Aug. 14, 1934. F. RIEBEL, JR., ET AL 1,970,192

SURFACER MOUNTING

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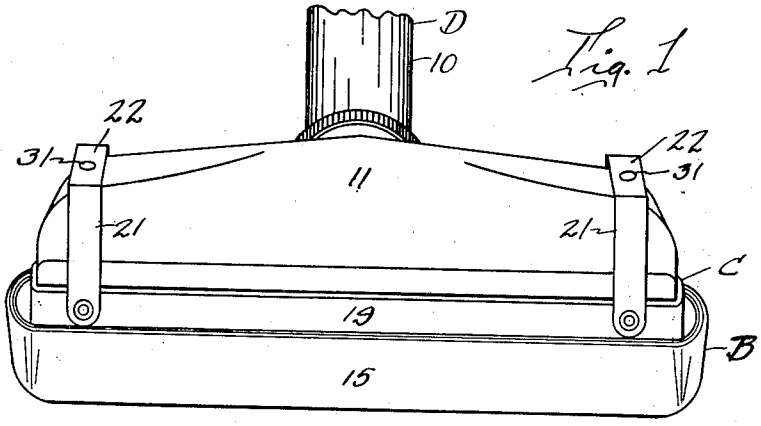
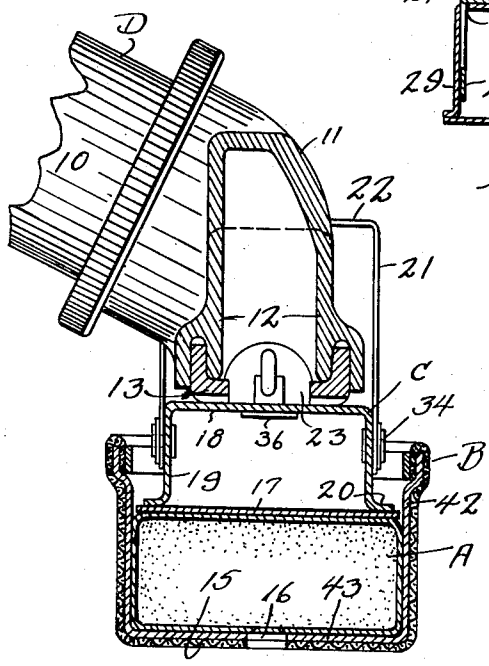


Fig. 1

Fig. 2



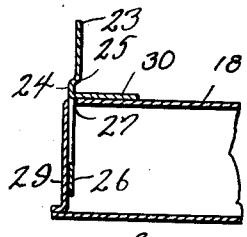


Fig. 6

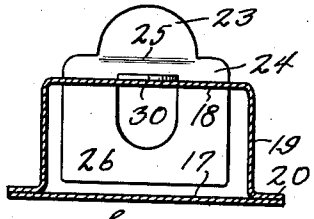


Fig. 5

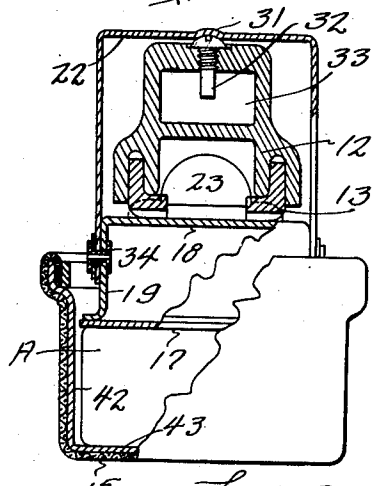


Fig. 3

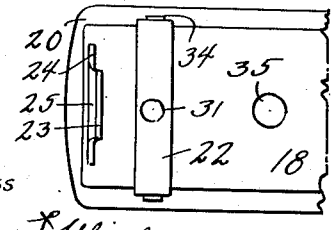


Fig. 4

WITNESS

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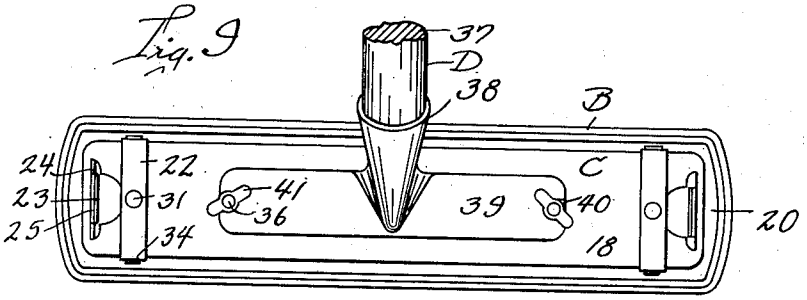
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SURFACER MOUNTING

