E. A. LOTZ.

FOLDING STAND.

APPLICATION FILED AUG. 19, 1913.

1,094,227.

Patented Apr. 21, 1914.

2 SHEETS—SHEET 1.

Fig. 1.

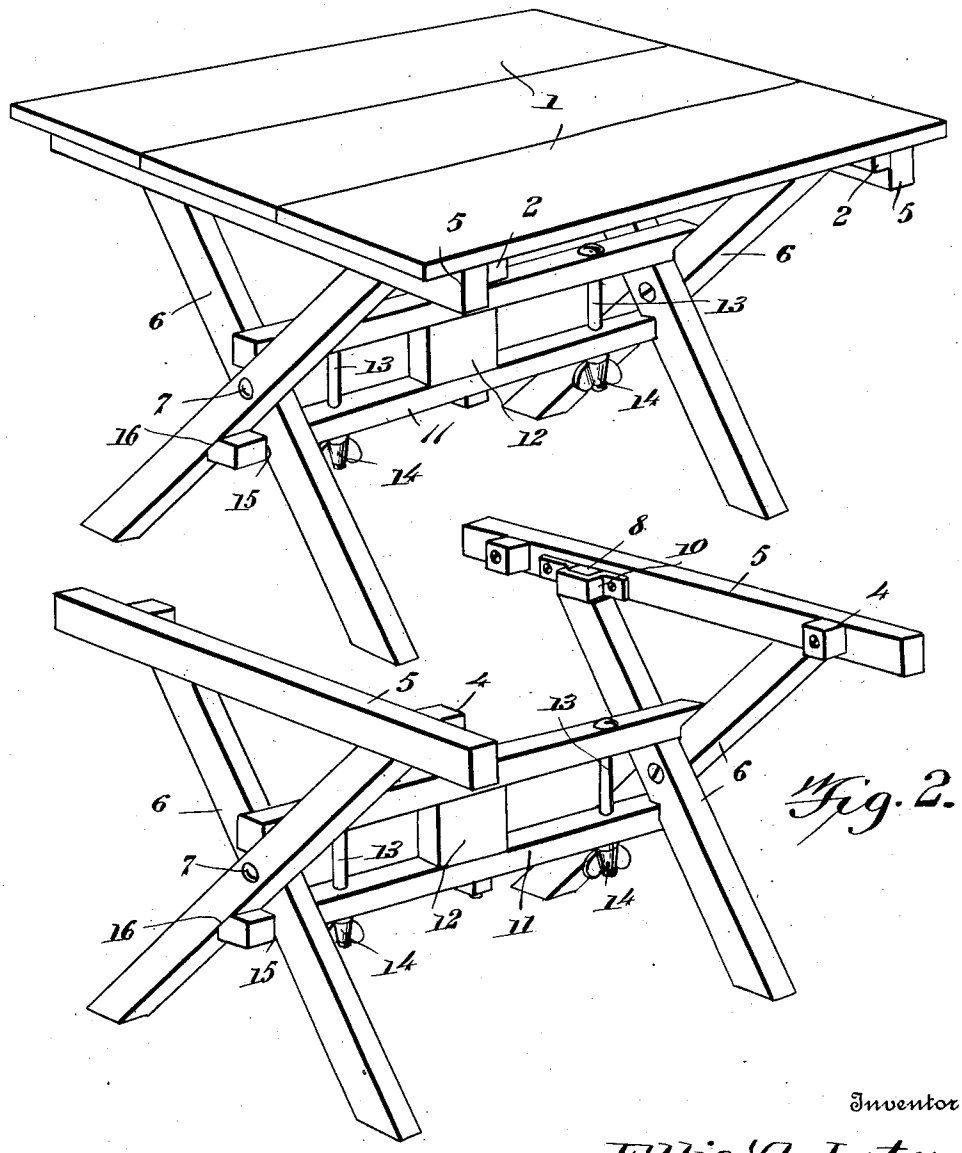


Fig. 2.

Witnesses

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2 SHEETS—SHEET 2.

Fig. 3.

