

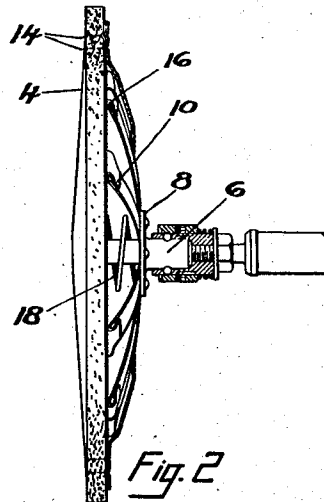
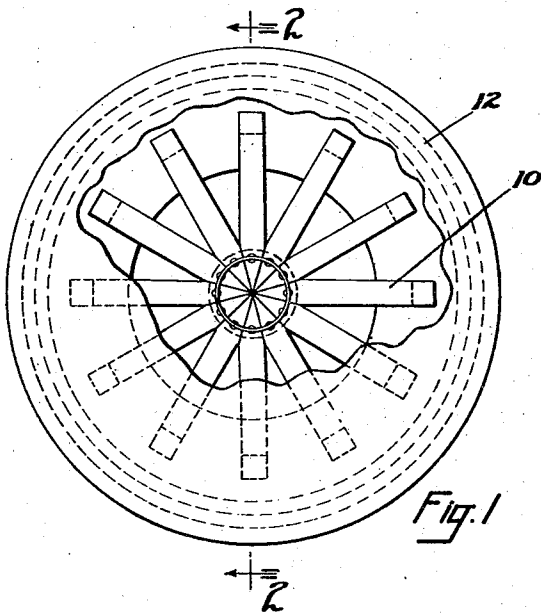
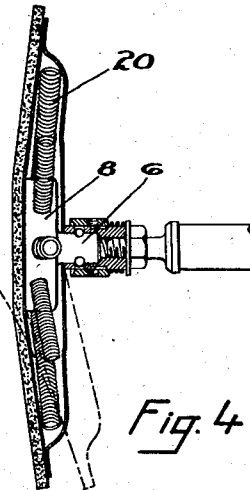
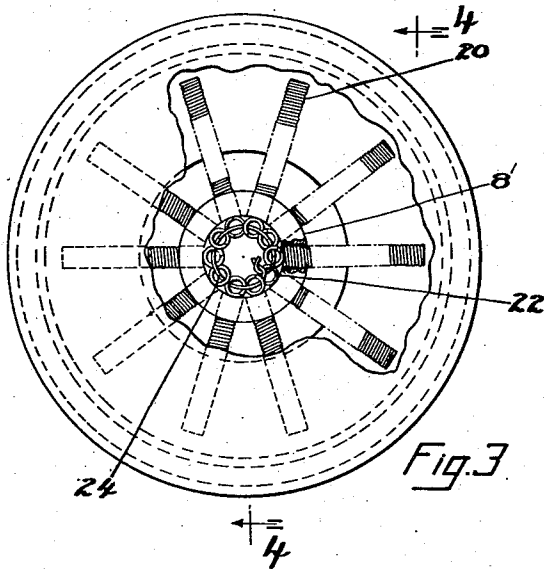
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H. S. ANDERSON ET AL

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BUFFER

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BUFFER.

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This invention relates to improvements in buffers.

It is particularly concerned with an improved buffer for rubbing down automobile body surfaces, and has been found especially useful when applied to surfaces being given the well known "Duco" finish.

The usual buffer consists of a pad of felt or the like in rigid relation with and rotated by a holder constituting a driving member. In the use of such a buffer the contour of the surface to be rubbed down is frequently such that it requires much difficult manual labor to properly apply the buffer disc. It is the principal object of this invention to so construct the buffer that the irregular surfaces and the corners difficult of access may receive the necessary rubbing with less manual manipulation of the buffer than heretofore. To that end there is applied a resilient element between the holder or driving member and the pad. This resilient element enables the felt pad to conform to the surface being rubbed down.

A further object is to secure flexibility by a construction which shall yield circumferentially, as well as axially, and which may possess in a marked degree such advantages as durability and freedom from breakage.

