May 6, 1930. F. O. ALBERTSON ET AL 1,757,228

POLISHING DEVICE

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Fig. 1.

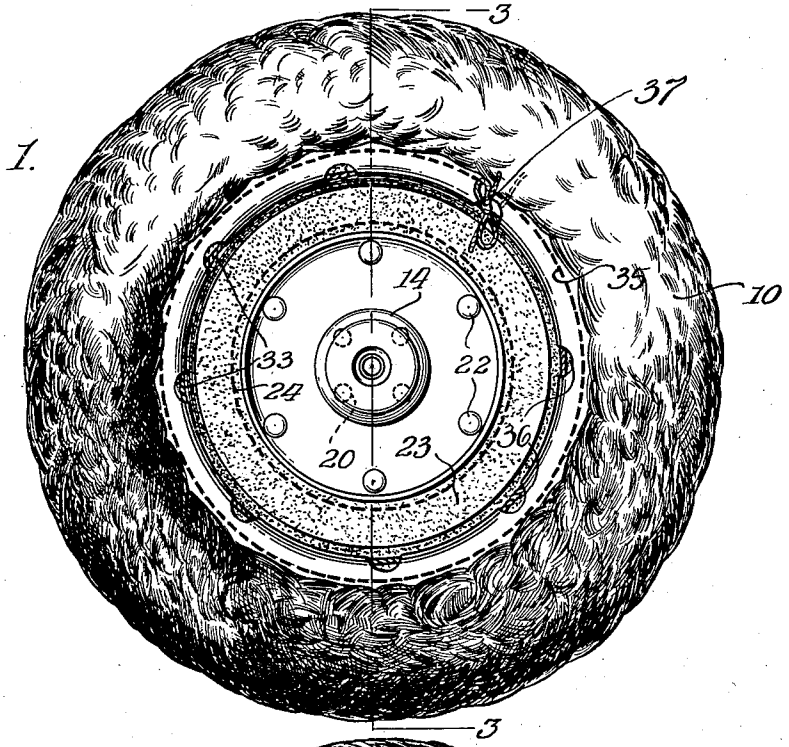
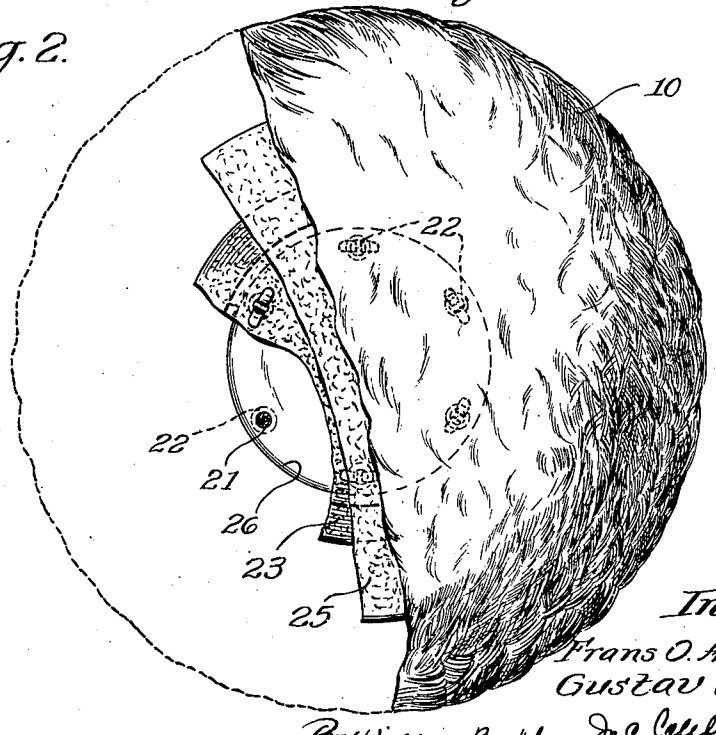


Fig. 2.



