No. 862,725. PATENTED AUG. 6, 1907.

J. FIETSAM.

KNOCKDOWN TRESTLE.

APPLICATION FILED FEB. 26, 1907.

Fig. 1.

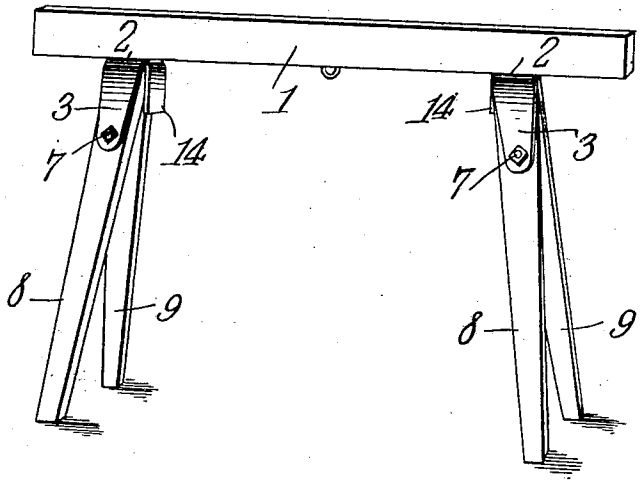


Fig. 2.

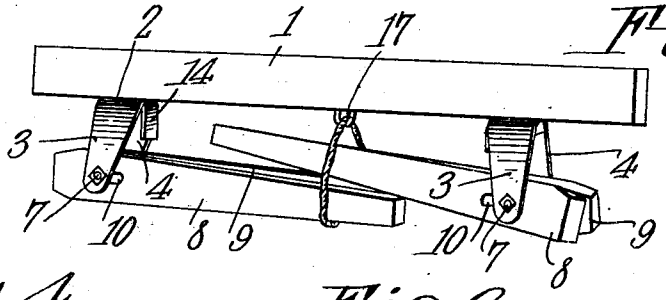


Fig. 4.

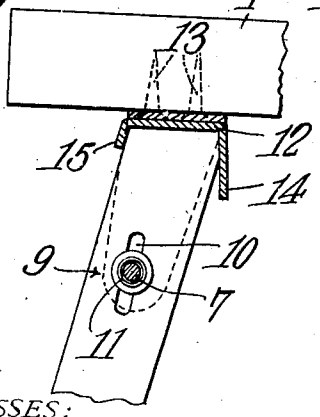
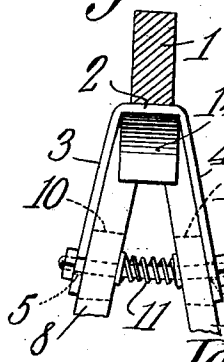


Fig. 3.



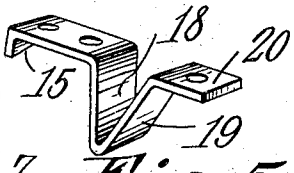


Fig. 5.

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KNOCKDOWN TRESTLE.

No. 862,725. Specification of Letters Patent. Patented Aug. 6, 1907.

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To all whom it may concern:

Be it known that I, JOHN FIETSAM, a citizen of the United States, residing at Okawville, in the county of Washington and State of Illinois, have invented a new and useful Knockdown Trestle, of which the following is a specification.

The present invention relates to improvements in trestles and analogous devices having legs which are adapted to be folded to adapt the device for transportation or storage, and it has for its object to provide a folding or knock-down trestle of this type wherein the parts may be folded into a very compact form without requiring the removal of any of its parts, and when the parts are properly assembled, the trestle will provide a rigid or secure support in which accidental collapsing is impossible and weakening of the attachment of the legs to the body portion prevented.

To these and other ends, the invention consists in certain improvements, and combinations and arrangements of parts, all as will be hereinafter more fully described, the novel features being pointed out particularly in the claims at the end of the specification.

