April 23, 1929. H. L. MOORE 1,710,180

CUSHION DEVICE FOR TOOLS AND THE LIKE

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Fig. 1.

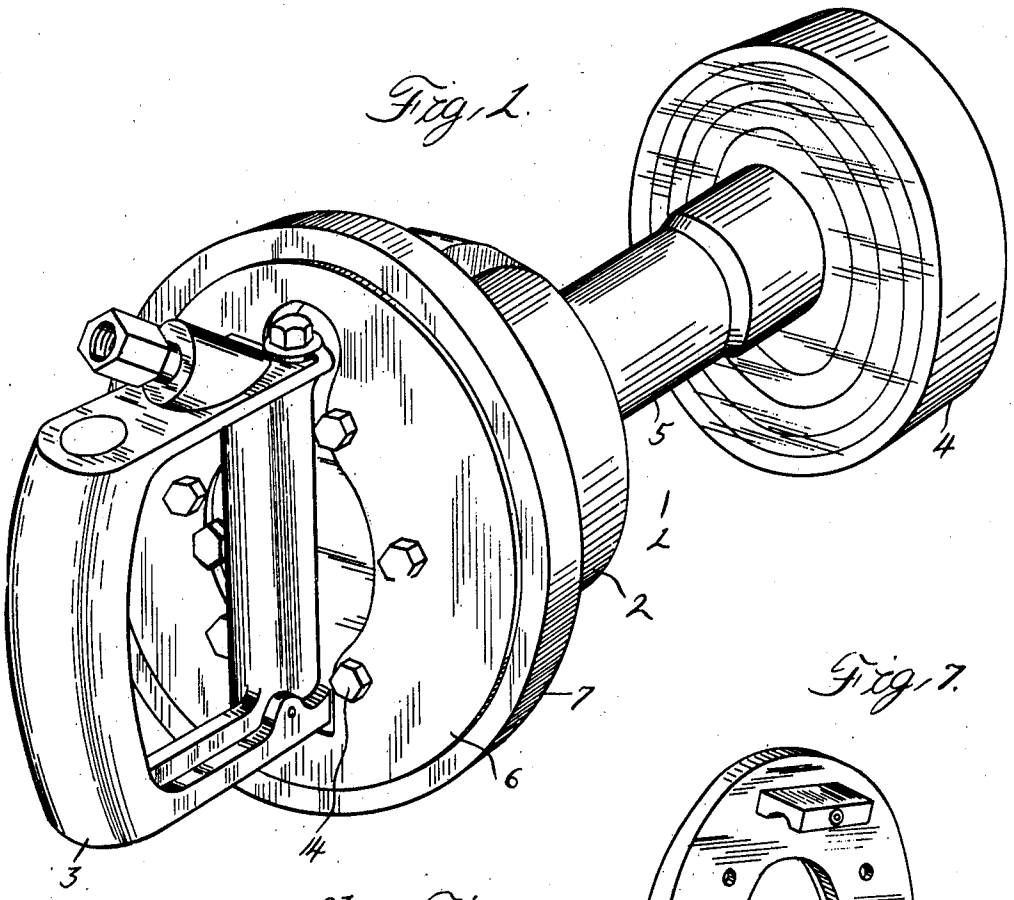


Fig. 7.

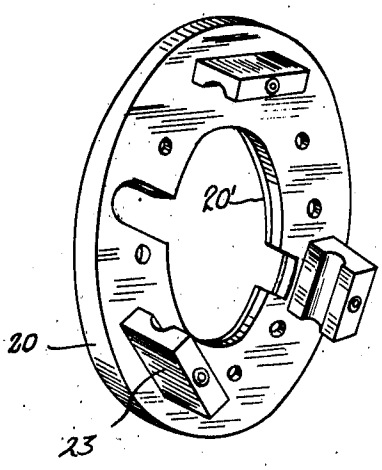
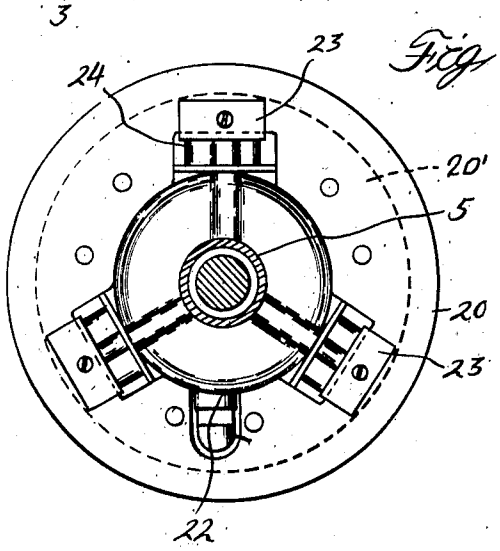


