, and be secured thereto in a liquid tight manner, as by soldering. The cover is provided with a filling opening 23, surrounded by an externally threaded flange 24, the latter having an inturned rim 25, said flange and rim preferably being formed integral with the cover, and in

the rim 25 is formed a pear-shaped opening 26 for a purpose to be later described.

A cap 27 has threaded connection with the flange 24 about the filling opening and in the end wall of said cap is formed an outlet aperture 28, preferably formed by punching a portion of the metal of the cap outward in order to provide a teat, projecting from the end wall of the cap so that as fluid passes thru the outlet aperture in the form of drops, said drops will fall off without contacting with the end wall of the cap, and therefore the latter will remain in a clean condition. It is to be understood that the threaded portions of the flange about the filling opening and the cap are of a low pitch so that rotation of the cap will move it only a short distance lengthwise of the filling opening flange.

As the cap is rotated, the outlet aperture in the cap will be moved into or out of registration with the pear-shaped opening 26, for opening or closing the outlet of the receptacle, and according to the position of the outlet aperture in the cap over the pear-shaped opening 26, the outlet will be more or less open, so as to control the flow of fluid from the receptacle.

At each side of the receptacle, off the longitudinal center thereof, is a trunnion 29 with which registers the looped portion 30 of a spring 31, the arms 32 of said spring projecting in opposite directions along the sides of the receptacle until they extend beyond the cover thereof where legs 33 project inwardly across the cover to terminate over the opposite side of the receptacle.

There are two of these springs in actual practice, and legs thereof overlap each other within the pads or applicators 34 of felt or other suitable material for treating a surface with the waxing or polishing medium. In order to thicken or give body to the applicators the material from which they are formed, may be wound about itself, or said material may be placed over a thickening member 35 of felt or other suitable material, or the thickening member may be produced from metal, preferably in sheet form, bent upon itself, such a thickening member being designated by the numeral 36.

Applicators connected with the receptacle in this manner are firmly held against the said receptacle by means of the springs, but may be readily rotated so that either of the two opposite sides of an applicator may be used, to assist in applying the polishing cloth to be presently described.

The receptacle also carries a polishing pad 37 which may also be used as a surface treating medium, and this pad is here shown as in the form of a jacket hood which covers the bottom wall 17, or that portion of the receptacle which includes the flexible portion 18 as well as the sides and ends of said receptacle.

After the applicator securing means and the jacket pad are placed upon the receptacle, the yoke 38 of a handle structure may be positioned by spreading the arms of the yoke, which are shaped to add resiliency thereto, and then causing apertures in the ends of said arms to register with the trunnions.

If found desirable, additional weight may be added to the polisher by placing a plate 39 between the bottom wall of the receptacle and the jacket pad, and while this weight may be of rectangular shape and of substantially the same size as the bottom of the receptacle, we prefer that said plate be provided with end walls 40 to engage the ends of the receptacle which will prevent shifting of the plate during the polishing operations, as will be obvious, so that the jacket pad will only have to support the weight of said plate instead of having to hold it against longitudinal displacement.

In order to maintain the jacket pad and the applicators in good condition so as to eliminate frequent renewals, the polishing cloth 41 may be used, and when such cloth is used, one end thereof is tucked beneath the applicator 34, so that said end of cloth will be clamped between an applicator and a wall of the receptacle. The cloth is then carried over said applicator around an end of the jacket pad, then over the portion of said pad disposed over the flexible portion of the receptacle, then over the opposite end of said pad and over the other applicator, where the opposite end of the cloth is tucked beneath the last named applicator so as to be clamped between said applicator and a wall of the receptacle. The tucking of the ends of the cloth between the applicators and a wall of the receptacle is an easy matter because of the rotatable mounting of said applicators on their springs, and when the cloth is in place, it will be securely held by the clamping action of said applicators produced by the springs.

