

Patented Mar. 20, 1917.

1,219,610.

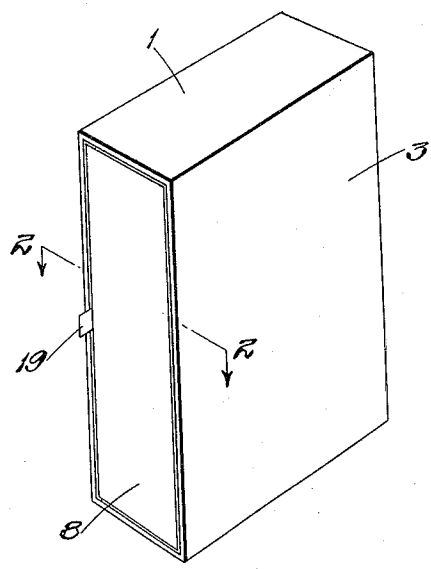


Fig. 1.

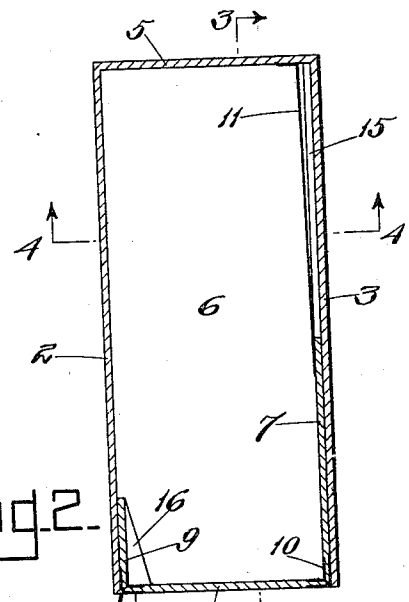


Fig. 2.

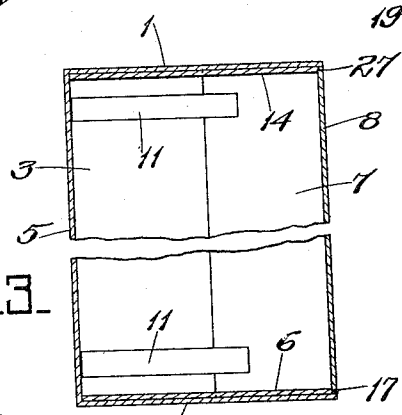


Fig. 3.

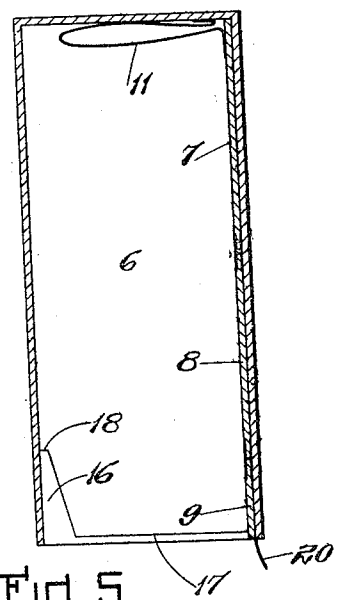


Fig. 5.

Fig. 6.

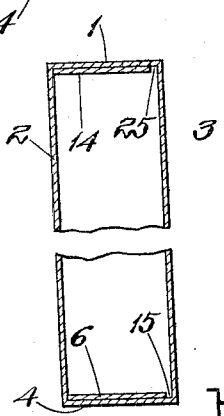
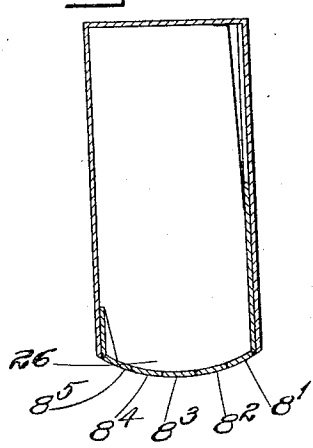


Fig. 4.

