April 25, 1950 C. J. ERNST 2,505,532

STACKABLE TRESTLE

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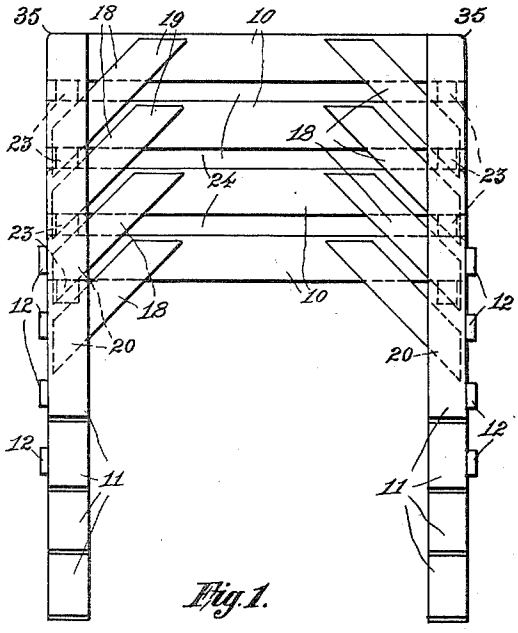


Fig. 1.

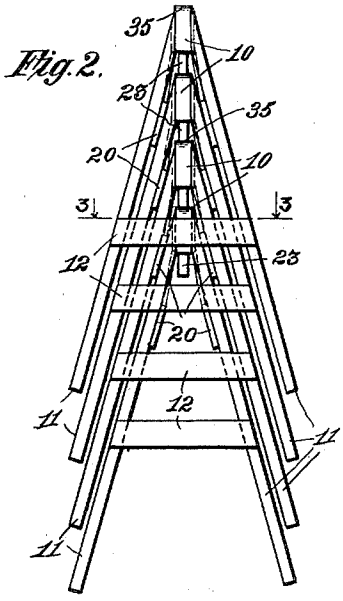


Fig. 2.

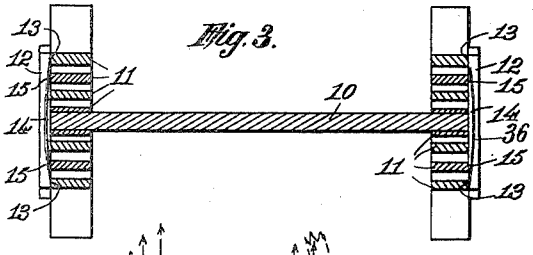


Fig. 3.

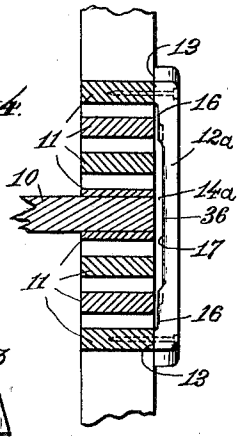


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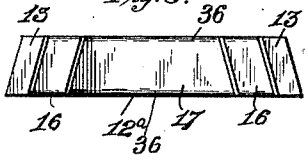


Fig. 5.

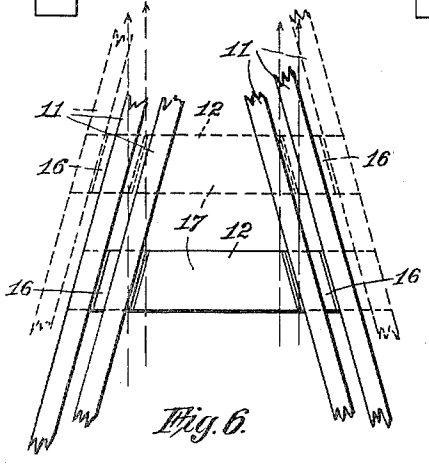


Fig. 6.

