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ADJUSTABLE PAD HOLDER

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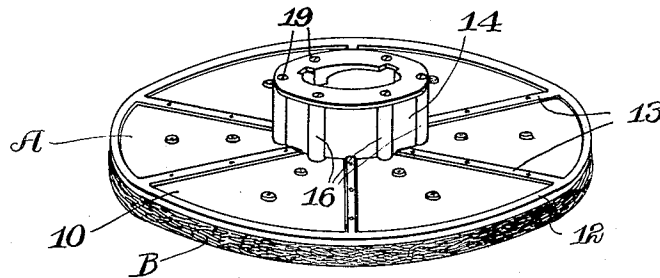


Fig. 1

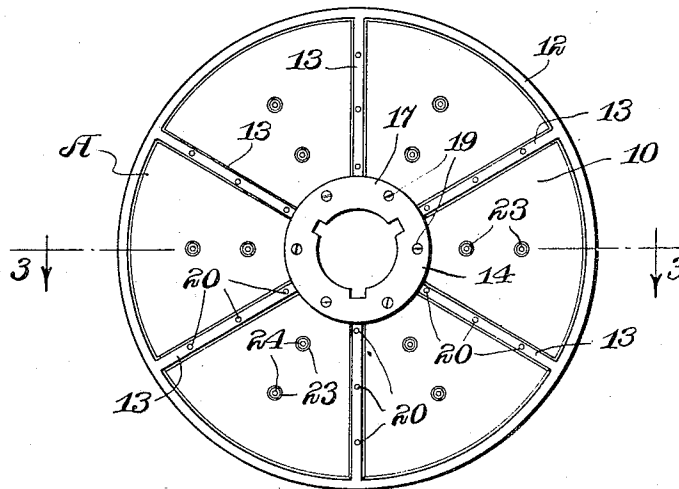


Fig. 2

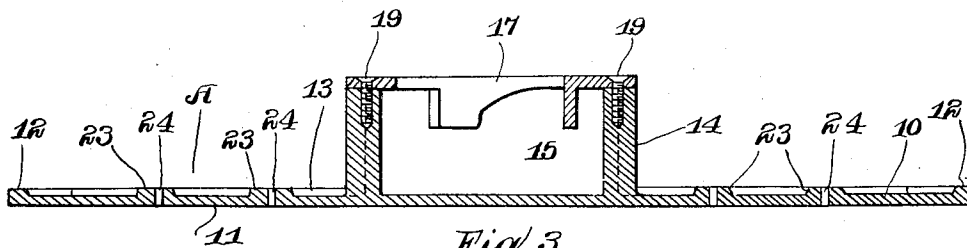


Fig. 3

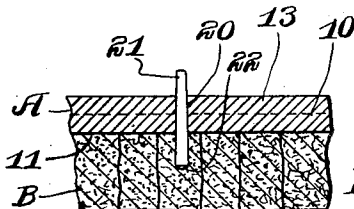


Fig. 4

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ADJUSTABLE PAD HOLDER

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6 Claims. (Cl. 15—230)

Our invention relates to an improvement in adjustable pad holders wherein it is desired to provide a means of supporting a pad of steel wool or the like for rotation over a surface to be polished.

5 It has been common practice in the last few years to provide circular pads formed of steel wool and the like for the purpose of polishing surfaces such as floors and other flat areas. It has been common practice to support these pads 10 beneath a rotary brush so that the bristles of the brush extend down into the pad to cause the pad to rotate with the brush. Other supporting blocks have also been provided for the steel wool pads, but these blocks have been so designed that 15 the means supporting the pad will contact the floor or the area to be polished before the pad is worn out. Accordingly, it has been necessary to use more pads than would otherwise be necessary.

20 It is the purpose of the present invention to provide a holder for scouring or polishing pads formed of steel wool and the like, which holder is provided with a flat under surface adapted to bear evenly upon the upper surface of the pad. 25 Thus the pressure of the polishing device bears evenly upon the pad causing the same to wear down uniformly throughout its entire area. Thus the pad may be used until the same is worn extremely thin before it is necessary to discard the pad.

30 A further feature of our invention consists in the provision of a pad holding means having a flat lower surface which will bear evenly upon the surface of a pad and which will permit the pad to be reversed or inverted from time to time 35 in the use of the same as desired. Thus as one surface of the pad wears down to a considerable extent and becomes matted together, the pad may be turned upside down and the opposite surface used as the scouring surface. Accordingly, 40 the pad is not worn out until both surfaces of the same have been worn down.

45 It is a further feature of our invention to provide a holder for polishing pads having a series of pins adjustably extending therethrough. These pins are designed to extend into the body of the polishing pad to engage and cause rotation of the same. When a new polishing pad is being used, these pins may be adjusted to extend 50 to a considerable extent into the body of the pad. However, as the pad wears thinner and becomes more condensed, less force is necessary to cause rotation of the pad with the holder, and the pins need not extend quite as far into the body of the 55 pad as was formerly desirable. Therefore, the

pins may be forced farther through the holder so that the portion projecting below the holder into the pad will not be so long.

