March 24, 1931. G. A. BRYAN 1,797,543

STIRRUP AND SOCKET STRUCTURE FOR TRESTLES

Filed Feb. 11, 1929

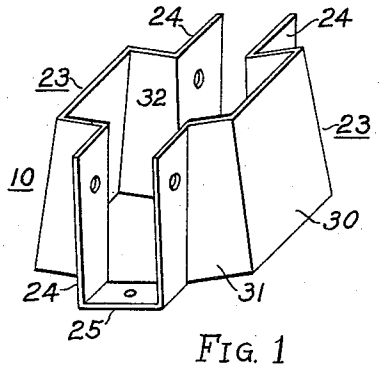


FIG. 1

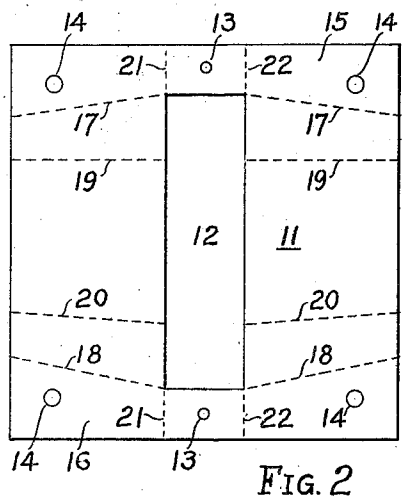


FIG. 2

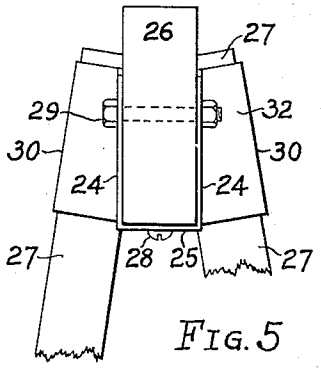


FIG. 5

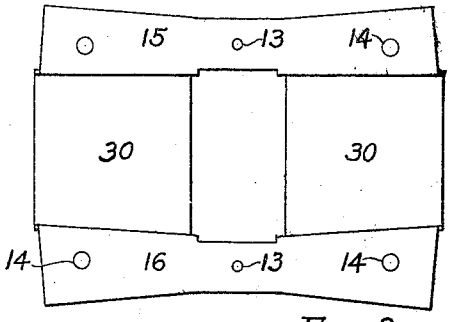


FIG. 3

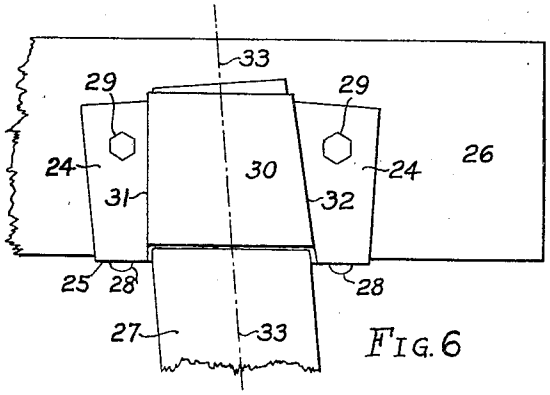


FIG. 6

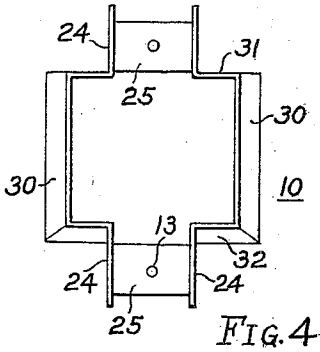


FIG. 4

Witnesses
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Patented Mar. 24, 1931 1,797,543

UNITED STATES PATENT OFFICE

GEORGE A. BRYAN, OF SPRINGFIELD, ILLINOIS

STIRRUP AND SOCKET STRUCTURE FOR TRESTLES

Application filed February 11, 1929. Serial No. 339,178.

My invention relates to improvements in sockets for trestles such as are used by carpenters, masons, plasterers, and other mechanics. The present invention is a modification and improvement of the invention set forth in United States Patent No. 1,542,367 granted to me June 16, 1925, for wrought metal socket for legs or standards or the like.

