March 13, 1951 E. S. GARIBALDI 2,544,989

COLLAPSIBLE SAWHORSE

Filed Oct. 7, 1946 2 Sheets-Sheet 1

Fig. 1

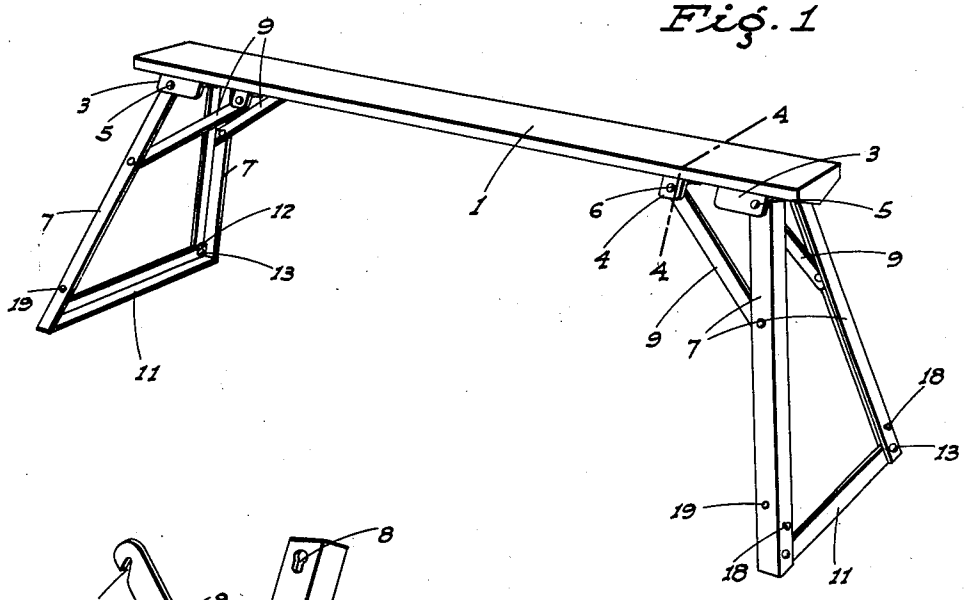


Fig. 2

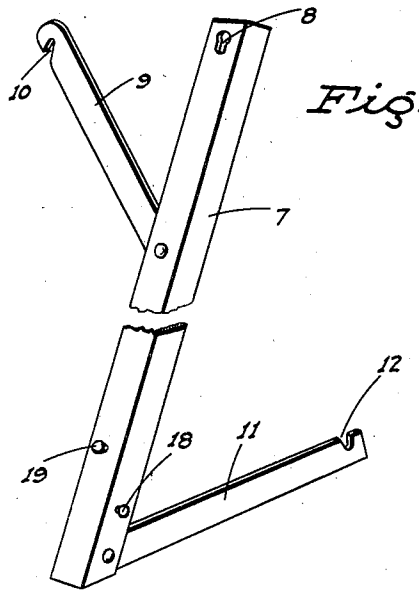


Fig. 3

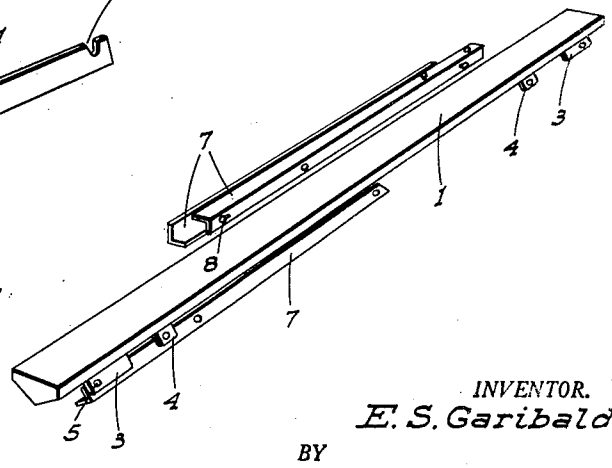
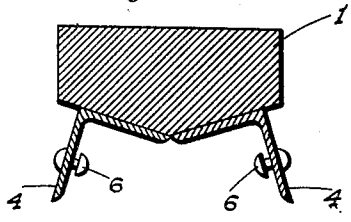