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BOX.

1,219,610.

Specification of Letters Patent.

Patented Mar. 20, 1917.

Application filed June 22, 1916. Serial No. 105,261.

To all whom it may concern:

Be it known that I, PERCY E. WHITE, a citizen of the United States, residing at Mansfield, county of Bristol, State of Massachusetts, have invented a certain new and useful Improvement in Boxes, of which the following is a specification, reference being had therein to the accompanying drawings.

The invention relates to an improvement in boxes, more particularly boxes of the character which are commonly used as filing cases for pamphlets or for loose papers where the box is stood on end like a letter file box. The object of the present invention is to provide a box which has a front opening with a closure member which is composed of a plurality of panel sections hingedly connected together and which is flexibly connected at one edge to the box in such manner that it may slide back into the interior of the box alongside of one wall of the box in order to open the box, and which may be pulled part way out, far enough to be turned on one of its hinge lines to close the front opening in the box and to be turned on another hinge line to permit its end panel section to be engaged with the opposite side of the box from that to which the closure member is flexibly connected. The box is preferably made of paste board, although it is not limited to the use of that or any other particular material.

The invention will be fully understood when taken in connection with the accompanying drawings and the novel features thereof will be pointed out and clearly defined in the claims at the close of this specification.

In the drawings, Figure 1 is a perspective view of a box embodying the invention, showing the box closed.

Fig. 2 is a horizontal section on line 2—2 of Fig. 1.

Fig. 3 is a vertical section on line 3—3 of Fig. 2 partly broken away.

Fig. 4 is a vertical section on line 4—4 of Fig. 2, partly broken away.

Fig. 5 is a section on the same line as Fig. 2 but showing the box open, the closure member being moved back into the interior of the box.

Fig. 6 is a horizontal section of the box

showing a modification of the invention in which the closure member is bowed outwardly giving the appearance of the back of a book.

Referring now to the drawings, the box has a top 1, sides 2, 3, bottom 4 and back 5. Secured to the inner face of the bottom panel 4 of the box is a false bottom 6 slightly narrower than the inside face of the bottom panel 4 of the box, thus forming a narrow groove 15 between one side edge of the said false bottom 6 and the side panel 3. There is also a false top 14 secured to the inside face of the top panel 1, corresponding in shape with the false bottom 6 and forming a narrow groove 25 between the edge of said false top 14 and the said side panel 3.

The closure member for the front of the box is slidable and is composed of sections hinged together on their vertical edges in such manner that when the front is closed there will be on each side edge of the panel which extends across the front, a section which projects into the interior of the box along the face of the side wall. In the form of construction shown in Figs. 1 to 5 inclusive this closure member consists of three sections 7, 8, 9 flexibly joined together so as to form a hinged joint as, for instance, by cloth connections 10, 10. The cloth may cover the entire faces of all of the closure member panels.

The groove 15 in the bottom interior of the box between said false bottom 6 and the side 3, and the corresponding groove 25 between the false top 14 and the side 3 are of sufficient width to just form a sliding fit for the panel sections 7, 8, 9 when brought into alinement with each other to slide back into said groove as shown in Fig. 5. The depth of the box from front to rear should be somewhat greater than the width of the box across the front so that the entire combined sections 7, 8, 9 when brought into one plane may slide entirely inside of the box. When the combined closure sections are drawn out to close the box, they should be drawn out far enough so that the sections 8, 9 will both be withdrawn entirely out of the groove so that they may be turned at right angles to the inner end section 7, and then the outer end section 9 may be turned in at

right angles to the section 8 so that it may be entered in grooves 16 at the opposite side of the box from the groove 15, formed by cutting away a portion at the front left hand corner of the false bottom 6 and false top 14, while the intermediate section 8 extends across the entire front of the box and the rear end section 7 lies entirely within its grooved ways. The grooves 16 do not need to extend in farther than sufficient to admit the section 7, and preferably they have a flaring entrance.