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STACKABLE TRESTLE

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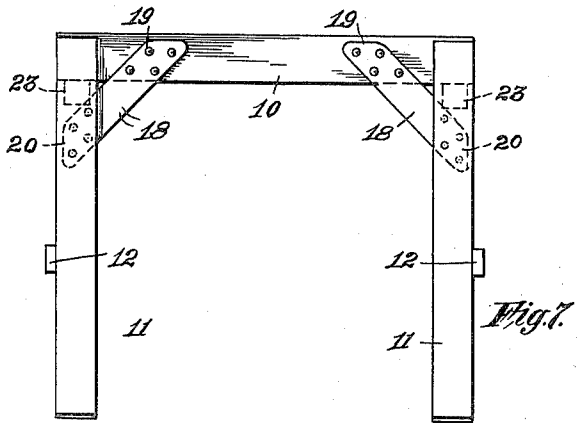


Fig. 7.

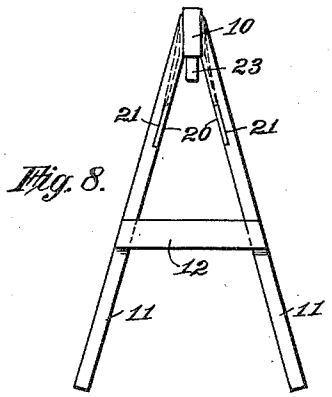


Fig. 8.

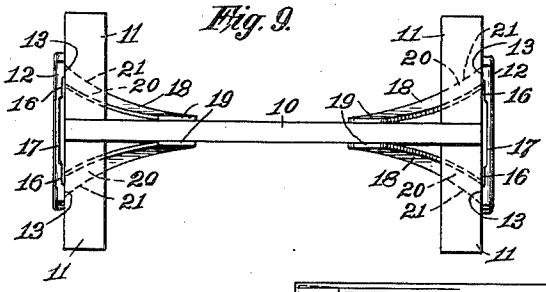


Fig. 9.

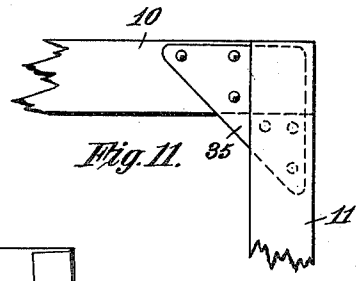


Fig. 11.

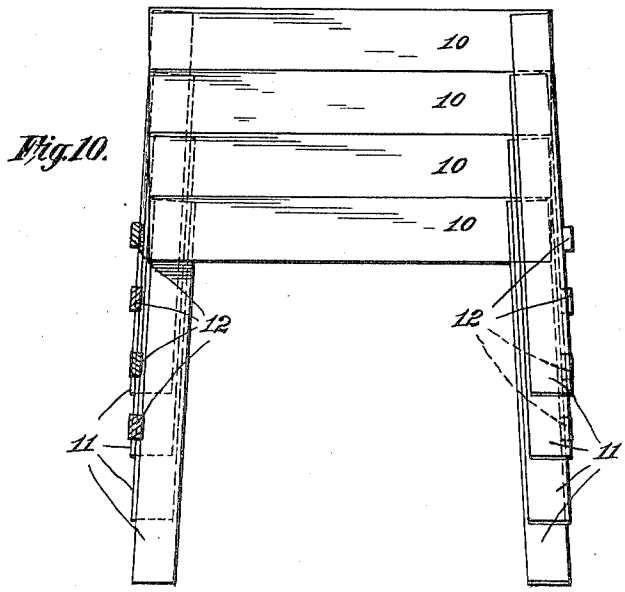


Fig. 10.

