Oct. 10, 1944. H. L. FELLOWES 2,360,117

FILE BOX CLOSURE

Filed Nov. 12, 1942

Fig. 1

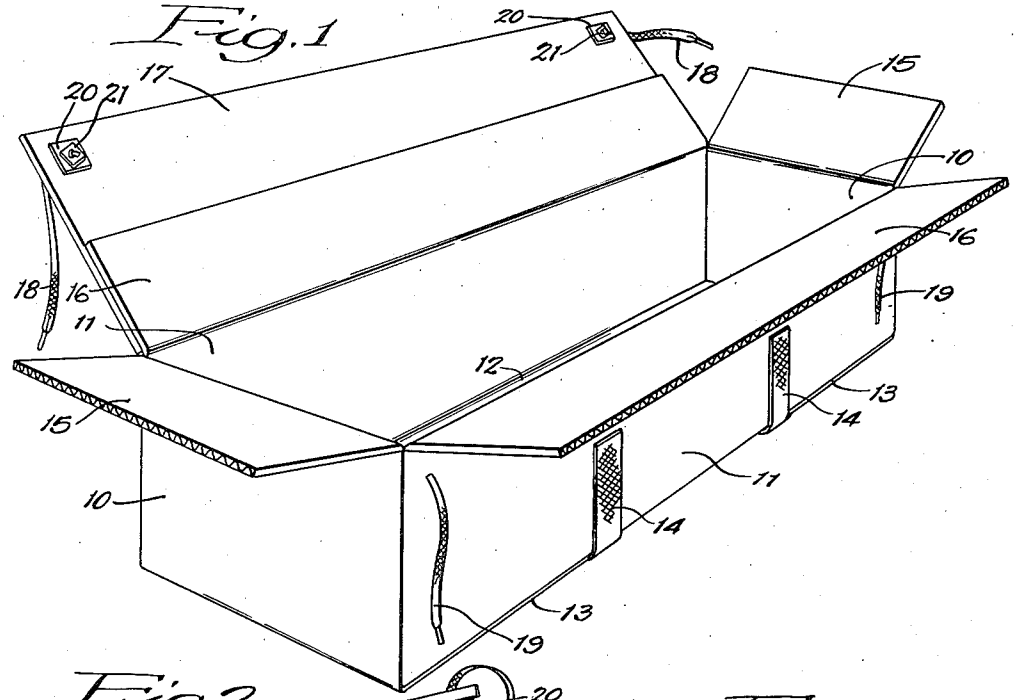


Fig. 2

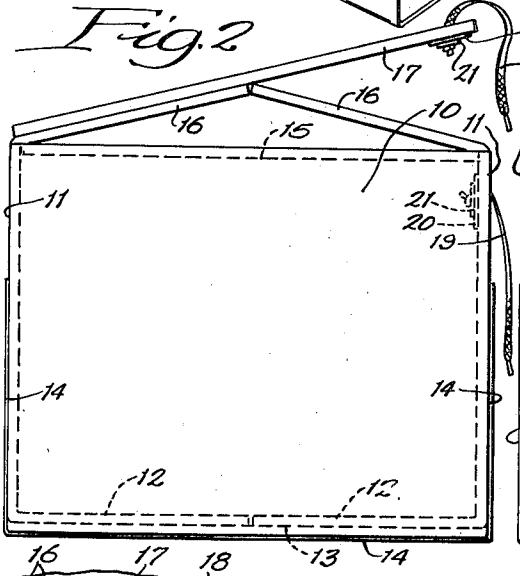
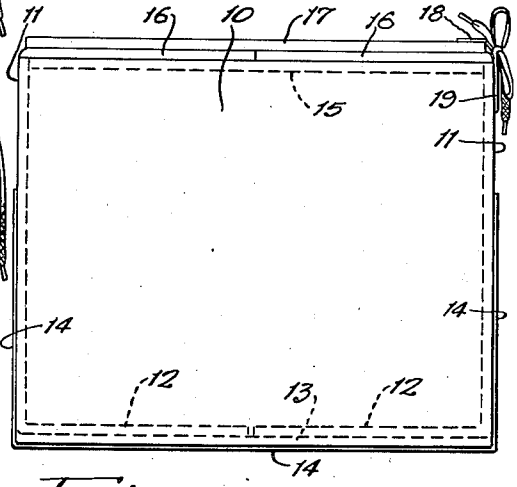


