July 31, 1934. W. B. JENSEN 1,968,082

FILE BOX

Filed Oct. 22, 1932 2 Sheets-Sheet 1

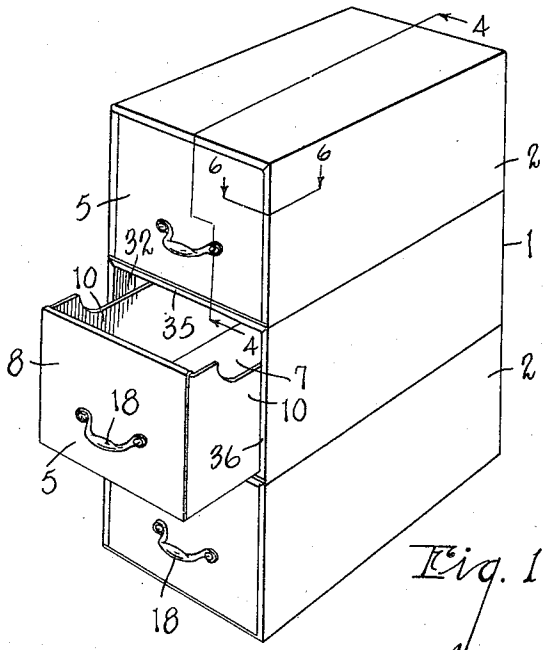


Fig. 1

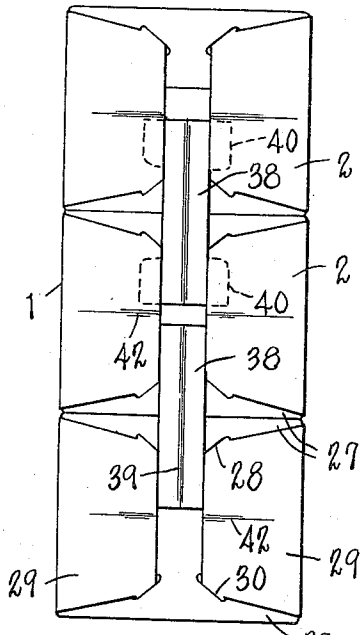


Fig. 2

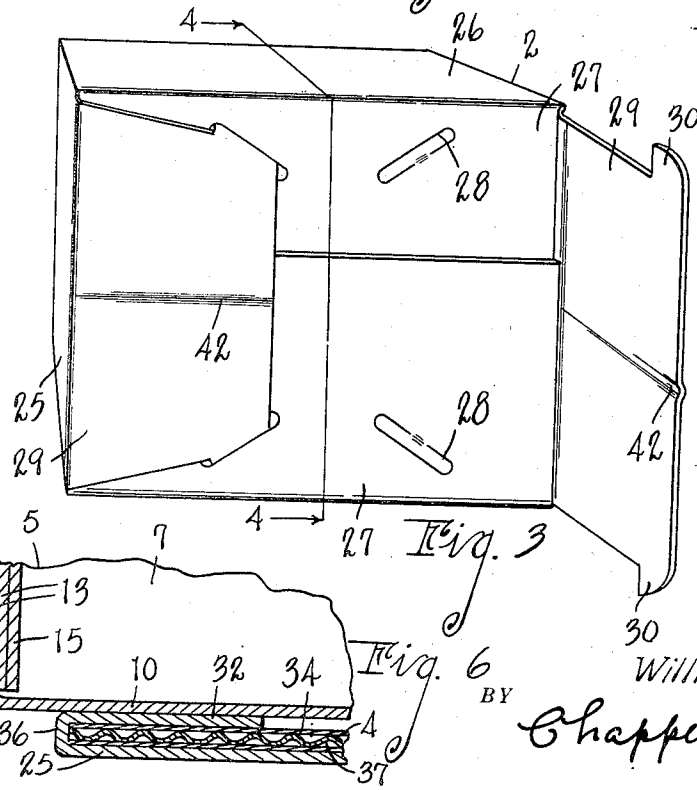


Fig. 3

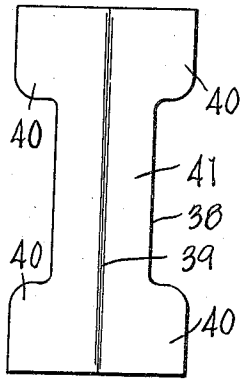


Fig. 10

Fig. 6

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FILE BOX

Filed Oct. 22, 1932 2 Sheets-Sheet 2

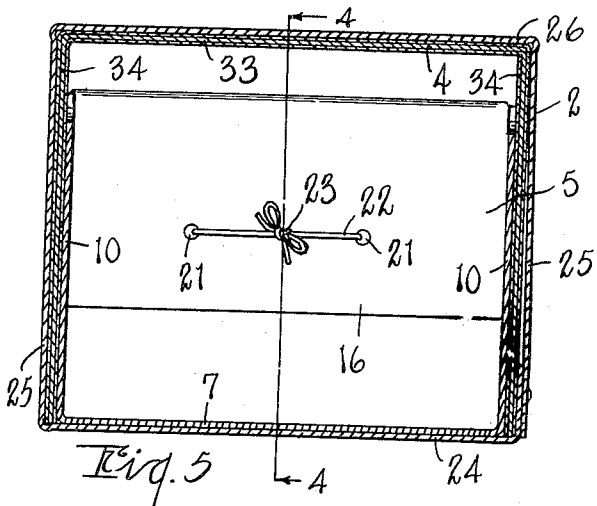


Fig. 5

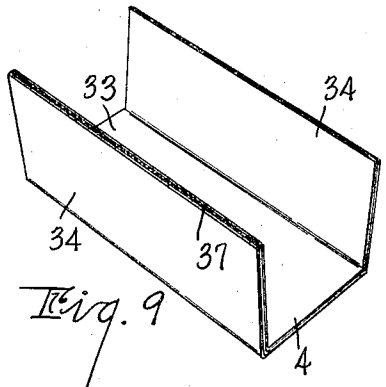


Fig. 9

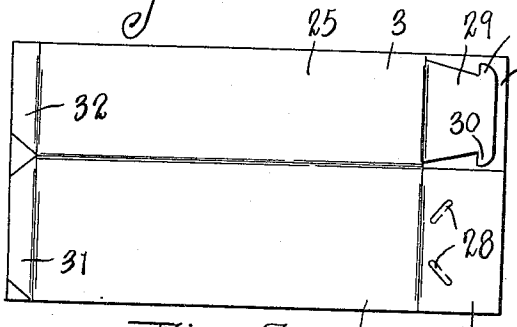


Fig. 7

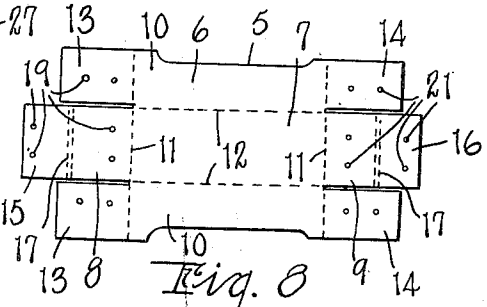


Fig. 8

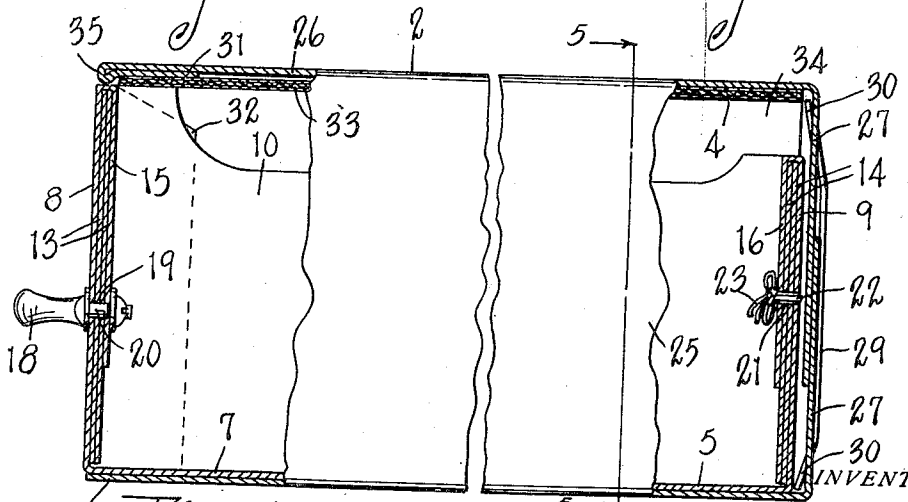


Fig. 4

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Patented July 31, 1934

1,968,082

UNITED STATES PATENT OFFICE

1,968,082

FILE BOX

William B. Jensen, Grand Rapids, Mich., assignor to American Box Board Company, Grand Rapids, Mich.

Application October 22, 1932, Serial No. 639,038

11 Claims. (Cl. 45—2)

The main objects of this invention are:

First, to provide a storage file box which may be shipped or stored in knock-down condition and easily set up by the user.

Second, to provide a file box constructed of sheet material such as fiberboard or boxboard.

Third, to provide a device of this character comprising a shell and drawer of improved construction.

Fourth, to provide a filing cabinet drawer formed of boxboard or like material which may be shipped or stored in the knockdown and later set up and which when assembled is very strong and rigid.