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STACKABLE TRESTLE

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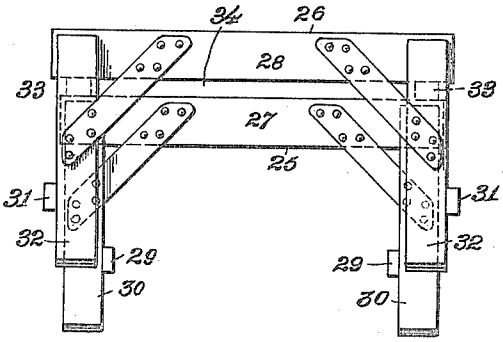


Fig. 12.

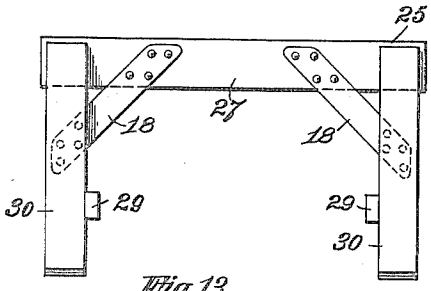


Fig. 13.

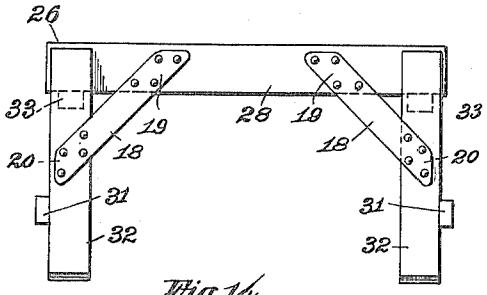


Fig. 14.

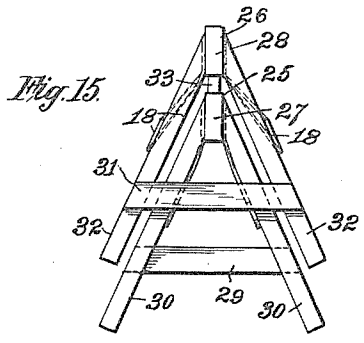
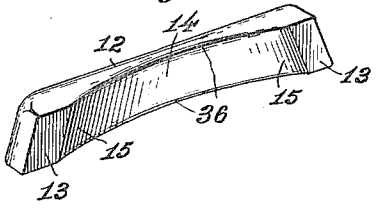


Fig. 15.

Fig. 16.



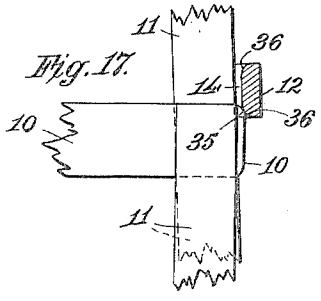


Fig. 17.

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Patented Apr. 25, 1950 2,505,532

UNITED STATES PATENT OFFICE

2,505,532

STACKABLE TRESTLE

Clemens J. Ernst, Sidney, Ohio

Application September 12, 1945, Serial No. 615,777

7 Claims. (Cl. 304—5)

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This invention relates to trestles such as are used by carpenters and other mechanics to support their work; or such as are used to support portable table tops, or boards to constitute platforms for various uses.

Trestles of this character consist generally in a horizontal body bar provided at or adjacent each end with a pair of laterally flared or downwardly diverging legs. These legs are usually connected in pairs by transverse brace bars to lend rigidity to the device. To give further rigidity to the trestle, depending upon the use for which it is designed, diagonal brace bars are sometimes provided between the body bar and the legs.

With trestles of this usual construction it has been practically impossible to satisfactorily nest or stack the same either for storage or transportation. Either they will not fit together with sufficient contact to form a stable stack; or, if they do contact sufficiently, they bind and cause difficulty in separating the same for use. Furthermore, when the transverse leg braces are provided they interfere with the proper nesting as the distance between the braces at the opposite ends of the trestle is less than the length of the trestle. Also when the diagonal braces are used, they also prevent proper stacking and separation.

An object of the present invention is to provide trestles of the class mentioned which may be readily stacked or nested when not in use, and which may be readily transported while stacked, thereby saving considerable space, and time in handling.

