

No. 763,553.

PATENTED JUNE 28, 1904.

G. B. GODDARD.
MALLET.

APPLICATION FILED MAR. 12, 1904.

NO MODEL.

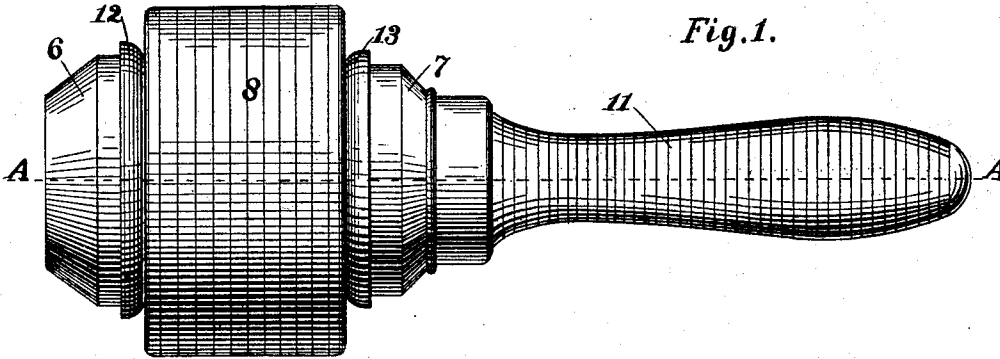


Fig. 1.

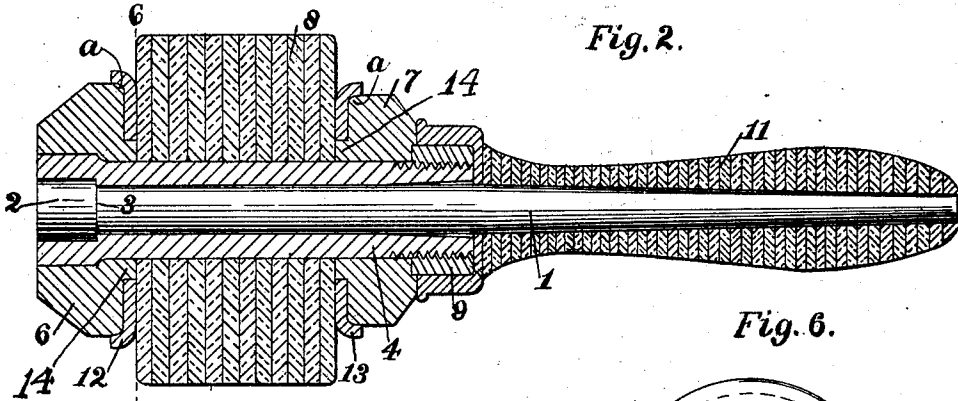


Fig. 2.

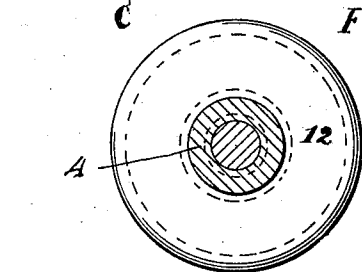


Fig. 4.

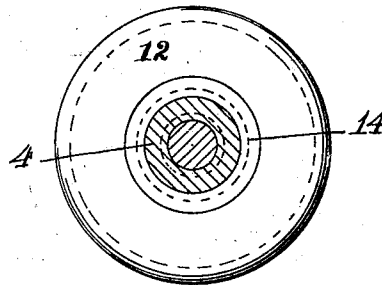


Fig. 6.

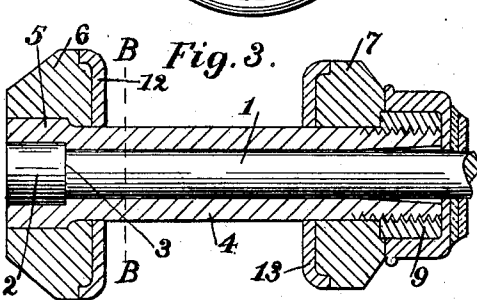


Fig. 3.

