May 30, 1950 W. H. LEE 2,509,687

COMBINED FLOOR WAXER AND POLISHER

Filed Oct. 31, 1946 2 Sheets-Sheet 1

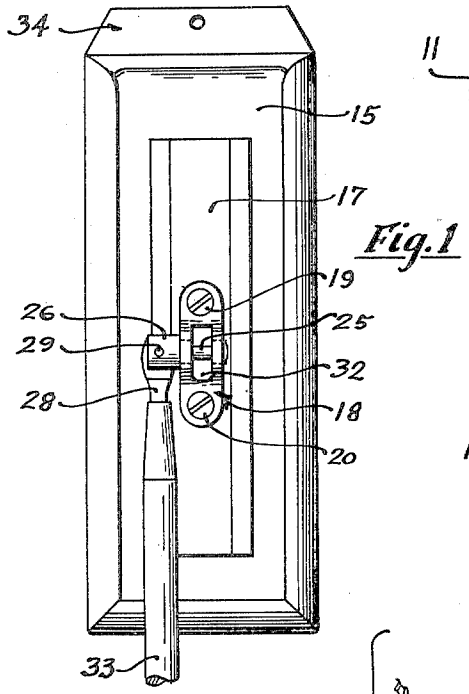


Fig. 1

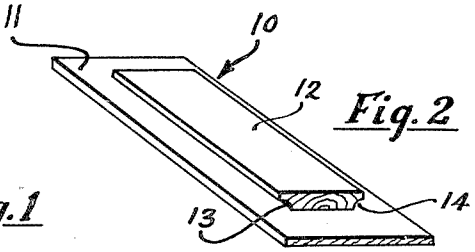


Fig. 2

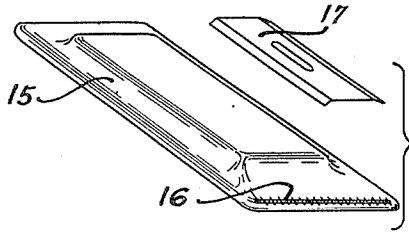


Fig. 3

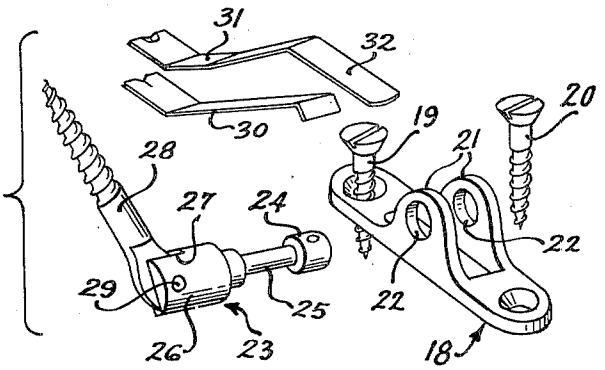


Fig. 4

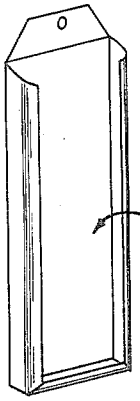


Fig. 7

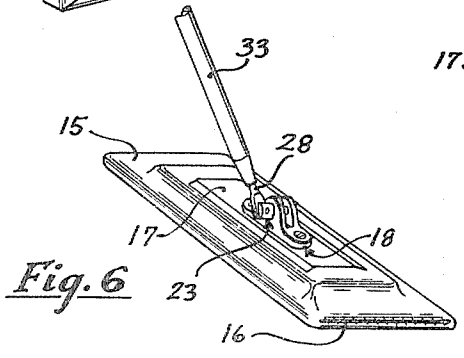


Fig. 6

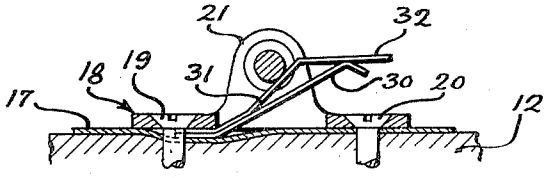


Fig. 5

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May 30, 1950 W. H. LEE 2,509,687

