Aug. 28, 1923. 1,465,947

H. OETZEL

FOLDING TRESTLE

Filed Jan. 5, 1922 2 Sheets-Sheet 1

Fig. 1.

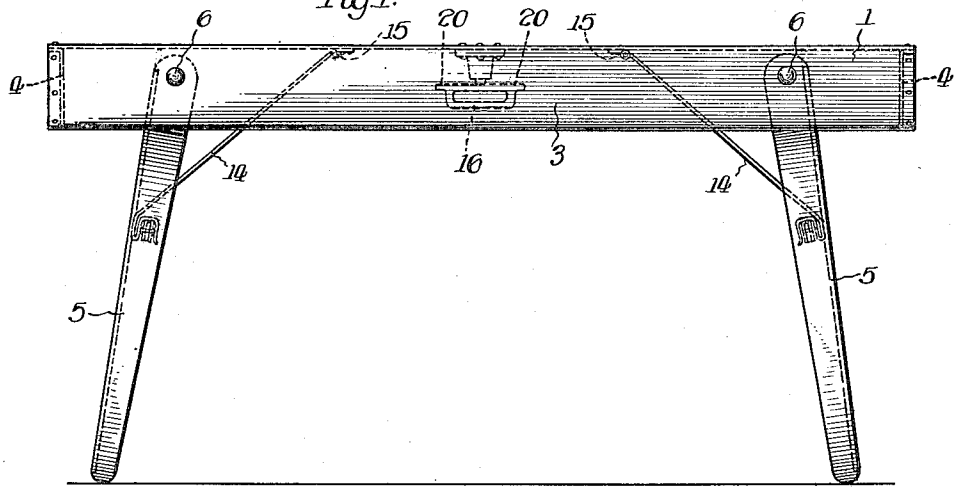


Fig. 3.

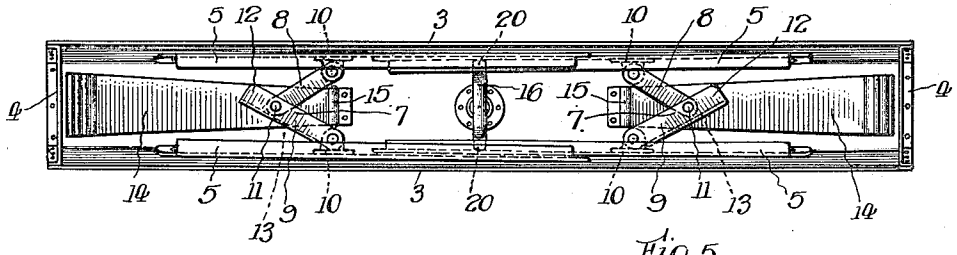


Fig. 5.

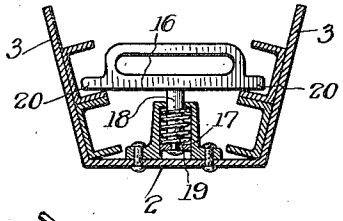


Fig. 2.

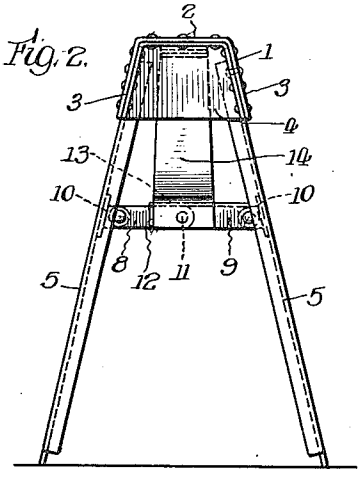
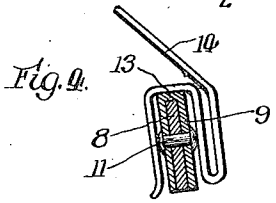


Fig. 4.



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Filed Jan. 5, 1922 2 Sheets-Sheet 2

Fig. 6.

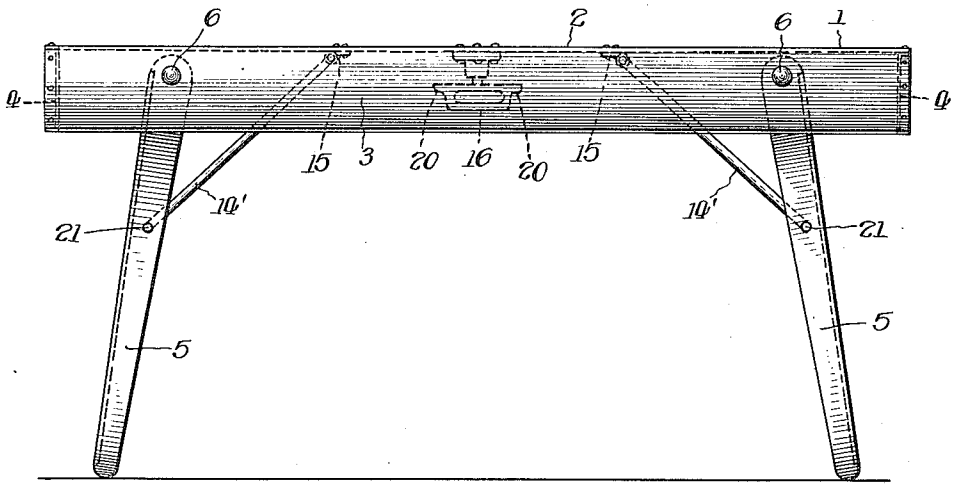


Fig. 8.

