

J. C. TOYNBEE.
FOLDING TRAY.
APPLICATION FILED JULY 16, 1910.

977,239.

Patented Nov. 29, 1910.

Fig. 1.

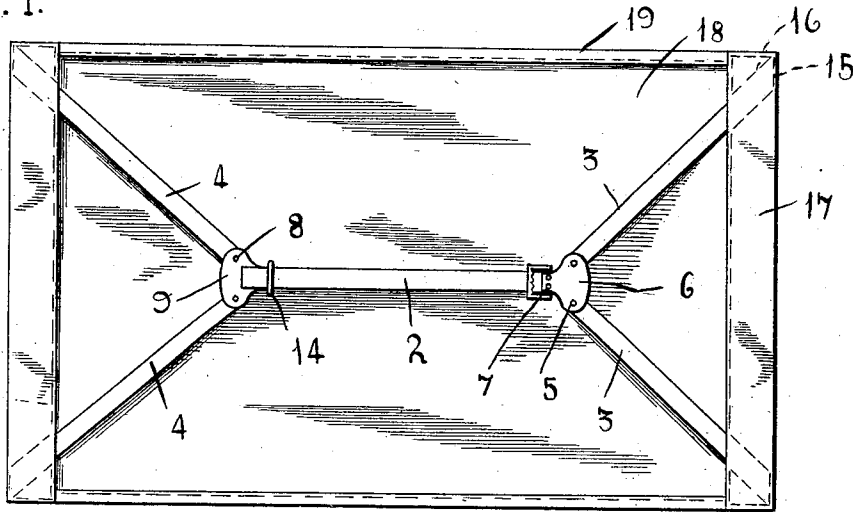


Fig. 2.

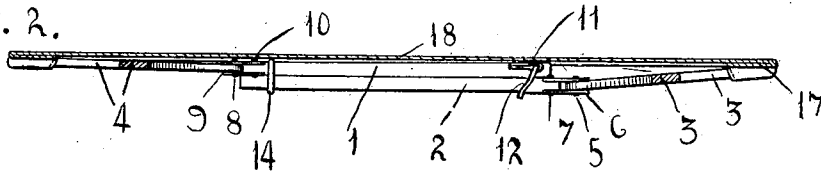


Fig. 3.

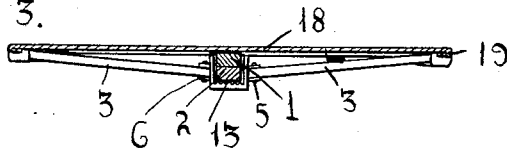


Fig. 4.

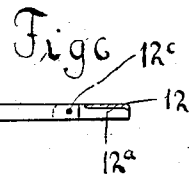
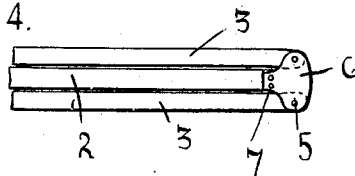
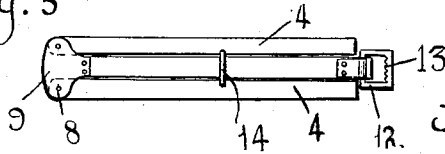


Fig. 5.



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JOSEPH C. TOYNBEE, OF GLEN OSBORNE, PENNSYLVANIA.

FOLDING TRAY.

977,239.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, JOSEPH C. TOYNBEE, a citizen of the United States of America, residing at Glen Osborne, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Folding Trays, of which the following is a specification, reference being had therein to the accompanying drawing.

10 This invention relates to folding trays, and the primary object of the invention is to provide positive and reliable means for stretching a piece of fabric and retaining the same in a stretched position, whereby it

15 can be used as a tray or lap-board for various purposes, for instance, playing cards, particularly when traveling, picnics, parlor games and as a temporary lap-board.

Another object of the invention is to provide a folding or collapsible frame that can be folded into a comparatively small parcel that can be carried in the pocket or in a valise, the frame being constructed whereby in a set up position it will present a rigid

25 structure capable of supporting a piece of fabric in a stretched condition.

A further object of the invention is to provide a device of the above type that is simple, durable, inexpensive to manufacture and highly efficient for the purposes for

30 for which it is intended.

With these and such other objects in view as may hereinafter appear, the invention consists of the novel construction, combination and arrangement of parts to be hereinafter specifically described and then claimed.

Reference will now be had to the drawing, wherein:—

Figure 1 is a bottom plan of a tray in accordance with my invention, Fig. 2 is a longitudinal sectional view of the tray, Fig. 3 is a cross sectional view of the tray, Fig. 4 is a plan of one of the frames in a folded position, Fig. 5 is a similar view of another

45 frame in a folded position, and Fig. 6 is a longitudinal sectional view of a modified form of fastener forming part of the tray.

A tray in accordance with my invention comprises two substantially Y-shaped collapsible frames, consisting of bars 1 and 2 and arms 3 and 4. The arms 3 have the inner ends thereof pivotally mounted by pins 5 between plates 6, secured, as at 7 to the end of the bar 2, the plates 6 being arranged

55 in parallelism and extending beyond the sides of the bar 2, whereby the arms 3 can

be folded rearwardly into parallelism with the bar.

The arms 4 have the inner ends thereof pivotally mounted by pins 8 between plates 9, similar to the plates 6, the plates 9 being connected to the end of the bar 1, as at 10. Pivotaly mounted upon the end of the bar 1 is a fastening device, comprising a hinged member 11 supporting a rectangular link 12, said link having the inner lower edge thereof toothed or serrated, as at 13. This link is adapted to receive the bar 2 and frictionally engage the same, said bar being held in parallelism with the bar 1 by a

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rectangular keeper 14 loosely and slidably mounted upon the bars 1 and 2.

The outer ends of the arms 3 and 4 are cut off at an angle, as at 15 to squarely engage in pockets 16 formed in the hems 17 of a piece of fabric 18, said fabric having the longitudinal edges thereof hemmed, as at 19. It is preferable to use canvas or other light and durable material that can be drawn taut by stretching the frames of

75 80

the tray.

After the ends of the arms 3 and 4 have been placed in the hem 17, the end of the bar 1 is used as a fulcrum for the bar 2, after the bar has been inserted in the link 12, and by pressing the free end of the bar 2 toward the bar 1, the link 12 will frictionally grip the bar 2 and hold the same, while the free end of the bar 2 can be locked in engagement with the bar 1 by the loose keeper 14.

85 90

In lieu of using the hinged member 11, the sides of the link 12 can be flanged, as at 12^a and the rear ends of the flanges pivotally connected to the sides of the bar 1 by a transverse pin 12^b. The bars 1 and 2 and the arms 3 and 4 are preferably made of light and durable wood, and the remainder of the frames of metal.

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While in the drawing there is illustrated a preferred embodiment of the invention, it is to be understood that the structural elements thereof are susceptible to such changes as fall within the scope of the appended claims.

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What I claim is:—

In a folding tray, a tray top formed of flexible material and provided at the ends with pockets on the under side of the tray top, in combination with means for stretching said tray top and securing same in stretched position, comprising two pairs of arms having the outer ends removably seat-

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ed in said pockets, plates to which the inner
ends of said arms are pivoted, a pair of
stretcher bars pivoted one at one end to the
plates of one pair of arms and the other at
the opposite end to the plates of the other
5 pair of arms, a hinged link carried by the
free end of one of said stretcher bars and
receiving the other stretcher bar there-
through, and a keeper slidable on the bars

and acting to hold the bars closed one 10
against the other.

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

JOSEPH C. TOYNBEE.

Witnesses:

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