Aug. 23, 1960 C. E. BOLAND 2,949,921

PAINT BRUSH CLEANER

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Fig. 1

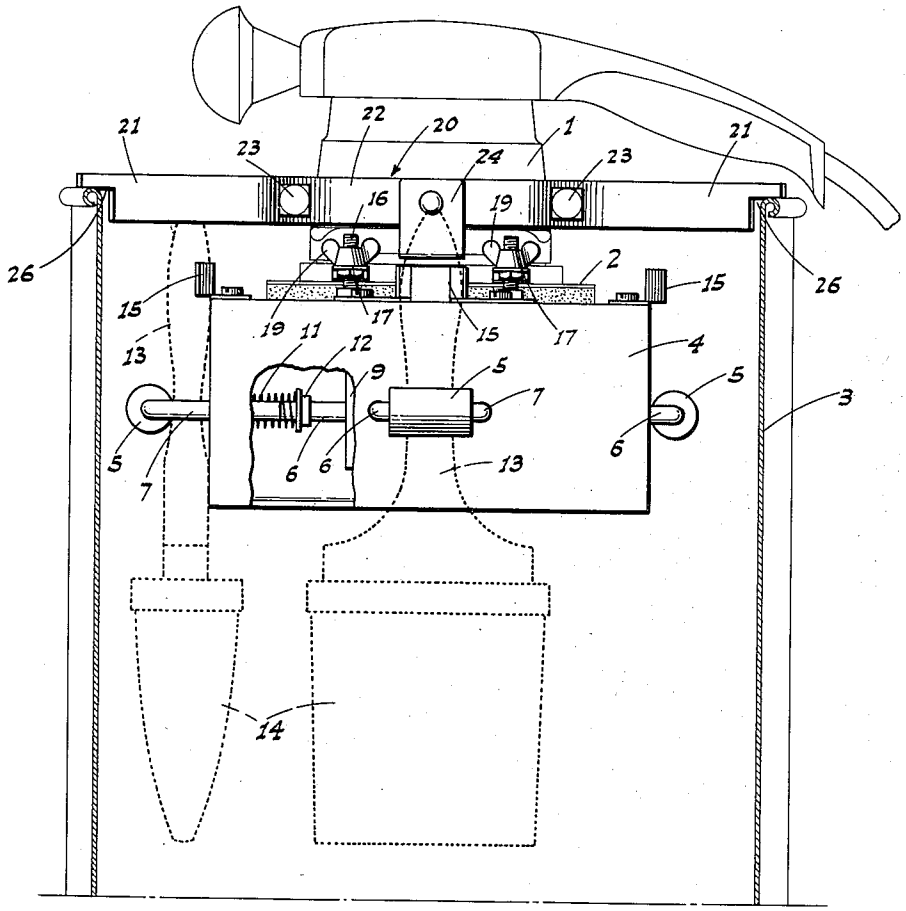


Fig. 4

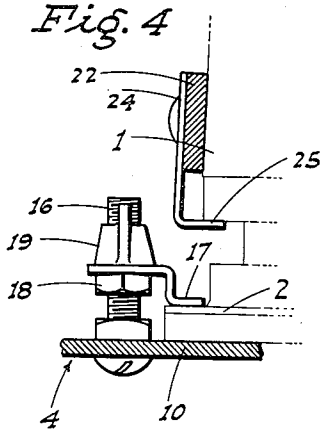


Fig. 5

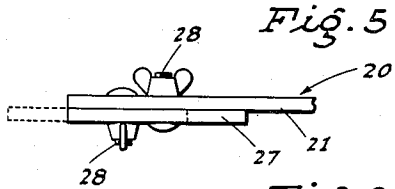
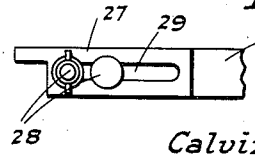