The hinge connections 10 at each end of the section 8 should come just at the corners of the front of the box. The rear end of the interior section 7 is flexibly connected with the rear end of the box as for instance by tapes 11, one end of which is connected with a section 7 and the other of which is secured to the rear wall 5 of the box. These tapes should be long enough to permit the slidable panel sections to be moved from the rear-most position within the box as shown in Fig. 5 into the closure position shown in Fig. 2. When all three sections 7, 8, 9 are moved back into the box, the said flexible connections 11, 11 collapse as shown in Fig. 5.

The front ends 27 and 17 of the false top and false bottom do not extend quite to the front edge of the real top and bottom 1, 4 so that when the box is closed by the closure section 8 extending cross-wise of the front of the box, the front edges 17, 27 of said false bottom and false top will form stops to prevent the said closure panel member 8 from being pushed inward broadside. Preferably also the slots 16 should extend in only far enough for the full admission of the flap section 7 so that the inner ends 18 of the slots 16 form a stop against which the inner edge of the section 9 will abut when the box is closed, thus aiding to take off the strain of any pressure from the outside against the section 8.

It will thus be seen that when closed the wing or flap 9 forms a lock and also forms a tighter joint at the corner of the box than would be the case if the closure member stopped with the section 8 and the edge of the section 8 were fastened to the side 2 by a catch.

Preferably at the junction of the sections 8 and 9 there is provided a tab 19 whereby section 9 may be pulled out of its locking position when it is desired to open the box. The two sections 9, 8 will then be swung around into the same plane as the section 7 and the three sections 7, 8, 9 will then be pushed back in the grooved ways, as shown in Fig. 5. Preferably there is a tab 20 at the edge of section 9 which, when the box is open, projects outside as shown in Fig. 5, so that the sections, 7, 8, 9 may all be pulled outward when it is desired to close the box.

These tabs will not interfere with the sliding back of the several sections within their groove ways.

In the modification shown in Fig. 6, the front closure portion is composed of a plurality of narrow sections hinged together 8¹, 8², 8³, 8⁴, 8⁵, so as to form an outwardly curved front similar to the back of a book. In each case the top and bottom, both false and real, should be formed with a swelled front end 26 corresponding with the curve desired to be given to the front of the box.

While I have described the invention as applied to a box having an open front provided with a vertical closure member, it is obvious that the same box may be stood up on any one of the closed sides or ends, so that for instance, the open side with the closure member would be at the top, instead of at the front side, and I intend the claims to cover the box whatever position it may occupy. I have used the terms top, bottom, sides, front and back, for convenience in describing the box standing in the position shown in the drawings.

What I claim is:

1. A box having a disappearing closure for the open side, said closure member having two opposite side wings one of which when the box is closed fits within the box against the inner face of one of the side walls and the other of which wings fits within the box against the inner face of the opposite side wall, said wings both being hingedly connected with said closure member and being adapted to be brought into alinement with each other, said closure member and wings when thus brought into alinement being slidable back into the interior of the box alongside of the inner face of one of said side walls.

2. A box having a disappearing closure for the open side, said closure member having two opposite side wings one of which when the box is closed fits within the box against the inner face of one of the side walls and the other of which wings fits within the box against the inner face of the opposite side wall, said wings both being hingedly connected with said closure member and being adapted to be brought into alinement with each other, said closure member and wings when thus brought into alinement being slidable back into the interior of the box along side of the inner face of one of said side walls, guide ways for said combined closure member and wings where they slide into the interior of the box, and a guide way at the opposite side of the box to receive the wing which engages with the said opposite side when the box is closed.

