

Sept. 3, 1929.

H. S. SCHOLES

1,726,682

FOLDABLE BOX

Filed Sept. 15, 1928

Fig. 1.

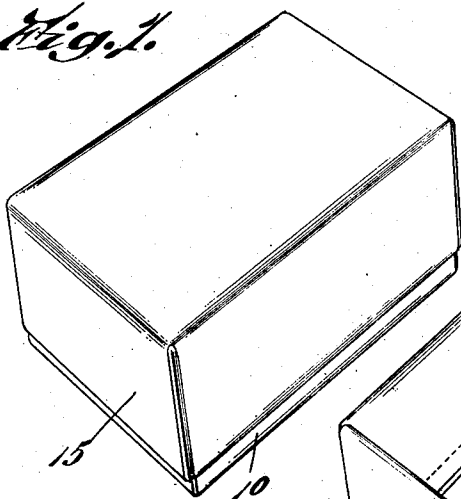


Fig. 2.

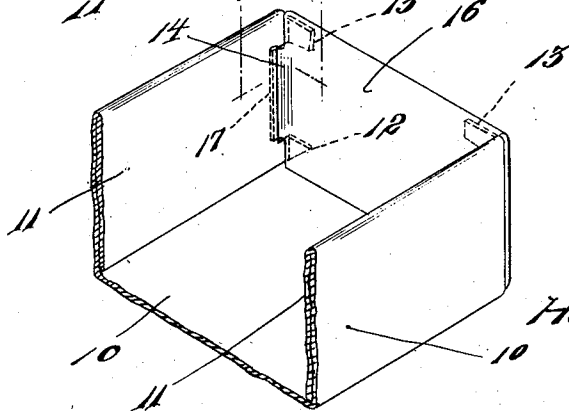
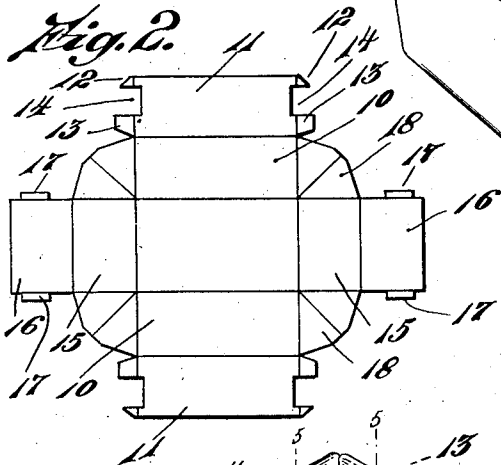


Fig. 4.

Fig. 5.

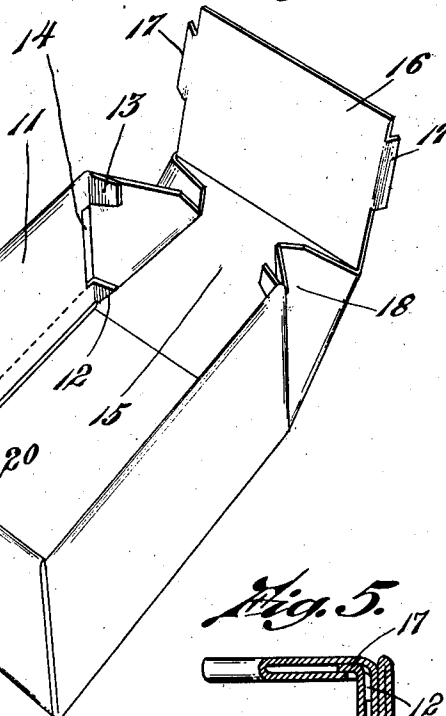
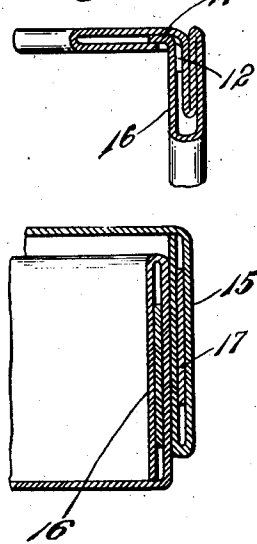


Fig. 6.



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FOLDABLE BOX.

Application filed September 15, 1928. Serial No. 306,155.

This invention relates to boxes formed of paper, cardboard and of other foldable material and particularly to a foldable box, formed of two telescoping sections.