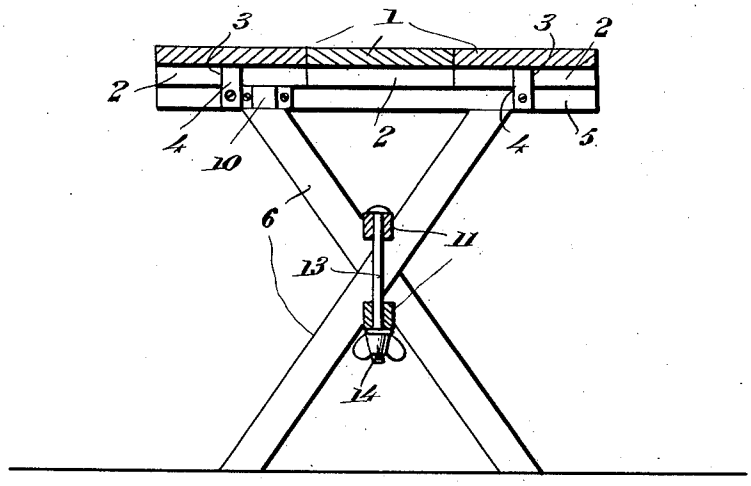


Fig. 4.

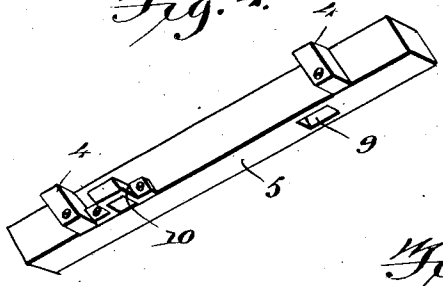


Fig. 5.

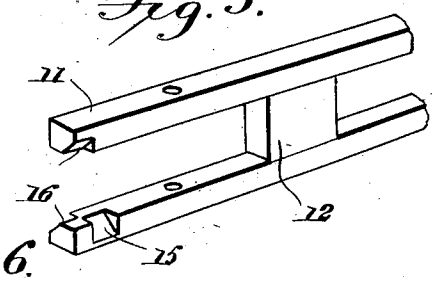
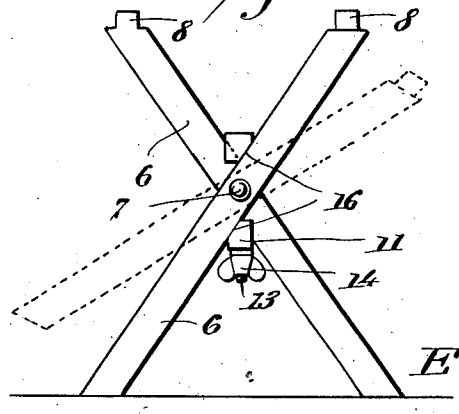


Fig. 6.



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FOLDING STAND.

1,094,227. Specification of Letters Patent. Patented Apr. 21, 1914.

Application filed August 19, 1913. Serial No. 785,537.

To all whom it may concern:

Be it known that I, ELLIS A. LOTZ, a citizen of the United States, residing at Harrisburg, in the county of Dauphin and State of Pennsylvania, have invented new and useful Improvements in Folding Stands, of which the following is a specification.

The invention has relation to stands of the foldable type, the purpose being the provision of a stand which may be packed in small compass so as to occupy a minimum amount of space and which may be easily and quickly set up when required for use, and which when in use is braced and made secure against possible collapsing, whereby its use would be rendered somewhat uncertain.

The invention consists of the novel features, details of construction and combination of parts, which hereinafter will be more particularly set forth, illustrated in the accompanying drawings, and pointed out in the appended claim.

Referring to the drawings, forming a part of the specification, Figure 1 is a perspective view of a stand embodying the invention. Fig. 2 is a view in perspective of the supporting structure, the top being omitted. Fig. 3 is a cross section. Fig. 4 is a detail view of one of the cross pieces inverted, showing the sockets for receiving the tenons at the upper ends of the legs. Fig. 5 is a detail perspective view of an end portion of the tie by means of which both end pieces are connected. Fig. 6 is an end view of the supporting structure, the top and cross piece being omitted, the full lines showing the position of the parts when adjusted for receiving the top and the dotted lines indicating the legs turned to admit of their disengagement from the tie.

