Oct. 19, 1937. R. C. BROWN 2,096,668

TRESTLE

Filed Dec. 19, 1936

Fig. 1.

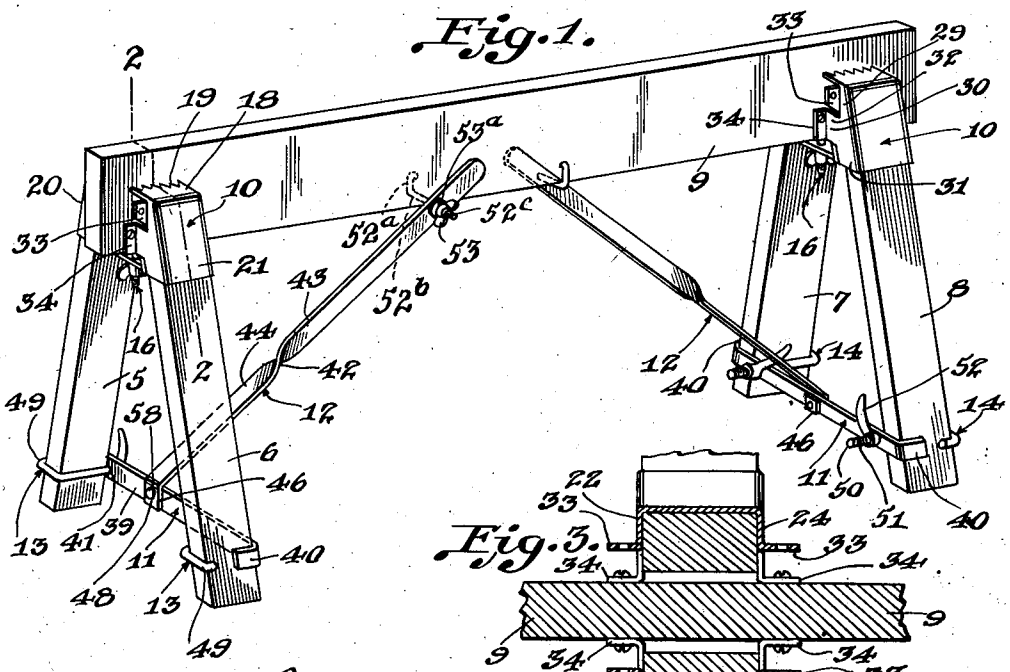


Fig. 3.

Fig. 2.

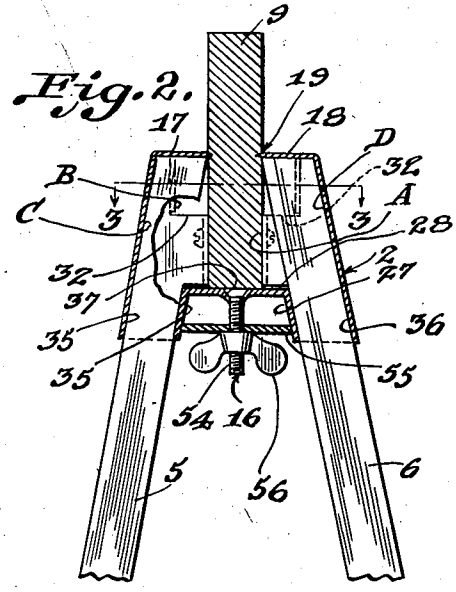


Fig. 4.

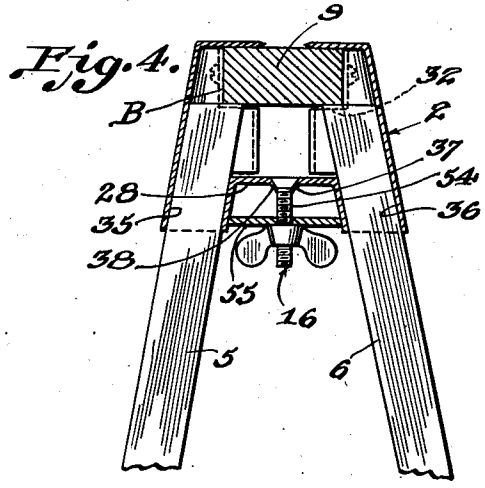
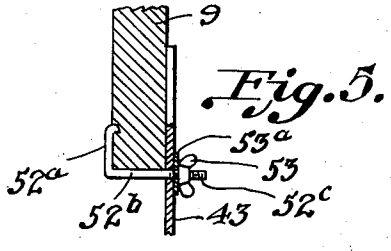


Fig. 5.