In the accompanying drawing:—Figure 1 is a perspective view of a trestle constructed in accordance with my present invention. Fig. 2 is a view similar to Fig. 1, showing the parts in folded position. Fig. 3 represents a transverse section through the trestle, the legs being shown in operative position. Fig. 4 represents a section on the line 4—4 of Fig. 3. Fig. 5 is a perspective view of a modified form of bracket.

Similar parts in the various figures are indicated throughout by similar characters of reference.

According to my present invention, the legs are mounted in pivotal relation to the body portion of the trestle, and they are locked in fixed relation thereto by means of suitable brackets having sockets formed therein to receive the upper ends of the legs and with which the latter are engaged and disengaged by a relative longitudinal movement of the legs.

In the present embodiment of the invention, an ordinary trestle is shown embodying a body portion 1 of any suitable form and dimensions and having the leg brackets secured thereto, the latter being substantially duplicates mounted in reverse arrangement adjacent to the opposite ends of the body portion. Each bracket embodies a pivot member 2 having an intermediate portion adapted to fit the under side of the body portion and provided with a pair of downwardly extending, and preferably diverging, arms 3 and 4, the latter being provided toward their ends with apertures 5 and 6 to receive a pivot bolt 7, the latter being preferably struck on a curve about the intermediate portion as a center. On the bolt 7 are pivoted the legs 8 and 9, the latter being provided with longitudinal slots 10 for the purpose of permitting a relative longitudinal movement of the legs relatively to the pivot bolt, and encircling the latter and arranged between the legs is a helical compression spring 11 having its ends bearing against the inner sides of the legs to retain the latter in coöperative relation with the pivot arms 3 and 4 of the bracket.

Mounted in coöperative relation with the pivot member of each bracket is a stop member 12 having an intermediate attaching portion adapted to fit against the corresponding portion of the pivot member and to receive the fastening screws 13 by means of which both members of the bracket are attached to the body portion of the trestle.

At the inner side of each of the stop members is provided a downturned stop 14, and at the outer edge thereof is provided a stop 15, the space between the inner and outer stops and the pivot arms of the bracket forming a socket to receive the upper ends of the two coöperating legs, and the latter are inserted into these sockets for turning them on their pivot bolts until their upper ends engage the inner stops 14, clearing the outer or shorter stop 15, and while the legs are in this position the bottom portion is moved downwardly relatively to the legs, the pivot bolts 7 moving toward the lower ends of the longitudinal slots 10 in the legs and permitting the upper ends of the latter to enter between the inner and outer stops 14 and 15, the latter serving to lock the legs and prevent pivotal movement thereof about the pivot bolts, and the spring 11, operating at the inner sides of the legs, serves to retain the latter in coöperative relation with the pivot arms of the bracket, thereby preventing relative lateral yielding of the legs. When it is desirable to fold the trestle, the legs are pulled downwardly in the direction of their length, disengaging their outer ends from the sockets in the leg brackets, and as the upper ends of the legs clear the outer stop 15, a pivotal movement will be permitted them, enabling the legs to be folded closely or substantially parallel to the body portion, as shown in Fig. 2, and if desired, a loop 16 may be slipped over the ends of the legs and fastened to a staple 17 on the body portion to secure the legs in folded position. However, the yielding pressure of the spring 11 serves to hold the legs against the cooperating pivot arms of the brackets with sufficient pressure to prevent relative turning movement between these parts, except when sufficient force is applied, and this will not only serve to hold the legs in closed position, but it will prevent them from accidentally disengaging from the brackets when in assembled position when the trestle is lifted from the floor or other support. In some cases, such as in trestles of larger sizes, it may be desirable to reinforce the inner stops of the brackets and a reinforced stop adapted for this purpose is shown in Fig. 5 wherein the strip of material is bent downwardly from its attaching portion as at 18 and thence doubled at an acute angle to form a brace arm 19, the free end of the latter

being provided with a lug 20 by means of which it may be firmly attached to the inside of the trestle body.

