March 29, 1938. C. F. WOLTERS 2,112,821

TRAY FRONT

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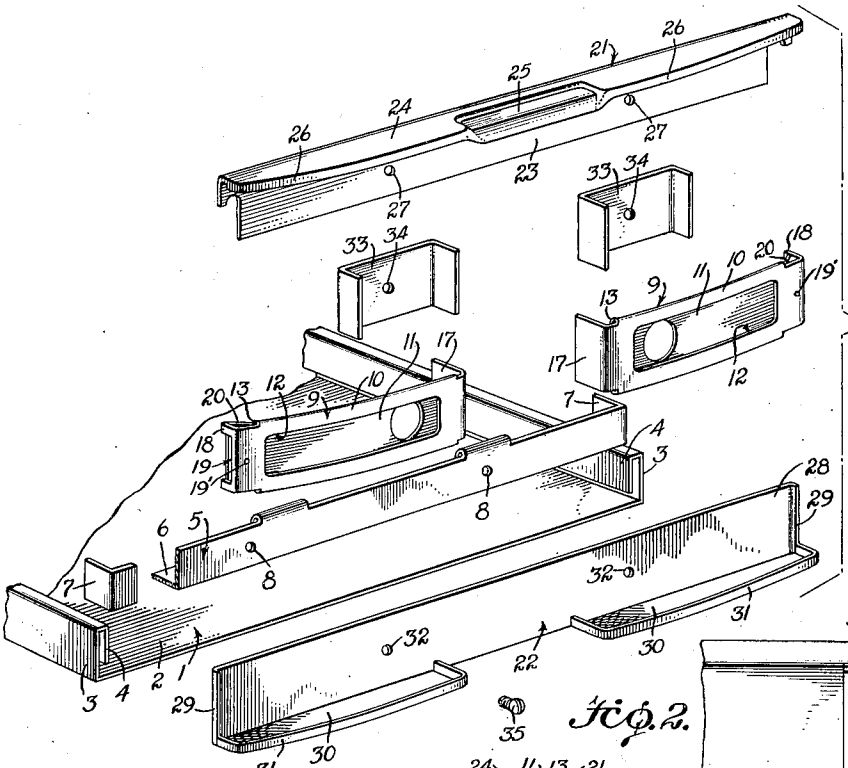


FIG. 1.

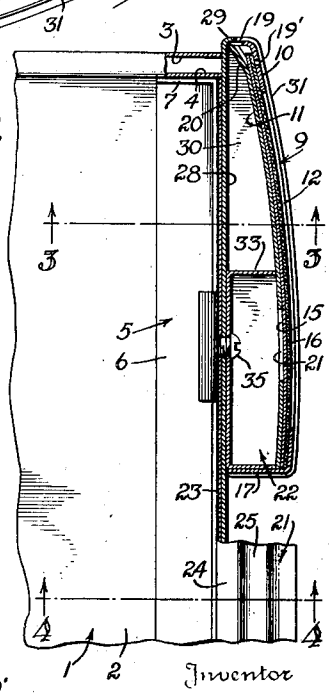


FIG. 2.

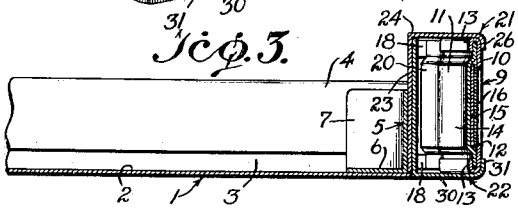


FIG. 3.

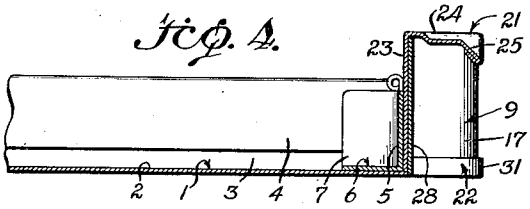


FIG. 4.

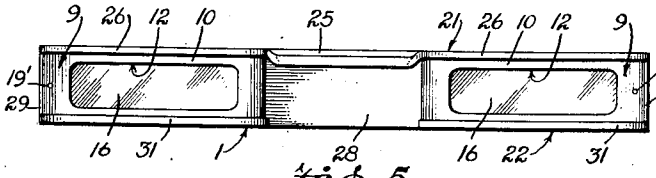


FIG. 5.