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TRESTLE

Robert C. Brown, Columbus, Ohio

Application December 19, 1936, Serial No. 116,804

9 Claims. (Cl. 304—5)

This invention relates to a trestle forming apparatus for the use of carpenters, masons, plasterers, etc., and has for its object to provide, in a manner as hereinafter set forth, an apparatus of the class referred to including means adaptable for wood pieces, which are readily available on almost any job for the purpose of setting up a knock-down trestle.

A further object of the invention is to provide, in a manner as hereinafter set forth, an apparatus for setting up a trestle at the job thereby overcoming the necessity of transporting a trestle from one job to another.

A further object of the invention is to provide, in a manner as hereinafter set forth, means whereby a strong, durable knock-down trestle may be expeditiously set up when desired.

A further object of the invention is to provide, in a manner as hereinafter referred to a trestle forming apparatus whereby an oblong ledge or head plank of a trestle may be positioned on one of its lengthwise edges or flatwise with respect to its upper or lower face and secured in a selected position.

Further objects of the invention are to provide, in a manner as hereinafter set forth, an apparatus for the purpose referred to which is simple in its construction, strong, durable, thoroughly efficient in its use, conveniently handled when desired, capable of being readily moved from place to place, compact and comparatively inexpensive to manufacture.

To the above ends essentially and to others which may hereinafter appear, the invention consists of the novel construction, combination and arrangement of parts as will be more specifically referred to and as illustrated in the accompanying drawing wherein is shown an embodiment of the invention, but it is to be understood that changes, variations and modifications may be resorted to which fall within the scope of the invention as claimed.

In the drawing:

Figure 1 is a perspective view of the apparatus in trestle forming position,

Figure 2 is a vertical section on line 2—2, Figure 1 and upon an enlarged scale,

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

Figure 4 is a view similar to that of Figure 2 with the ledge or head plank disposed on its lower face and at right angles to the showing of the plank in Figure 2, and

Figure 5 is a fragmentary view partly in side elevation and partly in vertical section.

As is well known a trestle includes two pairs of oppositely inclined legs and an oblong head which is generally termed a ledge board or plank. In the drawing the legs of one pair are indicated at 5, 6, those of the other pair at 7, 8 and the ledge board at 9. In Figures 1, 2, and 3, the board or plank 9 is shown positioned on one of its lengthwise edges and in Figure 4 on its lower face, that is to say, at right angles to the showing in Figures 1, 2, and 3.

The trestle forming apparatus includes a pair of hollow, recessed head elements 10 of like form, a pair of cross bars 11 of like form, a pair of tie bars 12 of like form, two oppositely disposed pairs of clamping devices, the clamping devices of one pair are designated 13 and those of the other at 14, a pair of oppositely disposed clamping devices 15 of like form and a pair of spreader devices 16 of like form. The cross bars 11 are oppositely disposed. The tie bars 12 are oppositely disposed.

Each head element 10 is formed from any suitable metallic material preferably by stamping and it includes a pair of spaced aligned flat top parts 17, 18 having their inner ends toothed as at 19, a pair of downwardly extending oppositely outwardly inclined rear and front parts 20, 21 merging at their upper ends into the outer ends of the parts 17, 18 respectively, a pair of spaced aligned outer side parts 22, 23, a pair of spaced aligned inner side parts 24, 25, a pair of spaced opposed oppositely outwardly inclined upstanding coupling parts 26, 27 and a centrally apertured bridge part 28.

The parts 22, 24 are arranged in opposed spaced relation to the parts 23, 25 respectively. The parts 22, 24 merge at their upper ends into the sides of part 17 and at their outer sides into the sides of part 20. The parts 23, 25 merge at their upper ends into the sides of part 18 and at their outer sides into the sides of the part 20. The outer and inner side parts are of like form, but the inner side parts are oppositely disposed with respect to the outer side parts. The pair of outer side parts are oppositely disposed. The pair of inner side parts are oppositely disposed. Each outer side part and each inner side part consists of an upper portion 29, an intermediate portion 30 and a lower portion 31, best shown in Figure 1. The portion 30 is of greater width than portions 29, 31. The portion 29 is of less width than portion 31. At the point of mergence of the portions 29, 30 a horizontally disposed shoulder 32 is formed which extends inwardly from the bottom of portion 29. At the inner side edge of portion 29 is an integral vertically dis-

