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CARTON FOR CARBON SHEETS

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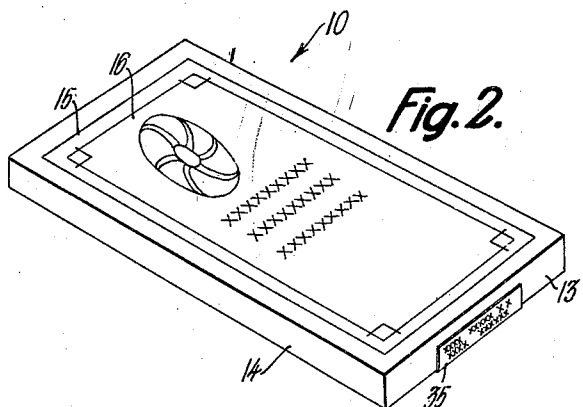


Fig. 2.

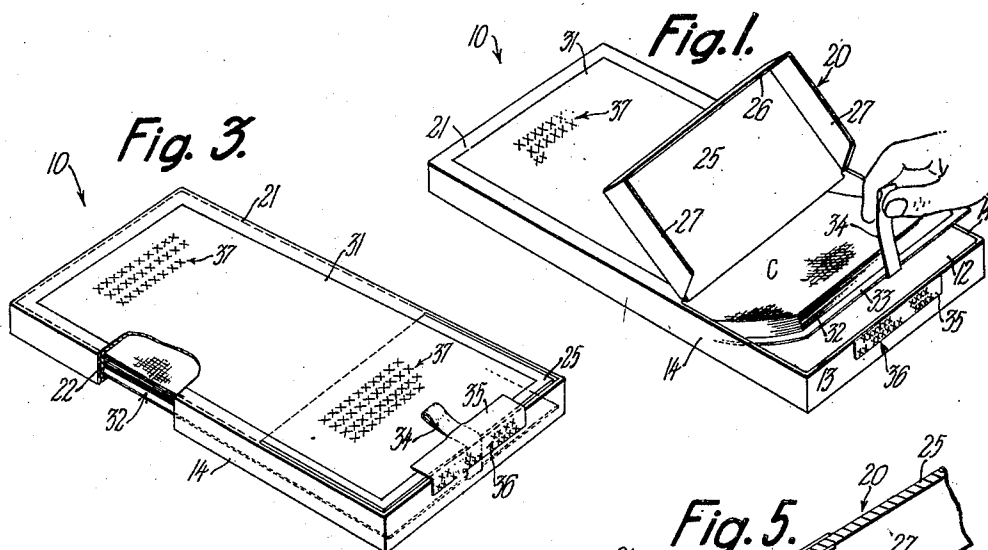


Fig. 1.

Fig. 3.

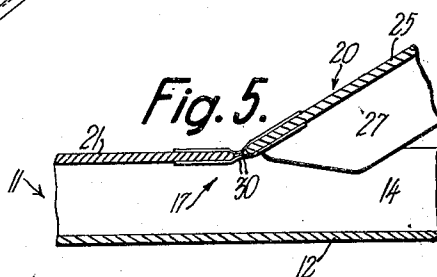


Fig. 5.

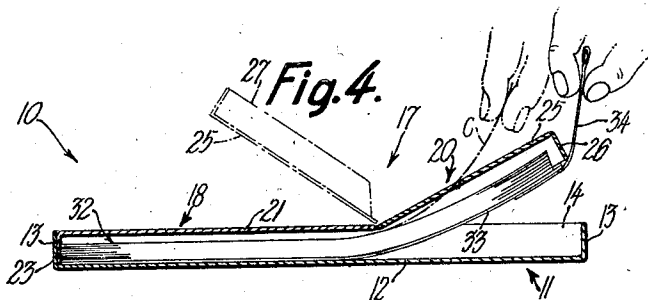


Fig. 4.

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CARTON FOR CARBON SHEETS

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The present invention relates to boxes for keeping carbon-sheets, and it is especially convenient for keeping carbon-sheets used by a typewriter operator.

Carbon-containing trays are usually made in the form of boxes. The carbon-sheets lie upon the bottom of the box and the latter has a top lid, which may be lifted to afford access to the carbons. This form of tray is objectionable for a number of reasons. It necessitates a transverse break midway of the top of the box, this break forming the hinge line or fold line of the lid. This renders the top of the box unsuitable for any advertising decoration or design which occupies the full area of the box, because this line of break across the middle would ruin the appearance of the decoration or design. Moreover, the box is weakened at its middle; the sides and lower border of the box have no support from the lid, and the box is liable to injury and collapse because of such weakness.

