

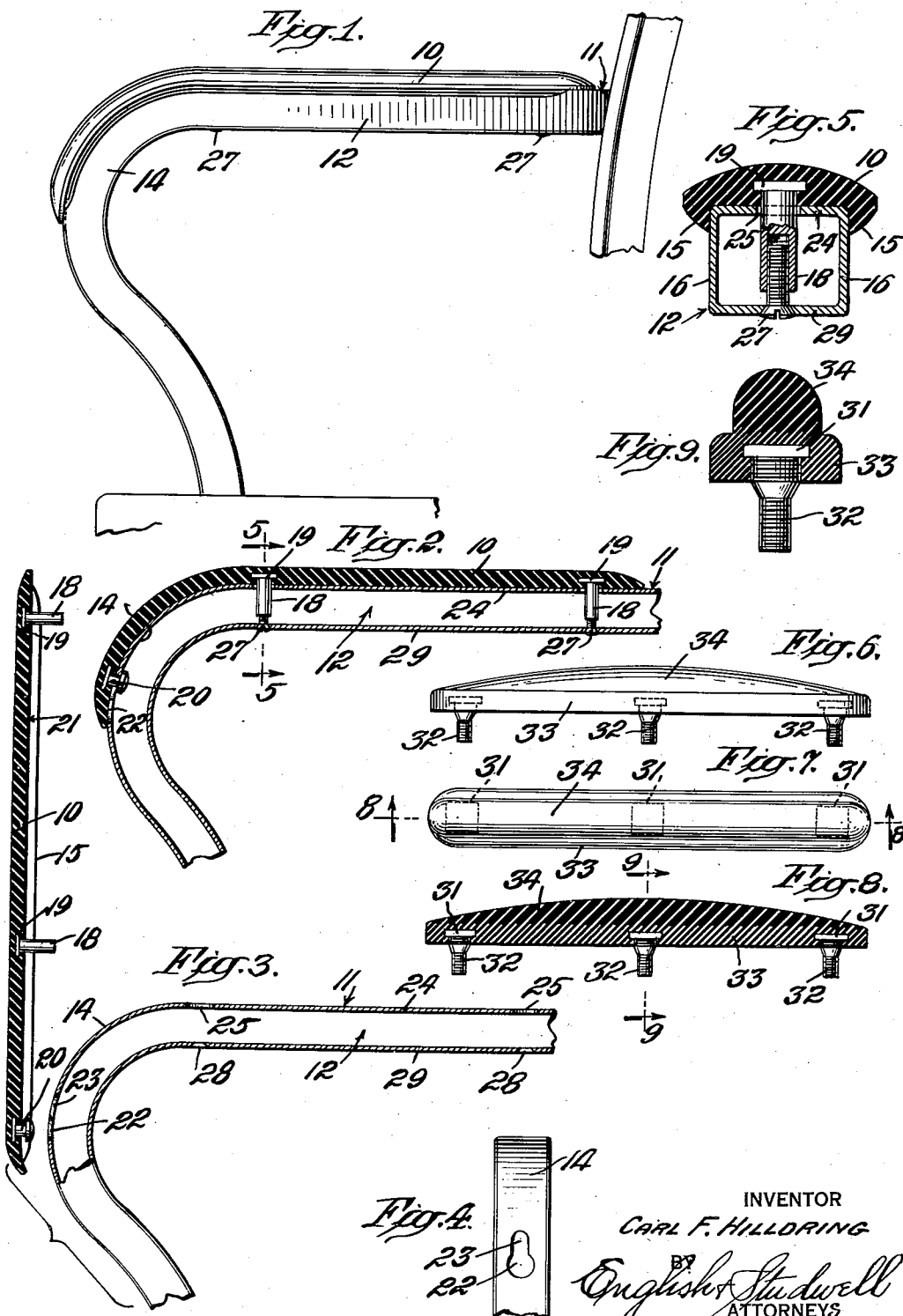
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WEAR PIECE FOR FURNITURE

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WEAR PIECE FOR FURNITURE

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The invention relates to an improvement in wear pieces or scuff pads and bumper strips adapted for attachment to various parts of articles of furniture, such as the corners and edges of desks, the arms and legs of chairs, and other similar projecting parts of furniture and the like. The term "wear piece" is herein used in a generic sense to include not only strips of yielding, non-metallic material which serve the purpose of bumper strips for protecting the projecting parts of furniture from injury and preventing the projecting parts of furniture from injuring other articles of furniture and the like, but also strips of non-metallic material, yielding and non-yielding, which are applied to various parts of articles of furniture for the purpose of enhancing the attractiveness of the article of furniture and to make it more comfortable for the user. Although the improved wear strip of the present invention is equally adapted to application to furniture composed of metal and wood, it has been developed in connection with the manufacture of articles of furniture composed wholly or partly of metal, and for convenience will be so illustrated and described, it being understood that the improved wear piece as claimed may be applied to articles of furniture made from any preferred material.