Fifth, to provide a filing or storage file box shell which may be formed of comparatively light or boxboard material which is very rigid when set up and capable of sustaining heavy loads.

Sixth, to provide a file box which may be formed of fiberboard and like material which has a finished appearance and also one in which the drawer is effectively retained, and when closed is effective in excluding the dust.

Seventh, to provide a storage file box comprising a plurality of stacked units and means for connecting the same in assembled relation.

Eighth, to provide a filing case embodying the above desirable features which is simple and economical to manufacture, easy to set up, strong, efficient and durable.

Objects relating to details and economies of my invention will appear from the description to follow. The invention is defined in the claims.

A structure which is a preferred embodiment of my invention is illustrated in the accompanying drawings, in which:

Fig. 1 is a perspective view of a storage filing case embodying the features of my invention.

Fig. 2 is a rear elevation.

Fig. 3 is an enlarged rear perspective view of a file shell, one outer flap being shown in open position.

Fig. 4 is a fragmentary view in side elevation of the shell having portions broken away and shown in vertical section on a line corresponding to line 4—4 of Figs. 1, 3 and 5.

Fig. 5 is a transverse section on line 5—5 of Fig. 4.

Fig. 6 is an enlarged detail section taken on a line corresponding to line 6—6 of Fig. 1.

Fig. 7 is a top plan view of a shell in the flat.

Fig. 8 is a plan view of a drawer blank.

Fig. 9 is an inverted perspective view of a reinforcing liner.

Fig. 10 is an enlarged plan view of a connecting member.

Referring to the drawings, 1 indicates a filing case or stack consisting of a plurality of filing or storage boxes 2 stacked on one another. Each filing or storage box 2 consists of a shell 3, a reinforcing liner 4 and a drawer 5. The drawer comprises a blank 6 of fiberboard, boxboard or the like having a bottom 7, a front wall 8, a rear wall 9, and side walls 10, 10 extending therefrom, the connection between them and the bottom being weakened to facilitate folding by the scored lines 11, 11 and 12, 12, respectively. The side walls are provided with front and rear end flaps 13, 13 and 14, 14 adapted to be folded inwardly along the scored lines 11, 11 in overlapping relation to each other and on the inner sides of the front and rear walls 8 and 9.

The front and rear walls are provided with top flaps 15 and 16, respectively, which are folded inwardly and downwardly at the scored lines 17, 17 over the end flaps 13 and 14. The handle 18 disposed on the front wall, the front wall, the front end flaps 13 and top flap 15 are provided with a pair of spaced alined bolt holes 19, 19 in which are disposed bolts 20 for anchoring the handle and clamping the front wall and overlapping flaps together. This provides a strong and rigid front and handle assembly.