posed apertured ear 33 extending outwardly at right angles to portion 29. At the inner side edge of portion 30 is an integral vertically disposed apertured ear 34 extending outwardly at right angles to portion 30 of greater height than and arranged inwardly of the ear 33. The ears 33 of the parts 22, 24 align in spaced relation. The ears 34 of the parts 22, 24 align in spaced relation. The ears 33 of the parts 23, 25 align in spaced relation and the ears 34 of the parts 23, 25 align in spaced relation. The outer and inner side parts and the top parts coact to provide a vertical recess for receiving the ledge plank disposed on a lengthwise edge and the front and rear parts, outer and inner side parts and the top parts coact to form a horizontally disposed recess for receiving the ledge plank when the latter is disposed on its lower face. The front and rear parts and the inner and outer side parts coact to provide a head with a pair of spaced recesses to receive the upper parts of a pair of legs. The coupling part 26 is integral at its ends with the inner side edges of the portions 31 of the side parts 22, 24 and form in connection with the parts 17, 22, 24 a socket 35 for the passage of a leg of a pair. The socket 35 is open at its top and bottom and opens at its top into the bottom of a recess which receives the upper part of the leg. The coupling part 27 is integral at its ends with the inner side edges of the portions 31 of the side parts 23, 25 and form in connection with the parts 18, 22, 25 a socket 36 for the passage of the other leg of the pair. The socket 36 is open at its top and bottom and opens at its top into the bottom of the recess which receives the upper part of a leg.

The upstanding recess for receiving the ledge plank 9 when the latter is disposed on a lengthwise edge is indicated at A, the horizonal recess for plank 9 is indicated at B and the recesses to receive the upper parts of a pair of legs at C, D, Figure 3. The recess B is intersected by recess A.

The bridge piece 28 is integral at its ends with the top of the coupling parts 26, 27. The aperture or opening in bridge piece 28 is indicated at 37 and is countersunk. The lower face of bridge piece 28 is formed with an annular boss 38 which forms a continuation of the opening 37.

Each cross bar 11 is formed of an intermediate portion 39 and a pair of end portions 40 disposed at right angles to and being of less length than the portion 39. The latter in proximity to each end thereof is formed with an opening 41 and centrally thereof with an opening not shown.

Each tie bar 12 is torsionally twisted intermediate its ends as at 42 to form a leading and a follower portion 43, 44 respectively disposed at right angles. The portion 43 is of greater length than portion 44 and is provided near its outer end with an opening 45. The lower end terminal part 46 of portion 44 is disposed at an angle to the remaining part of said portion 44 and is of U-shape form. The sides of the part 47 having aligning openings 48.

The clamping devices 13, 14 are of like form and each consists of a hook member 49 having its shank 50 threaded as at 51, and a swing nut 52 for engagement with the threads 51.

Each of the clamping devices 15 consists of a hook member 52^a having its shank 52^b threaded as at 52^c, a take-up nut 53 of the wing type engaging with the threads 52^c and a washer 53^a for positioning on shank 52^b against the inner face of nut 53.

The spreader element 16 consists of a screw 54 which extends through the opening in bridge piece 28, wedging plate 55 through which extends screw 54 and a take-up nut 56 of the wing type. The wedging plate 54 is arranged between and wedges against the coupling parts 26, 27.

When the ledge plank 9 is disposed on a longitudinal edge, it is seated on the bridge piece 28, is arranged between the ears 34 and is anchored to the heads 10 by the holdfast means 57 extending through the ears 34. In this arrangement the top parts 17, 18 provide abutments for the legs, as well as the teeth 19 of the parts 17, 18 engaging in the plank 9. When the ledge plank 9 is disposed flatwise on its lower face it seats upon the shoulders 32, is overlapped by the top parts 17, 18 and provides an abutment for the legs.

When the trestle is set up the cross bars 11 are positioned against the inner edges of and overlap the outer side faces of and in proximity to the lower ends of the legs. The bars 11 are maintained in such position by the clamping devices 13, 14 which have hook-like engagement with the legs and extend through and clamp to the cross bars. When the trestle is set up, as shown in Figure 1, the lower terminal parts 46 of the tie bars 12 are positioned in overlapping relation with respect to the cross bars and detachably secured in position, as at 58. The bars 12 extend upwardly at opposite inclinations and are arranged on opposite side faces of ledge plank 9. The shanks of clamping devices 15 are passed through the openings 45 in the bars 12 and positioned against the lower edge of plank 9 and with the hooks of the members 52^a engaging in the opposite sides of the plank 9. The nuts 53 are then screwed home against the bars 12 whereby the plank 9 is clamped with the cross members 11.

The manner of use of the device will be clear from the foregoing. The fittings, as seen, are such as to be adaptable to wood pieces which may be readily available on almost any job, without necessity in every case of pre-cutting and hauling around. The ledge plank or board 9 of the desired length is assembled with the head elements 10 and the legs which may be cut to whatever length is preferred, are seated in the leg sockets, the take-up nut 56 having been retracted so as to allow the coupling parts 26, 27 to slacken to facilitate entry. Thereupon, the nut 56 is set up, and by forcing the wedge plate 55 up against the parts 26, 27 forces them into locking engagement against the legs. With a pair or more of such assemblages, platform boards as desired may be superposed, and the equipment is ready to receive the materials and operators.