Fig. 6



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Fig. 2

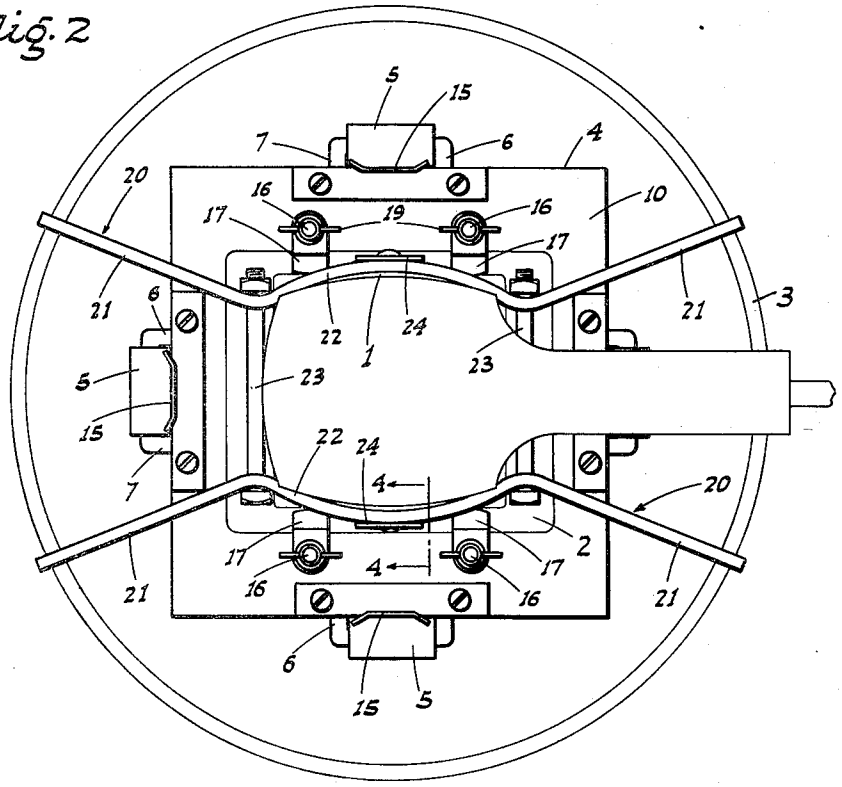
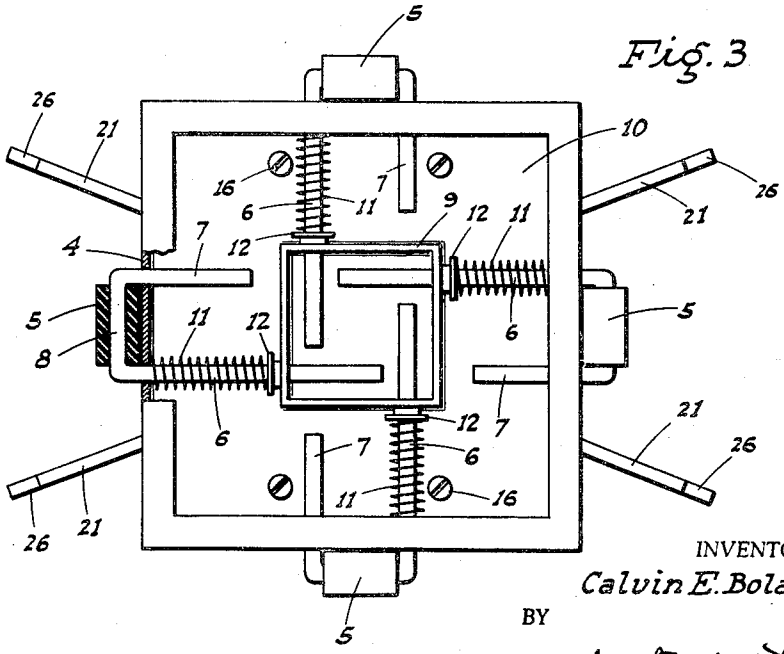


Fig. 3



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PAINT BRUSH CLEANER

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3 Claims. (Cl. 134—140)

This invention relates to a device for supporting paint brushes in a depending position in a cleaning solvent, and "swishing" the brushes while in the solvent so that an efficient cleaning action is imparted to the brushes. Such a device is shown in my Patent No. 2,640,489, dated June 2, 1953, but this patented device was a self-contained unit of a substantially permanent nature and reltaively heavy, bulky, and expensive.