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Fig. 9



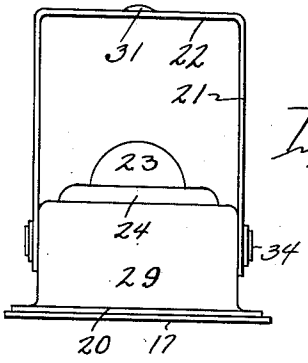


Fig. 7

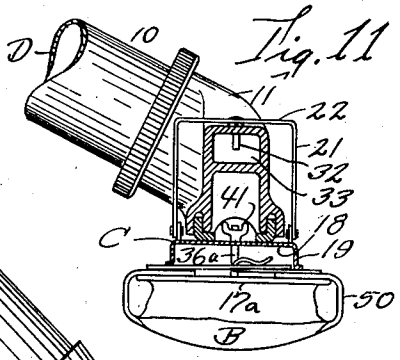


Fig. 11

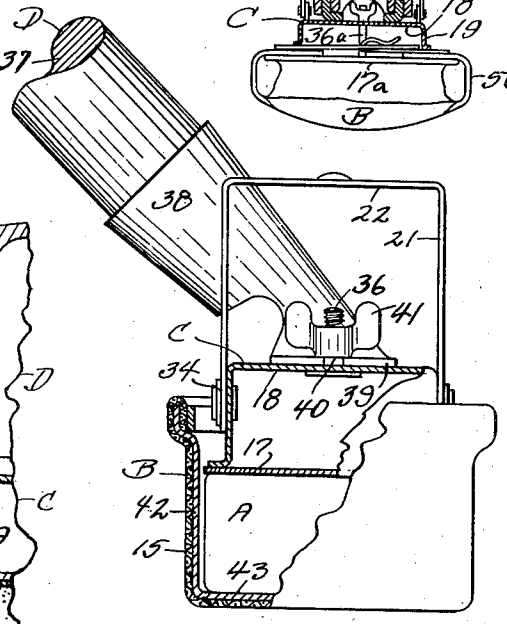


Fig. 10

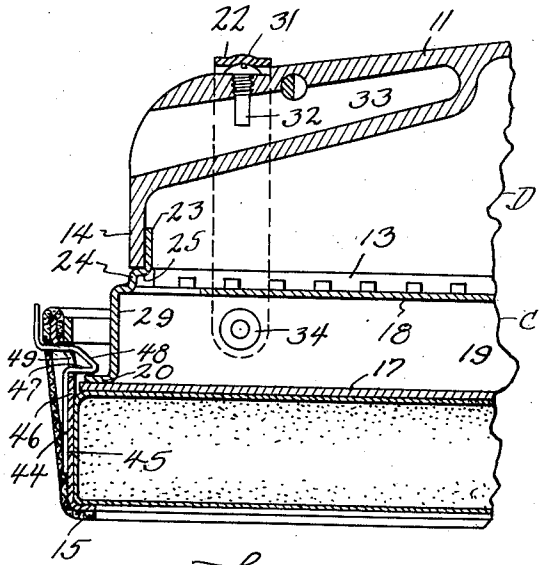


Fig. 8

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UNITED STATES PATENT OFFICE

1,970,192

SURFACER MOUNTING

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Application January 25, 1932, Serial No. 588,835

8 Claims. (Cl. 91—39)

Our invention relates to surfacing material applicators and has for its object to provide such an applicator in combination with a suction cleaner floor tool arranged to act as a holder or handle for the applicator, to provide a certain amount of weight for extruding the surface material from the applicator, and serving as a medium for transmitting movement to the applicator for moving it over a surface to be treated.