Fig. 6



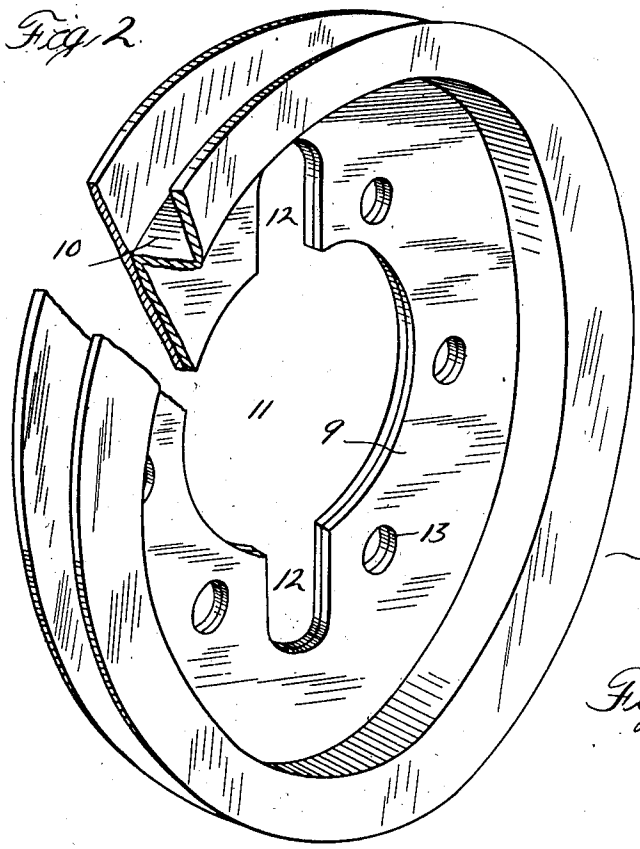
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CUSHION DEVICE FOR TOOLS AND THE LIKE

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Fig. 2.



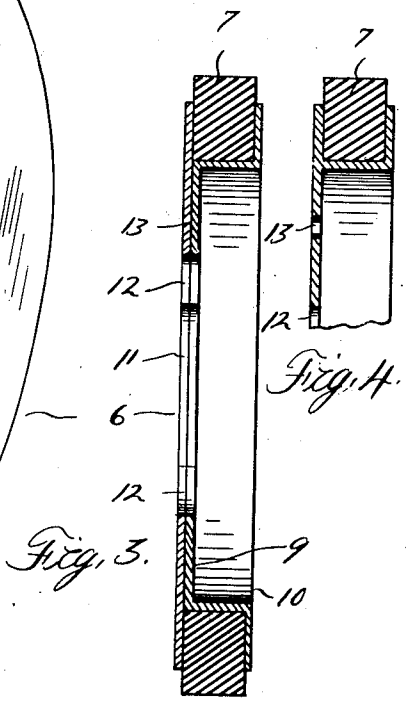


Fig. 4.

Fig. 3.

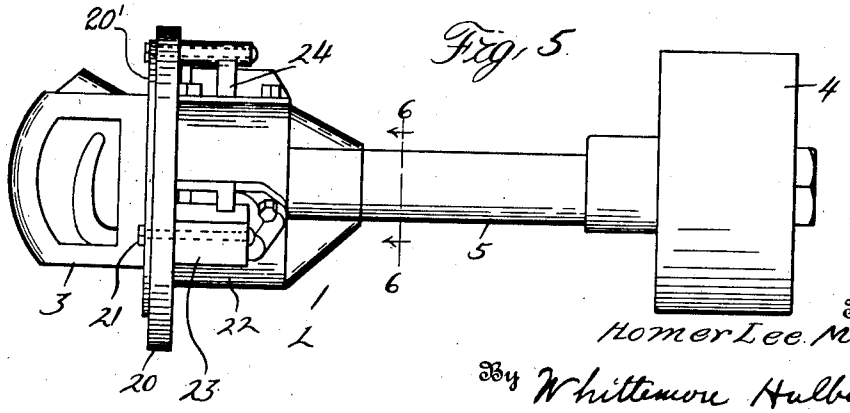


Fig. 5.

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UNITED STATES PATENT OFFICE.

HOMER LEE MOORE, OF DETROIT, MICHIGAN.

CUSHION DEVICE FOR TOOLS AND THE LIKE.

Application filed May 9, 1927. Serial No. 190,125.

This invention relates generally to attachments for tools such as hand manipulated electrically or air operated polishing tools, and consists of certain novel features of construction, combinations and arrangements of parts as will hereinafter be more fully described and particularly pointed out in the appended claims.

In the accompanying drawings:

Figure 1 is a perspective view of a tool with an attachment embodying my invention applied thereto.

Figure 2 is a detailed fragmentary perspective view of the attaching member or retainer.

Figure 3 is a vertical sectional view through the retainer with the resilient annulus applied thereto.