The cardboard box usually lies flat in a shallow drawer of the desk. The common carbon-box has a small opening adjacent its front end, and an upwardly and rearwardly swinging lid therefor. Heretofore, when a carbon-sheet was needed, the carbon-box had to be opened with one hand, and the front end of the pack of carbons raised with the other hand a short distance above the end of the carbon-box for conveniently gripping the top carbon-sheet with the other hand. It was difficult to grip, raise, and hold the carbon-pack in position for quickly seizing and withdrawing the top sheet, without danger of tearing the delicate carbon-sheet or smudging the fingers.

In order to overcome the foregoing and other difficulties, it is a feature of the present invention to make the top of the box in the form of an unbroken unit, and to provide unbroken side flanges therefor, thus making it practicable to put thereon an advertisement which is in the form of a full sized design or decoration suitable for display. The box is rendered much more substantial than heretofore. Access is gained to the carbons by providing in the bottom of the box a drop-lid, which can be let down, thus separating

the carbons, so that they can be pulled out. After the user has purchased the box, the advertising upon the top thereof is of little or no further use, so that the operator may place the box bottom side up in his desk; and the bottom of the box may be provided with printed directions for taking out and using the carbons, and also with advertisements and other desirable matter. A box made in this way is very stiff and durable, and is much more lasting than boxes of ordinary construction.

The top of the novel box is formed with down-turned flanges all around, which flanges entirely surround the bottom of the box, the latter being itself provided all around with rising flanges which are enclosed by the flanges of the top and made fast thereto. The drop-lid is flanged, but its side flanges are cut or separated from the remainder of the side flanges of the bottom, so as to permit the lid to drop and close. Great advantage is presented by the top being unbroken and having down-turned flanges which give the top lid stiffness and resistance; while reinforcement is afforded by the bottom flanges, which are fastened firmly to the top flanges and confined thereby. Since a drop-lid is used, it may be of much less length than heretofore, as the dropped ends of the carbons project and are readily manipulable.

Another advantage from this lid in the bottom arrangement is that the box can be sealed at the factory by a usual sealing strip, the presence of which will not detract from the appearance of the advertising matter on the top of the box when the latter is displayed in a store, for example.

A feature of the present invention resides in the provision in a normally-closed carbon-box, of means effective for simultaneously opening the lid and moving the carbon-pack partly through the lid opening, in a single operation, to a position where the outermost carbon-sheet can be conveniently seized and withdrawn. In carrying out this feature, a suitably flexible lifting plate is disposed against the top of the carbon-box (opposite from the upwardly-swinging lid). A thin

flexible strap is fastened to the end of the lifting plate adjacent the lid in the carbon-box, and passed between the front end of the same and the carbon-pack, and out of the box between the front end of the carbon-box and the front extremity of the lid.

To make ready for withdrawing a carbon-sheet, it is only necessary to pull on the strap with one hand, which operation partly opens the lid and raises the carbon-pack to a convenient position for the other hand to seize a carbon-sheet after the lid is swung completely open, which can be done by a flip of the unused fingers of the first-named hand.

A further feature of the invention resides in the organization of the lid and the box and the strap, so that the latter may protrude from the box and be laid flat against the outer face of the lid and be fastened down neatly and compactly under the sealing strips at the factory. By this arrangement the box may be opened the first time, after the seal is broken, as conveniently as it is later on, and the presence of the straps does not interfere with the disposition of the carbon-boxes in packing cases or elsewhere.

Other features and advantages will hereinafter appear.

In the accompanying drawings,

Figure 1 is a perspective view of a carbon-box embodying the present invention, the box being shown bottom side up and a hinged lid-member open, and the ends of the carbon-sheets held in a raised position conveniently disposed to have one or more of the carbon-sheets seized and removed from the box.

Figure 2 is a top perspective view of the carbon-box shown in Figure 1.

Figure 3 is a bottom perspective view of the carbon-box shown in Figure 2, broken away in parts to illustrate the construction of the box. In this view the box is shown closed and sealed.

Figure 4 is an operational view in the form of a longitudinal section through the box shown in Figure 1, and illustrates how the lid-member is raised by one hand of a typist from a closed position to a partly open position. The dot-and-dash representations of the lid and the top work-sheet shows the lid fully open, and the work-sheet being seized by the other hand of the typist.

Figure 5 is an enlarged view, in cross-section, illustrating a preferred hinge construction for attaching the lid-member to the box.

In carrying out the present invention a carbon-box generally designated as 10 includes a shallow cardboard bin or receptacle 11 usually rectangular in plan view. This bin may be made in a well-known way by having its bottom 12, its end walls 13 and its side walls 14 all cut from a single sheet of card or paper board, and the walls folded transversely to the plane of the bottom along crease lines, not shown. The end walls 13 and side

walls 14 may be secured in folded operative relation to each other and to the bottom 12 by a strip of paper (not shown) which may be attached, as by gluing, in a well-known way. On the outer face of the bottom 12 may be glued a sheet 15 of paper suitable for receiving advertising and ornamental matter, indicated by the reference character 16.