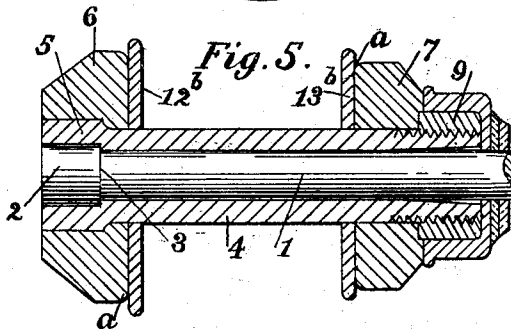


Fig. 5.

Witnesses.
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UNITED STATES PATENT OFFICE.

GEORGE B. GODDARD, OF BROCKTON, MASSACHUSETTS.

MALLET.

SPECIFICATION forming part of Letters Patent No. 763,553, dated June 28, 1904.

Application filed March 12, 1904. Serial No. 197,823. (No model.)

To all whom it may concern:

Be it known that I, GEORGE B. GODDARD, of Brockton, in the county of Plymouth and State of Massachusetts, have invented certain new and useful Improvements in Mallets, of which the following is a specification.

My invention relates to mallets of the class usually used in shoe-factories; and it consists in certain novel features of construction, arrangement, and combination of parts, which will be readily understood by reference to the description of the accompanying drawings and to the claims hereto appended and in which my invention is clearly pointed out.

The class of mallets to which my invention is applicable is that class in which the mallet-head is composed of a series of rawhide disks firmly clamped between two heavy metallic collars and in the use of which the blow when struck is received upon the edges of said rawhide disks. As heretofore constructed said heavy collars have been made of cast-iron, with their inner surfaces at right angles to their axes and their peripheral surfaces meeting said inner surfaces at right angles, thereby presenting a sharp peripheral corner which when the mallet has become somewhat worn tends to cut the outer disks of rawhide and cause them to break away, and as the rawhide becomes more worn the metal collar comes in contact with the handle of the die, thereby injuring said die-handle and also often so seriously injuring the collar itself as to render the mallet unfit to be refilled with new rawhide disks.

To obviate these objections is the object of my present invention; and to this end I construct the mallet as illustrated in the accompanying drawings, in which—

Figure 1 is an elevation of a mallet embodying my invention. Fig. 2 is a longitudinal section on line A A on Fig. 1. Fig. 3 is a longitudinal section of the metal portions of the mallet, illustrating a modification with the rawhide disks removed. Fig. 4 is a transverse section on line B B on Fig. 3 looking toward the left of said figure. Fig. 5 is another longitudinal section of said metal parts with the rawhide disks omitted and illustrat-

ing another modification, and Fig. 6 is a transverse section on line C C on Fig. 2 looking toward the left of said Fig. 2.

In the drawings, 1 is the handle-bolt, provided at one end with a head 2, the inner end of which forms a shoulder 3, as shown in Figs. 2, 3, and 5, said bolt being made straight for a portion of its length and tapered for the remainder of its length, as shown in Fig. 2. A metallic sleeve 4, provided with a head 5 at one end and a male screw-thread on its other end, the bore of said sleeve having an enlargement at its headed end to receive the head of the bolt 1 and having a gradually-expanding section at its other end, is fitted to the handle-bolt, as shown.

The mallet-head is composed in part of the heavy iron collars 6 and 7, and the rawhide disks 8 are clamped firmly together upon the sleeve 4 by the nut 9, as shown in Fig. 2.

That portion of the bolt 1 which projects beyond the threaded end of the sleeve 4 has secured thereon in any well-known manner the handle 11, which may be of disks of leather or of any other well-known material.