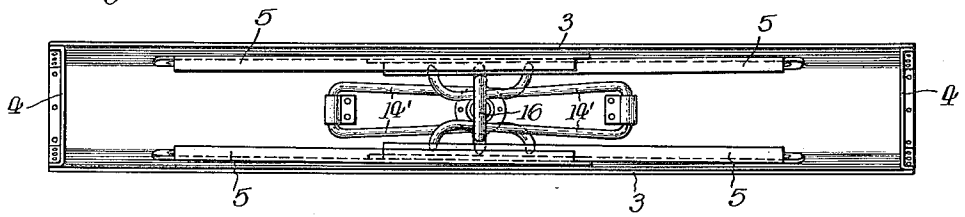
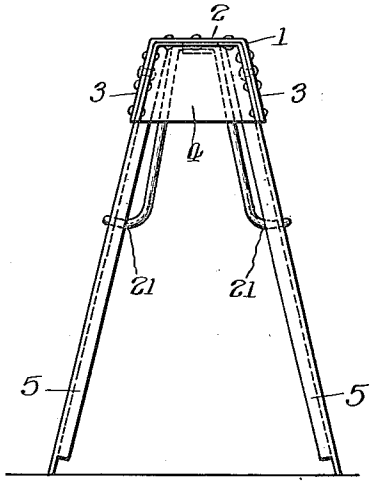


Fig. 7.



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UNITED STATES PATENT OFFICE.

HAROLD OETZEL, OF CHICAGO, ILLINOIS.

FOLDING TRESTLE.

Application filed January 5, 1922. Serial No. 527,219.

To all whom it may concern:

Be it known that I, HAROLD OETZEL, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Folding Trestles, of which the following is a specification.

The present invention relates to improvements in folding trestles.

More particularly the present invention relates to the type of trestle or horse in which the legs may be moved from their normal operative positions for the purpose of packing the horse into smaller space. The present invention has for one of its objects the provision of a rigid trestle or horse which may be folded into small space when said trestle or horse is not in use.

A further object is to provide a folding trestle or horse having convenient means for holding the members of said trestle or horse in folded position, which means may also be used for carrying said trestle or horse.

A further object is to provide a substantial trestle or horse which may be conveniently folded into small space, which is light in weight, and which is cheap to manufacture.

Further objects will appear as the description proceeds.

Referring to the drawings—

Figure 1 is a view in side elevation of a trestle embodying the present invention;

Figure 2 is an end elevation of the trestle shown in Figure 1;

Figure 3 is a bottom plan view of the structure showing the trestle folded up, ready to be transported;

Figure 4 is a detail illustrating a part for holding the trestle rigid when set up for use;

Figure 5 illustrates details of means for holding the trestle in folded position;

Figure 6 is a side elevation illustrating a modified embodiment of the present invention;

Figure 7 is an end elevation of the structure illustrated in Figure 6;

Figure 8 is a bottom plan view of the modified trestle when in folded position.

Referring first to the structure illustrated in Figures 4 and 5, the numeral 1 indicates the body of the trestle or horse, which body may be of channelled formation having a top portion 2 and the two sides 3—3, which are slightly divergent as illustrated in Figure 2. End pieces 4—4 may be provided for strengthening purposes. Mounted within the body 1 are legs 5—5, each of which is pivoted, at the point 6. Legs 5—5 are pivoted near the ends of each of the sides 3—3. The upper ends of said legs should support the under side of the top portion 2 when said legs are in operative position. Each of the legs 5—5 may consist of a channelled member, as best illustrated in Figure 5. The two legs 5—5 at each end of the trestle are connected by means of a brace 7, which brace consists of a toggle-shaped member having two arms 8 and 9, of which the arm 9 may be of U-shaped formation, receiving the arm 8. The arms 8 and 9 are pivotally mounted on two brackets 10—10 secured to adjacent legs 5—5, said two arms 8 and 9 being pivotally connected together at the point 11. The arm 9 has a portion 12 extending beyond the pivot point 11, the intermediate portion 13 of the U-shaped construction of the arm 9 acting as an abutment for the arm 8 whereby to prevent jack-knifing except in one direction. The toggles 7 are prevented from jack-knifing and the legs connected thereto are held in place when the trestle is set up for use by means of the holding members 14—14. Each of said holding members 14 is mounted upon a bracket 15 which is secured to the under side of the body portion 1 of the trestle. Each of said holding members 14 may be bent adjacent to its outer end whereby to provide an inverted U formation, indicated by the numeral 15, adapted to receive the toggle 7. Each of the holding members 14 restrains the corresponding toggle 7 from folding up and will ensure the proper bracing of the legs 5—5. The structure provides a rigid trestle capable of bearing loads equal to trestles having much greater bulk and not possessing the advantages of foldability which will be referred to hereinafter. When it is intended to fold the trestle into small space, the holding members 14 may be moved so that the portions 15—15 no longer engage the toggles 7—7, in which case the legs may be folded up within the channelled body portion 1. In practice it will be found desirable to have the legs 5—5 of such length that when folded up within the body portion 1 the ends of the legs at one end of the trestle will overlap those of the other end of the trestle. This fact is made use of in simplifying the holding means for said

