May 21, 1929. H. DE JONG 1,714,350

SURFACE FINISHER

Filed Dec. 3, 1927

Fig. 1.

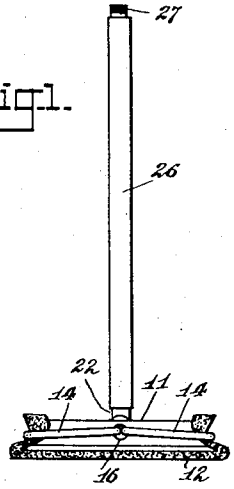


Fig. 2.

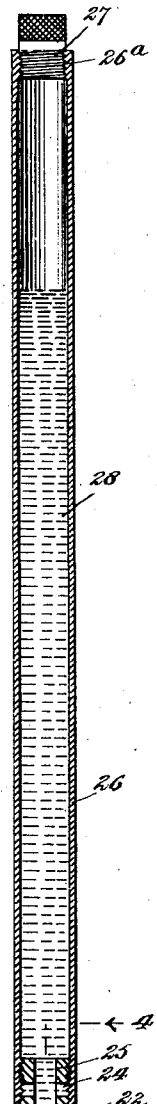


Fig. 3.

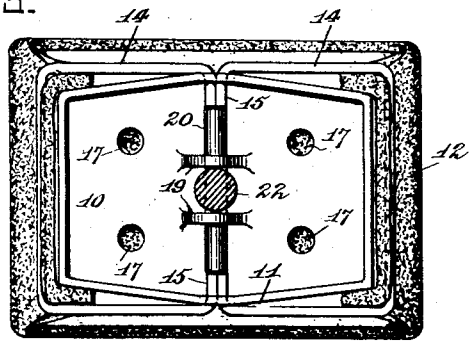


Fig. 5.

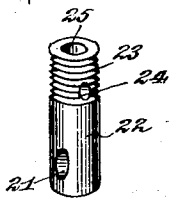
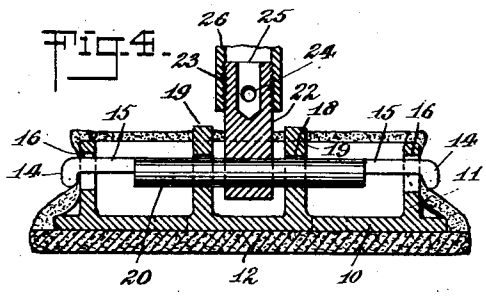


Fig. 4.



WITNESSES

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UNITED STATES PATENT OFFICE.

HAROLD DE JONG, OF LONG ISLAND CITY, NEW YORK.

SURFACE FINISHER.

Application filed December 3, 1927. Serial No. 237,469.

The present invention is concerned with the provision of a surface finisher which may have a wide range of utility for cleaning, oiling, waxing and polishing surfaces. The device is of the fountain type and is peculiarly adapted for finishing floors.

An object of the invention is to provide a device of this character including a finishing head to be slid back and forth over the surface being worked upon, and a hollow manipulating handle which constitutes the fountain or reservoir for the liquid used in a finishing operation.

A feature of the invention is the provision of a cleaner in which the hollow handle member serves the additional function of reservoir and liquid flow controlling means.

Another feature of the invention is the provision of a felt covered finishing head in the nature of a trough-like base member which receives liquid from the fountain handle and distributes the same evenly on to the felt pad.

Still another feature of the invention is the use of a pad which not only serves as an efficient polishing or finishing device, but which serves as a buffer or cushion to prevent furniture legs and baseboards from being scarred by contact with the metal base member.

Other objects of the invention are to provide a tool of the character noted above which is of extremely simple, practical construction, capable of convenient and expeditious assembly, rugged, durable and efficient in use, and well suited to the requirements of economical manufacture and convenient manipulation.

With the above noted and other objects in view, the invention consists in certain novel features of construction and combinations and arrangements of parts, as will be more fully hereinafter set forth and pointed out in the claims. The invention may be more fully understood from the following description in connection with the accompanying drawings wherein—

Fig. 1 is a side elevational view of a surface finisher embodying the present invention.

Fig. 2 is a longitudinal sectional view therethrough.

