J. H. SPRAGUE.

COLLAPSIBLE BOX.

APPLICATION FILED JULY 6, 1920.

1,371,651.

Patented Mar. 15, 1921.

2 SHEETS—SHEET 1.

Fig. 1.

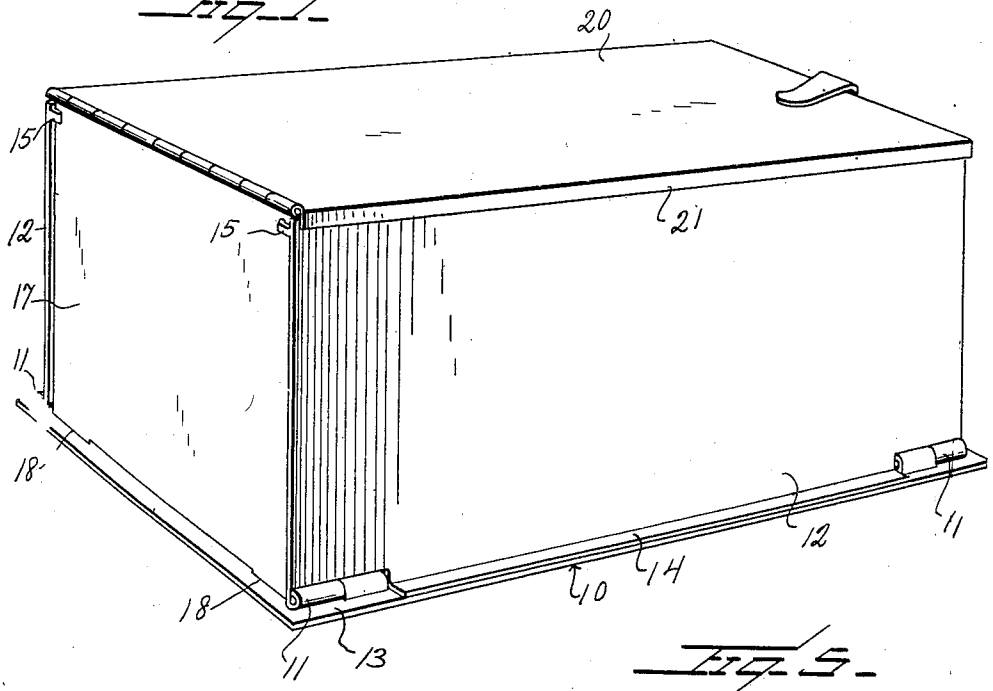


Fig. 5.

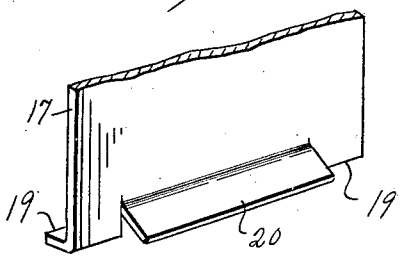


Fig. 4.

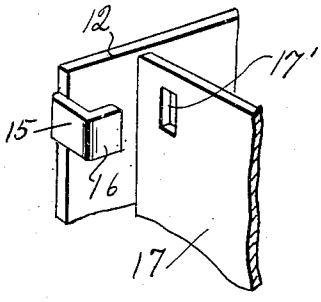


Fig. 6.

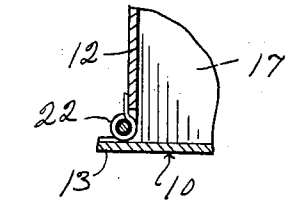
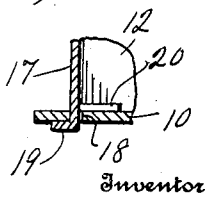


Fig. 7.



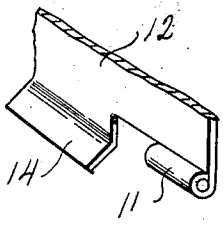


Fig. 5.

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2 SHEETS—SHEET 2.

Fig. 2.

