May 16, 1933. J. P. O'KANE ET AL 1,908,858

TRESTLE BRACKET

Filed Dec. 8, 1931 2 Sheets-Sheet 1

Fig. 1.

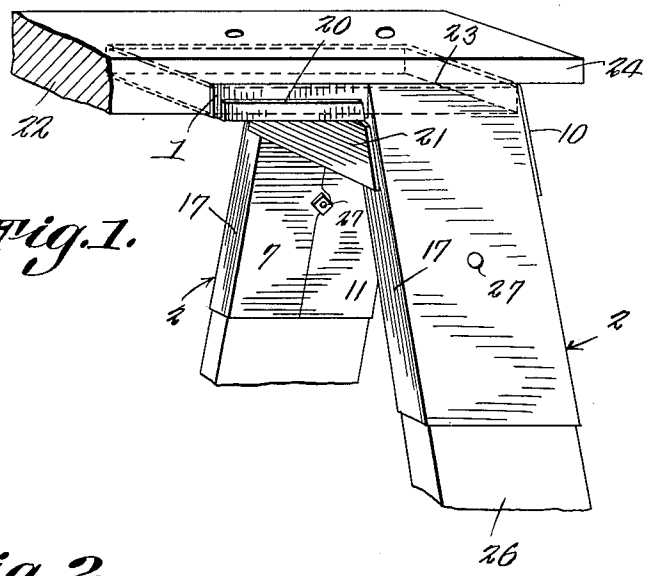


Fig. 2.

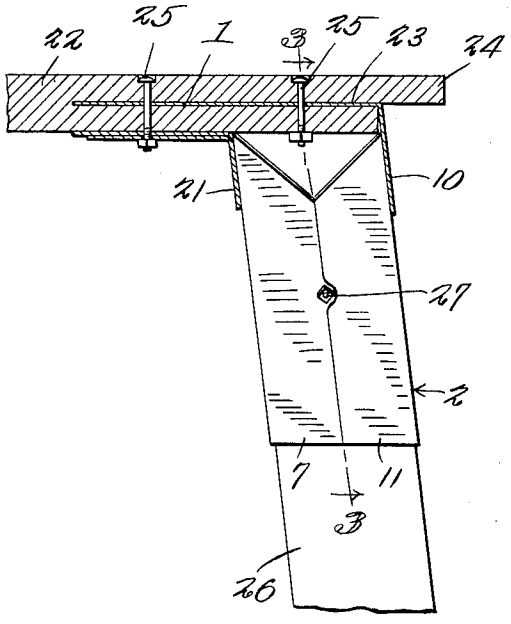
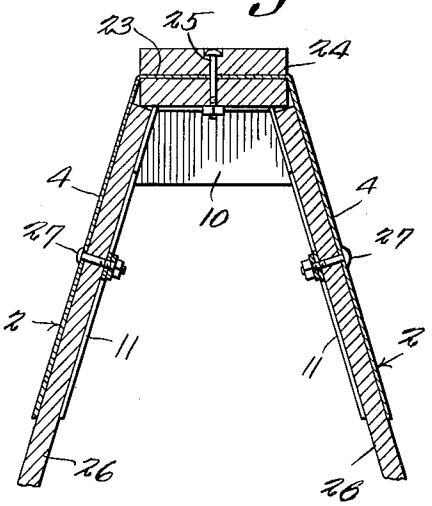


Fig. 3.



