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RECOIL-LESS HAMMER HEAD CONSTRUCTION

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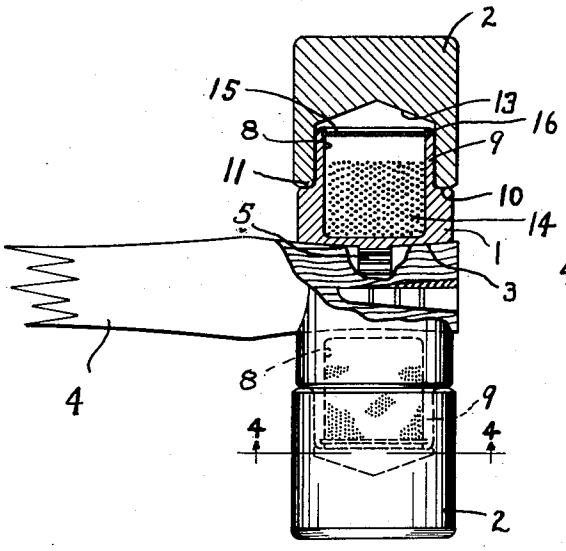


FIG. 1.

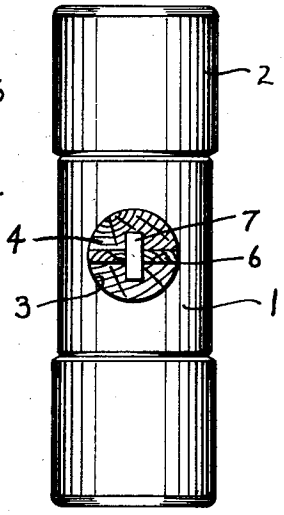


FIG. 2.

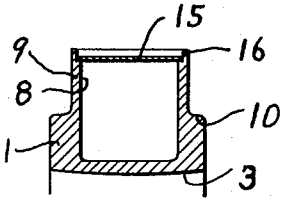


FIG. 3.

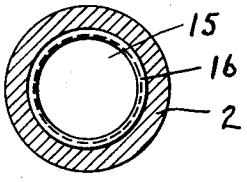


FIG. 4

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RECOIL-LESS HAMMER HEAD CONSTRUCTION

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2 Claims. (Cl. 145—29)

This invention relates to hammer constructions of the type in which the head of a hammer is weighted with a shifting mass of material in a chamber of the head so that when a blow is struck the inertia of the material in the chamber moving in the direction of the blow will counteract the tendency of the hammer head to recoil or rebound.

This type of hammer and its advantages are well known. The head of the hammer is usually provided with a chamber extending longitudinally thereof and in the chamber is located a quantity of heavy comminuted material as fine lead shot. Commonly the chamber is provided in the striking end of the head by the endwise cutting of a cylindrical bore, lead shot being deposited in the bore and a plug sealed therein to form the closed chamber. Every time a blow is struck the impact of the shifting mass of lead shot is thus received directly on the sealed plug. The force of the mass in dampening the rebound and eliminating recoil is transmitted to the plug in such a way as to cause the plug to work loose, become unseated, and render the hammer useless for its intended purpose.

An object of the present invention is to provide a construction in which the striking element of this type of hammer is separated from direct impact by the movable weight and thus the useful life of the hammer greatly increased.

The invention resides in the particular arrangement, construction, and relationship of the various elements of the hammer head as disclosed in the accompanying specification in which the above and other objects of the invention will be apparent.

In the drawings,

Fig. 1 is a side elevational view of a hammer embodying the invention and partially in section to show details of construction;

Fig. 2 is an end elevation of the head as viewed from the right of Fig. 1;

Fig. 3 is a fragmentary sectional view of one end of the recessed body member showing the assembly step of inserting a disc to close off the recess and form a sealed chamber in said member; and

Fig. 4 is a sectional view on line 4—4 of Fig. 1.

The hammer head as shown by the drawings comprises a body member **1** and cap portions **2** fitted at either end of the body member. A transverse bore **3** is located centrally of the body **1** to receive a handle **4** crosswise of the head. The bore **3** is preferably tapered outwardly toward each end from a central cylindrical section provided with knurled ridges as at **5**. The handle (Fig. 2) may be anchored to the head by driving the same into the bore **4** and wedging it as with a wooden wedge piece **6** and a steel wedge **7** set crosswise of the wood wedge. Thus the handle is securely attached against removal.

The body member **1** is preferably of metal, and is cup-shaped at either end to form recesses **8**. The outer end

portion **9** of the wall of the cupped body member is of reduced diameter and provides a shouldered peripheral ledge at **10** for the seating of the outer rim **11** of the telescopically fitted cupped shaped striker cap **2**. The cap **2** is preferably of hard plastic material embracing the end of the body member **1** with its inner base wall at **13** of the cup in spaced relation to the rim of the wall **9**. The cap **2** serves as the striker element of the hammer and is suitably press fitted and cemented to the body member.

The recess **8** is partially filled with a movable weighted material as the mass at **14** of fine lead shot, preferably of the type known as dust shot. At its outer rim the recess **8** is provided with a closure disc **15**. The disc **15** is seated on the edge of the wall **9** being secured into position by the shouldered lip **16**. As in Fig. 3 which illustrates the step of assembling the disc **15** into place, the edge of the disc rests on the shouldered rim of the wall **9** being located by the lip **16** which is then turned over onto the upper edge of the disc as by peening the metal of the lip to anchor the closure disc into place. The disc thus forms a closed chamber for containing the charge of dust shot and for sealing the shot from direct contact with the striker cap **2**.

As will be noted the force of the moving mass **14** in striking a blow with the hammer will be indirectly transmitted to the striker cap **2** through the telescopically attached walls thereof abutting at the shoulder **10**. The mass of shot will move directly against the closure disc which is effectively sealed by the lip **16** against removal. Thus the oppositely acting force of the movable weight in counteracting the recoil of the head will have no tendency to tear at the cap member and jar or pry the same from its anchorage on the body member.

What is claimed is:

1. In a hammer, a hammer head construction comprising a body member having means for attachment of a handle thereto and a cap member for striking a blow with said hammer, said cap and body members having integrally formed opposed cup-shaped recesses with said body member being telescopically received by said cap and provided with an external wall of reduced cross section forming a shoulder against which the cupped rim of said cap is seated, the cup of said body member having an internally shouldered rim forming a lip with a closure disc seated on said rim and engaged by said lip to anchor said disc against removal therefrom, a quantity of weighted material partially filling the chamber formed by the disc and recess of said body member, the bottom of said cupped recess of the cap member being in spaced relation to said disc and said disc receiving the direct impact of said weighted material in shifting the material towards said cap when a blow is struck by the hammer.

2. In a hammer, a hammer head construction comprising a cylindrical metallic body portion having a transverse bore centrally thereof for receiving a handle crosswise of the body portion, said body portion having oppositely directed outwardly facing cupped recesses at the ends thereof with the outer wall section at said ends being of reduced diameter and providing a shouldered seat spaced from the ends, a striker cap of cupped formation having an outer wall integral therewith of substantially the diameter of said body portion and being telescopically received at each end of the body and anchored against said shoulders, said cupped recess at each end of the body portion having a shouldered rim formed with an outer peripheral lip, a disc seated on said shoulder closing each recess with said lip being turned against said disc to anchor the same in the mouth of said recess, said discs

and the adjacent walls of said caps being in spaced relation with the chamber formed by said cupped recess of a body portion and a closure disc being partially filled with lead shot material.

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