The objects of my improvement are: first, to provide a complete pair of sockets pressed from a single sheet of metal and completed without welding any part of the structure; second, to provide a one-piece sheet-metal socket structure, pressed from a single blank, adapted to hold securely the legs of the trestle spread laterally relative to the beam, and also spread in the direction of the length of the beam; third, to provide a one-piece sheet-metal socket structure adapted for right-hand attachment on the beam, and also adapted for left-hand attachment of the same socket structure on the same beam, without any change in the socket structure itself; fourth, to provide a one-piece sheet-metal socket structure pressed from a single square or rectangular blank with very little waste, thereby reducing the quantity of metal used in making a pair of sockets, and correspondingly reducing the cost of manufacture.

I attain these objects by the means shown in the drawings and now to be described and finally recited in the claims.

Referring to the accompanying drawings: Figure 1 is a perspective view of the complete unitary stirrup and socket structure (not to scale); Fig. 2 is a plan view of the sheet-metal blank from which the unitary structure is formed and completed; Fig. 3 is a top view of the partly formed structure, approximately as it appears after the first pressing of the sheet-metal blank; Fig. 4 is a top view of the completed structure; Fig. 5 is a fragmentary end view of a trestle, showing the beam in place in the stirrup and the legs in place in the sockets; Fig. 6 is a fragmentary side view of a trestle, at one end thereof, showing the beam and legs in place.

Similar numerals refer to similar parts throughout the several views.

My stirrup and socket structure is made from a single rectangular piece of sheet metal. It is formed and completed without welding any part of the structure at any stage of the construction. Different gauges of sheet metal may be used, according to the size of sockets and the use intended.

A typical socket structure of convenient size, such as is used by carpenters or plasterers, may be formed from a blank of 12-gauge sheet metal, nine inches square. Such a blank is shown in Fig. 2. The central rectangular opening 12, and the holes 13 and 14 will be punched at a single operation.

The first pressing operation consists in depressing the middle portion of the plate, (between the dotted lines 19 and 20, Fig. 2) at the same time bringing the flange members 15 and 16 closer together, by bending convexly on the lines 17, 18, and concavely on the lines 19, 20. The result of this operation is approximately shown in Fig. 3.

The second pressing operation consists in bending the side members upward, on the lines 21 and 22. This results in the finished article as shown in plan by Fig. 4, in end elevation by Fig. 5, and in side elevation by Fig. 6.

In its completed form, the structure consists of two socket members 23, having integral flanges 24, joined at the bottom by plates 25. The flanges 24 and bottom plates 25 form two stirrups in which the beam 26 of the trestle rests. The bottom of each stirrup is secured to the beam by a wood screw 28 which passes through hole 13. The stirrup and socket structure is prevented from spreading by the bolts 29 which are accommodated in the holes 14 and pass through the beam at points nearer the top than the bottom of the stirrups.

The side walls 30 of the socket members 23 are inclined outwardly from the vertical surface of the beam, to provide the proper spread of the legs, as shown in Fig. 5. The two end walls 31 and 32 of a given socket member are not parallel, but are inclined with respect to each other, to form a tapered socket; and the center-line bisecting the angle between these two end walls is inclined lengthwise of the beam as shown at 33 in Fig. 6.

The present unitary socket structure is defined as "universal" in the sense that it is adapted for selective placement at either end of the beam, thus obviating the necessity for making either the socket elements or the legs in pairs or in "rights" and "lefts."

What I claim as new and desire to secure by Letters Patent is:

1. In a unitary stirrup and socket structure, the combination of: a pair of stirrup members having substantially parallel flat side elements with sloping edges; and a pair of socket members having flat longitudinal side walls shorter at the top than at the bottom, and substantially flat transverse end walls trapezoidal in shape with top and bottom edges upwardly sloping from the side elements of said stirrup members; all adapted to be formed by bending a flat rectangular sheet-metal blank.

2. A unitary stirrup and socket structure for the attachment of legs to the beam of a trestle, comprising: two tapered socket members adapted to receive blunt-topped legs tapered on three sides, and adapted to permit the tops of said legs to protrude above said socket members, the said socket members having three tapered sides, each of which engages a tapered side of said legs; horizontal flat members underlying the beam of the trestle; and upright members having aligned holes adapted to receive bolts extending through said upright members and through said beam.

3. A wrought metal stirrup and socket structure for trestles comprising: a pair of tapered socket members having end walls of trapezoidal form inclined toward each other and having their top and bottom edges upwardly inclined from the beam of the trestle; perforated vertical wings integral with and extending outwardly from the respective end walls; horizontal connecting elements integral with the respective wings; and a pair of bolts adapted to pass through the beam and the perforations in said wings.

Signed at Springfield, Illinois, this 7th day of February, 1929.

GEORGE A. BRYAN.