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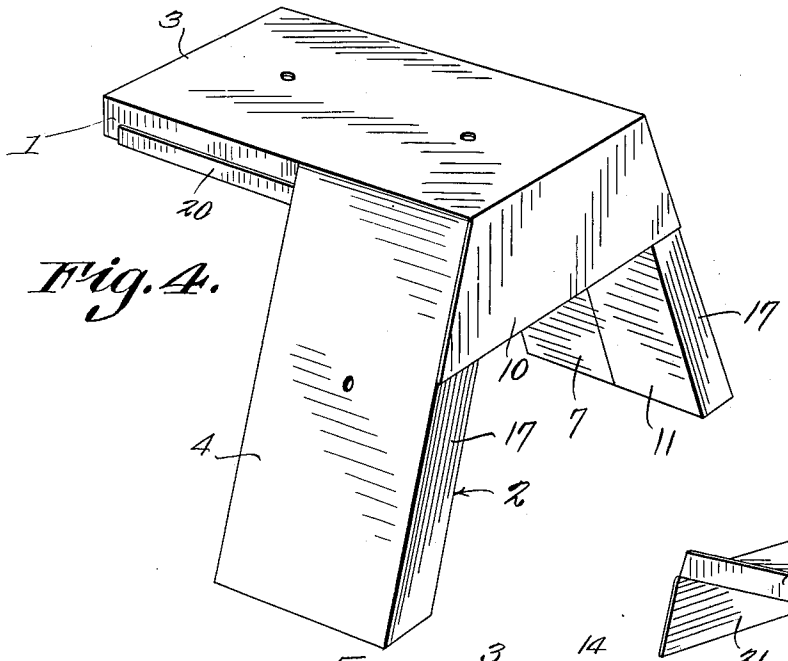


Fig. 4.

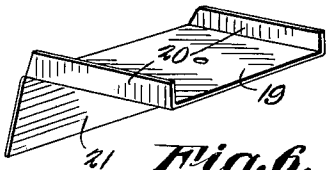
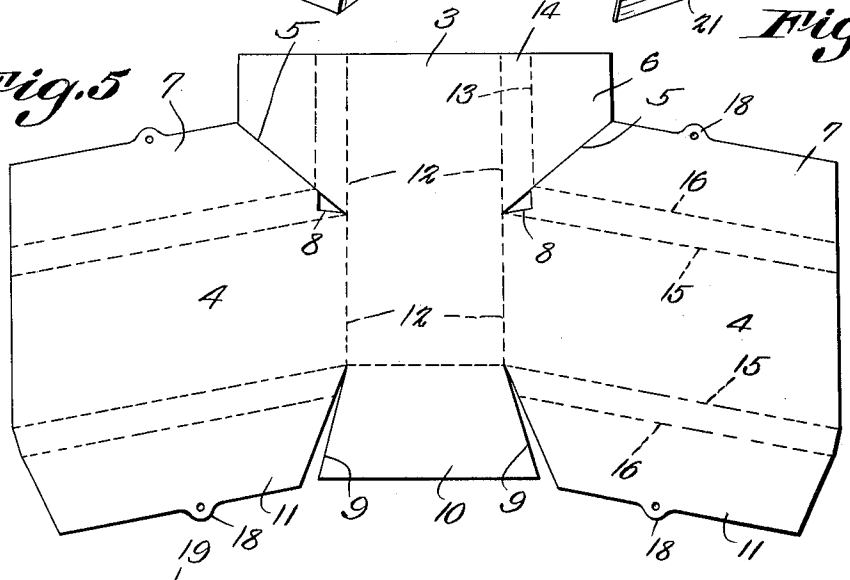


Fig. 6.

Fig. 5



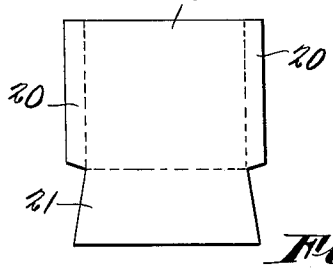


Fig. 7.

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UNITED STATES PATENT OFFICE

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TRESTLE BRACKET

Application filed December 8, 1931. Serial No. 579,790.

This invention relates to brackets for trestles of the type used as saw horses, in the construction of work benches and scaffolds, and for similar purposes.

An object of the invention is to provide a bracket formed of a sheet metal blank and designed to hold the legs of the device at such angles to the top beam or bar as to prevent lateral and endwise tilting under ordinary working conditions.

