Jan. 30, 1945. C. R. GRIGGS 2,368,541

COMBINATION STOOL AND STEPLADDER

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Fig. 1.

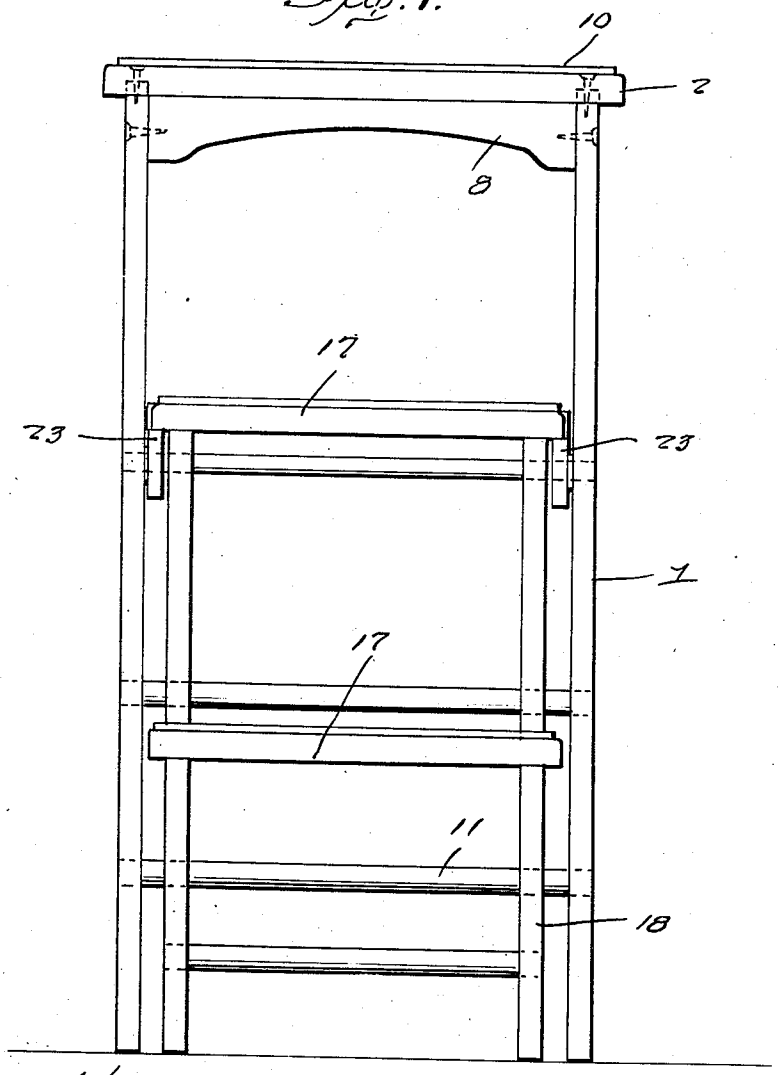
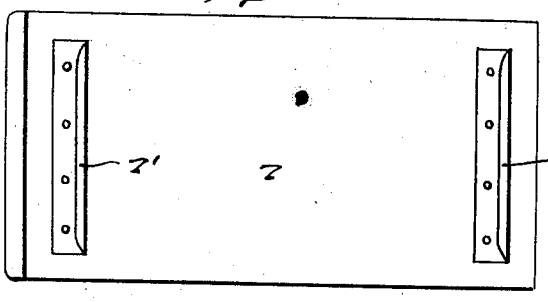


Fig. 6.



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Fig. 2.