A further object of the invention is to provide trestles of such construction that two or more thereof may be nested and readily carried by hand.

A further object of the invention is to provide trestles which when stacked will be comparatively firmly seated, one upon the other to prevent undue relative movement.

A still further object of the invention is to provide trestles of such construction that when stacked they will be snugly seated one within the other without binding, so that they may be readily separated for use.

Another object of the invention is to provide in a stack of trestles, ample hand space between the body bars to aid in handling the stack and to assist in separating the trestles.

Other objects will appear hereinafter.

With these objects in view, this invention consists generally in a plurality of similar trestles

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nested or stacked one within the other, means in each trestle in juxtaposition to adjacent parts of other trestles in the stack, to permit but slight relative movement of the several trestles, and means to prevent binding contact between said trestles.

The invention further consists in a stack of trestles, each trestle comprising a body bar, a pair of downwardly diverging legs at each end of the bar, and transverse braces connecting said legs in pairs and providing means to prevent but slight relative horizontal movement of the several trestles.

The invention further consists in a stack of nested trestles as mentioned, in which the said brace bars are so constructed that they will prevent appreciable relative horizontal movement of the several trestles while stacked, but will permit greater freedom of horizontal movement when one trestle is raised a short distance from the next lower trestle, thereby permitting ready separation of the same.

The invention further consists in various details of construction and combination of parts all as will be fully described hereinafter and particularly pointed out in the claims.

The invention will be more readily understood by reference to the accompanying drawings forming a part of this specification and in which:

Figure 1 is a side elevation of a stack of trestles embodying my invention in its preferred form;

Figure 2 is an end elevation thereof;

Figure 3 is a horizontal section on the line 3—3 of Figure 2;

Figure 4 is a similar section of one end of the stack, upon an enlarged scale, and illustrating a modified form of one of the transverse leg braces;

Figure 5 is an elevation of the inner face of the brace illustrated in Figure 4;

Figure 6 is a diagram illustrating the function of said brace bar when separating the trestles;

Figure 7 is a side elevation of one of the trestles removed from the stack;

Figure 8 is an end elevation thereof;

Figure 9 is a plan view of the same;

Figure 10 is a side elevation of a stack of trestles of a modified form, the front legs at the left end being removed to more clearly illustrate the invention;

Figure 11 is a detail of a modified form of longitudinal leg brace;

Figure 12 is a side view of a stack of trestles illustrating a further modification;

Figures 13 and 14 are side elevations respec-

tively of the two trestles forming the stack illustrated in Figure 12;

Figure 15 is an end elevation of the stack shown in Figure 12; and,

Figure 16 is a perspective view of the transverse leg brace shown in Figures 1 to 3, inclusive.

Figure 17 is a detail view illustrating the cooperation of the rounded edges on the ends of the body bars and brace bars when stacking or unstacking the trestles.

Referring to the form of the invention shown in Figures 1 to 9, inclusive, of the drawings, Figures 1 and 2 represent side and end views respectively of a stack of similar trestles or units, one of which is illustrated in Figures 7, 8 and 9. As shown in Figures 1 and 2 the stack is composed of four units although the invention is not limited to any particular number.

Each unit or trestle comprises a longitudinal horizontal body bar 10 and a pair of legs 11—11 at or adjacent each end thereof. The body bar 10 may be of any desired transverse dimensions or proportions, and of sufficient length to serve the purpose for which it is designed. The legs 11 which are attached to the body bar are beveled at their upper ends where secured to the body, to give the desired angular downward flare or spread to the legs. Connecting the legs 11 of each pair is a substantially horizontal transverse brace member 12 which may be spaced at any distance from the ends of the legs, but preferably about midway of their length.