What I claim is:

1. In an apparatus for the purpose set forth, a hollow metallic head element formed with vertical and horizontally disposed recesses for selectively receiving a ledge board disposed on a lengthwise edge or on its lower face, the top and bottom walls of the horizontal recess being open at their centers, the said vertical recess being open at its upper end and communicating with the horizontal recess through the opening in said bottom wall, said head element being provided with a pair of upstanding recesses for receiving the upper parts of a pair of supporting legs.

2. In an apparatus for the purpose set forth, a hollow metallic head element formed with vertical and horizontally disposed recesses for selectively receiving a ledge board disposed on a

lengthwise edge or on its lower face, the top and bottom walls of the horizontal recess being open at their centers, the said vertical recess being open at its upper end and communicating with the horizontal recess through the opening in said bottom wall, said head element being provided with a pair of upstanding recesses for receiving the upper parts of a pair of supporting legs and opening at their upper ends into said horizontal recess adjacent the upper end of said vertical recess, and said head element being provided with means forming a pair of leg receiving sockets opening into the bottoms of said upstanding recesses.

3. In an apparatus for the purpose set forth, a hollow metallic head element formed with vertical and horizontally disposed recesses for selectively receiving a ledge board disposed on a lengthwise edge or on its lower face, the top and bottom walls of the horizontal recess being open at their centers, the said vertical recess being open at its upper end and communicating with the horizontal recess through the opening in said bottom wall, said head element being provided with a pair of upstanding recesses for receiving the upper parts of a pair of supporting legs and opening at their upper ends into said horizontal recess adjacent the upper end of said vertical recess, and an adjustable spreader element arranged within the lower portion of, bearing against and connected to the head element for locking the supporting legs in said element.

4. In an apparatus for the purpose set forth, a hollow metallic head element formed with vertical and horizontally disposed recesses for selectively receiving a ledge board disposed on a lengthwise edge or on its lower face, said head element being provided with a pair of upstanding recesses for receiving the upper parts of a pair of supporting legs, said head element being provided with means forming a pair of leg receiving sockets opening into the bottoms of said upstanding recesses, and a spreader element connected with the head element for locking the supporting legs in said element.

5. A device of the character described, comprising a pair of upstanding inner sidewise aligned metallic head elements, each having recesses for a ledge board and pairs of supporting legs, adjustable spreader means arranged within the lower portions of, bearing against and connected to said elements for locking the legs in said elements, a cross bar to extend between each pair of legs and including adjustable clamps for encompassing and anchoring it to the legs of the pair, and a tie rod extending from each cross bar and for connection to the ledge board.

6. In an apparatus for the purpose set forth, a hollow metallic head element formed with vertically and horizontally disposed recesses for selectively receiving a ledge board disposed on a lengthwise edge or on its lower face, the top and bottom walls of the horizontal recess being open at their centers, the said vertical recess being open at its upper end and communicating with the horizontal recess through the opening in said bottom wall, said head element being provided with a pair of upstanding recesses for receiving the upper parts of a pair of supporting legs and opening at their upper ends into said horizontal recess adjacent the upper end of said vertical recess, and said element being formed with spaced angularly disposed outwardly directed upstanding apertured means on both sides thereof for the passage of holdfast devices for securing the ledge board thereto.

7. In an apparatus for the purpose set forth, a hollow metallic head element formed with vertically and horizontally disposed recesses for selectively receiving a ledge board disposed on a lengthwise edge or on its lower face, said head element being provided with a pair of upstanding recesses for receiving the upper parts of a pair of supporting legs, said head element being provided with means forming a pair of leg receiving sockets opening into the bottoms of said upstanding recesses, and said elements being formed with spaced angularly disposed apertured means for the passage of holdfast devices for securing the ledge board thereto.

8. A device of the character described, comprising a pair of spaced aligned metallic head elements of like form and each having selectable recesses disposed in angular relation for receiving a ledge board and a pair of recesses for receiving a pair of supporting legs, adjustable spreader means within and suspended from said elements for locking the legs in said elements, a cross bar to extend between each pair of legs, means for securing said cross bars to the legs, a tie rod extending from each cross bar and for connection to the ledge board, and said head elements being formed with upstanding oppositely extending angularly disposed apertured means for the passage of the holdfast devices to secure the ledge board thereto.

9. A device of the character described, comprising a pair of spaced aligned metallic head elements of like form and each having selectable recesses disposed in angular relation for receiving a ledge board and a pair of recesses for receiving a pair of supporting legs, adjustable spreader means within and suspended from said elements for locking the legs in said elements, a cross bar to extend between each pair of legs, means for securing said cross bars to the legs, a tie rod having its outer end overlapping and anchored to each cross bar, a tie rod extending from each cross bar for connection to the ledge board, and means for clamping the inner portions of the tie rods to opposite sides of the ledge board.

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