The cover, generally designated as 17, of the carbon-box 10 may include a rear cover-member generally designated as 18, and a front cover-member generally designated as 20. The rear cover-member 18 may be made from a single sheet of paper or cardboard in the general form of a bin with its front end wall removed. It may have a top element 21, side walls 22 and a rear end wall 23 all integrally joined to one another. The rear cover-member 18 is preferably designed to fit snugly down in the rear end of the bin 11 with the top element 21 up and the side walls 22 fitting closely against the side walls 14 and the rear end wall 23 fitting closely against the rear end wall 13. The rear cover portion 18 may be strongly secured in place on the bin 11 by one or more pieces of paper (not shown) attached to both the bin and the cover by gluing.

The front member 20 of the cover 17 may include a lid-element 25, a front end wall 26 and side walls 27, all integrally joined to one another. The front cover-member is designed to have its side walls fit snugly against the inner faces of the side walls 14 and its end wall 26 to engage fairly closely against the front end wall 13 when the lid 25 is closed. In the closed position of the lid, the rear end of the same is disposed closely adjacent the front end of the top 21 to which it may be hinged by two neat strips of flexible cloth fabric 30, one strip glued to the outer faces of the elements 21 and 25 and one strip glued to the lower faces of the elements. It will be understood by those skilled in the art of box-making that the strips 30 may be strong and very thin and that a sheet of paper 31 may be glued on the cover 17 and overlies the upper strip 30 in a way that the latter will hardly be noticeable. The thicknesses of the strips are exaggerated in Figure 5 to illustrate more clearly how a double cloth hinge functions. The use of such a double cloth hinge as shown in Figure 5 is advantageous in helping to prevent the formation of an unsightly crease or rupture in the sheet 31 across the same between the movable lid-element 25 and the fixed top element 21, the lower strip 30 serving to prevent the upper strip 30 being bent at a sharp angle.

To carry out the feature of the present invention which resides in the provision of means for moving a pack 32 of carbon-sheets C in the box 10 upwardly, partly through the lid or door-opening at the front of the

box, a lifting plate 33, which may be cut from a sheet of inexpensive card or paper board, is disposed below the pack 32 in the box 10 and is usually slightly smaller than the inside area of the floor of the box. It will be understood, however, as the description proceeds, that the length of the lifting plate 33 may in some cases be considerably shorter than the length of the box 10 without adversely affecting its lifting function to an appreciable extent.

A strap-like member 34, which may take the form of a loop of very flexible ribbon, may have one end fastened to the forward end of the lifting plate 33, being preferably glued to the under face thereof. The plate 33 will be sufficiently flexible to permit a light pull on the strap 34 to bend its forward end upwardly a considerable distance above the top of the box 10 without danger of transversely breaking or creasing the plate adjacent the forward edge of the top 21. The plate will also be stiff and strong enough to readily raise the weight of the front portion of a full pack of overlying carbon-sheets.

In the closed position of the lid 25, the front end of the plate 33 is disposed substantially even with the forward face of the end wall 26, and the strap passes upward from the plate between the wall 26 and the front end wall 13 of the bin.

To open the box according to the present invention, it is only necessary for the typist to pull the strap 34 lightly upward with a thumb and a finger of one hand, which operation simultaneously swings the hinged lid 25 up to the Figure 5 position and also raises the pack of carbon-sheets with it. The typist, after raising the lid 25 to the Figure 5 position by a pull on the strap 34, can easily flip the lid entirely open to the position indicated by the dot-and-dash outlines in Figure 5 with one or more of her unused fingers of the same hand which grips the strap. The other hand of the typist can now conveniently seize one or more of the uppermost carbon-sheets and withdraw them easily from the pack. Upon releasing the strap, the lifting plate 33 and carbon-pack 32 fall back by gravity into the box, and the lid 25 may be closed in a usual way.

It will be noted from inspection of Figures 3 and 4 that when the lid 25 is closed the end wall 26 is disposed inside the end wall 13 instead of outside, as has been usual heretofore. The end wall 26 will preferably be disposed adjacent the end wall 13, so as to leave room for the passage of the strap 34 which may pass outwardly between the end walls and be folded down neatly and compactly against the lid 25 and be held thereagainst by a factory sealing strip 35 of the usual kind, which may bear characters designated by the reference numeral 36, indicating that the carbon-box has been filled

with carbon-sheets, inspected and sealed at the factory. This arrangement of the end members 26 and 13 and the strap 34 is very desirable since a portion of the strap may be left protruding from the seal, which can be grasped and pulled toward the front end of the carbon-box 10, thereby partly rupturing the seal when it is desired to open the box. The remainder of the seal may be severed by inserting a sharp thin-edged instrument along the front edge of the end member 26 without danger of severing the strap 34.

