March 20, 1951 C. E. DALTON 2,545,767

TRESTLE LEG AND HINGE BRACKET

Filed Nov. 19, 1947

Fig. 1.

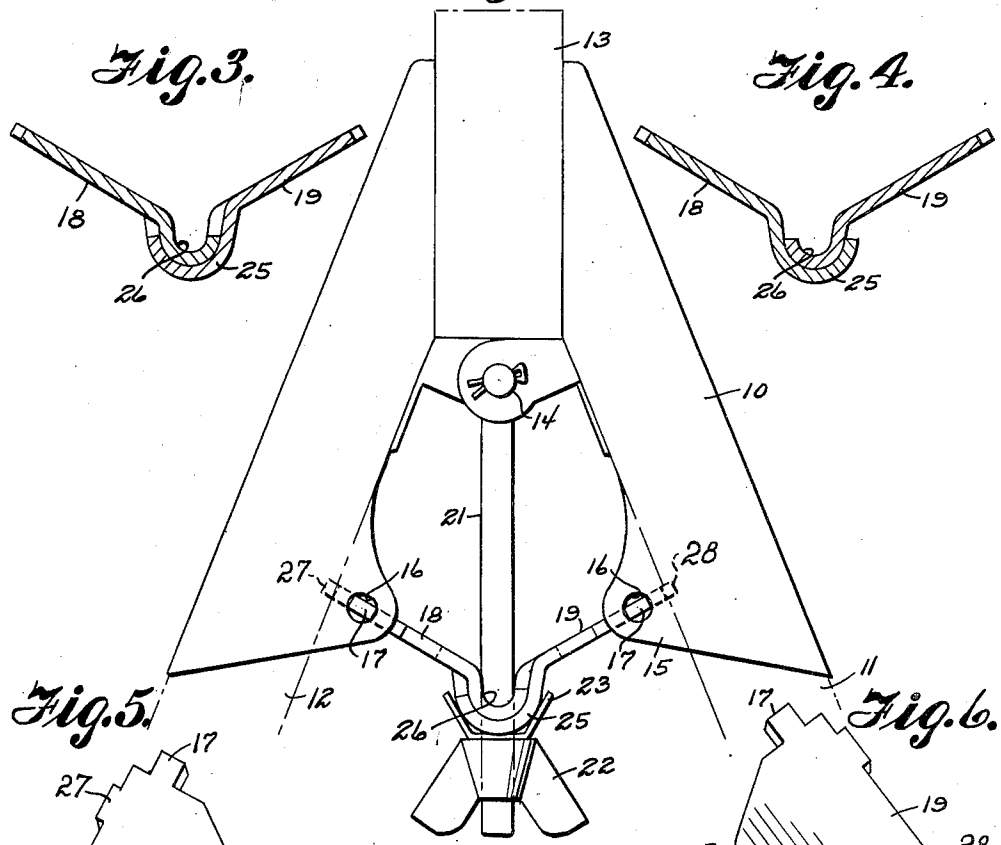


Fig. 3.

Fig. 4.

Fig. 5.

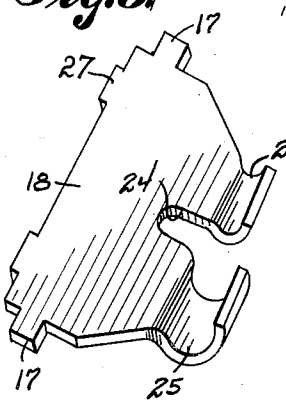


Fig. 2.

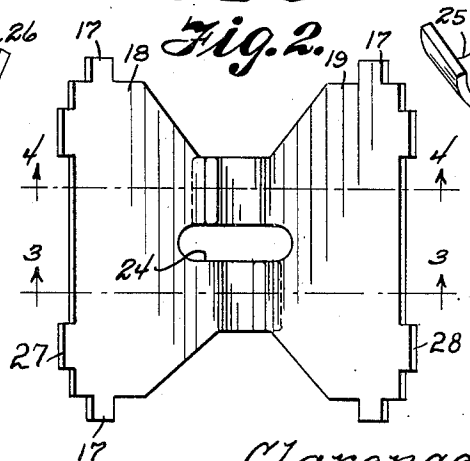
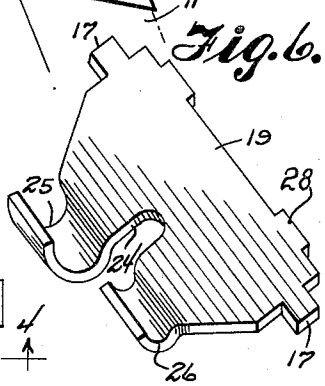


Fig. 6.



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TRESTLE LEG AND HINGE BRACKET

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3 Claims. (Cl. 304—5)

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This invention relates to a toggle hinge bracket.

It is an object of the present invention to provide a toggle hinge bracket having parts adapted to be spread apart to receive the legs adapted when secured to the hinge to form the legs of a saw horse wherein there is a simple adjustable means associated with the parts for retaining the same in their spread positions.

Other objects of the present invention are to provide a hinge bracket for use in forming saw horse types of structures including devices for holding the parts separated, which is of simple construction, inexpensive to manufacture, easy to adjust and efficient in operation.