A major object of the present invention is to provide a device for the purposes which utilizes: a standard orbital power unit as the source of power; a brush holder adapted to be detachably connected to the movable part of the power unit; an ordinary standard five-gallon can as the solvent container, and into which the brush holder fits; and a means adapted to be detachably connected to the stationary part of the power unit and arranged so that the latter may be removably supported from the rim of the can, with the brush holder—when mounted on the power unit—depending into the can.

This arrangement provides a very compact, inexpensive, and portable structure, and since the power unit used is an orbital type sander—an implement used and usually owned by professional painters when preparing the surfaces to be painted—the only expense involved in the construction of the brush cleaning device is the brush holder, and the means for supporting the power unit on the solvent-containing can.

In using such specific form of power unit for a new or different purpose than that for which it was originally designed, no changes of any kind are made thereto, and being easily and quickly connected to and detached from the parts of the brush cleaning device—said unit can serve both purposes, and the purchase and use of such device does not entail the cost of the relatively expensive power unit.

Another object of the invention is to provide a paint brush cleaner which is designed for ease and economy of manufacture.

A further object of the invention is to provide a practical and reliable paint brush cleaner, and one which will be exceedingly effective for the purpose for which it is designed.

These objects are accomplished by means of such structure and relative arrangement of parts as will fully appear by a perusal of the following specification and claims.

In the drawings:

Fig. 1 is a side elevation of the brush cleaner partly broken out and as mounted on a can.

Fig. 2 is a top plan view of the same.

Fig. 3 is a bottom plan view.

Fig. 4 is an enlarged fragmentary vertical section taken on line 3—3 of Fig. 2.

Fig. 5 is a fragmentary plan view of a power unit supporting arm showing the same equipped with a longitudinally adjustable extension.

Fig. 6 is a side elevation of the same.

Referring now more particularly to the drawings, and

to the characters of reference marked thereon, the orbital sander or power unit which I employ as the operating means for my new brush cleaner comprises an upper stationary body 1 in which the operating motor and mechanism are mounted, and a rectangular base plate 2 which is horizontally moved through a short eccentric orbit upon operation of the motor. This is a standard form of device now on the market, and a full showing and description of the same is therefore unnecessary.

Designed to fit within a conventional five-gallon can 3 with ample clearance is a multiple-brush support which includes a box 4, here shown as being square to hold four large sized paint brushes, but capable of being made in other shapes. On each side of the box, and substantially midway of the height and length thereof, a brush holder or clamp is mounted. This holder comprises a preferably circular clamping pad 5 disposed with its axis horizontal. This pad is of rubber or similar cushion material and is mounted on end arms 6 and 7, which include a connecting cross member 8 projecting through the pad. These arms slidably project through the side wall of the box into the interior thereof, as shown in Fig. 3. In addition, the arm 6 slidably projects through the adjacent parallel wall of a smaller symmetrical box 9 which depends from the top wall 10 of box 4, and is rigid therewith. This arrangement prevents any vertical teetering of the brush holding and clamping unit even though the wall of the box is relatively thin and does not of itself provide an adequate bearing surface for the arms of the holder.

At the same time, only one arm of each brush holder being thus engaged by the additional guide means provided by the inner box 9, corresponding arms of all four brush holders may project into and be guided by the walls of said box without interfering with each other, as clearly shown in Fig. 3.

Disposed about each arm 6 within the box 4 is a compression spring 11 extending between the inner wall of said box 4 and a stop 12 on said arm 6 and normally holding the latter against the outer wall of the inner box 9. When the stop is thus in contact with the box 9, the clamping pad 5 on the outside of the box 4 is held immedially adjacent the outer face of said box, as shown.

The distance between the arms 6 and 7 of each brush holder is sufficient to receive the upper portion of the handle 13 of any paint brush 14, as indicated in Fig. 1. Also, the distance the pad 5 of the brush holder may be pulled out from the wall of the box, against the resistance of spring 11, is sufficient to receive said handle between the pad and box.

A handle locating cradle 15 is mounted on the top of box 4 in direct alinement with the related pad 5 laterally of the box, so as to engage a handle and prevent possible lateral swaying of a clamped brush.