The rear wall 9, overlapping end flaps 14 and top flap 16 are provided with alined spaced holes 21 through which is threaded the tie cord 22 which is tied firmly at 23 for securing the parts of the rear wall assembly in assembled relation. Formed in this manner the drawer provides a strong and rigid structural unit and one which may be easily set up.

The shell 3 comprises a knock-down body portion of fiberboard or boxboard having a bottom 24, side walls 25, and a top 26. The top and bottom have overlapping inner rear end closure flaps 27, 27 in which are formed the inclined slots 28. Outer rear end flaps 29, 29 extend inwardly from the side walls and have vertical tongues 30 engageable with the slots whereby to interlock the flaps in such manner that they constitute struts and braces which strengthen the shell against diagonal collapsing.

The top and side walls have front flaps 31 and 32, 32 respectively. An inverted channel-like cellular reinforcing liner 4 is disposed within the shell 3, the top 33 and the side walls 34, 34 of the liner being in substantial surface to surface contact with the top and side walls of the shell. The front top flap 31 is folded inwardly over the

top of the liner and under the top of the shell so that it coacts with the liner to stiffen the shell and provide a top finished edge 35 at the front.

The front side flaps 32 are folded inwardly over the reinforcing liner so that they coact with the side walls of the drawer to hold the liner in place, the inturned front side flaps also providing finished side edges 36, 36 at the front. These side flaps 32 also serve as dust excluders, closing the joint at the sides of the drawer.

The corrugations of the corrugated member 37 in the side wall of the reinforcing liner extend in a vertical direction so as to strengthen the shell against vertical collapse, the arrangement being such that while the parts are made of cardboard, the set-up shell is capable of sustaining heavy loads without collapsing. The shells are sufficiently strong as to permit their being stacked, even when filled with material.

The drawer telescopes within the shell and may be readily opened and closed by means of the handle 18. The cases may be safely stacked to the desired height and are firmly held together by means of key or connecting members 38 interlocked with the rear end flaps of adjacent pairs of cases. The connectors are of substantially I-shape and are made of heavy fiber cardboard which is scored at 39 along the vertical axis so that the member may be bent slightly along the scored line to insert the tabs or lugs 40, 40 under the outer rear end flaps 29, 29. The outer end flaps 29 are spaced so as to receive the stem 41 of the connector, the ends of the flaps engaging the sides of the stem. The lugs 40 engage the locking tongues 30 and thereby prevent vertical displacement of the upper cases when one of the upper drawers is pulled out.

The outer rear end flaps 29 are in the embodiment illustrated provided with horizontal scoring at 42 for facilitating the bending of the flap to facilitate the insertion of the tongues 30 in the slots 28.

My improved storage boxes may be readily and quickly set up and when set up are strong and rugged. The shells resist diagonal collapsing to a marked extent due to the interlocking rear end flaps, and each case is capable of bearing a heavy load by virtue of the formation and position of the reinforcing liner disposed within each shell. The file boxes are individually dust-proof and may be stored without fear of damage to the contents by dust or from crushing.

I have mainly used the term "boxboard" in reference to the material from which the drawer and body blanks are formed but it will be understood that this is used as a matter of convenience, and that I have in mind fiberboard, heavy cardboard, and various materials of this character which are variously designated on the market.

Having thus described my invention what I claim as new and desire to secure by Letters Patent is:

1. A filing case shell of boxboard or the like comprising an integral bottom, side walls and a top, overlapping inner rear end flaps extending inwardly from said top and bottom and having inclined slots, outer rear end flaps extending inwardly from said side walls and having inwardly inclined upper and lower edges terminating in vertical tongues engaging said slots with the angled recesses formed by such edges and the tongues coacting with the outer ends of the slots whereby to interlock said rear end flaps in such manner that they constitute struts and braces which strengthen the box against diagonal collapse.