Fig. 3 is a sectional view on the line 3—3 of Fig. 2.

Fig. 4 is a transverse sectional view taken approximately on the line 4—4 of Fig. 2.

Fig. 5 is a perspective view of the member which serves the triple function of pivot, handle holder and valve.

In the drawings I have used the reference numeral 10 to designate a base plate, preferably of metal, and rigid with an upstanding wall portion 11 which cooperates with the base plate to define an open topped trough-like structure. The wall or flange 11 is preferably set inwardly from the lateral edges of the base at all points. The flanges on opposite sides of the base converge at both ends as best seen in Fig. 2 in order to provide ample room for a felt pad 12 to be folded backwardly over the corners of the base plate and over the projecting ends 13 thereof. By this arrangement the need for slitting or cutting away the pad corners is eliminated.

While I shall refer to the member 12 throughout as a felt pad, it is to be understood that the use of any equivalent device is contemplated. The body is preferably of slightly greater width and considerably greater length than the base plate 10, and its ends are folded over the ends of the base and around the corners thereof and held in position by a pair of swinging bails 14 having inwardly turned ends 15 pivoted in opposed openings 16 formed in the walls 11.

The base plate is provided with a suitable number of openings 17 therein, preferably evenly distributed over its surface, and providing means for directing liquid from the top of the base plate on to the subjacent felt pad. As best seen in Fig. 2, the upper surface of the base plate is slightly inclined at 10^a from the flanges 11 downwardly to the openings 17, and at 10^b from the center downwardly toward the openings in order that no liquid may collect in the trough, and all liquid may quickly drain through the openings 17.

For purposes of economical manufacture and convenient assembly the openings 16 in the flanges are preferably aligned with openings 18 in a pair of spaced upstanding lugs 19 rising from the center of the plate. If the openings 16 and 18 are of the same size, all four of them may be conveniently drilled by a single operation. A pivot pin 20 is borne in the ears 19 fitting loosely in the openings 18 and being held against axial movement by the abutting extremities of the inwardly turned bail ends 15. The bail ends are thus made to serve a double function, drive fitting of the pin 20 is avoided,

and this pin may be conveniently slipped into position through either one of the openings 16.

It will also be noted that when the bails 14 are swung to the position of Fig. 1, in which they clamp the ends of the felt pad against the flange 11, the pivoted ends of the bails jam against each other and tend to prevent accidental upward swinging movement of the bails. There is produced in effect a locking or jamming action which prevents the felt from coming loose in any way except by swinging the bails clear.

I have shown in perspective in Fig. 5 a member which serves the triple function of pivot, handle holder and valve. This member includes a generally cylindrical solid body portion 22 transversely bored at 21 for the reception of the pivot pin 20. At its upper end the body 22 is exteriorly threaded as at 23 and provided with a second transverse bore 24 intersecting a longitudinal passageway 25 which opens at the upper end of the member 22.

A hollow tubular handle 26 is screwed on to the threaded upper end of the member 22. It will be noted that the threads 23 extend below the passageway 24 so that the ports formed by the ends of this passageway are normally closed by the handle.

At its other end, the handle is interiorly threaded at 26^a for the reception of a threaded closure plug 27. Plug 27 also serves as a removable filling closure so that liquid wax, oil or other suitable fluid 28 may be introduced into the hollow handle 26 through the upper end of the latter.

It will be noted that the relatively loose fit of the pin 20 in its bearings 19 not only facilitates assembly, but also permits very free turning or rocking movement of the handle. The closure plug 27 is important in this connection since some positive means must be provided for preventing the fluid in the handle from spilling if the handle is accidentally dropped or jarred.

In use, the base 10 is preferably made sufficiently heavy to serve as a presser plate, avoiding the necessity for exerting much manual pressure on the tool. It is desirable in practice to avoid saturation of the polishing pad 12, and with a dry pad in place, it is only necessary to supply a very small quantity of fluid. To moisten the pad, the handle is slightly unscrewed, partially uncovering the ports 24 and permitting a small quantity of liquid to flow on to the base plate and drain through the holes 17. Upon the escape of a small quantity of liquid, the handle is rotated in the opposite direction to tightly shut off and seal the outlet ports 24. Additional liquid may be supplied as needed by rotating the handle to prevent the escape of small quantities of liquid.