In order to detachably connect the box 4 to the base plate 2 of the power unit, bolts 16 are secured in and project upwardly from the top wall 10 of box 4 adjacent but laterally out from the opposite side edges of base plate 2. A clip 17 is turnably mounted on each bolt, between a lock nut 18 and a tensioning nut 19 thereon, and projects from the bolt so that when the base plate and box are brought into contact with each other, the clip may be turned so as to overhang the base plate, and then brought into clamping contact therewith when the nut 19 is advanced, as shown in Fig. 4.

In order to detachably support the power unit and the connected brush holding box 4 from the can 3 with the box depending into the can, arm units 20 are mounted on opposite sides of the body 1 of the power unit. Each such unit 20 comprises straight end portions 21 disposed in substantially radial relation to the body 1 and connected by a central portion 22 curved to engage and fol-

low the contour of the lower portion of the body **1**. The opposed arm units are clamped to the body and to each other by a pair of cross bolts **23** disposed adajcent but clear of the body **1** at the junction of the end portions **21** with the curved portions **22** of the arm units, as clearly shown in Fig. 2.

In order to prevent possible downward slipping of the body **1** in the arm units, the central portions **22** of the latter may each be provided on the outside with a depending plate **24** having an inturned lip **25** on its lower end to engage under the body **1**, as shown in Fig. 4.

The arm units are sufficiently long that their outer ends will overhang and rest on the rim of the can **3**, and are notched or undercut at their outer ends, as at **26**, so that the arm units are held from lateral displacement.

If desired to adapt the arm units to cans of somewhat greater diameter, an extension **27**—notched at its outer end for cam-rim engagement—may be applied to the outer portion **21** of each arm unit **20**. Such extension is slidably connected to said arm portion **21** for longitudinal adjustment relative thereto by means of longitudinally spaced clamping bolts **28** mounted in the arm portion **21** and projecting through a longitudinal slot **29** in the extension **27** (see Figs. 5 and 6).

From the foregoing description it will be readily seen that there has been produced such a device as will substantially fulfill the objects of the invention, as set forth herein.

While this specification sets forth in detail the present and preferred construction of the device, still in practice such deviations therefrom may be resorted to as do not form a departure from the spirit of the invention, as defined by the appended claims.

Having thus described the invention, the following is claimed as new and useful, and upon which Letters Patent are desired:

1. A paint brush cleaner comprising in combination with a power unit which includes a body and a base plate movable relative to the body through a predetermined orbital path in a horizontal plane, arms rigid with and projecting from the body to rest on the rim of a solvent-containing can to support the power unit from such can, and a brush holding device secured to and depending from the base plate; said device including a flat top plate of greater size than the base plate, and said device comprising bolts secured in and upstanding from the top plate on opposite sides of and adjacent the base plate, clips movably mounted on the bolts to releasably overhang the base plate, and clamping nuts on the bolts engaging the clips to advance and clamp the same against the base plate.

2. A paint brush cleaner comprising, with a power unit having a base plate movable through a predetermined orbital path in a horizontal plane, a brush holding device secured to and depending from the base plate, said device comprising a hollow member having a peripheral vertical outer wall of material height, and a plurality of brush-holding clamps mounted on the member in horizontally spaced relation about the outer wall intermediate the top and bottom edges thereof; each clamp comprising a cushion pad on the outside of said wall and wider than a brush handle, arms projecting from the ends of the pad and slidable through the wall, and spring means on one arm back of the wall and yieldably resisting movement of the cushion pad away from the outer face of the wall.

3. A paint brush cleaner comprising, with a power unit having a base plate movable through a predetermined orbital path in a horizontal plane, a brush holding device secured to and depending from the base plate, said device comprising a hollow member having a peripheral vertical outer wall and an inner wall parallel to the outer wall, and a plurality of brush-holding clamps mounted on the member in horizontally spaced relation about the outer wall; each clamp comprising a cushion pad on the outside of said wall and wider than a brush handle, relatively long and short arms projecting from the ends of the pad and slidable through the wall, the long arm only projecting through the inner wall, a stop fixed on said long arm between the walls and normally disposed adjacent the inner wall, and a compression spring on said long arm between the outer wall and the stop and normally holding the latter against the inner wall; the cushion pad being then immediately adjacent the outer face of the outer wall.

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