It is a feature of the present invention that the improved wear piece may present a smooth, hard or relatively unyielding exterior surface adapting it for use as a component and attractive part of an article of furniture, or that it may present a more or less soft and yielding exterior surface adapting it for use as a bumper strip. The principle of the invention is the embedding of the head portion of one part of the means for fastening the wear piece to the article of furniture in a tough non-metallic material, such as hard rubber tough enough in texture to prevent the breaking or cracking of the wear piece and to make it substantially impossible to dislodge the fastening means from its anchorage in the wear piece, and the securing of the wear piece to the article of furniture by separate means engaging with the part of the fastening means embedded in the wear piece. The material of which the wear strip is composed may be one of several suitable moldable materials such as rubber-like materials, Bakelite, thermoplastics and the like. For convenience I employ a tough hard rubber, which may be either flexible or non-flexible according to the contour of the part of the furniture to which it is to be applied. The improved wear piece with the head of one part of the fastening means entirely embedded therein may be composed wholly of the tough hard rubber, or the exterior surface thereof may be covered with a layer of relatively soft and resilient material, such as tough resilient soft rubber. The inven-

tion is more fully described hereinafter and is particularly pointed out in the appended claims.

In the accompanying drawing illustrating the preferred form of the invention, Fig. 1 is a side elevation of an arm (and adjacent parts) of a chair, showing the application of the improved wear piece to the top surface and rounded front end thereof; Fig. 2 is a longitudinal vertical section through the arm and wear piece shown in Fig. 1; Fig. 3 is a view similar to Fig. 2 but with the wear piece removed from the chair arm; Fig. 4 is a fragmentary view in front elevation of the upper part of the chair arm; Fig. 5 is an enlarged transverse section taken on the line 5—5 of Fig. 2; Fig. 6 is a side elevation of a modified form of wear piece especially adapted for use as a bumper strip; Fig. 7 is a top plan view of the wear piece shown in Fig. 6; Fig. 8 is a longitudinal vertical section taken on the line 8—8 of Fig. 7; and Fig. 9 is an enlarged transverse section taken on the line 9—9 of Fig. 8.

The form of the invention in which the wear piece is composed wholly of a tough, flexible hard rubber with the heads of one part of the fastening means embedded therein is indicated generally at 10 in Fig. 1, and is shown applied to the upper surface 11 and front or rounded end 14 of the arm 12 of a chair. The chair arm 12 is composed of metal and in cross section is a hollow square with top, side and bottom walls. It will be understood that the wear piece 10 will vary in size, that is, in length, width and thickness, according to the size of the article of furniture to which it is to be applied. In the application of the wear piece to a chair arm, for example, the length of the wear piece will be sufficient to cover the upper surface 11 of the horizontal portion of the chair arm, as shown in Fig. 1, and extend downwardly an appropriate distance over the rounded front end 14 of the chair arm. The sides 15 of the wear piece extend downwardly as flanges embracing tightly the upper portions of the side walls 16 of the chair arm, as shown in Fig. 5. The means for securing or fastening the wear piece to the chair arm or other furniture part will vary depending on the material of which the furniture part to receive the wear piece is composed. If the furniture part is so thick or deep that it would be inexpedient to have the fastening means penetrate it, the fastening means will be of such nature as to find secure anchorage within the furniture part. If, however, the furniture part to receive the wear piece is of convenient thickness, as the chair arm 12, and is a hollow metal structure, fastening means constructed and arranged in the following manner have been found satisfactory: The wear piece is conveniently molded in straight form as shown at the left in Fig. 3. During the molding operation internally threaded stud inserts 18 with

square heads 19 are held in the mold so that the heads 19 will be about half way of the top and bottom walls of the mold. In one end of the mold will be held a square-headed stud 20 with a rounded nail-head outer end. On the completion of the molding operation, there has been produced a straight flexible wear piece having projecting from the under side of one end thereof a nail-head stud 20 (the distance from the inner or under surface 21 of the wear piece to the under surface of the nail-head of the stud 20 being about the same as the thickness of the top wall 24 of the chair arm), and from the remainder of the under side of the wear piece a plurality of cylindrical internally threaded stud ends 18.