With this and other objects, this invention is carried into effect by the use of certain structural parts and structural arrangements, as hereinafter described, and as more particularly pointed out in the claims.

Two specific embodiments are shown in the drawing in which Figure 1 is a plan view of the buffer looking toward the rear face of the disc, with parts cut away to show the spring elements.

Figure 2 is a sectional view on line 2—2 of Figure 1.

Figure 3 is a view similar to Figure 1 of a modified form.

Figure 4 is a section on line 4—4 of Figure 3.

Like characters of reference refer to the same numbers in the several figures.

Referring to Figures 1 and 2 of the drawings, numeral 4 is a thick felt pad and 6 is a holder constituting the driving member. This driving member is, it will be understood, itself driven by any well-known means, as by a flexible shaft from a motor. The driving means for member 6 forms no

part of the invention and is not being given further description. It will be observed that the holder 6 is formed with flange 8 and to this flange are riveted radially positioned flat leaf spring members 10. At their inner ends these spring members are tapered so that they interfit on the face of the flange adjacent to the felt pad as clearly shown on the drawing. The spring members are bowed away from the driving member and at their extremities are received within a pocket or retainer 12, made from a double thickness of leather, one layer lying against the pad and the other overlying the bowed outer ends of the springs. The back of the retainer is secured to the felt pad by a double seam, as at 14. The outer ends of the spring members are bent over as at 16 within the pocket, as will be seen from drawing.

Between the flange on the holder and the central portion of the pad there is placed a coil spring 18, conveniently secured to the driving member by soldering.

It will be readily appreciated that when the felt pad is rotated and applied to the surface to be rubbed, the springs may yield to enable the pad to readily conform to the surface which it engages. Parts of the surface difficult to be rubbed down when manual labor was necessary to adjust the position of the pad, are readily reached by the bending of the spring members without further effort on the part of the operator.

Referring now to the modified form shown in Figure 3 and Figure 4 the holder 6' is provided with an annular flange 8' and through this flange are bored a plurality of radial apertures. Passing through these apertures are coil springs 20, the wire coils of the several springs being bent over as at 22 and through these bent over coils is passed a wire 24 the ends of which are then twisted together to secure the coil springs in the holder. The outer ends of the coil springs are carried in the retainer sewed to the felt pad as before.

This specific type of spring is particularly desirable from the point of view of durability and freedom from breakage. It will be observed that not only may the disc bend under the yielding action of the springs as in the first described form, but that a circumferential flexure is secured by the use of

these coil springs which is believed to be very advantageous. This yielding movement afforded the pad by its spring connection with the holder may be described as
5 produced by a yielding universal connection between these parts.

It will be evident that certain changes and modifications can be made in the structural details enumerated within the limits of the
10 claims.

What we claim and desire to protect by Letters Patent is:

1. In a buffer of the class described, holder, a buffing pad and a plurality of coiled
15 springs radially arranged secured at their inner ends to the holder and carried at their outer ends by the outer portion on the pad.

2. In a buffer of the class described, a holder having a plurality of radial apertures, a buffing pad, and a plurality of coiled
20 springs radially arranged, passing through the apertures, and secured to the holder, the ends of the coiled springs being engaged with the outer periphery of the pad.

25 3. In a buffer of the class described, a

holder having a plurality of radial apertures, a buffing pad, a plurality of coiled springs engaged with the periphery of the pad at their outer ends, the inner ends of the springs passing through the apertures of the holder, the inner loops of the coiled springs being bent over and a wire passed through said bent-over loops to secure the spring to the holder. 30

4. In a buffer of the class described, a holder having a plurality of radial apertures, a buffing pad, a plurality of coiled springs, an annulus constituting a pocket attached to the outer periphery of the pad, the outer ends of the coiled springs received within the annulus, the inner ends of the springs passing through the apertures in the holder, the inner coils of the springs being bent over and a wire passing through these inner coils to secure the springs to the holder. 35 40

In testimony whereof we affix our signatures.

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