COMBINED FLOOR WAXER AND POLISHER

Filed Oct. 31, 1946 2 Sheets-Sheet 2

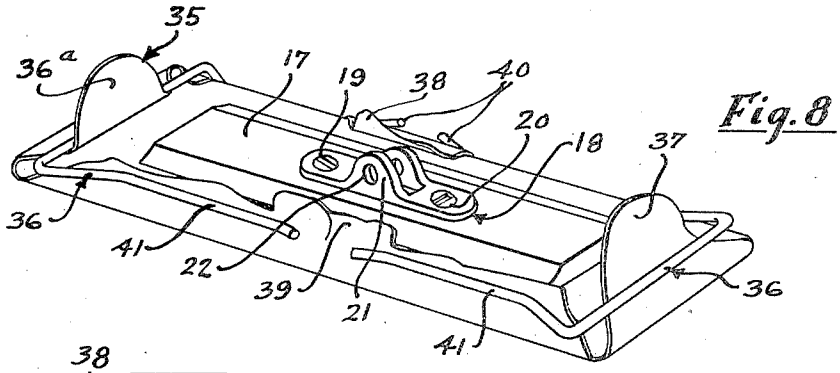


Fig. 8

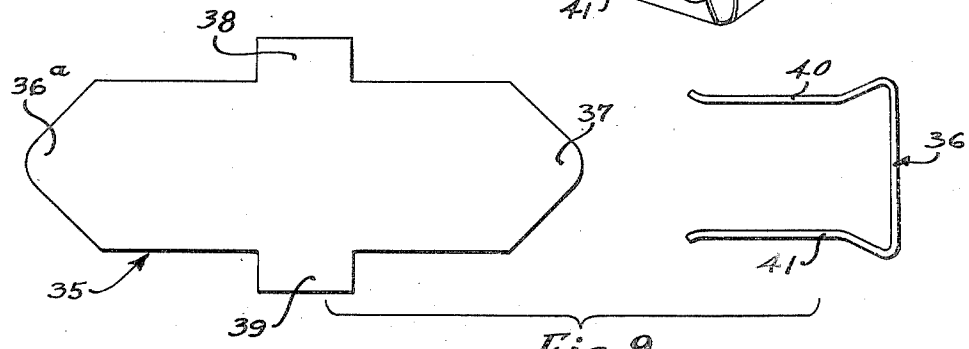


Fig. 9

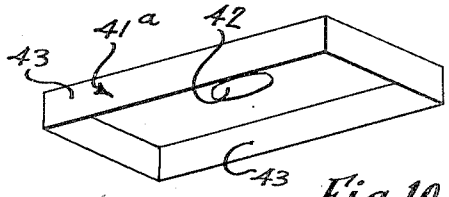


Fig. 10

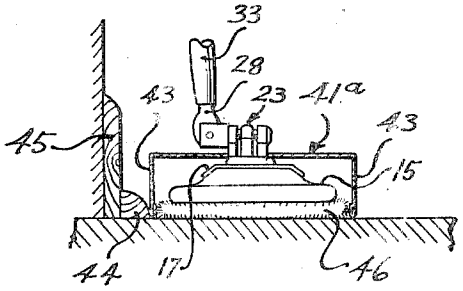


Fig. 11

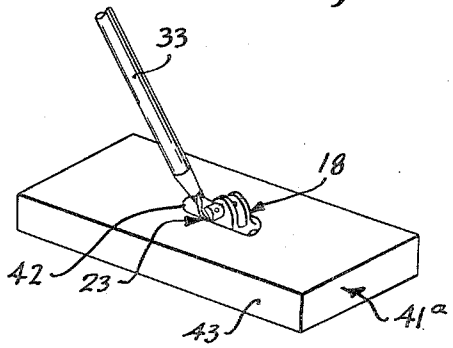


Fig. 12

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COMBINED FLOOR WAXER AND POLISHER

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Application October 31, 1946, Serial No. 706,992

1 Claim. (Cl. 306—2)

1

This invention relates to improvements in combined floor waxers and polishers.

An object of the present invention is to provide a simple, cheap, light, and easily manipulated device for applying wax to a floor surface.

Another object of the present invention is to provide a polishing device which is adaptable to applying wax to a floor surface and convertible by means of a separate polishing attachment to polishing said floor.