The collar 6 has a portion of the opening through it enlarged to receive the head of the sleeve 4, and the collar 7 has formed in its outer face a shallow hexagonal recess to receive the nut 9, all as shown in Figs. 2, 3, and 5.

So far as described the mallet is constructed substantially the same as the mallet shown and described in the Letters Patent No. 662,691, granted to me November 27, 1900.

In my present invention in order to overcome or reduce to a minimum the objections hereinbefore referred to I interpose between said collars 6 and 7 and the series of rawhide disks 8 the thin washers or collars 12 and 13, respectively, composed of a softer and tougher or less brittle material than the collars 6 and 7, the inner peripheral corners of said collars 6 and 7 being first rounded over, as shown at *a*. (See Figs. 2 and 5.) The collars 12 and 13 may have their outer portions turned over upon the peripheries of the collars 6 and 7, respectively, as shown in Figs. 1 and 2, or into a peripheral rabbet formed in the inner pe-

ripheral corners of said collars 6 and 7, as shown in Fig. 3, or they may be plain flat disks with their outer edges rounded, as shown in Fig. 5. The collars 12 and 13 may have a central opening therein to fit closely the periphery of the sleeve 4, as shown in Figs. 3 and 5, or said opening may be somewhat larger in diameter, so as to fit the peripheries of hubs 14, formed on the inner faces of the collars 6 and 7, as shown in Fig. 2. Either of these forms of the collars 12 and 13 will fulfil the objects of my invention fairly well; but I prefer the form in which their outer portions are turned over upon said collars 6 and 7, as shown in Figs. 1, 2, and 3. By the employment of these collars 12 and 13 in combination with the collars 6 and 7, having their inner peripheral corners rounded, as shown, a great advantage is obtained, first, in the durability of the rawhide portion of the mallet, and, second, in the protection conferred thereby upon the more expensive collars 6 and 7, as the rawhide becomes badly worn by receiving the impact of the blow upon the die-handle instead of the contact of said die-handle being with one or the other of the collars 6 and 7 when a blow is struck at either extreme from the proper central position longitudinally of the mallet-head, thereby preventing injury to said collars 6 and 7, so that when the rawhide is so worn as to necessitate the refilling of the mallet-head the collars 6 and 7 will be in fit condition, and the only parts to be replaced besides the rawhide are the collars or disks 12 and 13, which may readily be supplied at a small cost and the mallet be made as good as new.

The collars or disks 12 and 13 may be made of a comparatively soft and tough metal, as brass or copper, of leather, or any other strong tough material not easily breakable which will serve to protect the inner corners of the collars 6 and 7 from being badly chipped or broken when the rawhide portion of the mal-

let-head is worn down to the peripheries of the collars 6 and 7.

What I claim as new, and desire to secure by Letters Patent of the United States, is—

1. In a mallet of the class described, the combination with a series of rawhide disks forming the blow-imparting portion of the head, of a pair of clamping-collars arranged one on each side of said series of rawhide disks, and having their peripheral inner corners rounded; and means for clamping said disks firmly between said collars.

2. In a mallet of the class described, the combination of a handle-carrying bolt or spindle; a pair of clamping-collars carried by said spindle and having their inner peripheral corners rounded; a series of rawhide disks arranged side by side between said clamping-collars; an annular disk of softer and tougher material than said clamping-collars arranged on each side of said series of rawhide disks, and between them and the said clamping-collars; and means for clamping all of said collars and disks firmly together.

3. In a mallet of the class described, the combination with a handle bolt or spindle a pair of heavy clamping-collars carried by said spindle and having their inner peripheral corners rounded; a series of rawhide disks mounted between said clamping-collars and surrounding said spindle; an annular disk or collar of softer and tougher material than said heavy clamping-collars, interposed between each of said heavy clamping-collars and said rawhide disks and each having its outer portion turned over upon a peripheral portion of a contiguous clamping-collar.

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

GEORGE B. GODDARD.

Witnesses:

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