

March 27, 1928.

1,663,886

A. F. LUTCH

HAMMER

Filed Sept. 29. 1926

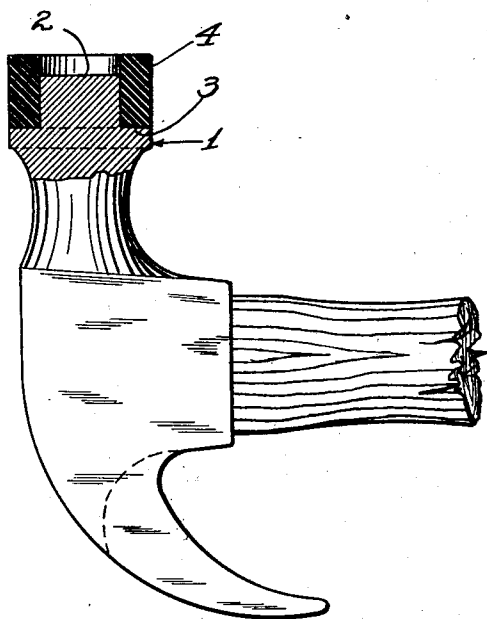


Fig. 1

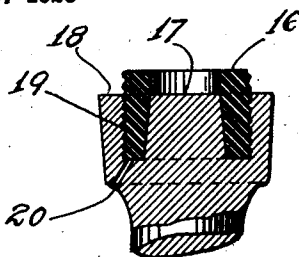


Fig. 4

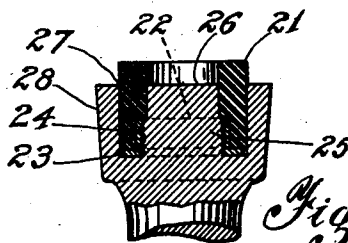


Fig. 5

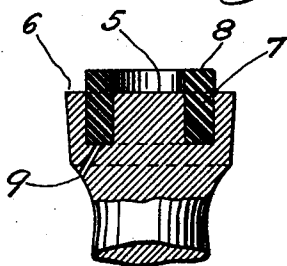


Fig. 2

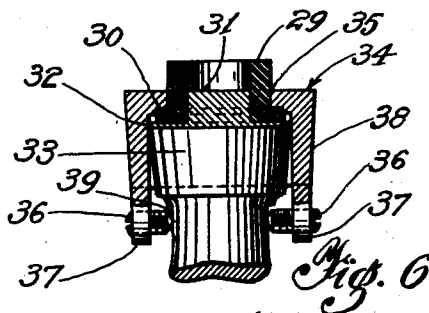


Fig. 6

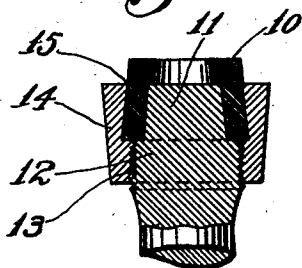


Fig. 3

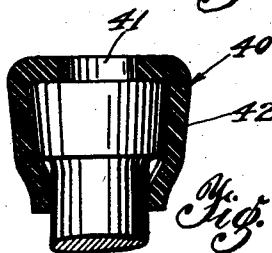


Fig. 7

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UNITED STATES PATENT OFFICE.

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HAMMER.

Application filed September 29, 1926. Serial No. 138,510.

This invention relates to hammers and more in particular to hammers used by carpenters and others in connection with wood-work.

5 The primary object of this invention is to provide a hammer by means of which nails may be driven in wood without damaging the latter by dents or cuts, such as will occasionally happen when the person using
10 the hammer misses the nail to be driven, or when the latter is nearly driven home. Another object of this invention is to provide a hammer having wood protecting means which can be easily applied, or re-
15 moved for renewal. A further object of this invention is to provide a wood protecting device which can be readily attached to a common carpenter hammer, and removed therefrom when not needed. Still another
20 object is the provision of such a hammer which is simple in construction, and which can be manufactured at relatively low cost. Additional features and advantages of this invention will appear from the following de-
25 scription considered in connection with the accompanying drawing forming part of this application, and in which:

30 Fig. 1 is a fragmentary view, partly in section, of a hammer provided with the simplest form of my invention.

Fig. 2 is a sectional view through the strike-head of a hammer showing a modification of my invention.

35 Figs. 3, 4 and 5 show additional modifications of my invention adapted to be used in connection with especially built hammers.

Fig. 6 shows another modification of my invention adapted for use in connection with an ordinary carpenter hammer.

40 Fig. 7 represents still another alternative construction of my invention, also adapted to be used with an ordinary carpenter hammer.

45 As is well known, it is customary for a carpenter doing first class woodwork, such as for interior trimming or cabinet work, to drive nails partly with an ordinary hammer and then drive the nail home by means of a so-called nail-set, for the purpose of not
50 damaging or indenting the wood. However, if the carpenter misses the nail, being on account of carelessness or because said nail is in a very inaccessible place, the woodwork is more or less indented and a great deal of
55 refinishing with planers, files or sand-paper becomes necessary to remedy the harm done.