These braces 12 are secured to the outer edges of the legs, and the inner faces of the braces at the ends thereof are provided with seats 13 which are angularly disposed to fit against said edges. In order to prevent the braces 12 from binding against the edges of the legs of the lower trestles when stacked, the inner faces of said braces are cut away or recessed as at 14, as shown in Figures 3 and 16. As shown in said figures, this may be merely a concave recess extending from one seat 13 to the other. With this form, when the trestles are stacked, the edges of the legs of the next lower trestle are held substantially confined between the shallow end portions 15 of the recess 14 adjacent the seats 13, which will maintain the trestles in vertical alignment; but as the longitudinal distance between the portions 15 of the opposite braces is slightly greater than the distance between the outer edges of the legs, there can be no binding of one trestle upon the other. Furthermore, as the upper trestle is lifted, the deeper portions of the recesses will come opposite the upper portions of the legs of the lower trestle where they are convergent, thereby permitting the trestles to be freely separated.

In Figures 4, 5 and 6 a modified form of bar 12a is illustrated wherein the recess 14a is formed by stepping the inner surface. In this form the portions adjacent the seats 13 are but slightly cut away forming faces 16 of sufficient length to extend across the legs of the next lower trestle and giving the clearance similar to that provided at 15 in Figures 3 and 16; but being a flat surface to engage the flat edges of the legs, will be more durable. Between the portions 16 the recess is further deepened as at 17 to give greater clearance after the upper trestle has been initially lifted, as illustrated diagrammatically in Figure 6. It is obvious that when an upper trestle is raised so that the face 16 is clear of the legs of the next lower trestle, the larger and deeper recess 17 allows more clearance so that the bars 12 will readily clear the ends of the body bars 10.

To brace the trestle legs longitudinally, angularly disposed braces 18 may be provided, if desired. These may be formed of any suitable material, such as wood or metal. In Figures 1, 2, 7 to 9, and 12 to 15, these braces are illustrated as formed of comparatively thin strips of material having their upper ends 19 secured against the outer or lateral faces of the body bar, and their lower ends 20 secured to the inner sides of the respective legs 11. If the braces are of sufficiently thin material the ends 20 may be secured directly to the inner faces of the legs as shown in Figures 1 and 2; but if thicker material is desired they may be secured in diagonal recesses or mortises 21, as illustrated in Figure 8.

Setting the ends 20 into the legs as described, not only avoids friction or binding of the units in the stack, but also prevents clothing or other articles catching thereon. For this latter mentioned purpose the corners of the braces 18 may be rounded as illustrated in Figures 12 to 14, and the outer edges of the transverse braces 12 may also be rounded as shown in Figures 1, 2, 14 and 16.

In Figure 11 is illustrated a small gusset brace 35 which may be made of metal. This is often sufficient in trestles for many purposes, and gives more free space under the trestle than when the longer diagonal braces are used, which is of particular advantage when the trestles are to be used to support boards as for a picnic table.

On the under faces of the body members 10 are secured blocks or spacing members 23, which space the body portions of the nested trestles apart sufficiently to provide hand spaces 24 to permit insertion of the fingers or hand when separating the trestles.

In Figure 10 a modified form of trestle is illustrated. As shown therein the legs 11 are not only flared laterally as in the preceding form, but are also slightly flared longitudinally. By this arrangement the end braces need not be recessed as hereinbefore described as it is evident that as the upper trestles are lifted the clearance between the end braces and the ends of the lower trestles increases continually, thereby facilitating easy separation of the trestles.

In Figures 12 to 15 inclusive a further modification is shown. This construction is adapted for use with only a pair of trestles, a lower trestle 25 and an upper trestle 26. The body bar 27 of lower trestle 25 is somewhat shorter than the body bar 28 of the upper trestle 26, and the transverse braces 29 thereof are secured to the inner edges of the legs 30 of the shorter lowermost trestle, whereas the brace bars 31 of the upper trestle are secured to the outer faces of the legs 32 thereof. This gives ample clearance between the outer extremities of the lower trestle and the inner faces of the braces 31 of the upper trestle to permit ready separation of the units. Blocks or spacing members 33 are provided on the under face of the upper body 28 to provide the hand space 34. This form is particularly adapted for use where only two trestles are needed, as by carpenters, or as a support for table tops such as used by paperhangers and others.