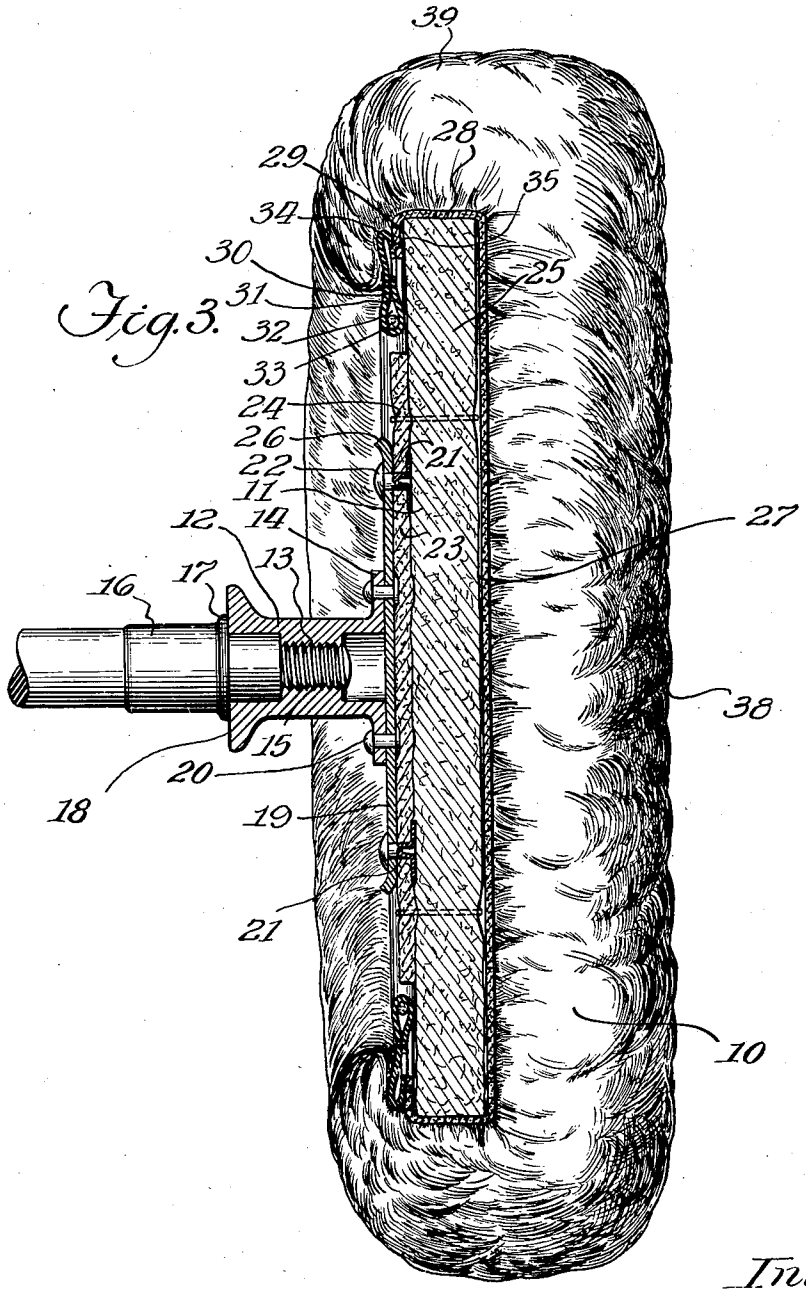
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Fig. 3.



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UNITED STATES PATENT OFFICE

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POLISHING DEVICE

Application filed April 25, 1928. Serial No. 272,588.

The present invention relates to polishing devices, and is particularly concerned with the provision of rotatable polishing pads or discs to be used upon automobile bodies or the like.

One of the objects of the present invention is the provision of a novel polishing pad comprising a suitable supporting disc and a quickly detachable covering of lamb's wool or the like, which not only covers the front of the disc, but extends over the edge thereof, providing a narrow polishing surface at the edge which may be used in many otherwise inaccessible places upon an automobile body.

Another object of the present invention is the provision of a novel lamb's wool covering for a polishing disc, having its outer edge inwardly turned and joined to a quickly detachable securing device, whereby the lamb's wool extends over the edge of the disc for polishing between the fenders and the body of an automobile, or any other relatively inaccessible places.

Another object of the invention is the provision of a novel disc structure for carrying a rotatable polishing pad, comprising a hub having a supporting layer of felt riveted thereto and a felt disc covering said rivets and stitched to said felt supporting layer.

Other objects and advantages of our invention will appear more fully from the following description and from the accompanying drawings, in which similar characters of reference indicate similar parts throughout the several views.

Referring to the drawings, of which there are two sheets,

Figure 1 is a rear elevational view of our polishing pad and supporting disc;

Figure 2 is a front elevational view of the same, partially broken away to show the structure of the various parts; and

Figure 3 is a medial cross sectional view taken on the line 3—3 of Figure 1.

Referring to Figure 3, 10 indicates in its entirety our polishing pad and 11 in its entirety the supporting disc therefor. The supporting disc 11 may consist of a hub 12, comprising a substantially cylindrical member provided with a threaded bore 13, and an annular outwardly projecting flange 14. The threaded bore 13 is adapted to receive the threaded end 15 of an arbor or shaft 16, which is also preferably provided with an annular shoulder 17, adapted to engage the annular shoulder 18 upon the hub 12.

The supporting disc 11 also comprises a disc of sheet metal 19, which is secured to the flange 14 of the hub 12 by rivets 20, the hub 12 being centrally located upon the disc 19.