A further object of the invention is to provide attaching means by which the applicator can be very easily and quickly attached to or detached from the floor tool of a suction cleaner or the like.

A further object is to provide an arrangement particularly adapted for attachment to the floor tool of a specific type of suction cleaner wherein a relatively long and narrow floor tool or suction nozzle is mounted in a transverse position at the end of a suction tube, and has a suction mouth defined between two relatively parallel downwardly extending lips or nozzle walls.

Another object of the invention is to provide means for securing the applicator in a fairly rigid position relative to the floor tool.

With these and other objects in view our 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 specifications, pointed out in our claims, and illustrated in the accompanying drawings, in which:

Fig. 1 is a perspective view of the invention.

Fig. 2 is a transverse sectional view through the same.

Fig. 3 is an end view partly in section, of the same.

Fig. 4 is a plan view of one end of the presser head.

Fig. 5 is a transverse sectional view through the presser head.

Fig. 6 is a longitudinal sectional view through one end of the same.

Fig. 7 is an end view of the same.

Fig. 8 is a longitudinal sectional view through one end of the device.

Fig. 9 is a plan view of a modified form of the invention.

Fig. 10 is an end view of the same, parts being shown in section, and

Fig. 11 is a similar view showing a further modification of the invention.

The type of surfacing material for which the present invention is particularly adapted is semi-fluid wax such as ordinary floor wax.

A waxer embodying the invention is shown in Figs. 1 and 2, wherein the reference character "B" is employed to indicate generally a distributor member in the form of a receptacle adapted to receive a body of wax "A" which may be in bulk form as disclosed in our co-pending application Serial No. 588,834 or in the form of a wrapped package as more fully disclosed in our co-pending application Serial No. 588,831 and in the present drawings.

The applicator includes the distributor "B" and a presser head indicated generally by the reference character "C". It also includes a holder indicated generally by the reference character "D" which may be in the form of the vacuum cleaner shown in Figs. 1 to 8 inclusive, or a shaft handle as shown in Figs. 9 and 10. A particular object of the present invention is to provide a presser head embodying a coupler for attachment to a suction cleaner but adapted also for attachment to a shaft handle.

The particular type of vacuum cleaner to which this invention applies comprises a suction neck 10 to which is attached a floor tool 11 having the forward and rear walls or lips 12, the agitators 13 secured therein, and the end walls 14 (Fig. 8).

The distributor "B" is provided with a facing of fabric or the like 15 for spreading the material onto a surface being treated, and with a longitudinal aperture 16 through which the wax "A" may be fed.

The presser head "C" includes a back plate 17 of the proper dimensions and shape to fit within the distributor receptacle "B" and a downwardly cupped saddle including the top wall 18, the side walls 19 and the edge flange 20, turned outwardly parallel with the top wall 18 and welded or otherwise secured to the back plate 17.

To the side walls 19 of the saddle, near the respective ends thereof are hinged the respective side arms 21 of a pair of yokes having the cross bars 22 which are adapted to engage above the ends of the floor tool 11 when said ends are inserted through said yokes and when the agitators 13 are in contact with or substantially in contact with the top wall 18 of the saddle.

The saddle is provided at its respective ends with upwardly projecting ears 23 connected to the saddle through the medium of the offset shoulder portions 24 providing shoulders 25 which are adapted to rest against the lower edges of the end walls 14 (Fig. 8) of the saddle. The shoulder portions 24 and ears 23 may be either formed by striking portions upwardly from the top wall 18 of the saddle as in Figs. 7 to 9 inclu-

sive, or by welding separate pieces to the saddle as shown in Figs. 5 and 6. In this case, a plate 26 is provided which is extended through a slot 27 in the top wall 18 of the saddle and welded against the inner face of the end wall 29 thereof. A tongue 30 is struck out of the plate 26 and is welded against the upper face of the top wall 18 of the saddle. The ear 23 and shoulder portion 24 are formed in the upper region of the plate 26.