The arrangement of the seal 35 and the strap 34 is advantageous for another reason. A dealer desiring to display the carbon-box needs only to turn the box upside down, which brings to view the ornamented bottom side 12 of the box, bearing the advertising matter 16, and which also hides the sealing strip 35, the strap 34, and printed instructions for using the carbon-box, which instructions are indicated in Figure 3 by the reference characters 37.

Variations may be resorted to within the scope of the invention, and portions of the improvements may be used without others.

Having thus described my invention, I claim:

1. A container for a pack of carbon-sheets including a box enclosing said pack on all sides and having a hinged top adapted to be raised to form an opening adjacent one end through which said sheets may be removed, means that may be grasped while said top is closed for moving said pack partly through said opening to a position where the uppermost carbon-sheet of said pack may be conveniently seized and extracted from said box, said means including a lifting plate disposed undersaid pack, and a member fastened to said plate and extending outwardly from said box through said opening, said plate having a stiffness sufficient to raise said pack when an upwardly-directed force is applied to said member.

2. A container for a pack of carbon-sheets including a box having bottom, top and side members enclosing said pack on all sides, the top of said box being made in two sections, one disposed in the rear of the other and fastened rigidly to said side members, the remaining top section being hinged to the front edge of said rear section to be swingable upwardly to provide an opening for removing said carbon-sheets, a lifting-plate member disposed in said box on the opposite side of said carbon-sheet pack from the hinged section, and a strap-member fastened to the front end of said lifting-plate member and extending therefrom in front of said pack and between the front extremity of said hinged section and the front end member of said box out of the same, and effective upon being pulled upwardly for raising said hinged section to a position where it can be

easily swung entirely open, said upward pull on said strap also simultaneously raising said pack to a position wherein the uppermost carbon-sheet may be conveniently seized and withdrawn from said box.

3. The structure described in claim 2 characterized by said strap folded over against the outer face of the hinged section, and a sealing strip fastened to said box partly over said strap, a portion of said strap being left exposed to be grasped free of said sealing strip.

4. The combination with a box for keeping a plurality of carbon-sheets, said box having a normally closed lid-member in its top adjacent one end, of means operable by two fingers of a typist's hand for partly opening said lid-member and simultaneously projecting the adjacent ends of said carbon-sheets through said lid and disposing them in a convenient position to be grasped by the typist's other hand, said means disposing said partly opened lid-member in position to be fully opened by the remaining fingers of the typist's first-named hand while it retains control of said means, said means including a plate-member in said box below said carbon-sheets, and a strap-like device attached to the front of said plate-member and extending therefrom out of said box in front of said lid-member.

5. In a carbon-box of the kind described, the combination with a body-portion provided with an opening in its top adjacent its front end, a normally closed hinged lid-member for said opening, and a plate-member in said box, of a thin strap-member fastened to the front end of said plate-member and extending outwardly through said opening at the front end of said lid to be laid flat against the upper face of said lid-member, and a seal for said box fastened to said body-portion and to the forward end of the top of said lid-member, said seal arranged to leave a portion of said strap exposed, whereby it may be grasped for the purpose set forth.

6. A container for a pack of carbon sheets comprising a bottom portion having side and end walls, a hinged top portion fitting within said side and end walls, a lifting device on which the carbon sheets may lie, a member fastened to said device and extending up between a wall and said top portion whereby a pull on said member will raise said device, carbon sheets and hinged top portion as described.

7. A container for a pack of carbon sheets comprising a plane, unbroken back surface adapted to receive printed matter, front and side walls, another member having side and end walls fitting within said first mentioned walls, the inwardly disposed member having a hinge adapting the front portion of the inwardly disposed member to be opened and closed, a plate on which the carbon sheets

may rest in said container, said plate having attached thereto a device extending upwardly at the end of said carbon sheets and between the ends of the inner and outer walls whereby said device may be grasped and the plate, carbon sheets and inner disposed hinged portion may be raised above said walls and the hinged portion flipped back to uncover the ends of the carbon sheets.

8. The combination of a box for encasing a plurality of carbon sheets, said box having a normally closed lid member in its top, a lifting sheet on which the carbon sheets may lie, an exposed device attached to said lifting sheet and extending outside said box and lid when the lid is closed whereby a pull on said exposed device will simultaneously raise said lid, carbon sheets and lifting device, said lid being adapted to be further opened to give access to the top carbon sheet in its raised position.

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