Dec. 24, 1940. L. SABO 2,226,141

BRAD

Filed Dec. 21, 1939

Fig. 1

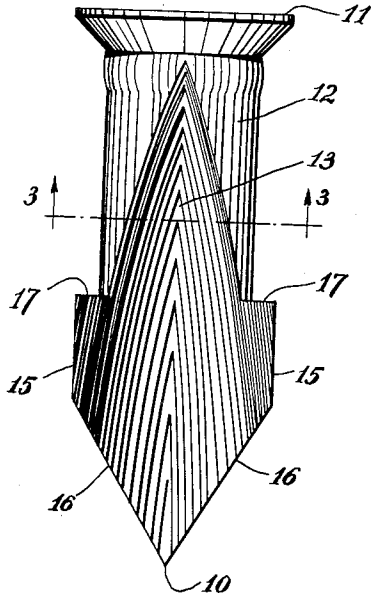


Fig. 2

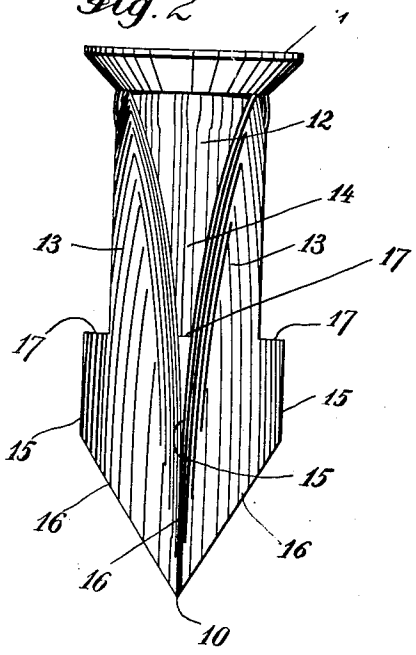


Fig. 3

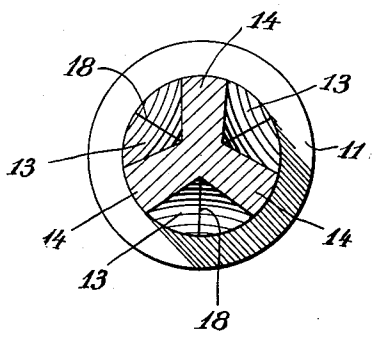
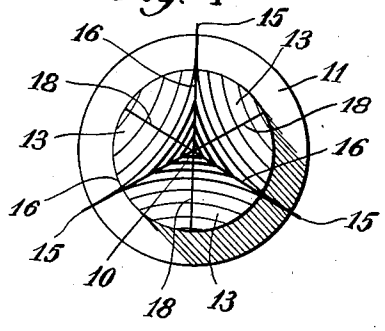


Fig. 4



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BRAD

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Application December 21, 1939, Serial No. 310,286

2 Claims. (Cl. 85—19)

My invention relates to brads.

The object of my invention is to provide a brad which is so formed and proportioned that it may be driven easily into a hard substance such as hard wood or leather such as used in shoemaking, and will be firmly anchored therein when used to unite two or more parts together.

A further object is to provide a brad having a shank portion which is indented from its point to its head on three sides thereof to provide three barbs which extend about one half the length of the brad, and provides a shank which presents three vertically extending flanges, formed between said indents.

In making shoes for women's wear, the insoles are made of strong thick leather, and the heels are usually made of hard maple or other hard wood suitable for the purpose, and short nails or brads are often used to hold the heels to the insoles, said brads being in the form of cylindrical nails and made of wire in the same manner as a wire nail.

In order to drive such cylindrical brads or nails thru the leather and into the heel of hard wood, great pressure is required, and therefore the diameter of such brads is relatively small, often being but one-sixteenth of an inch in thickness and a length of ten-sixteenths, and therefore it is usually necessary to use six to eight of such brads to secure the heel to the shoe.

By the use of the improved brad hereinafter described, a lesser number may be used for the purpose stated; they are of less length and of greater diameter, and stronger than the nail type of brad, and when one has been driven thru the leather and into the heel, the flanges prevent relative rotation of the heel and insole, and also due to their short length, they are more easily driven into the leather and wood in the act of attaching the insole and heel together.

Fig. 1 is an illustrational view of a brad embodying my invention, disclosing approximately the relative proportions of the shank and blades, and form of the slots or indents therein.

Fig. 2 is a view of the brad after being rotated one third from the position shown in Fig. 1.

Fig. 3 is a cross sectional view taken on line 3—3 of Fig. 1.

Fig. 4 is an end view showing the point and lower edges of the blades, and under side of the head of the brad.

10 indicates the point, 11 the head, and 12 the shank of the brad.

13—13—13 indicate respective depressions, hereinafter referred to as indents, which are pressed or otherwise formed in the shank 12 and extend from a short distance below the head to the point of the brad and gradually increase in width and depth from the upper ends to the point, as illustrated.

The brads may be made from wire of triangular form, or from cylindrically formed wire as illustrated in the present drawing, and formed by molding dies of the stamping or rolling type, such as generally used in making tacks and nails of unusual form, such as barbs and indents in the ends or sides of nails.

In making my improved brad constructions, the metal is caused to flow under pressure in the dies, to provide the indents with the flange portions 14—14—14 respectively located between them and extending downwardly to the upper ends of the blades 15—15—15 respectively, which are relatively thin, and present sharp edges 16—16—16 respectively, which cut easily thru leather and wood, etc.

The upper ends of the blades extend outwardly from the shank and are somewhat thicker than the lower ends, and provide a form of barb 17 on each blade.

By referring to Fig. 3 it will be seen that the indents are shaped in the form of a flaring V, the bottom of which presents a line 18 formed by the die, and that the lower part of the indent extends nearly to the median line of the brad, and that the lower portions of the indents are of increased radius, thus forming very thin cutting blade portions without materially weakening the stiffness and strength of the shank.

For some of the purposes of shoemaking the brads are made very short, such for illustration as those used to secure what are known as "Lewis" heels to a shoe at the junction of the tongue of the heel and arc of the shoe at the instep thereof; such brads being approximately ¼ inch long, and heretofore being made in the form of a wire tack, the use of which has been unsatisfactory for the reason that if it is not clinched properly it will not hold in the leather of the instep, and under strain will tear loose therefrom.

The present brad by reason of its form presents a greatly enlarged area of surface compared with a wire nail or brad, and the barbs become anchored in the leather or wood, thus adding to the frictional resistance to be overcome before parts held together by the brad can be separated, as will be readily understood by practical shoemakers.

It will be understood that I have shown a form of brad that is strong and practical, and that its

form may be modified as to relative length and diameter of the shank and width of the blades, etc., without departing from the invention disclosed as defined by the claims, and within the scope thereof.

Having thus described my invention I claim as new:

1. A brad consisting of a head, a shank portion having three indents therein extending from near the head to the point thereof and increasing in depth from the upper to the lower ends and serving to form laterally extending blades the upper ends of which are blunt and the lower ends are sharp, said blades extending a predetermined distance from the point of the brad toward the head thereof and thin in cross section to permit the brad to be easily driven into a hard substance and to provide a large surface for frictional contact with said substance.

2. A brad consisting of a head, a shank portion having a plurality of indents therein extending from near the head to the point thereof and increasing in depth from the upper to the lower ends and serving to form laterally extending blades the upper ends of which are blunt and the lower ends are sharp, said blades extending a predetermined distance from the point of the brad toward the head thereof and thin in cross section to permit the brad to be easily driven into a hard substance and to provide a large surface for frictional contact with said substance.

LOUIS SABO.