Fig. 4



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March 13, 1951 E. S. GARIBALDI 2,544,989

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Filed Oct. 7, 1946 2 Sheets-Sheet 2

Fig. 5

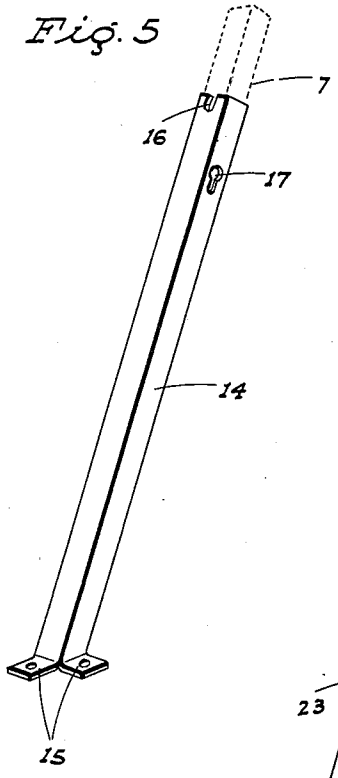


Fig. 6

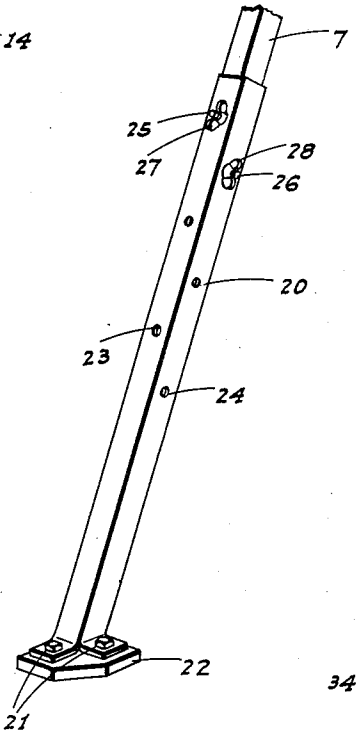


Fig. 7

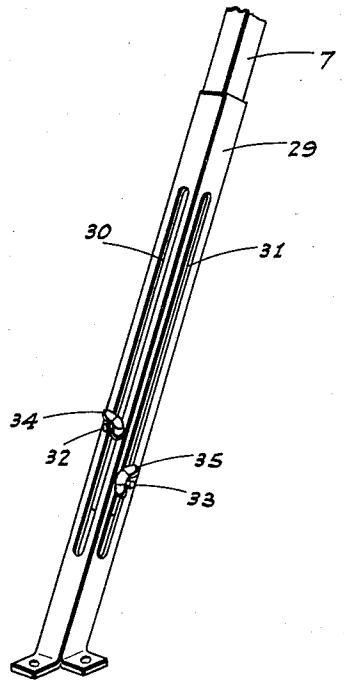
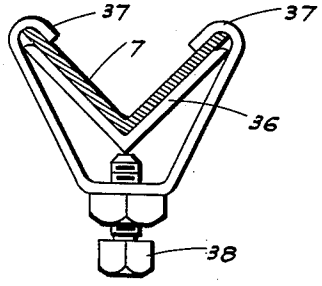


Fig. 8



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COLLAPSIBLE SAWHORSE

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Application October 7, 1946, Serial No. 701,694

1 Claim. (Cl. 304—5)

1

This invention relates to the building art and particularly to sawhorses used by carpenters, painters and the like; it being an object of the invention to provide a collapsible, detachable and extensible support for the sawhorse whereby it may be readily knocked down for transport or storage, or may be extended to different heights according to the usage for which it is to be put.