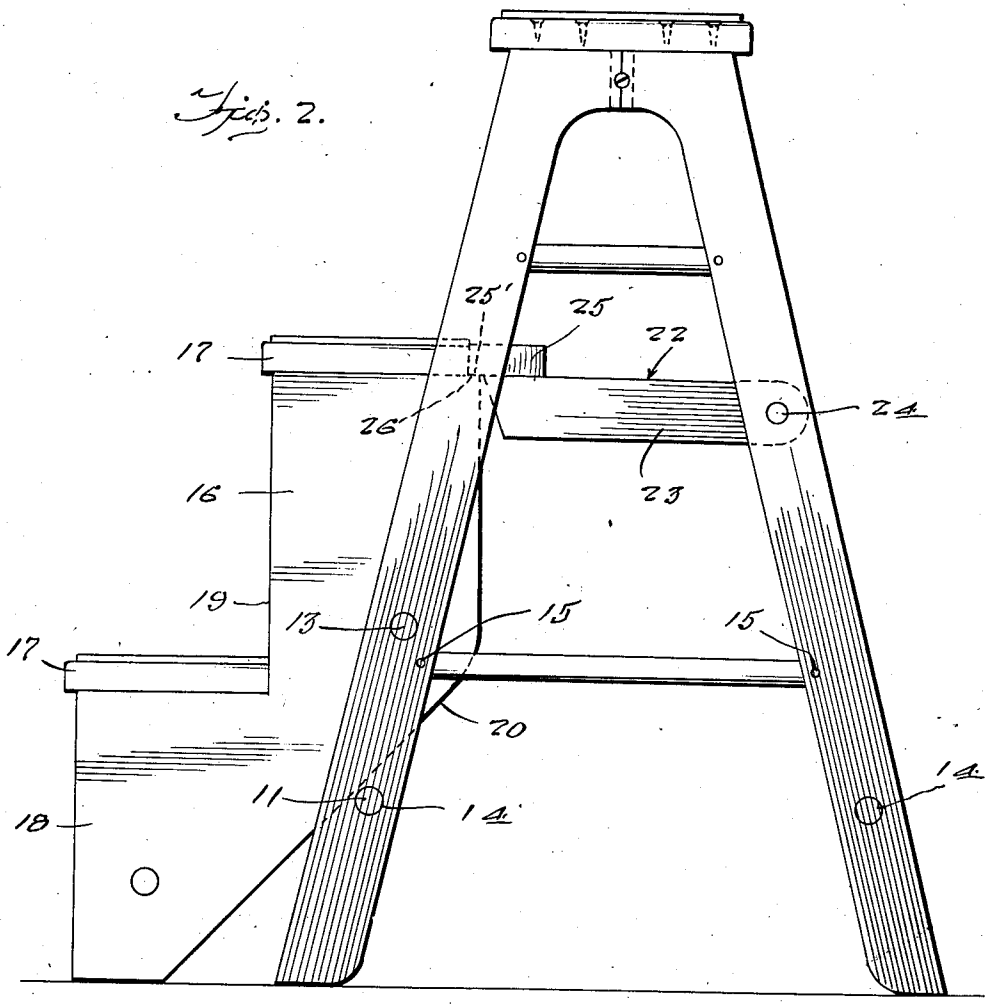
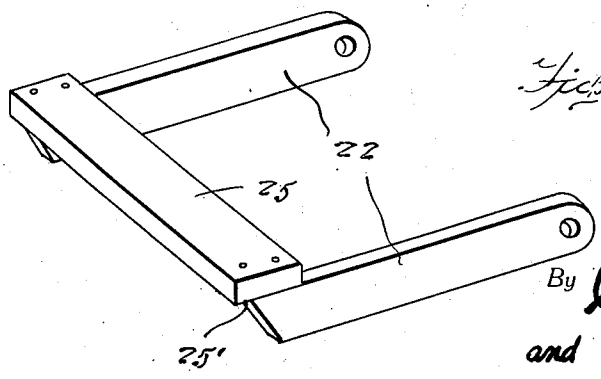


Fig. 5.



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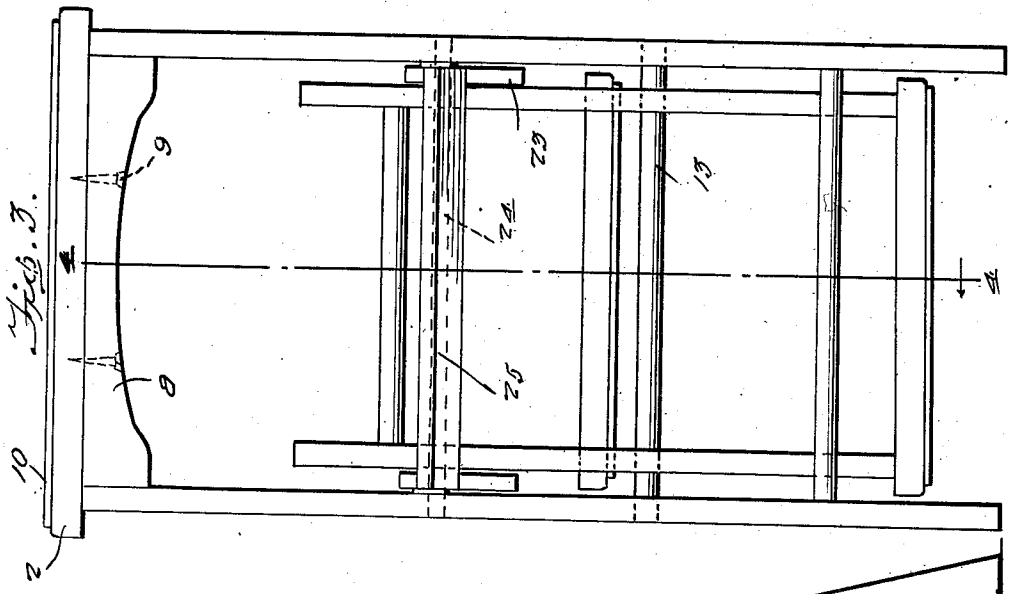
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Fig. 3.