5 An object of my present invention is to provide a box section forming the lower or upper half of a box, preferably of paper, with improved forms of folded end and side wall portions to reinforce the walls, the same
10 being provided with means for interlocking one with the other to secure the wall extensions in folded position.

Another object of the invention is to provide a foldable box section adapted for shipment in flat form and adapted to be readily
15 converted into usable form by folding the extension portions inwardly upon the inner surfaces of their walls and providing interlocking portions for securing the walls together.

20 The invention further consists in the provision of interlocking tabs or portions on the folded extensions, each to project behind the next adjacent folded extension to lock these extensions in folded position.

25 A still further object of the invention is to provide the ends of the folded-over side portions with spaced upper and lower tabs and over which the end extension is folded and to provide tabs on the end extensions to project
30 behind the folded side extensions to lock the corners of the extension together.

With these and other objects in view, the invention consists in the features of construction and operation set forth in the following
35 specification and illustrated in the accompanying drawings.

Fig. 1 is a perspective view of completely folded box sections made according to my present invention, the cover member fitting over
40 the body member.

Fig. 2 is a plan view of a box section in flat form as cut from sheet stock.

Fig. 3 is a perspective view showing one end of the box section in partly folded position.
45

Fig. 4 is a sectional view showing one end of the box member as completely folded and the tabs of the end and side wall extensions interlocked one with the other.

50 Fig. 5 is a fragmental section of the folded corner of the box member showing the tabs on the folded end extensions as projecting behind the edge of the folded side wall extensions.

55 Fig. 6 is a fragmental view showing the

folded end wall extension of the cover as engaging the end wall of the body with a yielding pressure.

It is found in practice of advantage to provide a box of foldable material such as paper, 60 cardboard, or other suitable material, which can be shipped flat or partly folded and when completely folded will have both side and end walls of double thickness, the inwardly-foldable extensions of each wall being provided with cooperating interlocking tabs or 65 members, those of one extension being arranged to project behind the other folded-over extension to lock all of the walls in folded position, whereby the box members may be 70 quickly folded by unskilled help and when folded the walls become automatically locked against relinquishment; and the following is a detailed description of the present embodiment of my invention and showing one construction of box by which these advantageous 75 results may be accomplished.

With reference to the drawings, a blank preferably of heavy and foldable material such as cardboard or the like, as shown in 80 Fig. 2, is employed for forming either the body or the cover portion of a folding box, the two being formed substantially the same and adapted to telescope one with the other. In either of these box members, portion 10 85 indicates the side walls thereof as having a foldable extension 11 attached to its outer edge. This foldable extension is herein shown as being provided with edge tabs 12 and 13 spaced apart and that portion between these 90 tabs as being cut or notched as at 14 for the purpose presently described.

The end walls 15 of this box portion are also provided with extension members 16, each having tabs 17 on its opposite edges. 95 These end walls and side walls are herein shown as being connected by stiffening corner flaps 18, which are adapted to be folded inwardly, as best illustrated in Fig. 3.

When the end and side walls 10 and 15 are 100 folded up into working position, I fold the extensions 11 of the side walls inwardly which causes their spaced tabs 12 and 13 to lie against the inwardly-folded corner flaps 18. Then as the end extension 16 is folded 105 inwardly it overlies these tabs 12 and 13 and the tabs 17 on these end extensions are caused by inherent resiliency of the stock to snap into the corresponding recesses 14 in the side extensions 11 and then extend in back of these 110

folded extensions thereby securely locking both the extension 11 and the extensions 16 together at the corners.

By this construction, it is evident that each of the folded extensions becomes interlocked one with the other at the corners thereby preventing accidental releasement of these parts.

I have herein shown two spaced tabs 12 and 13 as connected to the end of the side wall extension and the flap 17 on the end wall extension as entering the space between the tabs 12 and 13, but it is evident that the arrangement of these tabs may be reversed if desired, and that any number or arrangement of tabs may be employed either on the end extension or on the side extension and that these tabs may extend behind the adjacent edge of the extension to securely lock these corners together, or on the side extension and that these tabs may extend behind the adjacent edge of the other extension to securely lock these corners together, or in some cases where a plurality of these tabs are employed the tabs on one of the flaps may abut against the edge of the cut-out portion of the adjacent extension instead of extending behind it, if desired.

It is evident that where the tab 13 is employed at the upper edge of the extension and particularly the tab 12 at the lower edge of the extension over both of which the adjacent end extension is folded that these tabs serve to securely lock both the upper and lower edge portions of their folded extension thereby permitting the use of a very deep box and also a box of very thin material, which would not be the case if the lower tab 12 were omitted.

