Jan. 27, 1953 E. A. RICHARDSON 2,626,454

METHOD OF MAKING A BASEBALL SHOE CLEATS

Filed April 13, 1950

Fig. 1.

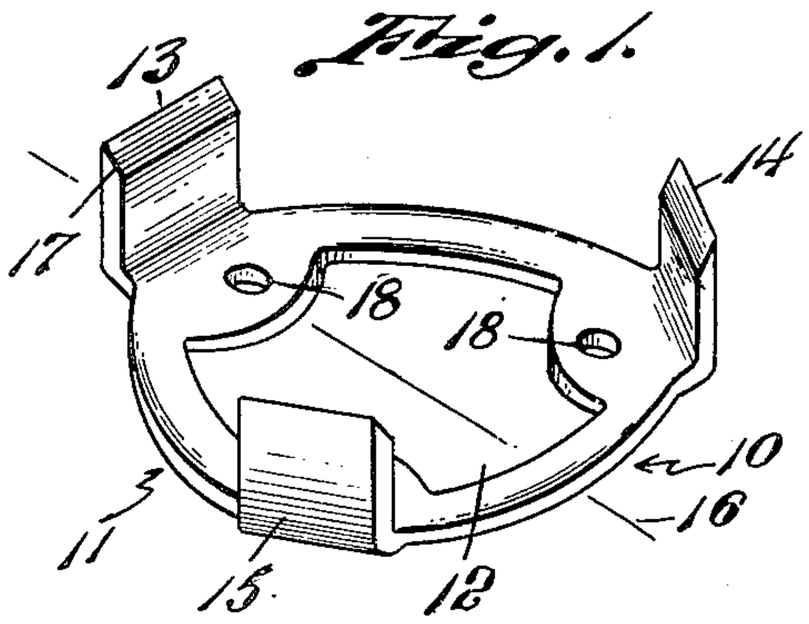

Fig. 2.

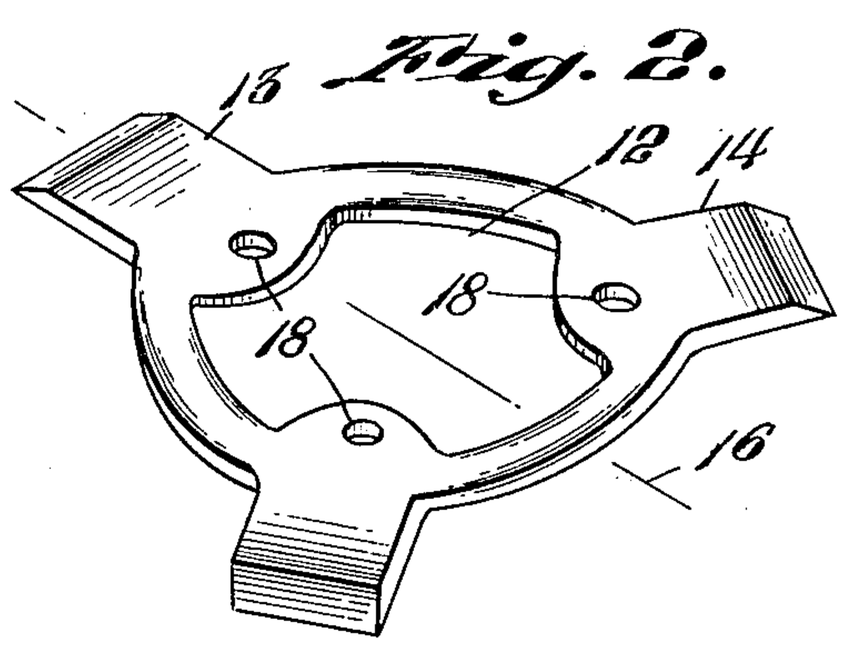

Fig. 3.