A further object of the invention is to produce a practical device and one which will be exceedingly effective for the purpose for which it is designed.

These objects are accomplished by means of such structure and relative arrangement of parts as will fully appear by a perusal of the following specification and claim.

In the drawings:

Figure 1 is a perspective view of the sawhorse with the support thereon extended and in position for normal use at the average height thereof.

Figure 2 is a perspective view of one of the supporting legs and braces detached.

Figure 3 is a perspective view of the top rail showing the position of the supporting legs when the parts are knocked down and arranged for transport or storage.

Figure 4 is a sectional view taken on line 4—4 of Fig. 1.

Figure 5 is a perspective view of one form of extension leg.

Figure 6 is a perspective view of another form of extension leg.

Figure 7 is a perspective view of a still further form of extension leg.

Figure 8 is a sectional view showing a modified form of securing an extension leg to the primary leg.

Referring now more particularly to the characters of reference on the drawings, the numeral 1 designates the top rail which, in the present invention, is provided with tapered bottom surfaces 2 which converge along the median center line of the rail as shown clearly in Fig. 4.

For the purpose of the connection of the primary supports with the rail 1 such rail is provided on each side thereof, and adjacent each end thereof, with a pair of spaced angle irons 3 and 4, each provided with an inwardly projecting head stud indicated at 5 and 6, respectively.

One side of each angle iron is permanently secured to one of the inclined faces 2 of the rail 1, as shown in Fig. 4 of the drawings, so as to throw the other side thereof at an outwardly flaring angle with respect to the vertical plane

2

of the side edges of the rail 1 so that when the legs of the supporting leg structure, hereinafter described, are connected to the rail, they will diverge outwardly in spaced apart relation as shown quite clearly in Fig. 4. The supporting leg structure at each end of the rail 1 is substantially identical except that one is permanently attached to the rail while the other is detachable therefrom as will be pointed out later.

At each side of the rail 1, and at each end thereof, there is a leg 7 which is of angle iron shape with the apex portion facing outwardly. At the upper end of each of these legs at the detachable end is a keyhole slot 8 which is adapted to project over and be locked in connection with one of the headed studs 5. At the attached end the legs 7 are permanently pivoted to the corresponding studs 5. Pivoted to the inside face of each of the legs 7 is a brace arm 9 having a slot 10 at its upper end which arm is adapted to project forwardly and hook over the corresponding one of the headed studs 6. Pivoted to one of the legs of each pair of legs 7 adjacent the lower end thereof so as to rest, when extended, on the floor level is a projecting connecting rail 11 which, at its outer end, has an upwardly facing slot 12 adapted to engage a headed stud 13 on the adjacent leg 7 so as to lock them together and prevent spreading of the legs at their lower ends. Since the slot 12 opens upwardly and the bottom of the rail rests on the floor this rail cannot become disengaged from the connection between the legs and allow them to spread. Fig. 1 shows the complete ensemble of the sawhorse when the supporting leg structure just described has been detachably mounted thereon.

When the sawhorse is to be knocked down the slotted arms 9 on the legs at the detachable end are first disengaged from the studs 6 and placed parallel with the leg 7. The slotted rails 11 are then disengaged from the studs 13 and turned up against the legs 7 to which they are connected. These two legs are then detached from their corresponding studs through the medium of the keyhole slots 8.

When these detachable portions of the supporting leg structure have been removed from the rail the non-detachable portion of the same, which is at the other end, is then handled as follows: the braces 9 are disengaged from the corresponding angle iron 6 and folded against the respective leg 7. The floor rail 11 is then detached from the leg 7 to which it is hooked by the elements 12 and 13 and is folded up against

the corresponding leg 7. The two legs 7 and the folded parts are then folded up parallel to the rail 1 as shown in Fig. 3. At the same time the detached legs and the folded parts may be tied together and tied to the rail 1 in parallel relation as likewise shown in Fig. 3.