A further object is to so position the brackets relative to the top beam or bar that they will not be engaged by a saw or other tool accidentally cutting into any portion of said beam or bar.

Another object is to provide a bracket which allows the top bar or beam to rest directly on the upper ends of the legs so that there is no danger of the parts splitting when subjected to a heavy load.

A still further object is to provide a truss of this character which can easily be set up and taken apart.

An additional object is to eliminate projecting portions likely to catch clothing and damage fine work placed on the truss.

A further object is to provide a structure of this character which can be used as a half bracket in a scaffold structure and will not tend to shift away from the wall or other structure with which it is assembled.

Another object is to offset the tendency of the legs to spread under a load.

Other objects are to effect a saving of lumber in the construction of trusses or the like, provide adequate strength with no danger of buckling, insure against side or end play of the parts after they have been assembled, and permit the use of interchangeable timbers cut to different lengths so as to provide a truss of any desired proportions.

With the foregoing and other objects in view which will appear as the description proceeds, the invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed, it being understood that changes in the precise embodiment of the invention herein disclosed may be made within the scope of what is claimed without departing from the spirit of the invention.

In the accompanying drawings the preferred forms of the invention have been shown:

In said drawings:

Figure 1 is a perspective view of one end of a saw horse having the present improvements.

Figure 2 is a central vertical longitudinal section therethrough.

Figure 3 is a section on line 3—3, Figure 2.

Figure 4 is a perspective view of the corner bracket.

Figure 5 is a plan view of the main blank from which the bracket is formed.

Figure 6 is a perspective view of the inner brace of the bracket.

Figure 7 is a view of the blank of which the inner brace is formed.

Referring to the figures by characters of reference 1 designates a sleeve angular in cross section and provided at its sides with downwardly diverging socket members 2. This sleeve and the socket members constitute one of the brackets of a truss, trestle, or similar structure. In constructing the bracket heavy sheet metal of proper strength is preferably used. For example, a blank such as shown in Figure 5 can be employed. This blank includes a central portion 3 and the side portions 4. The central portion projects at one end beyond the side portions 4 and is separated therefrom by obliquely disposed incisions 5, so that there are thus provided side wings 6 on the central portion 3 and the side wings 7 on the portions 4.

If desired angular openings 8 can be formed in the wings 7 at the inner ends of the incisions 5, for the purpose hereinafter explained. The other end of the central portion 5 is separated from the side portions 4 by angular V-shaped obliquely disposed incisions 9 which thus divide the blank into a flap 10 on the central portion 3 and wings 11 on the side portions 4.

The blank is adapted to be bent along lines indicated at 12 so that the portions 4 will

diverge downwardly from the central portion 3. The wings 6 are also bent downwardly along these lines 12 and are then bent inwardly towards each other along lines 13 so as to lap. These wings 6, the portions 14 of the blank between the lines 12 and 13, and adjacent parts of the central portion 3 thus cooperate to form the angular sleeve which is heretofore mentioned.

Each of the wings 4 is bent along parallel lines 15 so that the wings 7 and 11 will be extended at right angles to the portion 4. The wings 7 and 11 are then bent inwardly toward each other along lines 16 thereby providing side walls 17 of socket members 2, the inner walls of these members being formed by the lapping of the wings 7 and 11 which have ears 18 adapted to lap. Obviously the part thus folded produces a bracket consisting of the sleeve 1 and the downwardly diverging socket members 2 which are not only inclined transversely relative to the sleeve 1 but also in the direction of the length of said sleeve.

With the blank bent as described the flap 10 is folded downwardly so as to lap the adjacent walls 17 of the socket members 2. The end portions of this flap can be joined to said walls by welding or in any other manner desired.