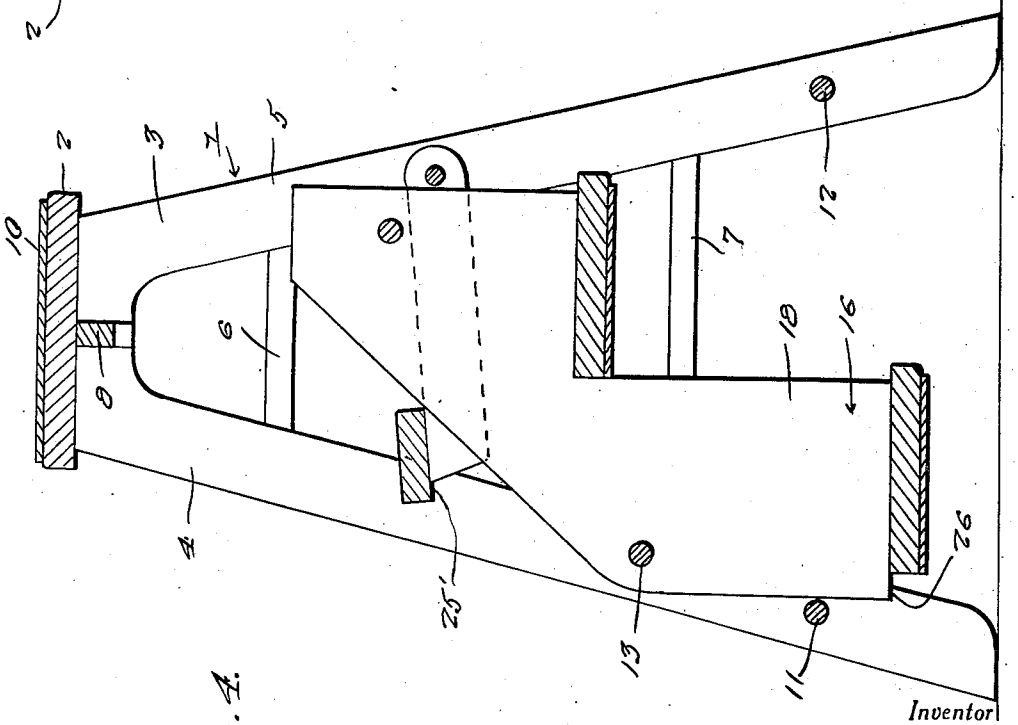


Fig. 4.

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Patented Jan. 30, 1945 2,368,541

UNITED STATES PATENT OFFICE

2,368,541

COMBINATION STOOL AND STEPLADDER

Clifford R. Griggs, Ceres, Calif.

Application April 19, 1944, Serial No. 531,806

3 Claims. (Cl. 228—30)

My invention relates to improvements in combination stools and step ladders and the primary purpose thereof is the provision of an inexpensive device of this character which embodies a stool unit and a step unit readily foldable into and out of the stool unit to convert the device for use either as a stool or step ladder.

Another object is to provide a device of the character and for the purpose above set forth equipped with means for locking the step unit in either folded or unfolded position.

To the accomplishment of the above, and subordinate objects presently appearing, a preferred embodiment of my invention has been illustrated in the accompanying drawings, set forth in detail in the following description, and defined in the claims appended hereto.

In said drawings—

Figure 1 is a view in front elevation of a combination stool and step ladder embodying my improvements, the step unit being shown in unfolded position,

Figure 2 is a view in side elevation,

Figure 3 is a view in front elevation with the step unit shown in folded position,

Figure 4 is a view in vertical section taken on the line 4—4 of Figure 3 looking in the direction indicated by the arrows,

Figure 5 is a view in perspective of a locking bail, and

Figure 6 is an inverted perspective view of the top of the stool unit.

Referring to the drawings by numerals, in the illustrated embodiment thereof my invention comprises a stool unit 1 including a rectangular top 2 and a pair of substantially A-shaped side members 3 at opposite ends of said top 2, respectively, forming a pair of front and rear legs 4 and 5 of inverted L-shape secured together in end to end abutting relation to diverge downwardly at the same angle to the vertical. The legs 4 and 5 of each pair are preferably glued together and additionally secured by any suitable means. Each pair of legs 4 and 5 is braced by a pair of upper and lower horizontal side rounds 6 and 7 extending therebetween. A longitudinal brace bar 8 extends underneath the top 2 centrally thereof from one side member to the other and is secured at its ends to said side members by screws 9. The top 2 is preferably glued to the side members 3. Preferably said members 3 are mortised into sockets 2' in said top. A pad 10 of any suitable material is secured in any desired manner to the upper face of the top 2. The front legs 4 on opposite sides of the unit 1 are connected together adjacent their lower ends by a front horizontal round 11 and the rear legs 5 are similarly connected together by a round 12. At a suitable height above the front round 11 is a horizontal fulcrum round 13 extending between the front legs 4 and for a purpose presently seen. The rounds 6, 7, 11, 12 and 13 have their ends socketed into the legs 4 and 5, as shown for instance at 14, and additionally secured in said legs by dowel pins as shown at 15.

