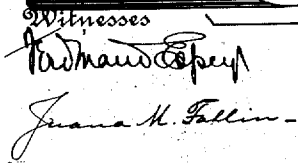


APPLICATION FILED JAN. 29, 1912.

Patented Nov. 26, 1912.



By

H. A. Hickey, Attorneys.

UNITED STATES PATENT OFFICE.

EDGAR O. HUBBARD, OF LEDA, VIRGINIA.

HAMMER.

1,045,145.

Specification of Letters Patent.

Patented Nov. 26, 1912.

Application filed January 29, 1912. Serial No. 674,126.

To all whom it may concern:

Be it known that I, EDGAR O. HUBBARD, citizen of the United States, residing at Leda, in the county of Halifax and State of Virginia, have invented certain new and useful Improvements in Hammers, of which the following is a specification.

This invention relates to hammers, and more particularly to a hammer having a cushioned head.

It is one aim of the invention to provide a hammer having a head which is so cushioned that the shock of impact of the head with a nail or the like, being driven, will be to a great extent absorbed and will not be imparted to the hand of the person using the hammer.

The invention also aims to provide a hammer having a head so cushioned that by the use of the hammer a nail, or the like, may be more readily driven and with fewer blows than by the use of the ordinary hammer, the head of which is solid.

A further object is to provide a hammer of the type mentioned in which the cushioning element may be readily removed at any time and replaced should it become so worn or compressed as to render the device inefficient.

Also, the invention contemplates the provision of a hammer in which the head proper may be replaced at any time, should it become chipped or worn away without the necessity of replacing the entire cushioning device.

For a full understanding of the invention reference is to be had to the following description and accompanying drawing, in which:—

Figure 1 is a side elevation of a hammer constructed in accordance with the present invention. Fig. 2 is a fragmentary view partly in side elevation and partly in longitudinal section showing the construction of the hammer head and the cushioning device. Fig. 3 is a vertical transverse sectional view on the line 3—3 of Fig. 2. Fig. 4 is a view similar to Fig. 2 but illustrating a slight modification of the invention. Fig. 5 is a similar view illustrating a further modification. Fig. 6 is a group perspective view illustrating the elements of the cushioning device about to be assembled.

Corresponding and like parts are referred to in the following description and indicated

in all the views of the accompanying drawing by the same reference characters.

In the drawing, the numeral 1 indicates the head of the hammer which is fitted at the end of the usual handle 2 and this head 1 may be provided with the usual claws 3 or may be of any other well-known type. The head is formed with a reduced threaded portion 4 onto which is threaded one end of a sleeve 5 in which the cushioning device of the present invention is housed. The portion 4 at its end is flat and serves as a seat for the cushion as will be presently explained. The sleeve 5 near its outer end, is reduced as at 6 to form an inwardly presented annular shoulder 7 and beyond its reduced portion is formed with a concave seat 8. In order that the sleeve may be readily unscrewed from the portion 4 of the head 1 it is flattened upon opposite sides as indicated at 9, it being understood that the jaws of a wrench may be engaged with these sides 9 for the purpose stated.

The head proper of the hammer is indicated in Figs. 2, 5 and 6 of the drawing by the numeral 10 and has a flat driving face 11 and a squared portion 12 with which may be engaged a wrench for a purpose to be presently explained. The rear side of the head is substantially semi-cylindrical as shown in the said figures and is only partly received within the concavity 8 of the outer end of the sleeve 5. The head 10 is formed centrally with a threaded stud 13 which is removably threaded into a socket 14 formed in the neck 15 of a retaining head 16. As illustrated in Figs. 3 and 6 of the drawing the sleeve 5 is formed interiorly inwardly of the shoulder 7 with flattened wall portions 17 lying in parallel planes and the retaining head 16 is flattened upon opposite sides as at 18 and is fitted slidably between the said wall portions 17 and is, as will be readily understood held against rotation, within the sleeve, by reason of the engagements of its flattened sides against the said wall portions.