The reason that one portion of the supporting leg structure is detachable is to avoid any portion of the structure being non-parallel which would be the case if both ends were non-detachable since the legs of one end would interfere with the legs of the other end when folded up and consequently leave projecting portions which would be objectionable when loading the folded structure for transport or placing it in storage.

If it is desired to extend the height at which the rail 1 is held, I can accomplish this through the use of extension legs, four different forms of which are shown in Figs. 5–8 inclusive.

In Fig. 5 the extension leg 14 is provided with a floor foot 15. The leg 14 is of angle iron form and is adapted to register with the angle iron shape of the leg 7. At the upper edge of one flange of this angle iron 14 the same is provided with an upwardly opening slot 16 and in the other flange, and at a point below the slot 16, there is a keyhole slot 17. When the extension is to be mounted on the leg 7 the slot 17 fits over a stud 18 and the slot 16 engages a stud 19, which studs 18 and 19 are on corresponding faces of the leg 7 adjacent their lower ends and in properly spaced relation.

In Fig. 6 there is shown another form of extension leg 20 which has a floor foot 21 which may have a rubber base 22. Such a base 22 may, if desired, be used on either of the other forms of extension legs. The leg 20 is likewise made of angle iron and has a plurality of spaced apart orifices 23 and 24, one in one flange of the leg and the other in the opposite flange. These orifices are adapted to receive corresponding studs 25 and 26 adjacent the lower end of the leg 7 and are provided with wing nuts 27 and 28 as fastening elements. In this form of the leg extension the height of the rail may be set at different positions by disposing the studs 25 and 26 through different sets of the orifices 23 and 24.

In Fig. 7 is shown still another form of extension leg 29. This again is made of angle iron and in the respective flanges thereof are slots 30 and 31 adapted to slide over pins 32 and 33 on the lower end of the leg 7 and to be secured to such leg by means of wing nuts 34 and 35. It will be obvious that the height at which the rail 1 is held to these extension legs may be adjusted by sliding the pins 32 and 33 through the slots 30 and 31, respectively.

In Fig. 8 there is still another form of fastening means to the extension leg 36. This involves a substantially Y-shaped yoke having hooked portions 37 at the end of its arms adapted to engage over the edges of the leg 7. A set screw 38 then projects through the apex of the yoke and engages the apex of the angle iron leg 36 and clamps it against the leg 7 in any desired adjusted position.

From the foregoing description it will be readily seen that there has been produced such a device as substantially fulfills the objects of the invention as set forth herein.

While this specification sets forth in detail the present and preferred construction of the device, still in practice such deviations from such detail may be resorted to as do not form a departure from the spirit of the invention, as defined by the appended claim.

Having thus described the invention, the following is claimed as new and useful and upon which Letters Patent is desired:

A sawhorse comprising a top rail having a substantially V-shaped under surface, a pair of angle irons adjacent each end of the rail, a pair of angle irons adjacent each of the first pairs of irons but spaced therefrom longitudinally of the rail, the irons of each of the pairs being spaced apart transversely of the rail and one face of each iron being secured to an adjacent inclined under face of the V-shaped surface of the rail whereby the other faces of the angle irons on one side of the rail diverge outwardly relative to corresponding faces of those irons on the opposite side of the rail, a leg unit at each end of the rail, each such unit consisting of a pair of legs pivotally connected at their upper ends to one of the first named pairs of angle irons, brace elements pivoted to the legs and detachably connected to the adjacent pair of angle irons, a headed stud fixed to one of such legs adjacent its lower end, a rail pivoted at one end to the other of said legs adjacent its lower end, and an upwardly opening slot in the rail at its other end, such slot being engageable with the last named stud, the lower edge of the rail lying in substantially the same horizontal plane as the lower ends of the legs when the slot is engaged with the stud.

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