For other objects and for a better understanding of the invention, reference may be had to the following detailed description taken in connection with the accompanying drawing, in which

Fig. 1 is a side elevational view of the toggle hinge adapted for use with a saw horse type of bracket with the hinge parts extended to retain the bracket parts in their open positions.

Fig. 2 is a plan view of the assembled toggle hinge parts removed from the bracket.

Figs. 3 and 4 are respectively sectional views taken on lines 3—3 and 4—4 of Fig. 2.

Figs. 5 and 6 are respectively perspective views of the toggle hinge parts.

Referring now to the figures, 10 represents a bracket of the saw horse type adapted to receive leg and top parts so that when the bracket parts are extended a saw horse type of structure will be provided. The legs are indicated at 11 and 12 and the piece connected with the top of the brackets is indicated at 13. The bracket parts are hinged together as indicated at 14 and may be provided with lugs 15 having openings therein as indicated at 16 for receiving projections 17 of toggle hinge parts 18 and 19. Pivoted at 14 is a bolt 21 having a wing nut 22 adjustable thereon and a guide plate 23. The toggle hinge parts 18 and 19 are fitted together to be pivoted relative to one another. Each part has a recess indicated at 24 through which the bolt 21 extends. Each part has an external or outer portion 25 which is rounded and curved to receive a small internal or inner portion 26 of the other part. These arcuate portions 25 and 26 of the hinge plates 18 and 19 are semi-cylindrical and formed on a common axis, and therefore interlock wherein one section is held by the other, forming a hinge without a pin. The parts are assembled by sliding one section endwise into the other to form the hinge as illustrated in Figure 2.

The outer edges of the hinge plates are provided with extrusions 27 and 28 that bite into the wood as the plates forming the toggle arms are forced outward, thereby making it possible to use warped 2 x 4's or the like for the legs of the saw horse, and at the same time provide a rigid grip.

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It will be noted that one hinge plate is a duplicate of the other so that only one stamping is required to form the hinge. With the two plates assembled the projections 17 are inserted in the openings 16 of the usual toggle spreader and with the bolt 21 passing through the recesses 24 the wing nut is screwed upwardly to force the arms outwardly. Upon lowering the wing nut 22 after use, the toggle arms or plates 18 and 19 can be lowered and the bracket parts collapsed or brought together.

Accordingly there has been provided a hinge which does not require a hinge pin for pivotally connecting the parts together.

It will be understood that modifications may be made in the design and arrangement of the parts without departing from the spirit of the invention.

I claim:

1. In a saw horse bracket hinge, the combination which comprises a pair of leg receiving brackets U-shaped in cross section and having pairs of extended lugs on the inner edges, a pin pivotally connecting the lugs of one of said pairs whereby the brackets grip a top member of the horse with the legs extended from the brackets, additional pairs of lugs with openings therethrough positioned on the lower ends of the brackets extended inwardly from the inner edges of sides thereof, hinge plates having overlapping substantially semi-circular flanges on the meeting edges thereof and having projections on the ends extended into the openings in the pairs of lugs positioned on the lower ends of the brackets, a bolt mounted on the said pin which connects the pairs of lugs of the brackets and having a threaded lower end extended through the said semi-circular flanges of the hinge plates, and a thumb nut threaded on the lower end of the bolt for urging the hinge plates outwardly.

2. In a saw horse bracket hinge, the combination which comprises a pair of leg receiving brackets U-shaped in cross section and having pairs of extended lugs on the inner edges, a pin pivotally connecting the lugs of one of said pairs whereby the brackets grip a top member of the horse with the legs extended from the brackets, additional pairs of lugs with openings therethrough positioned on the lower ends of the

brackets extended inwardly from the inner edges of sides thereof, hinge plates having overlapping substantially semi-circular flanges on the meeting edges thereof, each of said hinge plates having projections on the ends and said plates positioned whereby the projections extend into the openings of the lugs on the inner edges of the sides and at the lower ends of the side walls of the brackets, a bolt mounted on the said pin which connects the pairs of lugs of the brackets adapted for pivotal movement with the pin and having a threaded lower end extended through the said semi-circular flanges, and a thumb nut threaded on the lower end of the bolt for urging the hinge plates outwardly, the said semi-circular flanges of the hinge plates being alternately positioned with each plate having a large flange on one end and a small flange on the other and with the plates assembled whereby the small flanges nest in the large flanges of complementary plates.

3. In a saw horse bracket support, the combination which comprises a pair of leg receiving brackets having open sockets extended inwardly from the lower ends, a pin pivotally connecting the brackets, hinge plates having overlapping substantially semi-cylindrical sections on the meeting edges thereof, each of said hinge plates having projections on the ends and said plates positioned whereby the said projections extend

into the open sockets in the lower ends of the brackets, a bolt mounted on the said pin that connects the leg receiving brackets and having a threaded lower end, said semi-cylindrical sections of the hinge plates having transversely disposed slots positioned to receive the lower end of the bolt, and a nut threaded on the lower end of the bolt for urging the hinge plates outwardly with the outer edges of the said hinge plates contacting the inner surfaces of legs of the saw horse positioned in the said leg receiving brackets, the said semi-cylindrical sections of the hinge plates being alternately positioned with each plate having a large section on one end and a small section on the other and with the plates assembled whereby the small sections extend into large sections of complementary plates.

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