The ears 23 snugly engage against the inner faces of the end wall of the floor tool 11 and their respective lateral edges engage snugly between the inner faces of the respective forward and rear walls or lips 12 of the floor tool. In this connection it is to be noted that slight spaces are left between the ends of the agitators 13 and the inner faces of the end walls 14 and that the ears 23 are received in these spaces.

The cross bars 22 of the yokes are provided with indentations 31 (Fig. 5) which receive the semi-spherical heads of screw elements 32 forming part of the particular floor tool to which this invention applies, and normally serving to secure within the sockets 33 the bracket members or tangs of floor tool supporting rollers (not shown).

The relation of the members is such that the cross bars 22 must spring upwardly slightly in order to pass the screw heads 32 into the indentations 31. Thus the ends of the floor tool are resiliently gripped between the yokes and the saddle of the presser head "C".

It is to be noted that the position of the hinges 34 by means of which the yokes are hinged to the saddle, is such that the yokes may swing freely around the ends of the floor tool. At the same time, the hinge axes are positioned closer together than the ends of the floor tool so that the yokes may depend vertically when the applicator is attached to the floor tool, eliminating any possibility of the applicator becoming detached while being used.

Through openings 35 in the top wall 18 of the saddle (Fig. 4) threaded studs 36 may be inserted (Fig. 10) for the purpose of attaching a shaft handle comprising an ordinary wooden handle 37 and a claw including the ferule 38 secured to the end of the handle 37 and laterally projecting arms 39 which are slotted as at 40 to receive the studs 36. Thumb nuts 41 are threaded upon the studs 36 and engage the upper faces of the arms 39 to secure the same to the saddle.

It is to be noted that the openings 35 are so positioned that should it be desired to employ this particular type of presser head interchangeably with either type of holder, the studs 36 may be allowed to remain in place and to project into the mouth of the floor tool 11 as shown in Fig. 2.

On the other hand, the presser head may be supplied without the studs for use in connection with a suction cleaner nozzle and without the yokes for use in connection with a shaft handle.

The distributor "B" includes the peripheral wall 42 and the bottom wall or distributor shoe 43.

The distributor is suspended from the presser head by means of a latch device comprising a spring arm 44 welded or otherwise suitably secured as at 45 to the end wall 46 of the distributor and provided with a detent 47 having an inclined nose 48 and extending through a suitable aperture 49 in the end wall 46.

The detent 47 engages above the flange 20 of the saddle, and the inclined nose 48 serves to spring the latch member outwardly under downward pressure of the presser head when the latter is being inserted into the distributor.

The latch device serves to allow downward movement of the presser head for collapsing the wax package "A", but engages the flange 20 so as to normally prevent the presser head leaving the distributor. Withdrawal of the latch will allow the presser head to be removed.

It is to be noted that the flange 20 serves a double function, namely, that of securing the saddle member to the back plate of the presser head and that of forming a latch to engage the latch device.

Fig. 11 illustrates a somewhat modified form of the presser head in which the back plate 17*a* is formed separately from the saddle 18—19, and in which the studs 36*a* are secured to the back plate 17*a* and extend through openings 35 in the saddle to secure the back plate to the saddle. In this form of the invention which is more specifically described in our companion application Serial No. 588,833 filed Jan. 25, 1932, the distributor "B" comprises a flexible distributor cover 50 the end and side portions of which are clamped between the back plate 17*a* and the saddle 18—19 when the thumb nuts 41 are tightened upon the studs 36*a*. In this form of the invention, the presser head may be either suspended from the suction nozzle 11 as shown in Fig. 11 or from the type of holder shown in Fig. 9.

We claim as our invention:

1. For attachment to a floor tool having a downwardly opening mouth defined between lips and end walls forming opposed projecting portions of said floor tool, a surface treatment device including a presser head comprising a downwardly cupped saddle of sheet metal having perpendicular side walls, tongues forming upward extensions of said end walls and receivable in said mouth, and yokes hinged to the side walls of the saddle, and adapted to swing toward each other clear of said projecting portions, to positions wherein said portions are received through said yokes, engaged between said yokes and the device, and thereby attached to said device.

