Oct. 27, 1964 M. T. MARIETTA 3,153,973

PAD FOR SHIELDING AN EXPOSED END OF A FASTENER

Filed March 6, 1962

FIG. 1.

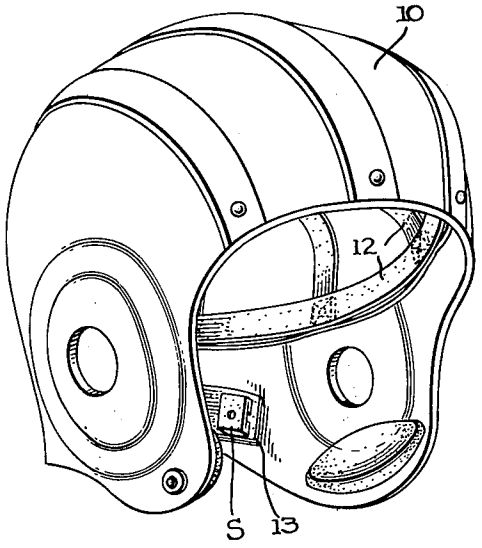


FIG. 2.

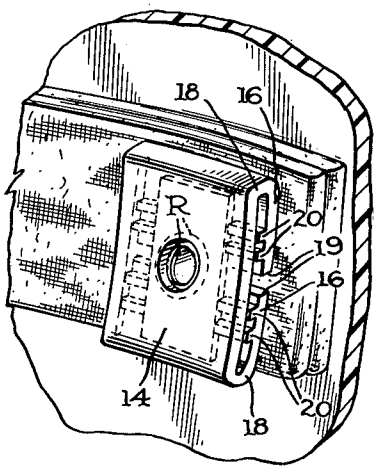


FIG. 3.

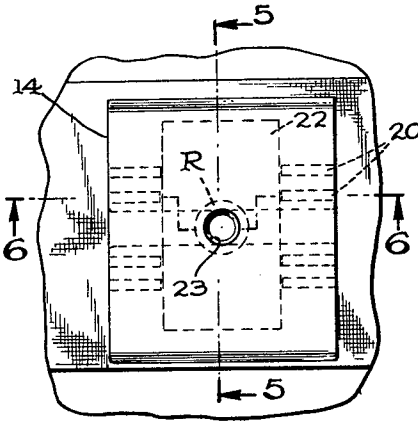


FIG. 4.

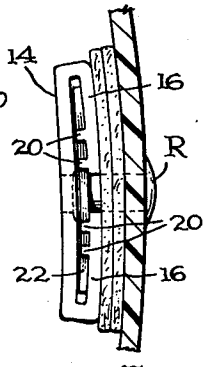


FIG. 5.

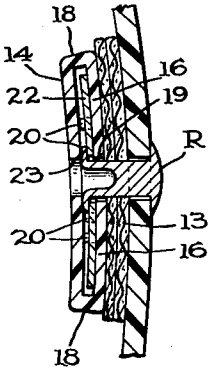


FIG. 6.

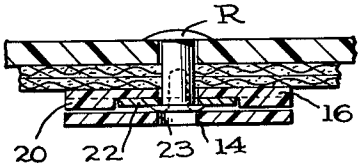
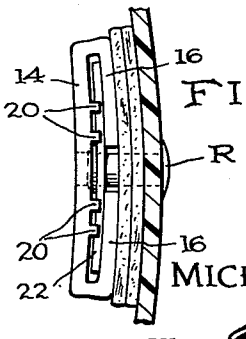


FIG. 7.



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PAD FOR SHIELDING AN EXPOSED END OF A FASTENER

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1 Claim. (Cl. 85—50)

This invention relates to a pad for shielding an exposed end of a fastener such as the exposed inner ends of rivets which are commonly used in the construction of athletic helmets.

In most athletic helmets, it is common practice to attach the straps of the head suspension means to the helmet shield by employing rivets. A thin metal disc or plate serving as a washer is usually slipped over the inner end of the rivet to provide a bearing surface for the peened rivet end and also tends to prevent separation of the rivet from the strap material. In athletic games such as football, the helmet is subjected to severe blows, and frequently, the impact of the blow will cause the exposed rivet end and the washer to be driven against the wearer's head, causing possible injury.

