April 7, 1953 R. W. HOLLIDGE 2,634,172

CARPENTER'S SAW TRESTLE

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FIG. 2.

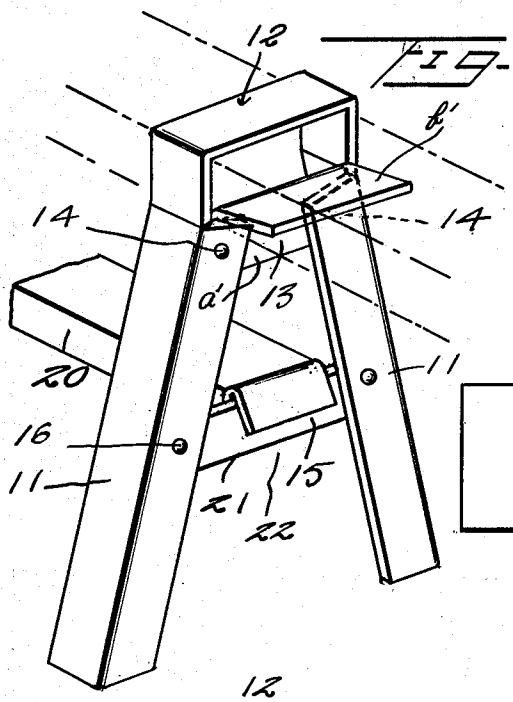


FIG. 3.

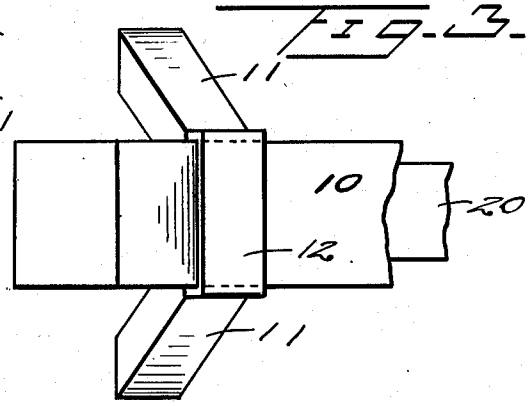
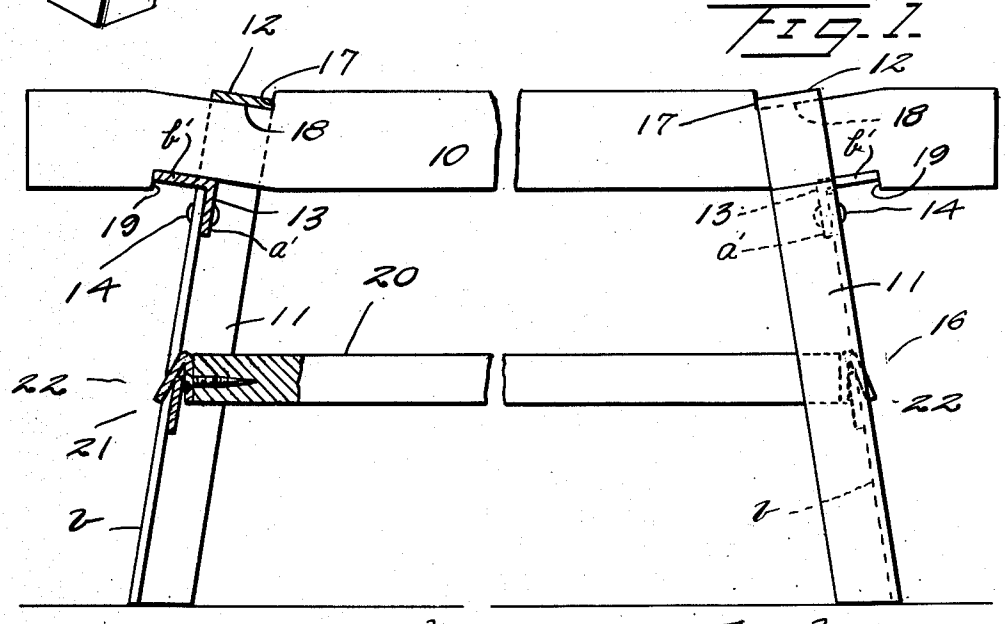


FIG. 1.