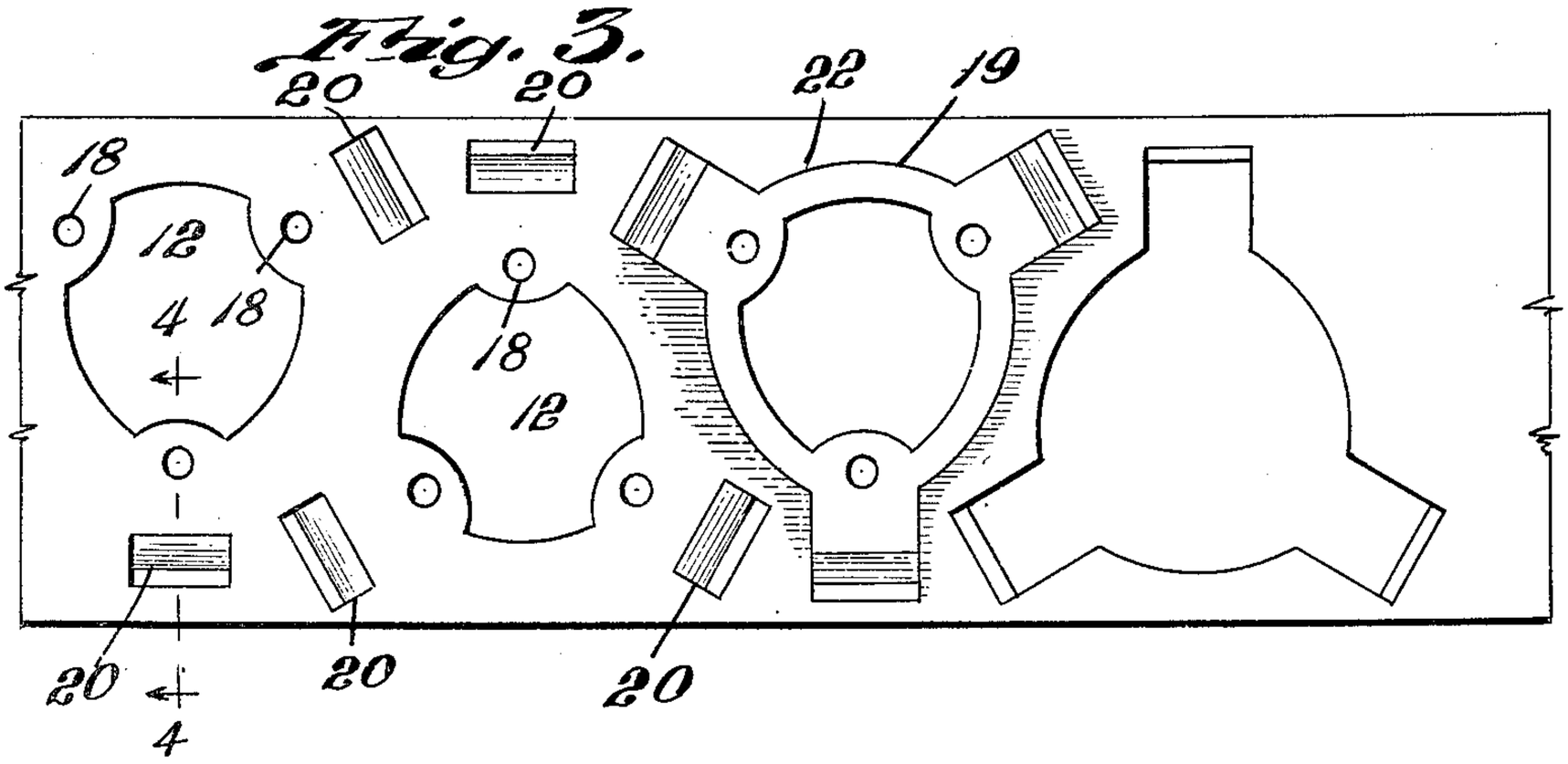

Fig. 4.

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METHOD OF MAKING BASEBALL SHOE CLEATS

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Application April 13, 1950, Serial No. 155,624

1 Claim. (Cl. 29—148)

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This invention relates to a cleat for attachment to the bottom of a baseball shoe and a method of making the same.

The usual baseball shoe cleat comprises a generally triangular plate with an open center providing a frame having a rectangular right angular projection at each corner. These projections or spurs are sharpened to a chisel edge so as to penetrate the ground and prevent slipping of the wearer of the shoe. The sharpening of each projection is usually accomplished manually by use of an abrading wheel for removing material from the outer side of the projection where it is accessible to a grinding wheel, all as shown in my prior Patent No. 1,743,285 dated January 14, 1930 upon which this is an improvement.

An object of the invention is to provide a method of making a cleat which will discharge mud or dirt better than similar cleats heretofore made.

Another object of the invention is the provision of a method of making a baseball shoe cleat wherein the sharpening of the projection is accomplished by a flow of the material from a location where the removal of material would be difficult.