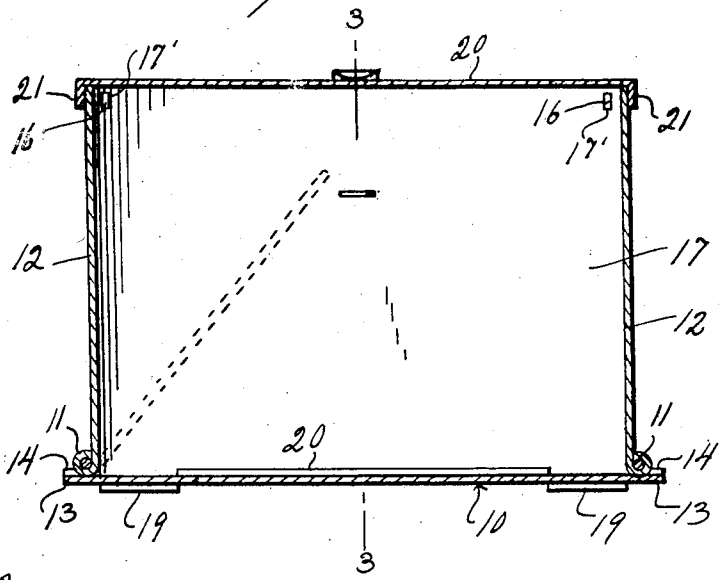
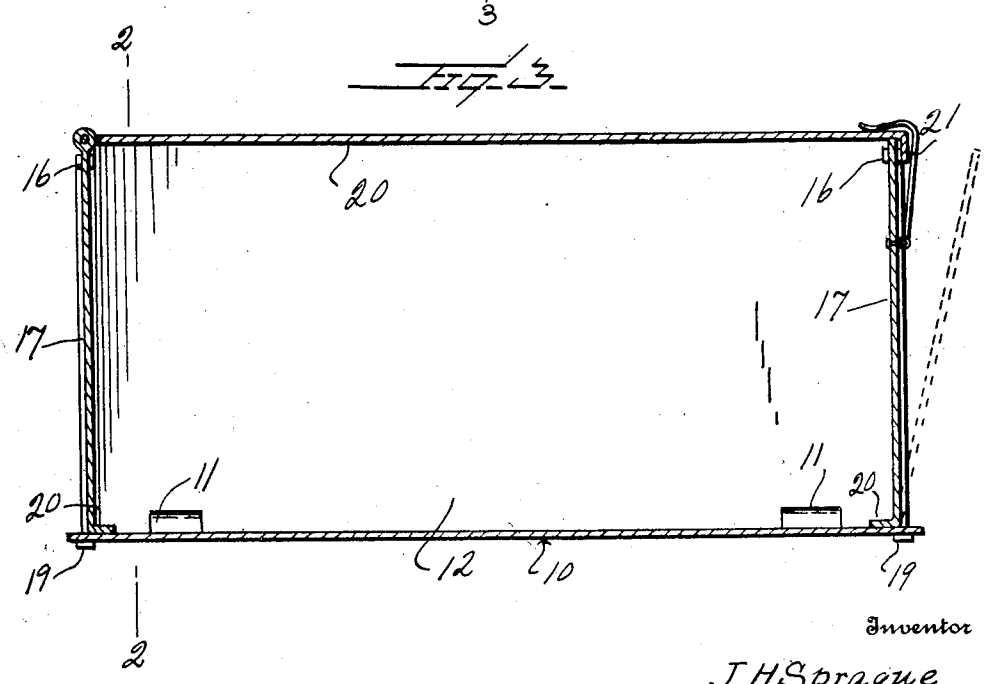


Fig. 3.



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UNITED STATES PATENT OFFICE.

JAMES H. SPRAGUE, OF RIO BLANCO, COLORADO.

COLLAPSIBLE BOX.

1,371,651. Specification of Letters Patent. Patented Mar. 15, 1921.

Application filed July 6, 1920. Serial No. 394,020.

To all whom it may concern:

Be it known that I, JAMES H. SPRAGUE, a citizen of the United States, residing at Rio Blanco, in the county of Rio Blanco and State of Colorado, have invented certain new and useful Improvements in Collapsible Boxes, of which the following is a specification, reference being had to the accompanying drawings.

This invention relates to improvements in collapsible boxes.

An important object of the invention is to provide a box of the character described, the portions of which are self-supporting and interlocking.

A further object of the invention is to provide a box of this character the sections of which may be readily removed and the box folded for shipment.

Other objects and advantages of the invention will become apparent throughout the course of the following description.

In the accompanying drawings, wherein for the purpose of illustration is shown a preferred form of my invention, and wherein like reference characters designate like parts throughout:

Figure 1 is a perspective view of a collapsible box constructed in accordance with my invention.

Fig. 2 is a section taken on the line 2—2 of Fig. 3.

Fig. 3 is a section taken on a line 3—3 of Fig. 2.

Figs. 4 to 7 inclusive are fragmentary views of details of construction; and

Fig. 8 is a fragmentary sectional view illustrating a modified form of construction.

Referring now more particularly to the drawings, the numeral 10 indicates a suitable base formed of any desired material. Pivotally connected with the base adjacent each end of the side thereof as at 11 are side members 12.