While the flap 10 serves to reinforce the bracket at its outer end it is also desirable to reinforce it along the inner sides of the socket members 2. For this purpose a plate 19 is bent to provide side flanges 20 and a depending end flange 21. The plate 19 and the side flanges 20 are adapted to straddle the bottom portion of the sleeve 1 while end flange 21 is adapted to bear against the adjacent walls 17 of the socket members 2. These flanges 20 and 21 as well as plate 19 can be joined to the adjacent portions of the bracket by welding or in any other manner desired.

In using the bracket a transverse cut is produced in one end of a wooden beam or bar 22, as shown at 23, and if desired the end portion of the beam can be removed below the cut 23 so as to leave a projecting tongue 24. Sleeve 1 is inserted into the cut 23 so as to receive that portion of the beam below the cut. The bracket can then be securely attached to the beam by means of bolts 25 or other fastening means extending therethrough and through the sleeve as shown particularly in Figure 2.

Legs 26 formed of wooden members of sufficient strength are inserted longitudinally into the socket members 17 and as the side edges of beam 22 are set in the cut-away portions or notches 8, as shown particularly in Figure 3, it will be apparent that said beam will engage the ends of the members 26 and thrust downwardly thereagainst. Socket members 2 can be attached to the members 26 by bolts 27, nails, or the like extending through the lapping ears 18, the legs 26 and the opposed walls of the socket members 2.

With the parts assembled as described the legs 26 will be held securely against separation from the beam 22. They will be held at such angles as to prevent the structure from tilting laterally or longitudinally. The brace will also act as a means for preventing the legs from splitting when subjected to a heavy load and as the beam thrusts directly against the upper ends of the legs there will be no danger of any of the parts splitting.

By mounting the bracket as shown in Figures 1, 2, and 3 there is no danger of injuring the edges of cutting tools because the sleeve does not extend around beam 22 but only around the lower portion thereof.

By providing a bracket with supporting legs at each end of the beam 22 the structure can be used as a trestle, truss, saw horse, or the like, depending on the proportions of the timber used. These timbers can be cut at any desired lengths and, obviously, the brackets can be made to accommodate timbers of different cross section areas.

Should it be desired to use a half truss or the like to be supported at one end by a wall or other structure, only one of the brackets need be used. The legs will be disposed at such angles that when the device is subjected to a load it will not tend to tilt away from the wall or other supporting structure.

It should be understood that modifications of the bracket can be made to meet varying conditions.

What is claimed is:

1. The combination with a beam, of a sleeve extending through the beam and housing the lower portion of the beam, socket members diverging from the sleeve, and legs seated in the socket members and each bearing at one end against the beam.

2. The combination with a beam having a transverse cut extending into one end thereof, of a sleeve seated in the cut and housing that portion of the beam below the cut, socket members extending from the sleeve, and legs extended into the socket members for receiving thrust on their ends from the beam.

3. The combination with a beam, of a sleeve extending through the beam and housing the lower portion of the beam, diverging socket members integral with the sleeve and bridged by the beam, and legs seated in the socket members and thrusting at one end against the beam.

4. A bracket of the class described including a sleeve, socket members diverging from and opening into the sleeve, and a transverse brace integral with one end of the sleeve and joined to the socket members,

said sleeve, socket members and brace being formed in a single blank of sheet metal.

5. A bracket of the class described including a single blank of sheet metal bent to provide a sleeve, diverging socket members opening into the sleeve, and a transverse brace closing one end of the sleeve and lapping the socket members and the space therebetween, said socket members having fastener-receiving lapping portions forming walls.

6. The combination with a beam and a pair of diverging legs, of a bracket for connecting the same including a single blank of sheet metal bent to provide a beam-receiving sleeve, diverging leg-receiving sockets opening into the sleeve, and a transverse brace closing one end of the sleeve and lapping and attached to the socket members, each of said socket members having lapping portions forming a portion of one wall, fastening means extending through said lapping portions to prevent the socket members from gaping and for holding them assembled with the legs, and fastening means extending through the beam and said beam bearing against those ends of the legs in the socket members.

In testimony that we claim the foregoing as our own, we have hereto affixed our signatures.

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