3. A box having a disappearing front closure, said closure member having two opposite side wings one of which when the box is closed fits within the box against the

inner face of one of the side walls and the other of which wings fits within the box against the inner face of the opposite side wall, said wings both being hingedly connected with said closure member and being adapted to be brought into alinement with each other, said closure member and wings when thus brought into alinement being slidable back into the interior of the box along-side of the front face of one of said side walls, guide ways for said combined closure member and wings where they slide into the interior of the box, and a guide way at the opposite side of the box to receive the wing which engages with the said opposite side when the box is closed, and a flexible connection between the inner edge of the rearmost wing and the back part of the box which serves as a stop to limit the outward movement of said closure members and which is collapsible to permit the inward movement of said closure member.

4. A box having a closed top, bottom, two sides and back, and an open front, and having a closure member for the front consisting of at least three sections flexibly connected together, said sections being slidable into the interior of the box along one of the sides thereof to open the front, and being slidable outward to bring at least two of the sections to the outside leaving one of the sections extending within the box along the same side and permitting the outer end section to be folded back inside of the opposite side of the box, and permit the intermediate section to extend across the front of the box.

5. A box having a closed top, bottom, two sides and back, and an open front, and having a closure member for the front consisting of at least three sections flexibly connected together, the intermediate portion of said combined sections being adapted to close the front of the box, the section on one side of said intermediate member forming a wing, a flexible connection between said wing and the interior of the box on one side, and the section on the other side of said intermediate section forming a wing which is adapted to enter the box along the other side, and all of said sections being adapted to be turned into the same plane and moved back into the interior of the box along one of the sides thereof.

6. A box having a closed top, bottom, two sides and back, and an open front, and having a closure member for the front consisting of at least three sections flexibly connected together, the top and bottom having a grooved way along one of the sides to receive all of said closure sections entirely within the box, a flexible connection between the innermost one of said closure sections and the back side of the interior of the box, said combined closure members being slidable in said ways so that they may be moved out

far enough for the intermediate section to extend across the open front of the box and close the same while the rearmost section remains inside of the box and for the outermost section to form a locking wing which is inserted into the interior of the box along-side of the opposite side wall.

7. A box having a closed top, bottom, two sides and back, and an open front, and having a closure member for the front consisting of at least three sections flexibly connected together, the intermediate one of said sections being adapted to extend across the open front of the box, one of the side wing members being flexibly connected to adapt it to be bent at right angles to said intermediate member to be inserted into the interior of the box against the inner face of one of the side walls while the opposite side wing member is similarly connected to fit within the interior of the box against the other side wall, said flexible connections permitting said intermediate member and said side wings to be turned into the same plane in alinement with each other, and guides which form a way along side of the inner face of one of said side walls to permit said intermediate member and the side wings to be moved back into the interior of the box at one of the sides.

8. A box having a closed top, bottom, two sides and back, and an open front, and having a closure member for the front consisting of at least three sections flexibly connected together, a false top and a false bottom for the box slightly narrower than the real top and bottom thereby forming a groove at the top and bottom adjacent one of the side walls, said grooves forming ways to receive all of said closure members entirely within the box, said closure members being slidable outward to permit the intermediate member to be folded across the said open front, and the said outer wing section being foldable with relation to the intermediate section to permit it to fit into the interior of the box adjacent the opposite side from said grooved side while the rear wing section remains in the interior of the box along side of the first side wall.

9. A box having a closed top, bottom, two sides and a back, and an open front, and having a closure member for the front consisting of at least three sections flexibly connected together, a false top and a false bottom for the box slightly narrower than the real top and bottom thereby forming a groove at the top and bottom adjacent one of the side walls, said grooves forming ways to receive all of said closure members entirely within the box, said closure members being slidable to permit said intermediate member to be folded across the said open front, the outer wing section being foldable with relation to the intermediate section to

permit it to be inserted into the interior of the box at the opposite side from said grooved side, the said false top and bottom being slotted inward from the end to permit
5. insertion of said locking wing, along the side edge against which said locking wing is turned in, while the rear wing section remains within the first grooved ways, said false top and bottom being shortened at the

front end to form a seat for the intermediate 10 section when it is closed.

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

PERCY E. WHITE.

Witnesses:

WILLIAM A. COPELAND,
LUCY F. COPELAND.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."