A trestle constructed in accordance with my present invention may be readily folded into compact form for shipment or storage, and it may be quickly assembled, these operations being accomplished without the necessity of removing and replacing parts that are liable to become lost, and when the parts are assembled, the legs will be positively locked in fixed relation to the body portion with a strength sufficient to sustain relative longitudinal, as well as lateral, strains that may be applied to the trestle, and accidental folding or disengagement of the parts is prevented by means of the spring device arranged between the legs. As the brackets may be formed of sheet metal at a single operation, the device may be constructed at small cost, and it is not only adapted for use as a trestle, but the invention may be applied to benches, tables and other devices wherein it is desirable to fold the legs for storage, shipment or compact form.

What is claimed is:—

1. In a trestle, the combination with a body portion, and legs adapted to coöperate therewith, of brackets for securing the legs in coöperative relation with the body portion having sockets formed therein, bracket arms having means for mounting the legs in pivotal relation with the body portion and permitting a relative longitudinal movement of the legs to insert and remove them relatively to the sockets of the brackets, and a device connecting each pair of legs and holding them yieldingly in frictional engagement with the respective brackets for preventing longitudinal movement of the legs toward unlocked position.

2. In a trestle, the combination with a body portion, and a set of independently movable legs adapted to cooperate therewith, of brackets secured to the body portion having divergently arranged pivot arms operatively connected to the respective legs to permit relative pivotal and longitudinal movements thereof, inner and outer stops adapted to engage the legs by a relative longitudinal movement thereof and to coöperate with the ends of the legs for preventing pivotal movement thereof when the legs and body portion are in assembled relation, and a device for retaining the legs in coöperative relation with the respective pivot arms of the brackets.

3. In a trestle, the combination with a body portion, and pairs of independently movable legs adapted to cooperate therewith, of brackets carried by the body portion each having a pair of divergently arranged pivot arms, means coöperating with said arms and the respective legs for permitting a pivotal and relatively longitudinal movement of the legs, a stop on the bracket for limiting the pivotal movement of each pair of legs and adapted to be engaged and disengaged by a relative longitudinal movement of the legs, and devices connecting the legs of each pair for holding them yieldingly in frictional engagement with the respective pivot arms of the brackets.

4. In a trestle, the combination with a suitable body portion, of a set of legs adapted to coöperate therewith, of brackets arranged on the body portion each having a pair of pivot arms, pivot bolts connecting said arms and cooperating with a pair of the legs to support the latter in pivotal relation to the body portion, and a spring cooperating with said legs to produce a yielding pressure between the latter and the pivot arms of the brackets.

5. In a trestle, the combination with a suitable body portion, and a set of legs adapted to coöperate therewith, of brackets arranged on the bottom portion and each embodying a pair of pivot arms, a pivot bolt connected to said arms and coöperating with a pair of the legs to secure them in pivotal relation to the body portion, and a helical spring encircling the pivot bolt and engaging the inner sides of the respective legs for holding the latter in coöperative relation with the pivot arms of the brackets.

6. In a trestle, the combination with a suitable body portion and legs adapted to coöperate therewith, of brackets for supporting the legs in proper relation to the body portion, each embodying a pivot member having an intermediate attaching portion and a pair of diverging arms arranged angularly thereto, means for pivotally connecting said arms and the respective legs, and a stop member extending at right angles to the pivot member and embodying an inner stop, a relatively shorter outer stop, said stop being adapted to receive the upper ends of the respective legs between them, and an intermediate attaching portion, and securing means extending through the attaching portions of the pivot and stop members for securing the latter to the body portion.

7. In a trestle, the combination with a suitable body portion and legs adapted to coöperate therewith, of brackets, means thereon for pivotally connecting each pair of legs with the body portion, and stops coöperating with the legs above their pivots for limiting the pivotal movement of the legs of each pair embodying an inner stop having an angularly extending brace arm attached at its end to the body portion, and a relatively shorter outer stop arranged to be moved into and out of the path of movement of both legs of each pair by a relative longitudinal movement of the latter.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

JOHN FIETSAM.

Witnesses:
GEORGE TROST,
A. R. OCHS.