Fig. 3



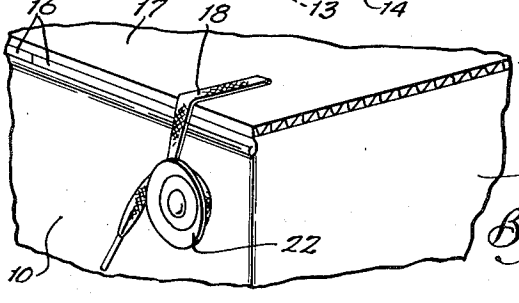


Fig. 4

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FILE BOX CLOSURE

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Application November 12, 1942, Serial No. 465,312

4 Claims. (Cl. 229—44)

My invention relates to a file box of the general type disclosed in my earlier Patents Nos. 1,574,737 and 2,281,486.

Broadly speaking, it is the object of the present invention to provide a file box of the general type aforesaid with a top closure so constructed and arranged that

(*a*) The lateral top flaps of the box (constituting essential elements of the closure) always tightly abut in edge-to-edge relationship, to prevent ingress of dust between them and effectively to brace the upper longitudinal corners of the box against collapse;

(*b*) Little or no metal need be employed in the construction of the closure or its fastening devices; and

(*c*) The closure presents a single uninterrupted plane upper surface on which a superposed file box may slide and rest.

A salient feature of my present file box closure is the functioning of the two lateral top flaps in manner like the elements of a toggle when brought into angular edge-to-edge relationship and then moved into a common plane by force applied (preferably through the closure fastening devices) to a lever of the second class in the form of a sheet of cardboard—such sheet of cardboard desirably corresponding with or approximating the size of the box top and being permanently applied to one of the lateral top flaps and projecting over and beyond its free longitudinal edge to overlie the other of the lateral top flaps.

In the accompanying single sheet of drawings illustrating my present invention,

Figure 1 is a perspective view of one preferred embodiment of the invention;

Fig. 2 is an end view illustrating the lateral top flaps of the box as they appear when brought into angular edge-to-edge relationship prior to being moved simultaneously, and in manner like the elements of a toggle, to occupy closed positions in a common plane;

Fig. 3 illustrates the several elements of the closure as they appear when fastened in their closed positions; and

Fig. 4 is a fragmentary perspective illustrating a form of closure fastening which may be utilized instead of the tie strings or tapes of the preceding figures.

Similar characters of reference refer to similar parts throughout the several views.

The file unit embodying my present invention comprises a paperboard box of the general type described in my hereinbefore mentioned earlier patents, i. e., a one piece paperboard box consisting of the following parts: end walls **10**; side walls **11**; lateral bottom flaps **12**; end bottom flaps **13**; tensile fabric strips **14** which are adhesively applied to the end bottom flaps **13** and the side walls **11**; end top flaps **15**; and lateral top flaps **16** which are adapted to lie exteriorly of the end top flaps **15**.

Adhesively or otherwise permanently applied to one of the lateral top flaps, and overlying and projecting beyond the free longitudinal edge of such lateral top flap, is a stiff cardboard sheet or plate **17**.

The cardboard stock of which the box is made is of such character that the lateral top flaps **16** also are quite stiff.

The lateral top flaps are of such width that their longitudinal edges will contact, in a line located a substantial distance above the top edges of the side and end walls of the box, when such lateral top flaps are in the angular relationship depicted in Fig. 2.

The file unit depicted in Fig. 1 comprises, as top closure fastening devices, the pair of tie strings or tapes **18** and their cooperating tie strings or tapes **19**. The tie strings or tapes **18** are anchored in the free corners of the cardboard sheet or plate **17**, whereas the tie strings or tapes **19** similarly are anchored in the upper corners of one of the box side walls **11**. Reenforcing patches **20** and fiber washers **21** may be adjuncts to the anchorage of the said tie strings or tapes.

The modification of Fig. 4 contemplates that each of the strings or tapes **18** will cooperate with a conventional tie string fastening button **22** which is riveted exteriorly to the adjacent upper corner of one of the box end walls **10**. In the modification of Fig. 4 I dispense with the strings or tapes **19**.

Let us assume that the unit of Fig. 1 has been filled with documents for storage and that the several elements of the closure are to be moved to and fastened in their closed positions.