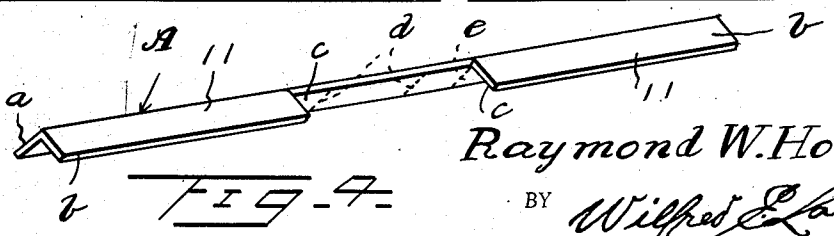


FIG. 4.

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CARPENTER'S SAW TRESTLE

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4 Claims. (Cl. 304—5)

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This invention relates to improvements in trestles and is directed particularly to an improved structure of this character which is designed for use by carpenters or other workmen and which may be taken apart or disassembled.

A principal object of the present invention is to provide an improved trestle structure which may be easily and quickly set up or taken apart and wherein the leg units are connected with the horizontal beam or body portion in a novel manner whereby such beam and the leg units are locked together.

Another object of the invention is to provide a trestle structure of the character stated wherein the pair of legs at each end of the structure are formed in a novel manner from a single piece of metal whereby to provide as a connecting part between the legs, a box head or sleeve through which the horizontal beam or body is extended.

A still further object of the invention is to provide in a trestle structure of the character above set forth, a novel means whereby the head or sleeve is locked to the horizontal beam so as to prevent the sliding of the beam through the head or sleeve when the structure is set up for use.

The invention will be best understood from a consideration of the following detailed description taken in connection with the accompanying drawing forming a part of the specification, with the understanding, however, that the invention is not to be limited to the exact details of construction shown and described since obvious modifications will occur to a person skilled in the art.

In the drawing:

Figure 1 is a view partly in side elevation and partly in vertical longitudinal section of a trestle constructed in accordance with the present invention, the middle portion thereof being broken away.

Figure 2 is a view in perspective showing one of the leg units with a portion of the plate which connects a pair of the units together.

Figure 3 is a view in top plan of one end portion of the trestle structure.

Figure 4 is a view in perspective of a length of angle iron showing the manner in which one of the flanges is cut away as a preliminary step to the shaping of the iron to form a complete leg unit.

Referring more particularly to the drawing the numeral 10 generally designates the horizontal beam or body portion of the trestle structure, which is supported adjacent to each of its ends by the two leg members 11.

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These leg members are disposed in upwardly convergent relation as is usual in a structure of this character and they are joined and permanently coupled together at their top ends by a head 12 which is in the form of a box or sleeve adapted to have an end of the beam 10 slidably extended therethrough.

While the legs 11 and the head 12 may be formed in any suitable manner it is preferred that they be fashioned from a single piece of angle iron material in the manner illustrated in Figure 4. In this figure the piece of angle iron is generally designated A and comprises the two usual flanges *a* and *b*. At suitable points inwardly from each end of the angle iron one of the flanges, here shown as the flange *b*, is cut transversely along two spaced parallel lines as indicated at *c* and the intermediate section between the lines or positions *c* is removed or cut away from the other flange. This provides the two legs 11 which are joined together by an intermediate portion of the flange *a* which, when bent along the lines *d* forms the top and two end portions of the head or sleeve 12. In other words the portion of the flange *a* between the legs has two right angle bends formed therein in the proper direction to set up the top and end portions of the head or sleeve and the legs are then bent outwardly slightly on the lines *e* so as to put them in the upwardly convergent relation shown in Figure 2.

When the legs 11 are arranged in the desired angular relation, they are joined at their top ends by means of a section of angle iron 13, as shown in Figure 2. This brace piece is arranged with one flange *a'* thereof, disposed between the adjacent upper ends of the cut flange *b* and secured therein in a suitable manner, as by rivets 14, or bolts, or by welding. The other flange *b'* of the bar 13 projects outwardly, as shown for connection with the underside of the beam in the manner illustrated and about to be described. The flange *b'* of the bar 13, in effect forms the fourth side of the box like head or sleeve which receives an end of the beam 10.