2. A filing case shell of boxboard or the like comprising an integral bottom, side walls, and a top, overlapping inner rear end flaps extending inwardly from said top and bottom in overlapping relation with each other and having slots, and outer rear end flaps extending inwardly from said side walls with their inner edges in widely spaced relation with each other and having tongues engaging said slots with the side edges of the tongues coacting with the ends of the slots whereby to interlock said rear end flaps in such manner that they constitute struts and braces which strengthen the box against diagonal collapse.

3. A filing case shell comprising a knock-down body portion having interlocking rear end flaps and front flaps on the top and side walls, and an inverted channel-like reinforcing liner of cellular board disposed therein, the front top flap being folded inwardly so that it coacts with the reinforcing liner to stiffen the shell and provide a top finished edge and the front side flaps being folded inwardly over the reinforcing liner so that they hold the latter in place and provide finished side edges.

4. A filing case shell comprising a body portion having front flaps on the top and side walls, and an inverted channel-like reinforcing liner of cellular board disposed therein, the front top flap being folded inwardly so that it coacts with the reinforcing liner to stiffen the shell and provide a top finished edge, and the front side flaps being folded inwardly over the reinforcing liner so that they hold the latter in place and provide finished side edges.

5. The combination with a filing case shell comprising a body portion of boxboard or the like having integral top, bottom and side walls having flaps at the front ends thereof, a lining of cellular board fitting within said body portion and having side portions in which the corrugations are disposed vertically, the top flap being turned inwardly above and supported by said lining, the side wall flaps being folded inwardly over the front edges of the lining, and a drawer slidable in said shell, the side wall flaps constituting closures between the sides of the drawer and the shell and frictionally engaging the sides of the shell.

6. The combination with a filing case shell comprising a body portion of boxboard or the like having top, bottom and side walls having flaps at the front ends thereof, a lining fitting within said body portion, the top flap being turned inwardly above and supported by said lining, the side wall flaps being folded inwardly over the front edges of the lining, and a drawer slidable in said shell, the side wall flaps constituting closures between the sides of the drawer and the shell and frictionally engaging the sides of the shell.

7. A filing case comprising a plurality of stacked boxboard shells, each having interlocking rear end flaps, and vertical boxboard key members arranged in interlocking relation with said flaps to connect adjacent pairs of said shells in assembled relation.

8. A filing case comprising a plurality of stacked shells, each having interlocking inner overlapping top and bottom rear end flaps and outer spaced side rear end flaps, and I-shaped connecting members disposed in interlocking relation with said flaps, there being a connecting member for each adjacent pair of shells, the arms of said member being disposed between the inner

and outer flaps and the stem thereof being arranged in the space between the outer flaps with the ends of the outer flaps abutting the sides of the stem.

9. A filing case comprising a plurality of stacked shells, each having interlocking inner overlapping top and bottom rear end flaps and outer spaced side rear end flaps, and I-shaped connecting members disposed in interlocking relation with said flaps, there being a connecting member for each adjacent pair of shells, the arms of said member being disposed between the inner and outer flaps and the stem thereof being arranged in the space between the outer flaps with the ends of the outer flaps abutting the sides of the stem.

10. A filing case comprising a pair of stacked boxes, each having interlocking inner overlapping top and bottom rear end flaps and outer shaped side rear end flaps, the outer flaps having tongues at their corners and the inner flaps having slots receiving said tongues, and an I-shaped connecting member having its arm disposed between said inner and outer flaps and engaging said tongues and its stem in the space between said outer flaps with the ends of the flaps engaging the sides thereof.

11. A filing cabinet comprising a plurality of individual superimposed units, each including a shell having overlapping top, bottom and side rear end flaps, the side flaps having laterally projecting tongues at the inner ends thereof engaged in slots in the overlapping top and bottom flaps, the co-engaging parts coacting to provide struts for the walls, and headed coupling members engaged with the inner ends of the side wall flaps of an adjacent pair of the units.

WILLIAM B. JENSEN.