The step unit 16 comprises a pair of rectangular treads 17 of a length to fit between the frame member 3, with the proper clearance, and a pair of side frames 18 having right angled stepped front edges 19 and obtuse angled rear edges 20. The side frames 18 are rotatably mounted adjacent the angle of their rear edges on the beforementioned fulcrumed round 13 so that the unit 16 may be swung in opposite directions thereon into folded and unfolded positions, respectively, to convert the device into either a stool or a step ladder. In the normal, unfolded, position of the unit 16 the lower ends of the frame 18 rest on the floor, or other surface, and the described rear edges 20 of the frames 18 at the lower ends thereof extend downwardly and forwardly over the front round 11 close thereto whereby when the device is picked up unfolding movement of unit 16 is limited by engagement of said edges 20 with said round 14. The treads 17 may be padded as represented at 21.

The step unit 16 is locked in unfolded position by means of a locking bail 22 comprising a pair of side bail arms 23 having rear ends pivotally mounted for vertical swinging movement of the bail 22 on a round 24 extending horizontally between the rear legs 5 and a bail bar 25 extending across and secured to the front end of said arms 23. The bail arms 23 are of the proper length and pivoted at the requisite height to be swung into horizontal position behind the upper rear corner of the side frame 18 when the unit 16 is in unfolded position. The bail bar 25 at its front edge overhangs said bail arms 23 to form a ledge 25 and the upper tread 17 is set forwardly on the side frame 18 to provide upper rear corner ledges, as at 26, on the side frames 18. In the unfolded position of the step unit 16 the bail bar 25 may be swung down behind the rear edge of the upper tread 17 with the ledge 25' resting on the ledges 26 thereby locking said unit 16 in unfolded position.

In the folded position of the step unit 16 the latter is rotated on round 13 into an upside down position in which said unit is located within

the confines of the front and rear legs 4 and 5 with the normally rear edges 20 of the side frames 18 foremost, in which position of said edges the normally upper portions thereof abut the rear of the front round 11 thereby establishing the folded position of said unit 16. As will be clear from an inspection of Figure 3 in the folded position of said unit 16 the normally lower portions of the rear edges 20 of the side frames 18 incline upwardly and rearwardly from the fulcrum round 13 and the locking bail 22 may be swung down over the inverted lower ends of said side frames to embrace the same with the bail bar 25 seating on said lower edge portions whereby the step unit 16 is held in folded position. The side frames 18 may be braced by suitably located cross rounds, as shown for instance at 27.

As will now be clear the described arrangement of parts provides a simple means for locking the step unit 16 in either folded or unfolded position preventing tilting of said unit from either position and rendering the device absolutely safe.

The invention will, it is believed, be clear from the foregoing without further explanation.

Manifestly the invention as described is susceptible of modification without departing from the inventive concept and right is herein reserved to all such modifications falling within the scope of the claims appended hereto.

What I claim is:

1. In a combination stool and step ladder, a stool unit including a pair of side leg forming frames, a step unit pivoted on said frames for vertical swinging movement therebetween into and out of the confines of said frames into folded and unfolded positions, respectively, and means for locking said step unit in either position comprising a vertically swinging locking bail movable into abutting relation to a portion of said step unit in the unfolded position of said unit to block movement of the latter toward folded position, said bail embracing said unit in the folded position thereof to lock the same against movement toward unfolded position.

2. In a combination stool and step ladder, a stool unit including a pair of side leg forming frames, a step unit pivoted on said frames for vertical swinging movement therebetween into and out of the confines of said frames into folded and unfolded positions, respectively, and means for locking said step unit in either position comprising a vertically swinging locking bail movable into abutting relation to a portion of said step unit in the unfolded position of said unit to block movement of the latter toward folded position, said bail embracing said unit in the folded position thereof to lock the same against movement toward unfolded position, and a stop round extending between said frames and cooperating with said step unit in the folded and unfolded positions thereof to establish said positions.

3. In a combination stool and step ladder, a stool unit including a pair of side leg forming frames, a step unit pivoted on said frames for vertical swinging movement therebetween into and out of the confines of said frames into folded and unfolded positions, respectively, and means for locking said step unit in either position comprising a vertically swinging locking bail movable into abutting relation to a portion of said step unit in the unfolded position of said unit to block movement of the latter toward folded position, said bail embracing said unit in the folded position thereof to lock the same against movement toward unfolded position, said bail and step unit being provided with coacting stop ledges, respectively, for establishing the locking position of the bail in the unfolded position of said step unit.

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