Figure 4 is a fragmentary sectional view similar to Figure 3 but showing a slightly modified construction.

Figure 5 is a side elevation of a tool with a slightly modified attachment applied thereto.

Figure 6 is a cross sectional view taken on the line 6—6 of Figure 5.

Figure 7 is a detailed perspective view of the attachment shown in Figures 5 and 6.

Tools of the class described are quite heavy and are frequently dropped or thrown to the floor during the course of a day by workmen in factories. When the floors are of concrete such tools are oftentimes broken or otherwise damaged when dropped or thrown as described. This necessitates repairs which oftentimes are quite costly and cause delays.

With the present invention the difficulties just enumerated have been obviated entirely by the provision of an attachment which may be readily applied to such tools and that will cushion them so as to prevent breakage and damage thereto when dropped or thrown upon concrete or similar flooring.

Referring now to the drawings, 1 is a hand manipulated electrically or air operated polishing tool having a metallic casing 2, handle 3, and polishing wheel 4. As usual, the casing 2 has a tubular portion 5 surrounding the rotary drive shaft (not shown) of the wheel 4, and serving as a handle or grip portion for the operator.

In use, one hand of the operator grips the handle 3 while the other hand grasps the tubular portion 5 of the casing so as to guide or hold the wheel 4 in proper position with respect to the work.

In the present instance the tool 1 is provided with an attachment 6 that will effectively cushion the tool so as to prevent breakage or damage thereto when dropped or thrown to the floor. As shown, this attachment comprises a resilient annulus 7, and an attaching member or retainer 6. Preferably the annulus 7 is formed of rubber and has a substantially uniform cross section throughout its length, while the retainer has a substantially flat disk portion 9 attached to the casing 2 adjacent to the handle 3 and has an outwardly opening channel shaped rim portion 10 holding the rubber annulus 7. With this construction the disk 9 may be formed of two sheet metal parts such as shown in Figures 2 and 3, or in one part as shown in Figure 4, however, in both instances the disk 9 is provided with a central opening 11 and opposed slots 12 for receiving the casing 2 and handle 3 respectively, and is provided about said opening 11 between said slots 12 with a series of apertures 13 for receiving the usual bolts 14 that form a standard part of the tool assembly.

Thus, with the construction as described, the attachment 6 may be readily applied to the tool 1 by merely loosening and removing the bolts 14, then slipping the disk 9 over the handle 3 and upon the casing 2, and finally adjusting the bolts 14 to secure the disk firmly in position upon the casing. The tool 1 may then be dropped or thrown upon the floor without being damaged as the resilient annulus 7 will absorb all shocks and jars and will adequately cushion and serve as a shock absorber for the casing 2.

In Figures 5 to 7 inclusive I have shown a slight modification in which the attachment comprises a centrally apertured disk 20 of rubber secured to a metal plate 20'. The plate is also centrally apertured and both the plate and rubber disk are provided with opposed slots similar to the slots 12 for permitting the attachment to be secured by the usual bolts 21 to the casing 22 of the tool. Preferably blocks 23 of rubber are secured to the inner face of the disk 20 at spaced points thereof so as to overlie and cushion laterally extending projections 24 of the casing 22 of the tool.

While it is believed that from the forego-

ing description, the nature and advantage of my invention will be readily apparent, I desire to have it understood that I do not limit myself to what is herein shown and described and that such changes may be resorted to when desired as fall within the scope of what is claimed.

What I claim as my invention is:

1. A shock absorber for tools and the like comprising a disk having an aperture for receiving the casing of a tool, and shock absorbing means carried by said disk.

2. A shock absorber attachment for tools and the like comprising a disk having a central aperture for receiving a portion of a casing of a tool and having other apertures for receiving bolts constituting standard parts of the tool, and resilient means carried by said disk so as to cushion the casing of said tool.

3. A shock absorbing attachment for hand manipulated electrically operated tools comprising an annular member attachable to a portion of the tool, and means of resilient material carried by said member so as to project a sufficient distance radially from the tool to cushion the latter when dropped or thrown to a floor or the like.

4. A shock absorbing attachment for a hand manipulated electrically operated tool having a casing, and a handle secured to the casing at one end of the tool, comprising means formed of resilient material for cushioning said tool, and attaching means for said resilient means including a member attachable to the casing of said tool, said last mentioned member having apertures for receiving a portion of the casing and said handle at one end of said casing.

5. In combination, a tool having a casing, and a handle at one end of the casing, and an attachment for said casing including an annulus of resilient material, and attaching means for said annulus including a disk sleeved upon and secured to a portion of said casing adjacent to said handle.

6. In combination, a hand manipulated electrically operated tool having a casing, provided with an enlargement at one end thereof, and a shock absorber attachment for said tool including a disk sleeved upon said enlargement, and resilient cushioning means carried by said disk.

In testimony whereof I affix my signature.

HOMER LEE MOORE.