2. For attachment to a floor tool having a downwardly opening mouth defined between lips and end walls forming opposed projecting portions of said floor tool, a surface treatment device including a presser head comprising a downwardly cupped saddle of sheet metal having end walls, tongues extending upwardly from the saddle and receivable in said mouth, each of said tongues being formed on the end of a plate extended through the top wall of the saddle and secured to the inner face of an end wall thereof, and yokes hinged to the saddle, and adapted to swing toward each other clear of said projecting portions, to positions wherein said portions are received through said yokes, engaged between said yokes and the device, and thereby attached to said device.

3. For attachment to a floor tool having a downwardly opening mouth defined between lips and end walls forming opposed projecting portions of said floor tool, a surface treatment device including a presser head comprising a downwardly cupped saddle of sheet metal having end walls, tongues extending upwardly from the saddle and receivable in said mouth, each of said tongues being formed on the end of a plate extended through the top wall of the saddle and secured to the inner face of an end wall thereof, said plates including upstruck nibs secured to the top wall of the saddle, and yokes hinged to the saddle, and adapted to swing toward each other clear of said projecting portions, to positions

wherein said portions are received through said yokes, engaged between said yokes and the device, and thereby attached to said device.

4. For attachment to a floor tool having a downwardly opening mouth defined between lips and end walls forming opposed projecting portions of said floor tool, a surface treatment device including a presser head provided with upwardly projecting tongues receivable in said mouth and engageable against the inner faces of said end walls to prevent relative longitudinal movement, shoulders connecting said lips to the device and positioned to engage against the lower edges of said end walls, to provide support between said device and the floor tool, and yokes hinged to said device, and adapted to swing toward each other clear of said projecting portions, to positions wherein said portions are received through said yokes, engaged between said yokes and the device, and thereby attached to said device.

5. For attachment to a floor tool having a downwardly opening mouth defined between lips and end walls forming opposed projecting portions of said floor tool, a surface treatment device including a presser head provided with upwardly projecting tongues receivable in said mouth and engageable against the inner faces of said end walls to prevent relative longitudinal movement, said tongues being offset intermediate their upper ends and the top of the head to form shoulders to engage against the lower edges of said floor tool end walls, to provide support between said device and the floor tool, and yokes hinged to said device, and adapted to swing toward each other clear of said projecting portions, to positions wherein said portions are received through said yokes, engaged between said yokes and the device, and thereby attached to said device.

6. For attachment to a floor tool having a downwardly opening mouth defined between lips and end walls forming opposed projecting portions of said floor tool, a surface treatment device provided with upwardly projecting tongues receivable in said mouth and engageable against the inner faces of said end walls to prevent relative longitudinal movement, said tongues being offset intermediate their upper ends and the top of the head to form shoulders to engage against the lower edges of said floor tool end walls, to provide support between said device and the floor tool, and yokes hinged to said device, and adapted to swing toward each other clear of said projecting portions, to positions wherein said portions are received through said yokes, engaged between said yokes and the device, and thereby attached to said device.

7. For attachment to a floor tool having a downwardly opening mouth defined between longitudinal lips and having opposed projecting end portions, a surface treatment device including a presser head comprising a saddle of sheet metal having a top wall and perpendicular side walls bent downwardly therefrom, tongues extending upwardly from the saddle and receivable in said mouth, and yokes hinged to said side walls and adapted to swing toward each other clear of said projecting portions, to positions wherein said portions are received through said yokes, engaged between said yokes and the device, and thereby attached to said device whereat the said lips will be engaged against the upper surface of said top wall.

8. For attachment to a floor tool having a downwardly opening mouth defined between longitudinal lips and having opposed projecting end portions, a surface treatment device including a presser head comprising a saddle of sheet metal having a top wall and perpendicular side walls bent downwardly therefrom, tongues extending upwardly from the saddle and receivable in said mouth, and yokes hinged to said side walls and adapted to swing toward each other clear of said projecting portions, to positions wherein said portions are received through said yokes, engaged between said yokes and the device, and thereby attached to said device whereat the said lips will be engaged against the upper surface of said top wall, the lower edges of said side walls being flanged outwardly, and a face plate secured to said flanges.

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