legs and the carrying means for said trestle, as will be referred to hereinafter. In folding the legs 5—5 up within the body portion 1, the toggles 7 will be broken and the arms thereof jack-knifed together as said legs are being moved toward the body portion 1. Holding members 14—14 will be held within the body portion 1 by means of the toggles 7, as best illustrated in Figure 3.

Mounted substantially in the center of the body 1, on the under side thereof, is the detent 16. Said detent comprises a socket member 17 providing holding means for a rod 18 and a spring 19, which spring 19 tends to move the rod 18 toward the top member 2 of the body 1. The socket 17 and rod 18 provide a swivel connection whereby the detent 16 may be turned about the axis of rod 18. The detent 16 is provided with a pair of fingers 20—20 adapted to rest within the channels of the uppermost pair of legs 5—5, and may be apertured whereby to provide a convenient handle.

It will be clear that in moving the parts of the trestle to folded position, the operator will have the detent 16 lying in alignment with the remainder of the trestle. When said legs have been moved to folded position, however, the detent will be drawn out against the tension of the spring 19 and turned through an angle of 90° whereby the fingers 20—20 will engage within the channels of the outermost pair of legs 5—5. The spring 19 will hold the detent in engaging position whereby the parts of the trestle will be rigidly held within the outlines of the body 1 of the trestle. The detent 16 will be mounted in the vertical line marking the center of gravity when the trestle is occupying a horizontal position, whereby the operator, in carrying the trestle, will have a balanced load.

Referring to the modification illustrated in Figures 6, 7 and 8, the structure is the same in many particulars as that illustrated in Figures 1 to 5. In the modified form, however, the means for bracing the legs 5—5 are modified. The toggle 7 is eliminated, and a holding member 14′ is provided, which is pivotally mounted intermediate of its length on the bracket 15. Each end of the holding member 14′ is provided with an outwardly extending portion 21 adapted to extend through coinciding holes in the legs 5. The member 14′ will be of resilient material and will have a natural tendency to spring outwardly, whereby the end portions 21—21 will have no tendency to become released from the corresponding legs 5—5. When it is desired to fold the trestle into compact form, the two end portions 21—21 will be moved together whereby to permit movement of the legs 5—5. Each of the members 14′ will be swung toward the center of the horse, along with the legs 5—5. The detent 16 will hold the members in position in a manner which will be evident without further explanation.

The described embodiments of the present invention have been chosen for the purpose of illustration and should not be construed in a limiting sense. Many modifications will occur to those skilled in the art. It is intended in this patent to cover all such modifications that fall within the scope of the invention as defined by the appended claims.

I claim:

1. A folding trestle comprising a body member and a pair of legs hinged to said body member at each end thereof, means connecting the members of each pair of legs for bracing same in open position, and combined detent and handle means arranged symmetrically of said body portion for holding said legs in folded position.

2. A foldable trestle comprising a body portion, a pair of legs hinged to each end thereof, toggle-like bracing members connecting the members of each pair of legs, holding members connected to said body member for holding said bracing members in bracing position, said holding members being movable to positions within said body member, and detent means comprising a handle mounted symmetrically of said body member for holding said legs and holding members within said body member.

3. A folding trestle comprising a body member having a pair of legs hinged thereto at each end of said body member, a spring-pressed detent comprising a handle mounted symmetrically of said body member, said detent being adapted to occupy a position transversely of said body member or longitudinally thereof, said detent being adapted to hold said legs in folded position within said body member.

4. A body member having a pair of legs hinged to each end thereof, said legs being foldable up within said body member, and a spring-pressed, swivelled detent comprising a handle arranged symmetrically of said body member for holding said legs in folded position.

5. A folding trestle comprising a body member, a pair of legs hinged to each end end thereof, bracing means for each pair of legs, said bracing means being of jack-knife construction, adapted to close when said legs are moved toward said body member, and holding means for each of said bracing means, said holding means comprising a pivoted member movable to a position within said body member.

Signed at Chicago, Illinois, this 30th day of December, 1921.

HAROLD OETZEL.