The disc 19 is also provided with apertures 21 located near its periphery and adapted to receive split rivets 22, which secure a layer 23 of felt or other flexible material upon the disc 19.

The layer of felt 23 covers the rivets 20 and projects beyond the outer edge of the metal disc 19 sufficiently to provide space for a circular line of stitching 24 for securing a main felt pad or body 25. The main felt pad or body is preferably considerably thicker than the felt layer 23, and comprises a thick circular piece of felt concentrically located relative to the felt layer 23, the metal disc 19 and the hub 12, and covering the rivets 22.

It will be understood that the heavy stitching at 24 does not materially affect the resilient or flexible quality of the felt pad nor produce any hard projections thereon such as would be the case if rivets passed through the felt pad 25. If desired, the metal plate 19 may have its outer edge formed with a backwardly turned curved flange 26, presenting a curved surface to the felt layer 23 when the outer edge of the felt disc is bent over as in actual use.

The polishing pad 10 comprises a piece of lamb's skin or sheep's skin, which carries a natural layer of wool, and the body 10 is preferably formed of a substantially circular piece of hide. The hide should be of sufficient size relative to the felt disc 25 so that it will completely cover the forward face 27 of the disc, as well as the cylindrical edge 28 and some slight portion of the rear face as at 29.

The polishing pad is preferably provided with quickly detachable means for securing it

upon the felt disc, in the form of a ring 30 of leather or the like. The ring 30 may be formed of a relatively narrow strip of leather, having its ends joined, and one edge may be folded upon itself as at 31 forming a continuous loop 32 for the reception of a draw cord 33.

The opposite edge of the ring 30 is also folded back upon itself as at 34 and stitched to the inwardly turned edge 35 of the lamb's wool covering. In order to provide for tightening the draw string, the loop 32 formed in the ring 30 may be provided with a plurality of semi-circular cut-outs 36, so that the ring 30 may be drawn tightly against the disc 25 with a minimum of wrinkling. The lamb's wool polishing pad may then be applied to the supporting disc 11 by passing the outer edges of the hide over the rear face 29 of the disc and drawing the hide tightly about the disc by means of the draw string 34, which is secured by a bow knot 37.

By turning the outer edge of the hide inward and stitching it to the leather ring as shown, the hide is firmly drawn about the outer edge of the disc, and a polishing pad is provided which presents not only the forward face 38, but an outer edge 39 of lamb's wool, which relatively narrow surface is peculiarly adapted to be used between the fenders and body of an automobile and in other relatively inaccessible places.

Our supporting disc structure is also simple and easy to manufacture, and it provides a flexible support for the polishing pad upon which there are no relatively hard surfaces or other obstructions which might mar the work or produce an uneven polish.

While we have illustrated and described a specific embodiment of our invention, many modifications may be made without departing from the spirit of the invention, and we do not wish to be limited to the precise details set forth, but desire to avail ourselves of all changes within the scope of the appended claims.

Having thus described our invention, what we claim as new and desire to secure by Letters Patent of the United States, is:

1. In a polishing wheel, the combination of a hub with a metal disc riveted to said hub, a layer of felt secured to said disc and projecting beyond the outer edge thereof, and a felt pad stitched to said felt layer beyond the edge of said disc.

2. In a polishing wheel, the combination of a hub with a metal disc riveted to said hub, a layer of felt secured to said disc and projecting beyond the outer edge thereof, and a felt pad stitched to said felt layer beyond the edge of said disc, a layer of lamb's wool carried by said felt pad covering the front face thereof and extending over the edge of said pad, and means for securing said lamb's wool to said pad adjacent its outer edge.

3. A supporting disc for a rotatable polishing member, comprising a metallic hub having an outwardly projecting metal flange, a layer of flexible material secured to said flange by a plurality of rivets, and a second layer of flexible material covering said rivets and stitched to said first layer.

4. In a polishing wheel, the combination of a hub with a metal disc secured to said hub, a layer of flexible material secured to said disc and projecting outwardly beyond its securing means on said disc, and a cushion pad stitched to said flexible material outside the points of securement of said flexible material on said disc.

5. In a polishing wheel, the combination of a hub with a metal disc carried thereby, said disc having its outer edge backwardly curved to present a rounded non-cutting edge to a pad, a flexible and resilient pad carried by said disc and extending outward beyond the edge of said disc and adapted to be flexed backward against the curved edge of said disc, and a flexible covering of lamb's wool covering said pad and secured to the outer edge of said pad to flex therewith.

In witness whereof, we hereunto subscribe our names this 20th day of April, 1928.

FRANS O. ALBERTSON.
GUSTAV OLSEN.