In operation, the cap 27 is removed from the filling opening and the polishing or waxing fluid is placed in the receptacle and the cap replaced. Prior to using the polisher, the cap 27 is rotated until the outlet aperture is moved into the desired position relative to the pear-shaped opening 26. Then with the device in the positions shown in Figs. 4 and 5, some of the contents of the receptacle may be ejected by applying pressure to the flexible portion of said receptacle, which action will displace some of the contents and force it thru the outlet aperture; then the device may be moved to and fro over the surface being treated, and the polishing or waxing medium ejected from the receptacle will be evenly distributed over the surface, and during this to and fro movement of the device, additional fluid will flow thru the outlet aperture because, due to the oscillation of the fluid, air

will be permitted in the outlet aperture as the fluid passes the latter.

After a sufficient amount of the polishing fluid has been applied to the surface being treated, the receptacle may be inverted by raising the device from the surface being treated by means of the handle structure, at which time the receptacle will rotate on its trunnions due to the position of said trunnions being off the vertical center of the receptacle. When inverted, the jacket pad may be used for polishing the surface being treated, due to the rubbing-in of the waxing or polishing medium.

Of course, we do not wish to be limited to the exact details of construction as herein shown as these may be varied within the limits of the appended claims without departing from the spirit of our invention.

Having thus fully described our invention, what we claim as new and useful is:

1. A floor polishing device comprising a receptacle having a discharge port, applicators resiliently held against a side of said receptacle, and a strip of material covering the working faces of said applicators and portions of the receptacle with the ends of said strip clamped between the applicators and the coacting face of the receptacle.

2. A floor polishing device comprising a receptacle having a discharge port, a floor treating element removably attached to the receptacle, and a weight-plate disposed between said floor treating element and the receptacle and held in position by said element.

3. The structure set forth in claim 2 wherein the weight-plate is provided with ends to engage the ends of the receptacle for preventing endwise movement of the weight-plate relative to the receptacle.

4. In a floor treating device, a receptacle having an outlet, applicators rotatably supported on said receptacle, and means for resiliently retaining said applicators in contact with a side of the receptacle.

5. In a floor treating device, a receptacle having an outlet, resilient means, and applicators rotatably connected with said resilient means and held thereby against a side of said receptacle.

6. In a floor treating device, a receptacle having an outlet, applicators rotatably supported on said receptacle, means for resiliently retaining said applicators in contact with a side of the receptacle, and a strip of material covering the working faces of said applicators and portions of the receptacle with the ends of said strip clamped between the applicators and the coacting face of the receptacle.

7. A floor waxing device comprising a receptacle having an outlet port, spring pressed applicators disposed wholly on the outside of said receptacle, a weight disposed on the receptacle opposite the outlet port, a jacket-pad covering said weight and portions of the receptacle, a handle structure removably connected to the receptacle to hold the applicators and jacket-pad in place and a strip of cloth disposed about the jacket-pad to keep the working face thereof clean and said strip also passing over the applicators with its ends clamped between the applicators and the coacting face of the receptacle for holding said strip in place and assisting in sustaining the load of the weight.

8. A floor waxing and polishing device comprising a receptacle having an outlet, trunnions on the sides of said receptacle, spring members mounted on said trunnions and having portions overlapping a face of the receptacle, applicators mounted on the overlapping portions of said members, and a handle structure detachably mounted on the trunnions and preventing accidental displacement of the spring members.

9. In a floor treating device, the combination with a container, of resilient means mounted on the container, applicators mounted on said resilient means, a weight member, and means including said resilient means for supporting the weight member on the casing.

10. In a floor treating device, the combination with a weight member, of a container, resilient elements mounted on the container, means including said elements for holding the weight and container together, and applicator elements interposed between said resilient means and the container.

11. In a floor treating device, the combination with a container, of a weight member, an applicator, resilient means for holding said applicator against the container, and means cooperative with said resilient means for holding the container and said weight member together in predetermined relation.

In testimony whereof, we have hereunto affixed our signatures.

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