A cushion in the form of a circular block 19 of rubber or other suitable cushioning material is arranged within the sleeve 5 and rests at one side against the flat outer end of the reduced portion 4 of the head 1 and at its opposite side against the inner face of the retaining head 16. This cushion serves to yieldably resist the inward sliding move-

ment of the retaining head in the sleeve 5, as will be apparent from inspection of Fig. 2 of the drawing. At this point it will be apparent that when a blow is struck with the hammer the head proper, indicated by the numeral 10, will be momentarily forced inwardly, thereby compressing the cushion 19, this cushion absorbing the shock of impact of the face 11 of the head 10 against the part struck. In order to cushion the movement of the retaining head 16 as it returns to normal position, after each blow has been struck, a washer 20 is arranged upon the neck 14 of the head and between the shoulder 7 and the outer face of the said head in the manner illustrated in Figs. 2, 4 and 5.

It will be apparent from inspection of Figs. 2 and 5 of the drawing that should an exceptionally hard blow be struck with the hammer or should the head proper, 10, strike unevenly, the convex rear side of the said head coming in contact with the wall of the concavity 8 of the sleeve 5 will serve immediately to center the head so that all portions of the cushion 19 would be equally compressed.

If desired, the stud 13 may be formed directly upon the neck 14 of the retaining head 16 as indicated by the numeral 13^a in Fig. 5 of the drawing in which event the head 10 will be formed with a socket 14^a to receive the said stud. In either event it will be readily understood that a wrench may be applied to the squared portion of the head 10 for the purpose of removing the head, so that a new head may be fitted into place, or so that the parts may be disassembled after the sleeve 5 is unthreaded from the threaded portion 4 of the head 1.

In the form of the invention shown in Fig. 4 of the drawing, the sleeve 5 is provided at its outer end with an inwardly projecting annular flange 21 which serves the same purpose as the shoulder 7 and the inner face of the head proper, which in this figure is indicated by the numeral 22, is flat as is also the outer end of the said sleeve.

Having thus described the invention what is claimed as new is:—

1. In a hammer, a body having a sleeve, a head having a shank provided with a retaining head slidably fitted in the sleeve, and cushioning means arranged within the sleeve at opposite sides of the retaining head.

2. In a hammer, a body having spaced abutments, a head having a shank provided

with an enlargement working between the abutments, and cushioning means arranged between each of the abutments and the said enlargement.

3. In a hammer, a body having a sleeve formed at its outer end with a concavity and interiorly with a shoulder, a cushioning member arranged within the sleeve, a head having a convex side partly received within the concavity of the sleeve and having a shank extending from its said side and provided with a retaining head slidably fitting within the sleeve between the cushioning member and the said shoulder.

4. In a hammer, a body having a sleeve extending therefrom, a cushioning member arranged within the sleeve, the sleeve being provided interiorly with plane wall portions, a retaining head having flattened sides, the said head being slidably fitted between the plane wall portions of the sleeve and resting against the cushioning member, and a driving head having threaded connection with the retaining head.

5. In a hammer, a body having a sleeve extending therefrom, a cushioning member arranged within the sleeve, the sleeve being provided interiorly with plane wall portions, a retaining head having flattened sides, the said head being slidably fitted between the plane wall portions of the sleeve and resting against the cushioning member, the sleeve being formed interiorly with a shoulder opposing that side of the retaining head opposite the side which bears against the cushioning member, and a cushioning element arranged between the said shoulder and the adjacent side of the retaining head.

6. In a hammer, a body having a threaded stud, a sleeve threaded at one end onto the stud, a cushioning member arranged within the sleeve and resting against the end of the stud, the sleeve being formed interiorly with a shoulder, a driving head having a shank provided at its inner end with a retaining head slidably fitted within the sleeve and resting at one side against the cushioning member, and a cushioning washer arranged upon the said shank and fitting between the shoulder and the adjacent side of the said retaining head.

In testimony whereof I affix my signature in presence of two witnesses.

EDGAR O. HUBBARD. [L. S.]

Witnesses:

SALLIE M. HUBBARD,
OVERTON C. HUBBARD.