The point of pivotal connection of the side members 12 with the base 11 is preferably arranged inwardly of the sides of the base so as to form an outstanding foot 13. The side members 12 are each provided with a resilient angular foot 14. This foot as clearly shown in the drawings is at an angle to the side member of more than 90 degrees and engaging the foot 13 tends to throw the side members inwardly as indicated by the dotted lines of Fig. 2. Each side member 12 is provided at each end thereof adjacent the top with an inwardly extending portion 15 terminating in an angular shoulder 16 extending longitudinally of the box.

End sections 17 are provided. The base 10 is provided adjacent the ends thereof intermediate the side members 12 with spaced alined openings 18 and each end member is provided with hook shaped feet 19 adapted to engage through these openings, the end members, however, being removable. Each end member is provided with an inwardly extending foot 20 at the bottom thereof, which is adapted to engage the base. These feet 20 are likewise disposed at an angle of more than 90 degrees to the end members 17 and accordingly tend to throw the end members outwardly as indicated by the dotted lines of Fig. 3.

It will be obvious that by springing the side members 12 outwardly and placing the end members with the hooked feet 19 thereof in the apertures 18 of the base the end member may be sprung inwardly. Each end member is provided adiacent the top thereof at each side with an aperture 17′ adapted to receive the corresponding shoulder 16 of the adjacent edge of the side member. It will be seen that when the end member is released the shoulder 16 will engage in the opening 17′ and effectually prevent the end members from being moved outwardly by the resilient feet 20 and that the end members being disposed intermediate the side member will prevent the side members being forced inwardly by the resilient feet 14.

To the upper end of one of the end members 19 is pivotally connected a cover member which may, if so desired, be provided with a flange 21 engaging the outer faces of the sides and the remaining end member bearing catch C.

It will be obvious that in the construction of my device instead of employing the resilient feet 20 springs 22 may be employed for moving the side and end members in the directions indicated. It will also be obvious that while I have stated that the side members are pivotally connected with the base and the end members removable therefrom, that this condition might readily be reversed, and furthermore, in lieu of the hooked feet 19 shown in the present instance as means for pivotally connecting

the side members with the base any suitable, quickly detachable pivotal connection might be employed.

Many other changes of similar character being possible, I do not limit myself to the specific arrangement hereinbefore set forth, but may make any such changes, without departing from the spirit of the invention, or the scope of the sub-joined claims.

Having now described my invention, what I claim is:—

1. In a collapsible box, a base, side members pivotally connected therewith, means normally forcing said side members inwardly, end members removably and pivotally connected with said base intermediate said side members, means normally forcing said end members outwardly, means carried by said side members for limiting the outward movement of said end members, and a cover member pivotally connected with one of the end members.

2. In a collapsible box a base, side members pivotally connected therewith, resilient means normally forcing said members inwardly, end members pivotally connected with said base intermediate said side members, means normally forcing said end members outwardly, inwardly extending portions formed upon the ends of said side members adjacent the tops thereof and provided with inwardly turned angular shoulders extending longitudinally of the completed box, said end members being provided with openings adapted to receive said inwardly turned shoulders.

3. In a collapsible box a base, side members pivotally connected therewith, resilient means normally forcing said members inwardly, end members removably and pivotally connected with said base intermediate said side members, means normally forcing said end members outwardly, inwardly extending portions formed upon the ends of said side members adjacent the tops thereof and provided with inwardly turned angular shoulders extending longitudinally of the completed box, said end members being provided with openings adapted to receive said inwardly turned shoulders, and a cover member pivotally connected with one of said end members.

4. In a collapsible box a base, side members pivotally connected therewith at points spaced inwardly from the sides thereof, out turned spring feet carried by said side members and engaging said base to force said side members inwardly, openings formed in said base adjacent the ends thereof intermediate said side members, end members provided with hooked feet adapted to engage in said openings, an angular spring foot formed on each of said end members and extending inwardly therefrom and adapted to engage said base to force said end members outwardly and means carried by said side members for limiting the outward movement of said end members.

5. In a collapsible box, a base, side members pivotally connected therewith, means normally forcing said side members inwardly, end members removably and pivotally connected with said base intermediate said side members, means normally forcing said end members outwardly, and means carried by said side members for limiting the outward movement of said end members.

6. In a collapsible box, a base, side members pivotally connected therewith, means normally forcing said side members inwardly, end members removably and pivotally connected with said base intermediate said side members, means normally forcing said end members outwardly, and means carried by said side members for limiting the outward movement of said end members, said last named means likewise preventing outward movement of the said members.

In testimony whereof I hereunto affix my signature.

JAMES H. SPRAGUE.