April 5, 1932. A. W. GELPCKE 1,852,296

REMOVABLE GRIP FOR TOOL HOLDERS

Filed Sept. 24, 1931

FIG.-1

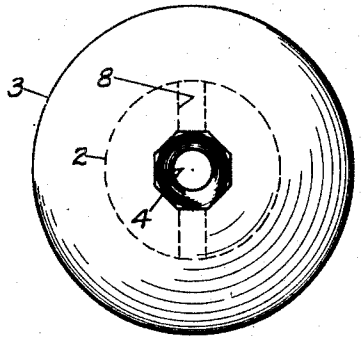


FIG.-2

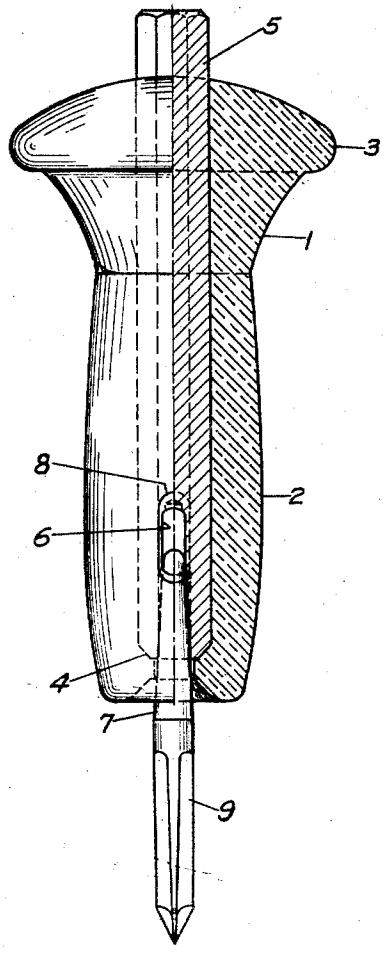
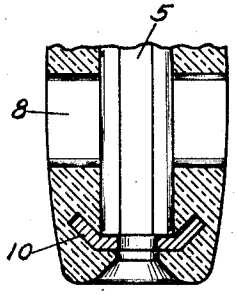


FIG.-3



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UNITED STATES PATENT OFFICE

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REMOVABLE GRIP FOR TOOL HOLDERS

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This invention relates to a removable grip for a special tool holder, more especially a tool holder used for holding drills used for making holes in tiling, concrete, and the like for any purpose such as the mounting of fixtures of different kinds.

In the past it has been the custom to either use the tool holder without any grip, or provide the tool holder with a non-removable grip.

It is therefore the object of my invention to provide a grip for the special tool holder to be later described, so constructed that it fits the hand of the operator and is provided with protecting means, whereby blows, careless or otherwise, glancing from the end of the tool holder will not strike the hand of the operator.

It is another object of my invention to provide a grip which may be removed without difficulty from the tool holder.

Another object of my invention is to provide a removable grip which is so constructed as to properly position the tool holder in the grip when the holder is forced into position in the grip.

With these objects in mind, my invention will be readily understood by reference to the annexed drawings, wherein:

Figure 1 is a plan view looking down on the top of the grip showing a special tool holder in position therein.

Figure 2 is a part elevation and part-sectional view through the grip showing the holder and a special tool carried by the holder.

Figure 3 is a sectional view of the tool end of the holder, showing a modified form of construction for positioning the tool holder.

In the drawings, wherein like numbers refer to corresponding parts of the various views, 1 is a grip having a portion 2 to fit the hand of the operator, and an enlarged head or flange 3 which serves at least two purposes which will be later referred to. The grip 1 is provided with a substantially uniform bore for practically the entire length of the grip. The bore terminates at 4 in a shoulder or seat adapted to receive a corresponding beveled part of a tool holder 5.

The tool holder 5 illustrated, comprises a polygonally shaped piece of metal, preferably of suitable steel, the bore in the grip 2 being similarly shaped so as to prevent the holder from turning in the bore. The tool holder 5 is provided with a transverse slot 6, and from the slot 6 to the end 4, there is provided a tapered hole to receive the tapered end 7 of a tool; for example, a "Rawldrill" especially adapted for use in making holes in tiles, concrete, brick, and the like.