A solid pad 12 may be very readily removed by simply releasing the bails 14 in the manner described above.

In use, the metal base is completely protected and cushioned by the felt pad, so that there is no danger of scarring furniture or baseboards, and the bails 14 when in felt-holding position are confined entirely within the periphery of a base plate, so that they cannot come into contact with objects standing about the room.

The entire construction is one which is primarily intended to facilitate convenient assembly and ready repair, and there are no small parts such as screws and cotter pins to become lost or misplaced.

It will be obvious that many kinds of fluid might be stored in the fountain handle. The device is particularly adapted to use liquid wax. This wax has a tendency to spill out and harden when in suspension, but the present apparatus due to the necessity for constantly shaking the handle as an incident of its use, maintains the wax in proper liquefied condition during a floor finishing operation.

Obviously, various changes and alterations might be made in the general form and arrangement of the parts described without departing from the invention. Hence I do not wish to limit myself to the details set forth, but shall consider myself at liberty to make such changes and alterations as fairly fall within the spirit and scope of the appended claims.

I claim:

1. A surface finisher of the class described including a base plate, a felt pad or the like secured thereunder, a fountain handle connected to the base plate, means for distributing liquid through the base plate onto the pad, a pair of apertured lugs rising from the base plate, a pivot pin loosely fitting the lug apertures, and a generally cylindrical coupling member pivotally connected at its lower end to the pivot pin and connected at its upper end to the handle, said coupling member having threaded connection with the handle and having outlet ports therein adapted to be exposed as the handle is partially unscrewed.

2. A surface finisher of the class described including a base plate, a felt pad or the like secured thereunder, a fountain handle connected to the base plate, means for controlling the flow of liquid from the handle onto the base plate, means for distributing liquid through the base plate onto the pad, a pair of apertured lugs rising from the base, a pivot pin loosely fitting the lugs and to which the handle is connected, flanges on the base, swinging pad holding bails having their extremities anchored in openings in the flanges and abutting the ends of the pivot pin to retain the latter against endwise movement.

3. A surface finisher of the class described including a base and a hollow cylindrical

fountain handle, means for pivotally connecting the base and handle including a cylindrical member pivoted to the base and having threaded connection with the lower end of the handle, said member having ports therein through which liquid is adapted to flow from the handle on to the base, said ports being normally closed by the lower end of the handle and opened as the handle is partially unscrewed.

4. A surface finisher of the class described including an open topped trough-like base having openings in its opposite side walls, a felt pad under the base and a pair of swinging bails for clamping the folded back edges of the pad against the ends of the base, said bails having their extremities disposed in the openings, pairs of apertured lugs rising from the base and having openings therein aligned with the first mentioned openings, a pivot pin secured in said lugs and adapted to receive a handle, the pin being held against endwise movement by the ends of the bails.

5. A surface finisher including an open topped trough-like base and a hollow fountain handle connected thereto, the means for connecting the base and handle including a generally cylindrical member pivotally connected to the base, threadedly connected to the handle, and having ports therein controlling the flow of liquid from the handle.

6. A surface finisher of the class described including an open topped trough-like base having openings in its opposite side walls, a felt pad under the base and a pair of swinging bails for clamping the folded back edges of the pad against the ends and sides of the base, said bails having their extremities disposed in the openings, the bail extremities jamming against each other when the bails are in clamping position, whereby the jammed bail ends must be depressed to release the bails from clamping position.

7. A surface finisher of the class described, including an open trough-like base plate, a felt pad or the like secured thereunder, a fountain handle pivotally connected to the base plate by a controllable valve to allow liquid to flow from the handle to the base plate, said base plate having a portion of its surface inclined to direct liquid to openings in the base plate.

8. A surface finisher of the class described including a base plate, a felt pad or the like secured thereunder, a fountain handle pivotally connected to the base plate, means for controlling the flow of liquid from the handle onto the base plate, and means for distributing liquid through the base plate onto the pad, said plate having a flange on its upper portion spaced inwardly from its edges and following the outline of the base.

Signed at New York in the county of New York and State of New York this 1st day of December, A. D. 1927.

HAROLD DE JONG.