One of the objects of the present invention is to provide an effective shield or cushioning pad which completely covers the metal washer and the edges of the rivet, thus preventing the same from contacting the head of the wearer even through a heavy blow may be directed against the outer surface of the helmet shell.

Another object of the invention is to provide a shielding device which cannot become dislodged by twisting of the helmet on the head of the wearer or by improper handling of the helmet when not in use.

A still further object of the invention is to provide an inexpensive shielding device which may be readily manufactured of rubber or plastic material and may be easily attached to the straps of the helmet.

With the above and other objects in view, which will more readily appear as the nature of the invention is better understood, the invention consists in the novel construction, combination and arrangement of parts hereinafter more fully described, illustrated, and claimed.

A preferred and practical embodiment of the present invention is shown in the accompanying drawing, in which:

FIGURE 1 is a perspective view of a helmet showing the pad in position on one of the suspension straps.

FIGURE 2 is an enlarged view of the pad shown in FIGURE 1.

FIGURE 3 is a front elevation of the pad shown in FIGURE 2.

FIGURE 4 is a side elevation of the pad.

FIGURE 5 is a sectional view taken on line 5—5 of FIGURE 3.

FIGURE 6 is a sectional view taken on line 6—6 of FIGURE 3.

FIGURE 7 is a side elevation similar to FIGURE 4 of a modified form of pad.

Similar reference characters designate corresponding parts throughout the several figures of the drawing.

Referring to the drawings in detail, 10 designates a helmet shell provided with the usual head suspension straps 12. The shielding pad, designated generally as S, is shown in full lines in its attached position on a neck-engaging strap 13 in FIGURE 1. It is understood that the pad may be used to shield the other rivets or fasteners employed in helmet construction and the illustration referred to is merely exemplary. The shielding pad is formed of a strip of resilient material such as rubber or plastic and includes a body portion 14, and a pair of attaching base members 16, 16 connected to the body 14 by webs 18, 18. The free edges 19 of the base members 16, 16 are spaced from each other a sufficient distance to permit passage of the rivet R therebetween when the pad is assembled in shielding position. The pad may be extruded or molded in the shape illustrated so that the base members 16 will normally remain in a position parallel to but spaced from the body 14.

Although the material of which the pad is made is inherently soft and resilient, it is desirable to provide additional cushioning means such as the transverse, spaced ribs 20 shown in FIGURE 2 on the inner face of members 16 and in FIGURE 7 on the inner face of member 14. Although provision of the ribs on either the base or body member gives adequate cushioning effect, it is within the scope of the invention to provide the ribs on both members.

Prior to applying the pad to the helmet, a metal plate or washer 22 is passed over the projecting inner end of the rivet R and the base members 16 of the pad are passed beneath the washer 22 so that they lie between the washer and the suspension straps. The end of the rivet is then flanged or peened over as indicated in FIGURE 5 by inserting an appropriate tool through opening 23 in body member 14 into the inner hollow end of the rivet and applying force to the head of the rivet exposed on the outer surface of the helmet shell. The washer 22 is thus pressed tightly against the base members 16, which in turn are pressed tightly against the strap 12, thus securing the pad in position.

Although the pad of my invention has been shown and described as shielding the end of a rivet used in an athletic helmet, it may be employed as a shielding device for other types of fasteners such as the end of a bolt having a nut attached thereto or in any other situation where it is desired to shield or conceal an exposed end of a fastener.

I claim:

A pad of resilient material shielding the exposed end of a fastener shank passing through an article, comprising, a main body portion disposed in a fixed plane adjacent the end of said fastener shank with at least a part of said body portion extending laterally beyond the limits of the end of said fastener shank, a pair of longitudinal webs depending from opposite ends of said body portion, base members attached to said webs substantially parallel to said body portion and being uniformly spaced therefrom to provide a cushioning space therebetween and having opposed free edges extending the width of said base members, said free edges being spaced from each other a distance greater than the diameter of said shank to permit passage of said shank therebetween and being disposed adjacent said shank, said pad having a plurality of integral ribs formed on a portion thereof within said cushioning space, said fastener shank having an enlarged end portion overlying said free edges within a part of the space between said body portion and said base members and retaining said pad by securing said base members to said article and the remainder of said space permitting deflection of said pad to absorb shocks applied thereto, said body portion being provided with an opening co-axial with the end of said fastener to permit entry of a fastener securing tool, said opening being of less diameter than the normally exposed end of said fastener.

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