The grip 2 is improved with a transverse slot 8 to cooperate with the slot 6 in the tool holder 5, whereby a wedging tool may be inserted to force the tapered end 7 of the drill 9 out of the tool holder for any purpose desired.

The opposite end of the tool holder 5 extends a short distance above the flange 3 of the grip 1. From this construction it will be seen that blows glancing from the end of the tool holder 5 will strike the flange 3, thereby protecting the hand of the operator. The grip 1 with its integral flange 3 is preferably made of a rubber compound vulcanized to a point whereby the grip will be relatively stiff, yet have considerable resilience so that on wetting the bore with water, the drill holder 5 may be easily hammered or forced into the position shown in Figure 2.

After waiting for the moisture to dry out, or by artificially drying out, the implement is then ready for use, and the grip will not slide or slip on the tool holder while the implement is in use; but if, after considerable usage, the flange 3 becomes battered and it is desired to change the grip, or the tool holders in the grip, a series of rapid blows on the flange head 3 will cause the holder to move longitudinally out of the grip.

In Figure 3 I have shown a metallic member 10 moulded into the drill end of the grip so as to provide a re-enforced seat for the end of the tool holder 5, but I do not wish to be limited to either of the exact means shown for positioning the tool holder in the grip.

Having thus described my invention, what I claim is:

1. A removable grip for a tool holder comprising a hollow member internally shaped to receive the tool holder, said member being

of rubber vulcanized to a point where it is relatively stiff, yet very resistant to blows, said member having a part to be gripped by the hand and also having a flanged head for the purpose described, said holder when in operative position in the grip extending beyond the flanged end of the grip, and means positioned at the tool end of the grip to properly locate the tool holder longitudinally in the grip, said grip having a tool opening in alignment with a corresponding opening in the tool holder.

2. A removable grip for a tool holder comprising a member of material having both stiffness and resilience to a considerable degree, said member having a bore for the tool holder extending nearly its full length, with means positioned at the tool end of the grip to properly locate the tool holder longitudinally in the grip so the holder is exposed at one end of the grip, said grip having a protecting flange adjacent the exposed end of the tool holder, said grip having a tool opening in alignment with a corresponding opening in the tool holder.

3. A rubber grip for a tool holder having a uniform bore for nearly its entire length to receive the tool holder, one end of the grip being provided with means to stop the tool holder when forced into said bore, said grip having a protecting flange at the free end of said bore and the tool holder extending beyond the grip at said flanged end.

4. A removable grip of resilient material having a bore to receive a tool holder, means to properly position the holder in the bore so one end extends beyond the grip, said grip having a flanged head at the end from which the holder extends whereby blows glancing off the tool holder will strike the flange and not the hand of the operator on the grip, said flange also serving to receive blows thereon applied to cause the tool holder to come out of the grip.

5. A removable rubber grip for a tool holder which has a transverse slot for use in ejecting a tool from the holder, said grip having an open bore from one end to a point near the other end to receive said tool holder, and a smaller opening at the other end of said grip to allow a tool to be passed into the holder, means within the grip at said point to stop the tool holder when it is forced into the grip, said holder extending beyond the grip at the open bore end, said grip having a protecting flange at the end adjacent the open bore from which the holder projects, and a transverse slot to cooperate with said slot in the tool holder.

6. A removable grip for a tool holder, having a bore to receive the holder, the grip being provided with means to position the holder in the grip so only one end of the holder protrudes from the grip, said grip having a protecting flange adjacent said protruding end of the holder.

7. A removable grip for a tool holder, having a protecting flange at one end and a bore to receive the holder, and means for locating the holder in the grip so one end extends beyond the flanged end of the grip, the material of the grip being such that it will seize to the holder sufficiently to prevent relative slipping between the two while blows are being applied to the holder, but will force the holder to move out of the grip by the application of blows to the flanged end of the grip, said grip having a small opening at the end opposite said flanged end to allow tools to be inserted into the holder.

In testimony whereof, I affix my signature.

ALFRED W. GELPCKE