Corresponding and like parts are referred to in the following description, and indicated in all the views of the drawings, by the same reference characters.

The stand comprises a supporting structure and a top, the latter being formed of a number of leaves 1, which are strengthened by cleats 2 secured to the under side of each of the leaves near the ends thereof. The outer leaves have spaces 3 formed in the cleats 2 to receive blocks 4 attached to the cross pieces 5, thereby preventing displacement of the leaves. The cleats 2 engage the cross pieces 5 in such a manner as to prevent endwise movement.

The supporting structure comprises like end pieces, a tie for connecting such end pieces and cross pieces 5, the latter being fitted to the end pieces and serving as supporting means for the leaves 1 comprising the top of the stand. Each of the end pieces is formed of crossed legs 6 which are pivoted at 7, corresponding with the point of crossing of such legs. A tenon 8 is formed at the upper end of each of the legs 6 and is adapted to enter a socket near the end of a cross piece 5. The legs 6 of each of the end pieces occupy different relative planes and in order to receive the tenons 8 a socket 9 is formed in each of the cross pieces near one end by mortising the same and a socket 10 is fitted to a side of each of the cross pieces near the opposite end to receive the tenon at the upper end of the inner leg. The socket 10 consists of a metal strap having its end portions bent substantially as shown and apertured to receive fastening means whereby the socket is secured to the cross piece. When the cross pieces 5 are in position the tenon 8 of the outer leg enters the socket 9 and the tenon 8 of the inner leg enters the socket 10. This enables the cross pieces 5 to occupy a parallel position so that the leaves 1 may be placed in position with their cleats 2 engaging the inner sides of such cross pieces.

The tie for connecting the end pieces is formed of spaced bars 11 and an intermediate filling piece 12. Bolts 13 connect opposite end portions of the bars 11, each of such bolts being provided with a thumb nut 14 whereby the same may be easily tightened or loosened. The ends of the bars 11 are adapted to enter the angles formed between the crossed legs of an end piece and by drawing such bars together they tend to spread the legs 6 whereby the tenons are caused to bind in the sockets and thereby hold the parts against displacement. The corners of the bars 11 opposite the respective legs 6 are cutaway to conform to the inclination of the legs when the stand is set up. The cutaway portions for the inner legs consist of notches 15, whereas the cutaway portions for the outer legs are in the nature of beveled parts, as indicated most clearly at 16. The cutaway portions conform to the inclination of the legs, thereby enabling the parts of the bars 11 and legs in contact to obtain an extended bearing. When the stand is set up for use bolts

13 are tightened to draw the bars 11 into the angles formed between the crossed legs of the end pieces, thereby causing the tenons at the upper ends of the legs to bind in the sockets 9 and 10 so as to hold the cross pieces 5 in position. When it is required to separate the stand to reduce the same to compact form for convenience of handling or storing the bolts 13 are loosened, after which the cross pieces 5 are removed from the upper ends of the legs 6, it being understood that the leaves comprising the top are removed preliminary to disengagement of the cross pieces from the legs. The upper ends of the legs are spread, thereby disengaging such legs from the cutaway portions of the bars 11, after which the legs may be withdrawn from the tie, thereby admitting of the several parts being placed one upon the other in compact form as will be readily understood.

From the foregoing description, taken in connection with the accompanying drawings, the advantages of the construction and of the method of operation will be readily apparent to those skilled in the art to which the invention appertains, and while I have described the principle of operation of the invention, together with the device which I now consider to be the best embodiment thereof, I desire to have it understood that the device shown is merely illustrative, and that such changes may be made when desired as are within the scope of the claim appended hereto.

Having thus described the invention what is claimed as new, is:—

In a stand of the character specified the combination of end pieces comprising crossed legs pivotally connected at their point of crossing, spaced bars having their end portions engaging the crossed legs upon opposite sides of their pivotal connection, said bars having portions cut away to receive the legs, and means for drawing the bars together to cause their end portions to engage the crossed legs by a wedging action.

In testimony whereof I affix my signature in presence of two witnesses.

ELLIS A. LOTZ.

Witnesses:
AUGUSTA J. LOTZ,
ELLA M. BORMAN.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."