In order to facilitate stacking and unstacking of the trestles, it is advantageous that the end edges of the body bar 10 be rounded as illustrated at 35 in Figures 1, 2 and 17 and that the inner edges of the transverse brace bars 12 be similarly rounded as at 36. By rounding these parts as described, the trestles may be readily placed one upon the other to form a stack, and

readily removed from the stack without one trestle catching on another, as would be the case where sharp corners exist at these places. Figure 17 illustrates how these rounded edges will cause the contiguous parts to pass without interference and guide each trestle properly as it is placed upon those beneath.

While several specific forms of the invention have been shown for purposes of illustration, it is to be clearly understood that various additional changes in the details of construction and arrangement of parts may be made without departing from the spirit and scope of the invention as defined in the appended claims.

I claim:

1. A stackable trestle comprising a horizontal longitudinal body bar, a pair of downwardly divergent legs disposed uprightly in a plane perpendicular to said bar at each end of said body bar, and a transverse brace connecting the legs of each pair intermediate the ends thereof, the inner faces of said transverse braces having mutually opposed recesses to provide clearance for a similar trestle upon which it is superposed.

2. A stackable trestle comprising a longitudinal body bar, a pair of downwardly divergent legs at each end of said body bar, and a transverse brace connecting the legs of each pair intermediate the ends thereof, the inner faces of said transverse braces having recesses to provide clearance for a similar trestle upon which it is superposed, and said recess being of greater depth at its central portion than toward the ends.

3. A stackable trestle comprising a longitudinal body bar, a pair of downwardly divergent legs at each end of said body bar, and a transverse brace connecting the legs of each pair intermediate the ends thereof, the inner faces of said transverse braces having recesses to provide clearance for a similar trestle upon which it is superposed, the upper and lower inner edges of said braces being rounded.

4. A stackable trestle comprising a longitudinal body bar, a pair of downwardly divergent legs at each end of said body bar, and a transverse brace connecting the legs of each pair intermediate the ends thereof, the inner faces of said transverse braces having recesses to provide clearance for a similar trestle upon which it is superposed, the upper and lower inner edges of said braces being rounded and the upper and lower transverse edges of the ends of the body bar being rounded.

5. A trestle structure of a form for nesting one within another, said trestle structure comprising a horizontal longitudinal body pair, a pair of downwardly divergent legs disposed uprightly in a plane perpendicular to said bar at each end of said body bar, and a transverse brace connecting each pair of legs, said transverse braces having mutually opposed recesses in their inner faces between said legs to provide clearance for the legs of a similar trestle upon which said trestle structure may be superposed.

6. A trestle structure of a form for nesting one within another, said trestle structure comprising a horizontal longitudinal body bar, a pair of downwardly divergent legs disposed uprightly in a plane perpendicular to said bar at each end of said body bar, and a transverse brace connecting each pair of legs intermediate the ends thereof in position for traversing the legs of a plurality of lower trestles when the trestle structure is stacked with similar trestle structures, each said transverse brace being recessed a slight depth where it would be opposite the legs of a next lower trestle when stacked, and deeper at the portion where it would lie opposite the legs of other lower trestles when stacked.

7. A trestle structure of a form for nesting one within another, said trestle structure comprising a longitudinal body bar, a pair of downwardly divergent legs at each end of the body bar, and transverse braces connecting each pair of legs intermediate the ends thereof traversing the legs of a plurality of lower trestles when the trestle structure is stacked with similar trestle structures, each said transverse brace being recessed to provide flat faces where it would lie opposite the legs of a next lower trestle when stacked so as to maintain such trestles in vertical alignment but spaced to prevent binding, and the portion of each said brace between said flat faces being recessed more deeply.

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