A still further object of the present invention is to provide a polisher of this type which is adaptable to polishing operation either in the horizontal or vertical position without kneeling or laborious efforts to reach parts which are not easily accessible.

With these and other objects in view, the present invention generally comprises handle means removably mounted on a waxing element used normally for applying wax to a floor surface. After the wax has been applied to the floor it may be polished by mounting a polishing material on the waxing element by means of clamps. In the preferable form, a housing fits over the complete structure, sides being disposed in spaced relation to the floor surface and the body of the polisher to guard coves, trims, and the like, against smear marks.

Other objects of the present invention will be revealed by a study of the following specification taken in conjunction with the accompanying drawings.

In the drawings:

Fig. 1 is a plan view of the waxer of the present invention mounted in a suitable holder for storage in a cupboard.

Fig. 2 is a perspective view of the body blank of the present invention relevant in the construction of the waxer.

Fig. 3 is a perspective view of the covered body portion of the waxer showing a cover plate.

Fig. 4 is an exploded perspective view of the operable elements related to the mounting means employed to the handle of the present device.

Fig. 5 is a sectional view of the handle mounting means.

Fig. 6 is a perspective view of the assembled wax spreading device.

Fig. 7 is a perspective view of a holder designed to accommodate the present device for storage.

Fig. 8 is a perspective view of the present device showing polishing means mounted thereon.

Fig. 9 indicates the blank form of the polishing material employed and clamp means for mounting the same on the waxer according to Figure 8.

Fig. 10 is a lower perspective view of a housing designed to enclose the present device.

Fig. 11 is an elevation of the present device showing the housing in section mounted thereon revealing the protective use of the housing.

2

Fig. 12 is a perspective view of the present device with the housing mounted thereon.

Referring to the drawings, a body blank 10 is made of a face member 11 and a forming member 12, the forming member being mounted on the former to provide an annular surface substantially as shown. The edges of the forming member 12 are undercut as shown at 13 and 14 for purposes hereinafter revealed. As shown in Figure 3, the body member 10 is enclosed by a suitable cloth material 15, the latter being stitched adjacent the terminal edges of the body as at 16. The plate 17 is a mounting plate designed to accommodate the handle mounting assembly revealed in Figure 4 on the top of the body 10.

The handle mounting means are relevantly displayed in Figures 4 and 5 and it will be observed that a mounting member 18 is fastened onto the forming member 12 of the body 10 by screws 19 and 20 holding the plate 17 firmly into engagement with the forming member. The mounting means 18 extend upwardly in the form of tongues 21, the latter having axial bore 22 designed to accommodate a shaft means 23. As will be noted, the shaft means 23 evidence a shaft portion 24 having a reduced diameter in the central portion 25, the enlarged end 26 of the member 23 being slotted as at 27 to mount a swingable screw member 28 by the pin means 29. Cooperating springs 30 and 31 are mounted by impinging the same between the base of the mounting member 18 and the mounting plate 17 as revealed in Figure 5, the spring members extending upwardly to engage the shaft 23 in the reduced diameter portion 25, thereby locking the shaft in the locking member 18. The upper spring 31 extends in a spring platform 32 so that the operator may easily depress the spring to facilitate entry or removal of the shaft member 23 from the mounting member 18.

The device thus described constitutes an assemblage forming a waxing member as revealed in Figure 6, where the handle 33 is shown mounted on the screw member 28 to facilitate manipulation of the device. Preferably the device is used in this form as a waxer for applying wax to a floor surface. The waxer so described, due to the mounting means employed for mounting the handle to the body, is capable of free manipulation even over portions of the floor space which are normally difficult to approach. To this end, the respective universal mount for the handle will allow simulation of rotary movement of the waxer which is usually preferred when wax is manually applied. It will be observed that the device is capable of being passed under objects relatively close to the floor surface due to the universal handle mount and small clearance height of the structure.

When operations have been completed, the

waxer may be stored in the holder **34** in the manner revealed in Figure 1, the holder **34** being mounted in a convenient spot in the household. When the wax has sufficiently hardened after being applied to the floor surface, polishing operations may be undertaken with the addition of a minimum of auxiliary means to the waxer body itself.