I do not desire to be restricted to the use of a pair of spaced tabs on the edge of one of the folded extensions as in some cases it is found that a single tab near the lower edge of each of the folded extensions interlocked with the adjacent extension will serve to retain the walls in locked position.

My improved folding box is very strong and durable and by its construction may be shipped in a knock-down or flat form or in semi-folded condition and may be folded or assembled by unskilled help and upon being folded the tabs are arranged to snap into position to securely lock the walls against separation.

It is found in practice that in some instances the lower edge 20 of the folded over side wall extension 11 may be cemented to its outer wall leaving an uncemented portion which is notched as at 14 between the inner and outer layers between which the flap 17 may extend to lock the walls of the box together, in which case where cement is used for this lower edge, the lower tabs 12 may be omitted. In some instances, where the lower edge 12 is cemented to this side wall along the lower edge of the notch 14 this wall stock may be creased to assist in lifting this por-

tion from the outer wall portion to facilitate entrance of the flap 17 to the space between these walls.

The foregoing description is directed solely towards the construction illustrated, but I desire it to be understood that I reserve the privilege of resorting to all the mechanical changes to which the device is susceptible, the invention being defined and limited only by the terms of the appended claims.

I claim:

1. A folding box member having side walls and end walls, an inwardly-foldable extension portion on each of said walls, an interlocking member on each end of each extension portion arranged to project behind the adjacent folded-over extension to lock said extension portions in folded position.

2. A folding box member having side walls and end walls, an inwardly-foldable extension portion on each of said walls, the adjacent edges of each extension having cooperating alternately-arranged interlocking members, those of one extension portion projecting behind the edge of the adjacent folded-over extension portion to lock said extension portions in folded position.

3. A folding box member having side walls and end walls, an inwardly-foldable extension portion on each of said walls, the edges of each extension portion having a tab, cooperating with the adjacent extension portion and extending behind the adjacent extension portion to secure the extension portions in folded position.

4. A folding box member having side walls and end walls, an inwardly-foldable extension portion on each of said walls, the edges of each extension portion having a cooperating tab adjacent its lower edge, cooperating with the adjacent extension portion and projecting behind the next adjacent extension portion to lock the whole together.

5. A folding box member having side walls and end walls, each having an inwardly foldable extension portion, a pair of spaced tabs on the ends of one extension, a single tab on the adjacent edge of the other extension positioned to enter the space between said pair, the tabs of each extension engaging the stock of the other extension to lock them both in folded position.

6. A folding box member having side walls and end walls each having an inwardly-foldable extension portion, a pair of spaced tabs on the edge of one extension, a single tab on the adjacent edges of the other extension positioned to enter the space between said pair, the tabs of each extension projecting behind the folded stock of the other extension to lock them both in folded position.

7. A folding box member comprising end walls each having an extension folded inwardly to form a double thickness, the edge of said extension having a locking tab, side

walls each also having an inwardly-folded extension, a pair of spaced tabs on this side extension positioned to straddle the tab on the adjacent edge of the end wall extension, the tabs of one extension engaging the other extension to lock both extensions in folded position.

8. A folding box member comprising end walls having extensions folded inwardly to form a double thickness, the edges of each of said extensions having a lock tab, side walls each also having an inwardly-folded extension, a pair of spaced tabs on the side wall positioned to straddle the tab on the adjacent edge of the end wall extension, the tabs on one extension projecting behind the folded-over extension of the other wall to lock the extensions in folded position.

9. A folding box member having foldable side walls with notched extensions, said extensions having upper and lower lock tabs on either side of said notch, end walls also having an inwardly-foldable extension, a lock tab on the edge of said extension arranged

to extend into said notch and behind said side extension when both of said extensions are folded to lock the whole together.

10. A folding box member having side walls and end walls each having an inwardly foldable extension, one of said extensions being notched and the other cooperating extension having a projection and being distortable to permit said projection to enter into said notch and extend behind the folded extension to lock the box in folded position.

11. A folding box member having side walls and end walls each having an inwardly foldable extension, the side wall extension being notched at its ends, locking projections on the folded end wall extensions positioned to enter said notches and project behind the side wall extensions, and means on the lower edge of the side wall extensions cooperating with the end wall extensions to lock the side wall extensions.

In testimony whereof I affix my signature.

HOWARD S. SCHOLLES.