After the legs 11 have been set at the proper angle, or the desired angle, they are further braced by having a second bar disposed therebetween upon the inner sides of and connected with the two inwardly directed parts of the cut flange *b*, this second brace being designated 15 and being secured by welding or by securing bolts to the leg flanges as indicated at 16.

Adjacent to each end the beam 10 has cut in the top and bottom faces thereof the tapering recesses or notches 17, which have the long bot-

tom surfaces 18 which are in parallel relation one with the other and extend obliquely of the beam and each of which is terminated at its deep end in the transversely directed end wall 19. As shown the shallow end walls 19 of the recesses 17 are at opposite ends of the recesses, the other end of each recess having the bottom wall 18 thereof intersecting the plane of the adjacent face of the beam.

The length of each recess 17 is greater than the width of the flange which forms the top of the head or sleeve 12 and of the flange b' of the bar 13, so that when an end of the beam is put through the sleeve to the point where it brings the recesses 17 into the sleeve, the legs and sleeve may then be canted as shown in Figure 2 so that the top portion of the sleeve will enter the top recess with one edge bearing against the end wall 19 thereof and the flange b' of the bar 13 will position in the underneath recess with the outer edge thereof against the end wall 19 of the recess. By this means the leg unit will be securely locked against sliding movement from the end of the beam.

In order to prevent the leg units from shifting to a vertical position where an end of the beam might be removed from its sleeve, there is provided an intermediate coupling plate 20 which is preferably a board, which is disposed horizontally beneath the beam and has upon each end a means for coupling it with a transeverse brace bar 15 of the adjacent leg unit, such coupling may be of any suitable character and it is here shown as comprising a plate 21, secured to each end of the plate or board 20, and having a portion bent down to provide the flange 22. This flange engages over the brace bar 15, as shown, the top edges of the bar wedging in the angle between the flange 22 and the plate 21.

From the foregoing it will be readily seen that there is provided in the present invention a carpenter's trestle which is constructed in a novel manner and which, although of knock down construction, will, when assembled, be strong and provide a firm and steady support.

I claim:

1. A trestle structure comprising a horizontal beam, a pair of supporting legs for each end thereof, the legs of each pair being in upwardly convergent relation, a sleeve head connected between the convergnt ends of each pair of legs and designed to have an end of the beam slidably engaged therein, the sleeve having wide top and bottom portions horizontally offset from one another, and means for establishing a locking coupling between each sleeve and the beam comprising a long slanting notch in the top and bottom faces of the beam at each end, the remote ends of adjacent notches being the deep ends in which the adjacent top and bottom sleeve portions lie at an inclination from the horizontal.

2. A trestle structure comprising a horizontal beam, a pair of legs for the support of each end thereof, a sleeve connected between the top ends of each pair of legs and adapted to slidably receive an end of the beam, and means for locking each sleeve to the beam to prevent longitudinal movement of the beam therethrough comprising sloping notches in the top of the beam in each of which the top part of a sleeve is caused to engage upon the tilting of the sleeve and legs, said notches being of a depth in the portion receiving the top part of the sleeve sufficient to prevent projection of such top part above the notched surface of the beam.

3. In a trestle structure including a horizontal beam body, a supporting leg unit for each end thereof, each unit comprising a single piece of angle iron having a substantial length of one flange cut out midway between its ends, the other flange in the longitudinal part thereof corresponding to the cut out length being bent transversely on two spaced lines to provide a sleeve top portion and opposite side portions, the parts of the angle iron at the two sides of the cutout providing legs, the legs extending in divergent relation from the said sleeve side portions, the two portions of the cut flange being directed inwardly, a bar extending transversely between the top ends of the legs and joined to the said portions of the cut flange, said bar forming the fourth and bottom side of the sleeve, said sleeve snugly receiving an end of the beam, and a second brace bar connecting said legs below the first bar.

4. The invention as set forth in claim 3, wherein said bar comprises a length of angle material having two right angularly related flanges, one of the said right angularly related flanges being disposed at its ends flat against the said portions of the cut flange and the other one of said right angularly related flanges extending outwardly and having the top surface thereof contacting said beam.

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