Referring to Figure 8, the waxer body in its complete form is shown having a polishing cloth **35** mounted thereon by clamp means **36**. The polishing cloth **35** is cut in blank contour substantially as shown in Figure 9 having extending end portions **36***a* and **37** and side members **38** and **39**. The clamping means **36** have extending arms **40** and **41** designed to engage the undercut portions **13** and **14** of the forming member **12** of the body **10**. In order to mount the polishing cloth **35** on the waxer body **10** it is only necessary to lay the latter on top of the cloth and fold an end portion of the latter upwardly and over the relevant end portion of the body, at the same time folding up the excess material extending from the sides of the body and engaging the marginal portions of the polishing cloth by a clamp **36** in the undercut portions **13** and **14** of the forming member **12**. Both ends of the polishing cloth **35** are mounted in the same manner, necessitating the use of two clamps **36** substantially as revealed in Figure 8.

In polishing operations particularly, it is often necessary to guard against marring the marginal trimming of a floor surface particularly in modern houses where light coloured materials are used. Therefore, a housing member **41***a* in the form of a box structure has an orifice **42** designed to pass loosely over the tongue members **21** of the mounting member **18** and rest on the extending base portion of the mounting member as revealed in Figures 11 and 12. As will be observed, the sides **43** of the housing **41***a* are disposed in spaced relation to the body member, the terminal edges of the side members also having a suitable clearance from the floor surface. Therefore, as polishing operations are undertaken near the marginal edges of the floor surface, the housing **41** will engage the trimming **44** of a conventional cove member **45** and prevent smearing of the decorative trimming. For burnishing operations to obtain a high polish on a floor surface, a steel wool pad **46** may be mounted in a similar manner to the mounting of the polishing pad **35** but having its wire members running longitudinally of the body. Preferably in such instance, the polisher should be moved over the floor, exerting a minimum of pressure in the direction of the lay of the wire members of the steel wool.

When the device is used as a polisher, it may be moved over the surface of a floor in the same manner as that described in connection with waxing operation, the movement of the polishing element being free and flexible so as to have not only reciprocating, but a horizontal rotary movement similar to that which is employed by a person rubbing the floor manually, and thus quickly and efficiently polishing the surface of the floor.

From the above description it will be seen that I have devised a device which eliminates all necessity for kneeling and rubbing a floor manually, and which will readily enter into the corners or under radiators or other room furniture so as to polish parts of the floor which otherwise would not be easily accessible. The simplicity of the present device is demonstrated by the lack of complicating mechanism involved in the mounting means of the handle, the same requiring only a simple pressure of the thumb on the spring platform **32** to allow disengagement of the handle mounting shaft **23** from the mount **18**. Waxing operations are straight-forward and the addition of further components to facilitate polishing of the floor is cut to a minimum by the provision of a polishing cloth **35** and its mounting members in the form of the clamp **36**. Further, the mounting means for the handle are indicative of the structure of a human arm, in that the screw member **28** corresponds with the forearm and the pin **29** and shaft **23** functionally correspond to the action of the wrist, control being effected through the disposition of the pin **29** away from the axis of the body of the waxing element **10** as revealed in Figure 1, thus the wrist and forearm movement, which would normally be employed while waxing a floor in the kneeling position, can be simulated by a person operating the present device by its handle and from the standing position. Moreover, inclusion of the holder **34** ensures an efficient and handy way of storing the present waxer, providing a means of substantially excluding air from the soft wax impregnated in the polishing element to prevent hardening of the same during the interval of storage until further waxing operations are undertaken.

What I claim as my invention is:

A waxer and polisher comprising a waxing element adapted to removably receive a polishing element, a handle and mounting means for removably mounting said handle which causes it to freely rotate about two axes, one of said axes being perpendicular to the other to cause a simulation of wrist and forearm action during use, said mounting means for the handle comprising a mounting member fastened to the waxing element and extending upwardly in the form of tongues, the latter having co-axial bores therethrough disposed at right angles to the longitudinal axis of the waxing element, a shaft slidably mounted in said bores and having a portion of reduced diameter disposed between said tongues, spring means extending from said waxing element and designed to engage said reduced portion of said shaft to hold said shaft in said bores, said spring means being depressible to allow removal of said shaft therefrom, one end of said shaft being swingably connected to the handle of the waxer to facilitate simulating movement of the human arm in waxing and polishing operations.

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