It is the purpose of my invention to prevent such damages to the woodwork and to this end I have invented several constructions of hammers in which I have incorpo-
60 rated a protective ferrule made of any suitable, wear resisting and resilient, material such as rubber. This resilient ferrule may be permanently or removably secured to the hammer in a variety of ways, and in the
65 drawing I have shown various alternative constructions by means of which said ferrule may be secured.

Referring to Fig. 1, the strike-head 1 of the hammer has been turned down to pro-
70 duce a core 2 and a shoulder 3 upon which is placed the resilient rubber ferrule 4 which is secured on the core in any desired manner, such as by cementing or by relying on
75 the elasticity of the ferrule proper. The composition of the latter must be such that it will not mar the woodwork while at the same time it will prevent the outer face of the core 2 from coming in contact with the
80 woodwork.

In the modified construction shown in Fig. 2, the strike-head has been machined to produce the core 5 surrounded by the crown 6, and in the intermediate groove 7
85 the resilient ferrule 8 is properly inserted and secured. On account of the close fitting engagement of the latter in the groove, it is found advisable to drill in the strike-head a vent-hole 9 to enable the air confined be-
90 tween the ferrule and the bottom of the groove to escape. As is well known the purpose of the crown 6, in addition to supporting the resilient ferrule, is to permit driving nails by sidewise strokes of the hammer, in case that direct blows cannot be struck.
95

Fig. 3 shows one method of securing a slightly conical ferrule 10 for quick removal. In this construction, the strike-head of the hammer has been turned to produce the
100 slightly conical core 11 and the enlarged portion 12 upon which threads 13 have been cut. These threads are engaged by corresponding ones cut inside of the collar 14, the upper part of which has been properly
105 bored out along conic lines paralleling the sides of the core but so as to leave an annular space 15 in which the resilient ferrule is inserted. It will be noted in this construction that the more the collar 14 is
110 screwed down, the tighter the ferrule will be clamped in place. On the other hand, the tapered core will facilitate the removal

of the ferrule from the hammer by unscrewing the collar. If desired, locking means, such as set-screws could be furnished to prevent loosening of the collar, but in
 5 practice it appears that the frictional engagement due to the resilient ferrule is sufficient to lock the collar in place.

Another method of removably mounting the resilient ferrule 16 is shown in Fig. 4.
 10 The strike-head of the hammer has been machined to provide a central conical core 17 surrounded by the crown 18 inside of which have been cut the threads 19 which are engaged by corresponding threads molded in the outer periphery of the ferrule. A
 15 vent-hole 20 is also drilled in the strike-head for reasons which have been explained hereinbefore.

In Fig. 5, the ferrule 21 is molded on a
 20 metallic sleeve 22 having a flange 23 and internal threads 24, which engage similar threads cut on the enlarged base portion 25 of the central core 26. The ferrule fits within the groove 27 formed between the core
 25 and the crown 28.

My invention may also be modified to make it readily applicable to ordinary carpenter-hammers. In the construction shown in Fig. 6 the resilient ferrule 29 has a flange
 30 and is centrally supported by a removable metal core 31 provided with a flange 32 having approximately the same diameter as the strike-head 33 of the hammer. The core is first inserted in the ferrule and these two
 35 parts are then clamped on the hammer by means of a cap 34 having a central aperture 35 which fits about the body portion of the ferrule. This cap is secured on the strike-head by means of set-screws 36 which are
 40 screwed in the diametrically opposite lugs 37 formed integrally with the cylindrical sides 38 of the cap. If desired, the hammer may have flat spots 39 filed back of the strike-head to afford a better gripping surface for
 45 the set-screws.

In the modification shown in Fig. 7 the usual resilient ferrule employed in the above described constructions has been replaced by a thimble like resilient cap 40 having a central aperture 41 to expose the central portion of the face of the strike-head. The side
 50 42 of this cap is preferably made slightly conical, as shown, to provide a better engagement with the strike-head and the reduced part of the hammer immediately behind said head.

It will be understood, of course, that the various arrangements I have shown are merely suggestive of many that might be adopted in carrying out my invention, and
 60 I do not wish to be limited to the constructions shown otherwise than as specified in the appended claims.

I claim:

1. In combination with a hammer, a ferrule made of resilient material and having
 65 a flange at the base thereof, and means for securing said ferrule to the strike-head of said hammer, said means comprising a central core fitting within said ferrule and having
 70 a flange bearing on the face of said strike-head; a cap adapted to fit about said ferrule, flanges and strike head, and means for removably securing said cap on said strike-head.

2. In combination with a hammer, a ferrule made of resilient material and having
 75 a flange at the base thereof, and means for removably securing said ferrule to the strike-head of said hammer; said means comprising
 80 a removable non-resilient core adapted to fit centrally within a portion of said ferrule and having an integral flange bearing on the face of said strike-head; a cap fitting about said ferrule, flanges and strike-head,
 85 and means for removably securing said cap on said strike-head.

In testimony whereof I affix my signature.

ANTHONY F. LUTCH.