The chair arm is prepared for the wear piece by piercing the rounded portion 14 thereof with a hole 22 larger than the nail-head of the stud 20 and having a recess 23 slightly larger in width than the diameter of the stud 20, and piercing the top wall 24 of the horizontal part of the chair arm with the holes 25 slightly larger than the diameter of the studs 18, the recess 23 and the holes 25 being spaced apart corresponding to the spacing of the studs 20 and 18. To place the wear piece 10 on the upper surface of the chair arm 12 and fasten it thereto, it is first moved to the position shown at the left in Fig. 3, with the projecting end of the nail-head stud 20 opposite the hole 22 in the rounded portion 14 of the chair arm. The stud 20 is then inserted in the hole 22 and the wear piece 10 is next pulled upwardly until the stud 20 is fully in the recess 23. Thereupon the free upstanding portion of the wear piece is bent downwardly onto the upper surface 11 of the chair arm 12, with the studs 18 entering the holes 25, as shown in Fig. 2. The wear piece is secured in this position by means of screws 27 which enter the holes 28 formed in the bottom wall 29 of the chair arm in alignment with the holes 25, and are threaded into the studs 18, thereby securely locking the wear piece to the chair arm. The nail-head stud 20 may be eliminated and a stud 18 substituted for it, but its use is found of convenience.

The modified form of the invention shown in Figs. 6 to 9 and which is especially adapted to serve as a bumper strip for protective purposes embodies the same basic structure as the wear strip in that the square heads 31 of the studs 32 are embedded in a strip 33 of tough plastic material, which will be flexible if the bumper strip is to be bent but which may be non-flexible if the strip is to remain straight, that is, applied to a straight part on the article of furniture to be protected. In order that the strip 33 may serve the purpose of a protective bumper its upper surface is provided with an arc-shaped section 34 of relatively soft and resilient plastic material, such as resilient soft rubber molded integrally with the strip 33. The strip 33 having been applied to the part of the furniture to be protected, the studs of the strip 33 project through holes therein and the strip is secured in place by locking means screwed onto the externally threaded projecting ends of the studs 32.

It will have been recognized from the foregoing description taken in connection with the accompanying drawing, that the improved wear piece produced by burying the head portion of part of the fastening means in a plastic material so tough in its composition that it is substantially unbreakable and uncrackable and can not re-

lease the fastening means, and securing the wear strip to the article of furniture by a second part of the fastening means, offers advantages over wear pieces heretofore proposed, particularly over wear pieces especially adapted for application to articles of furniture made from metal. Among these advantages are the fact that in the present improved wear piece the connection between the wear piece and the article of furniture is not effected by means of a resilient material such as soft rubber which is liable to deterioration and loss of holding power, but is effected positively by mechanical means. Moreover, the preparation of the article of furniture to receive the wear strip requires in the case of either metal or wood furniture only the drilling of holes properly spaced.

Having thus described the invention what I claim as new is:

1. In combination, a furniture part including an elongated horizontal portion and a rounded portion consisting of a hollow metallic square, there being in the upper wall of the rounded portion a hole with an elongated recess opening therefrom and in the upper wall of the horizontal portion a plurality of spaced holes, and holes in the lower wall of the horizontal portion aligned with the holes in the upper wall thereof, a wear piece composed of flexible plastic material, and means for fastening the wear piece to the upper surface of the horizontal portion and the rounded portion of the furniture part comprising a nail-head stud having one end thereof embedded in one end of the wear piece and a plurality of studs having their head portions embedded in the wear piece and the remainder thereof projecting from the under side of the wear piece, the nail-head stud being adapted to enter the hole and recess in the rounded portion of the furniture part and the other studs being adapted to enter the holes in the upper wall of the horizontal portion of the furniture part, and means for entering the holes in the bottom wall of the horizontal portion of the furniture part for engagement with the studs therein to lock the wear piece in position on the furniture part.

2. In combination, an elongated furniture part having in the upper surface of one end thereof a hole with an elongated recess opening therefrom, the furniture part being hollow under the hole and recess, the furniture part also having a plurality of spaced holes which penetrate the furniture part from the upper to the lower surface thereof, a wear piece composed of flexible plastic material, means for fastening the wear piece to the upper surface of the furniture part comprising a nail head stud having one end thereof embedded in one end of the wear piece and a plurality of studs having their head portions embedded in the wear piece and the remainder thereof projecting from the under side of the wear piece, the studs being spaced apart corresponding to the spacing of the plurality of holes in the furniture part, the nail head stud being adapted to enter the hole and recess and the other studs being adapted to enter the other holes in the furniture part and means for entering the other ends of the spaced holes in the furniture part to engage with the studs therein to lock the wear piece in position on the furniture part.

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