The end top flaps **15** are moved so as to lie within the box as depicted in Figs. 2 and 3. The lateral top flaps **16** and the cardboard plate **17** are then placed in the positions depicted in Fig. 2. Force is then exerted, through the strings or tapes **18**, to move the plate **17**, as a lever of the second class, to the position depicted in Fig. 3. When this occurs, the lateral top flaps **16** are moved, togglewise, to closed positions, in a common horizontal plane, as depicted in Fig. 3. As the lateral top flaps are thus forced to their closed

positions, the upper edges of the side walls **11** are slightly, but definitely and noticeably, sprung apart, with two concomitant advantages. Firstly, the longitudinal edges of the lateral top flaps are held in a snugly abutting edge-to-edge dust-tight relationship. Secondly, the upper longitudinal corners of the box are adequately braced (by the abutting lateral top flaps) against collapse, or "rounding," when the box is called upon to sustain some or all of the weight of a superposed or adjacent file box unit. The tapes **18** are now securely fastened—i. e., by being tied to the tapes **19** (in the case of the file box of Figs. 1 to 3) or by being passed tightly around the buttons **22** (in the case of the file box of Fig. 4).

Other advantages of the herein described box closure are that the stiff plate **17** (*a*) holds the ends of the lateral top flaps snugly against the upper edges of the box end walls **10**; (*b*) affords an uninterrupted upper surface on which a superposed file box may slide and rest; (*c*) acts to guide the lateral top flap to which it is not attached into abutting relation, as shown in Fig. 2, with the lateral top flap to which such plate is attached; (*d*) acts to retain the lateral top flaps in the same horizontal plane when the closure elements are tied closed; and (*e*) affords the box a top closure of two-ply strength.

Having thus illustrated and described my invention, what I claim as new and desire to secure by Letters Patent of the United States, is:

1. In a closure for a box comprising side walls, end walls and a bottom, a pair of lateral top flaps associated with the upper edges of the side walls of the box, the widths of such flaps being such that their proximate longitudinal edges will contact in a line substantially above the upper edges of the box walls when said flaps are upwardly converging like the sides of a ridge-roof, and a stiff plate overlying and attached to one of said flaps and projecting beyond its free longitudinal edge to overlie the other flap, said plate serving to guide the proximate longitudinal edges of the flaps into contact and constituting a means whereby the contacting flaps may be moved, in manner like the elements of a toggle, to closed positions in a common plane.

2. In a closure for a box comprising side walls, end walls and a bottom, a pair of lateral top flaps associated with the upper edges of the side walls of the box, the widths of such flaps being such that their proximate longitudinal edges will contact in a line substantially above the upper edges of the box walls when said flaps are upwardly converging like the sides of a ridge-roof, a stiff plate overlying and attached to one of said flaps and projecting beyond its free longitudinal edge to overlie the other flap, said plate serving to guide the proximate longitudinal edges of the flaps into contact and constituting a means whereby the contacting flaps may be moved, in manner like the elements of a toggle, to closed positions in a common plane, and fastening devices, acting between the box and the free corners of said plate, for holding the flaps and plate in their closed positions.

3. In a closure for a box comprising side walls, end walls and a bottom, a pair of lateral top flaps associated with the upper edges of the side walls of the box, the widths of such flaps being such that their proximate longitudinal edges will contact in a line substantially above the upper edges of the box walls when said flaps are upwardly converging like the sides of a ridge-roof, and a stiff plate substantially completely overlying and attached to one of said flaps and projecting beyond its free longitudinal edge sufficiently substantially completely to overlie the other of said flaps, and fastening devices acting between the box and the free corners of the plate, for holding the flaps in a common plane parallel with and immediately beneath said plate.

4. In a closure for a box comprising side walls, end walls and a bottom, a pair of lateral top flaps formed integral with the upper edges of the side walls of the box, the widths of said flaps being such that their proximate longitudinal edges will contact in a line substantially above the top edges of the box walls when said flaps are upwardly converging like the sides of a ridge-roof, a stiff plate substantially completely overlying and attached to one of said flaps and projecting beyond its free longitudinal edge substantially completely to overlie the other flap, said plate serving to guide the proximate longitudinal edges of the flaps into contact and constituting a means whereby the contacting flaps may be moved, in manner like the elements of a toggle, to closed positions in a common plane, and fastening devices, acting between the box and the free corners of said plate, for holding the flaps in a common plane parallel with and immediately beneath the plate.

HARRY L. FELLOWES.