Another object of the invention is the provision of a method of making a baseball cleat made of a metal stamping wherein the end extremity of the spurs are pressed into form.

A more specific object of the invention is the provision of a method of making a base ball shoe cleat wherein the material at the sharpened end of the spurs is of a greater hardness than other portions of the cleat and is also of an increased thickness directly adjacent the sharpened end.

With these and other objects in view, the invention consists of certain novel features of construction, as will be more fully described and particularly pointed out in the appended claim.

In the accompanying drawings:

Figure 1 is a perspective view of a cleat embodying my invention;

Figure 2 is a perspective view of a blank for forming the cleat shown in Figure 1;

Figure 3 is a top plan of a sheet of material showing various stages of operation thereon for producing the blank shown in Figure 2; and

Figure 4 is a sectional view taken substantially along line 4—4 of Figure 3.

In carrying out my invention I cut or otherwise provide from sheet material a blank which when bent into final form will provide a generally triangular frame having a right angularly extending rectangular projection at each corner

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of the frame. The end extremity of the projections are compressed into a chisel edge so as to provide a sharpened end. The formation of this chisel edge may be made either subsequent to the severing of the blank from sheet material or may be made prior to the severing operation, as choice or condition may dictate. In this manner, I provide a cleat having the spurs sharpened by a compression of the material. The compression strain hardens the material at the sharpened portion of the spur. A certain amount of material will flow in the compressing operation and increase the thickness of the material adjacent the bend of the projection whereby providing a stronger spur than that provided in a usual manner of making these cleats. The projection with the chisel end is bent so that the bevel end is in the inside or facing the middle of the frame.

Referring to the drawings for a more detailed description of the invention, the body portion 10 of the cleat comprises a generally triangular frame 11 having a central opening 12 and right angularly extending rectangular spurs or projections 13, 14 and 15 at each corner of the frame. The projections are arranged so that when the cleat is attached to the shoe the projection 13 will be substantially at right angles to the longitudinal median line 16 of the cleat, and the projections 14 and 15 oppositely disposed at substantially the same acute angle to the said median line. The free end extremity 17 of each projection is sharpened to penetrate the ground. An opening 18 is provided adjacent each projection to receive a rivet or the like fastening device for attaching the cleat to the shoe.

The cleat is preferably cut in the blank form 19 from a strip of sheet material, as shown in Figure 3. Preferably the center 12 and openings 18 are first punched or severed from the strip material. Simultaneously with this punching or severing operation, the chisel formation at the end of each projection is formed in the strip by a compression operation. This operation will produce a depression or recess 20 having a beveled or an inclined wall 21 (see Figure 4). There will be one of such depressions for each projection and these are located about the opening 12 at a location to be included within the outlines of the blank when cut to form the end of the projection. Compressing the material will strain harden the same at this location. A certain portion of the material so displaced will also flow outwardly and towards the opening 12 whereby to increase the thickness of the projection immediately next to the chisel formation as shown

at 23 (see Figure 4). The strip stock so prepared will then be severed at 22 by proper tools so as to provide the blank shown in Figure 2.

In practice a double set of tools is provided so that when one tool is severing the openings 12 and 18 and forming the recess 20, the tool of the other set is severing the blank so previously prepared. Thus, at each operation of the press, one complete blank is severed from the strip material. After the blank, as shown in Fig. 2, is formed the portions 13, 14 and 15 are bent at right angles to the plane of the frame to the position shown in Fig. 1 so that the bevel edges 17 face inwardly in which position mud or other accumulation will be more easily displaced and prevented from compacting in the cleat.

It will be apparent that I have disclosed a baseball shoe cleat wherein the spurs or projections are provided with a chisel edge in which the stock at this location is strain hardened and in which the thickness of the projection is increased immediately adjacent the chisel formation.

I have used a low carbon steel of the order of .1% carbon which is ordinarily not hardened and by the striking of this steel to form a chisel edge the same is strain hardened and thus much more wear resistant. The hardness is increased something in the order of 35 points in the Rockwell scale.

This application is a continuation in part of my copending application, Serial No. 24,010, now abandoned.

I claim:

The method of forming a shoe cleat from sheet material which consists of forming a depression in the sheet material by compression of the material so as to provide a portion of greater density and a recess with an inclined bottom wall and severing the sheet material including in its periphery the outline of said compressed material in the form of a projecting spur and then bending the projecting spur at substantially right angles to position the portion of a greater density at the edge of the spur.

EDWARD A. RICHARDSON.

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