These and other objects and novel features of our invention will be more clearly and fully set forth in the following specification and claims. 5

In the drawing forming a part of our specification:

Figure 1 is a perspective view of our pad holder in position upon a pad. 10

Figure 2 is a top plan view of our pad holder.

Figure 3 is a cross-sectional view through the holder taken on the line 3—3 of Figure 2.

Figure 4 is an enlarged sectional detail through one of the openings through the holder for the 15 adjustable pins showing a pin in place.

The holder A comprises a disc 10 having a lower continually flat surface 11. An annular bead 12 of increased thickness extends along the edge of the disc 10. Radially extending ribs 13 20 join the circular bead 12 with the central hub portion 14.

The central hub portion 14 is designed to fit the attaching means of any rotary floor surfacing machine. The particular construction shown 25 is capable of fitting one type of these machines. Each disc 10 is provided with the proper type of hub 14 to fit the floor surfacing machine upon which it is to be used.

In the form shown the hub 14 includes a cylindrical hollow sleeve 15 extending centrally upward from the disc 10 and having vertical bosses 16 extending upwardly in angularly spaced relationship. An attaching plate 17 is secured by 30 screws 19 or by other suitable means to the sleeve 15 to enable the disc 10 to be supported by a floor surfacing machine.

Openings 20 radially spaced along the ribs 13 extend through the ribs 13 and the disc 10. These 40 openings 20 accommodate pins 21 which fit therein with a friction fit. The pins 21 are usually rounded in the lower end 22 and tapered slightly from the lower-most end thereof to a slightly smaller diameter at the upper extremity. When 45 a new polishing pad B shown in Figures 1 and 4 of the drawing is being held by the holder A the pins 21 are allowed to extend to a considerable distance from the lower surface 11 of the disc 10. As the pad B wears however, and mats together 50 condensing the same, it is not necessary that the pins be so long, and they are therefore driven upwardly in the holes 20 until a shorter portion of the same extends from the lower surface of the disc.

Angularly positioned intermediate the radially extending ribs 13 we provide a pair of radially spaced bosses 23. These bosses 23 are provided with openings 24 therethrough through which pins 21 may be inserted if desired. For most types of pads and for most types of work it is not necessary to provide pins extending through the bosses 23. However, upon occasion it is extremely desirable to provide additional holding means, and accordingly, we provide the bosses 23 through which pins 21 may be extended to provide additional holding power. It will be noted that the radial spacing of the holes 24 does not increase with the radial spacing of the holes 20 so that in the rotation of the holder A and the pad B the pins 21 do not all exert force upon the pad at the same distance from the center, but this force is exerted at various radii from the center of the pad.

In accordance with the patent statutes we have described the principles of construction of our polishing pad holder, and while we have endeavored to set forth the best embodiment thereof, we desire to have it understood that this is only illustrative of a means of carrying out our invention and that obvious changes may be made within the scope of the following claims without departing from the spirit of our invention.

We claim:

1. A holder for polishing pads comprising a disc having a continuously flat lower surface, a hub on said disc extending from the upper surface thereof designed for connection with a rotating means, a series of openings through said disc, and blunt tapered pins larger at one end and having this end extending downwardly extending through said openings designed to be embedded in a polishing pad to rotate the same with the holder.
2. A holder designed for use with a rotating means comprising a disc body, a series of holes extending through said body, round ended tapered pins of larger diameter at one end than at the other adjustably inserted in said holes from the bottom thereof, with the larger diam-

eter end projecting downwardly, and hub means designed for connection with a rotating means.

3. A holder for polishing pads designed for use with a rotating means, said holder comprising a disc, a bead extending annularly about the upper surface of said disc, a central hub portion projecting from the upper surface of said disc, radially extending ribs extending from said hub to said bead, said ribs and disc having openings therethrough, and round ended tapered pins having their larger diameter end extending downwardly extending through said openings.

4. A holder for polishing pads adapted for use with a rotating means comprising a disc, a hub centrally secured thereto for connection with the rotating means, a series of radially extending ribs on the upper surface of said disc, said ribs and disc having openings therethrough, the openings through said ribs being at different distances from the center of said disc than the openings through said disc, and tapered pins forced in said openings from the bottom thereof.

5. A holder for polishing pads designed for use with a rotating means, said holder comprising a disc, a central hub portion, openings through said disc, tapered pins extending through said holes with the largest end of said pins extending downwardly therefrom, and rounded ends on said pins.

6. A holder for polishing pads comprising a disc, a means thereupon for connection with a rotary means, a series of angularly spaced radially extending reinforcing ribs on one surface of said disc, said ribs having radially spaced openings therethrough, bosses angularly spaced between said ribs, said bosses being radially spaced, said bosses having openings therethrough, the openings in said bosses being spaced at different distances from the center of said disc from the openings in said radially extending ribs, and tapered pins in said openings having their large diameter ends projecting below the other surface of said disc.

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