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TRAY FRONT

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11 Claims. (Cl. 40—8)

This invention relates to improvements in the construction of the front for trays particularly adapted for use in visible index filing systems. The invention comprehends improving the appearance of the tray front and the general appearance of a visible card index cabinet by reason of the front construction; the provision of a sheet metal front structure that may be readily assembled on the front of the tray to provide a label holder and handle structure that will respectively improve the indexing of the records in the tray and the operation of the tray by means of the formation of a convenient grip or handle; and an assembly of parts that provides a label and handle structure on the front of the tray that is uniform in construction for all trays and adapted to be readily assembled on the tray so that the assembling or securing means mounts the front structure in its cooperative assembled relation.

In the drawing:

Fig. 1 shows a fragmentary portion of a tray and the several parts used in the construction of the improved tray front in perspective and in disassembled relation.

Fig. 2 is a plan view of a fragmentary portion of the front of the tray showing the new front structure, portions being broken away and shown in cross section for convenience in illustrating the invention.

Fig. 3 is a cross section taken on line 3—3 of Fig. 2.

Fig. 4 is a cross section taken on line 4—4 of Fig. 2.

Fig. 5 is a front elevation of the tray front.

A visible card index tray is indicated at 1. This tray is formed of sheet metal having a bottom 2 and at the side edges of the bottom 2 the sheet metal is formed to provide upwardly extending side walls 3 and inwardly and downwardly turned flanges 4 terminating in spaced relation with the bottom to provide channels on the opposite edges of the tray. This tray construction is of conventional form and is adapted to receive card holders for supporting index cards in visible indexed relation.

An attaching member 5 in the form of a strip of sheet metal extends vertically across the front of tray 1 having a lateral flange 6 on the lower edge secured by spot welding or the like to bottom 2 and end flanges 7 secured to the inner faces of flanges 4. This attaching member is provided with threaded apertures 8 for purposes that will be hereinafter described.

A pair of front members 9 are each formed of a pair of sheet metal strips 10 and 11 respectively. Each of the strips 10 is of slightly curved form and is provided with a window 12 in the form of a rectangular opening of large size. The upper and lower side edges of strips 10 are provided with return bend portions 13 embracing the upper and lower margins of strip 11 to secure strip 11 to the rear face thereof. The central portion of strip 11 is offset as indicated at 14 in Fig. 3 to provide space in the rear of window 12 to receive a label 15 and a transparent cover strip 16 for protecting the label.

The ends of each strip 10 are formed with laterally extending end flanges 17 and 18. End flanges 18 are slotted as indicated at 19 in Figs. 1 and 2 to provide an opening at the end of each front member for the slidable insertion of label 15 and its transparent cover 16. This insertion of the label is facilitated by reason of the strip 11 of each front member having its ends terminating in engagement with flanges 17 and 18, and also having the end engaging flange 18 formed in angular relation from the body of the strip as indicated at 20 in Fig. 2. Strips 11 are each provided with an aperture 21 in axial alignment when assembled on the front of tray 1 with apertures 8 of attaching member 5.

Label 15 and cover 16 are normally self-retained in the label holder since the outer ends, after passing through slot 19, move forwardly against strip 10 and opposite flange 18 in front of slot 19. To thereafter remove the label and cover, it is necessary to insert a pin or other instrument through pin-hole 19' and move the ends of the label and cover to a position opposite slot 19, and then slide the label and cover outwardly.

A top member 21 and a bottom member 22 form cooperating members for receiving and mounting the front members in spaced relation and in cooperation to complete the tray front structure.

Top member 21 is formed of sheet metal of angular cross section to provide a back section 23 and a top section 24 extending substantially at right angles from the upper edge thereof. The central portion of top section 24 is provided with a depressed and curved section formed to provide a handle 25 located between front members 9 in the assembled relation of the front structure. At opposite sides of handle 25, flange 24 is formed with a narrow retaining flange 26 that normally embraces the upper margin of front members 9 and end flanges 18 thereof. The depressed por-

tion forming handle 25 provides a shoulder engaging the end faces of flanges 17 so as to hold the front members in rigid spaced relation on opposite sides of handle 25. Openings 27 in back section 23 are aligned with openings 8 in attaching member 5 in the assembled relation of top member 21 with member 5.

Bottom member 22 is formed of sheet metal and provided with a back section 28 having narrow end flanges 29 and spaced bottom flanges 30 of a size sufficient to receive front members 9 and the end flanges 17 and 18 thereof. The marginal portion of each flange 30 is provided with an upturned retaining lip 31 embracing the lower margin of each front member 9 and its end flanges 17 and 18. The central portion of the bottom member has a space between flanges 30 under handle 25 so that a convenient amount of space is provided in front of back strip 28 for the insertion of a person's fingers to conveniently and firmly grip handle 25 for operation of the tray in the normal use of the indexes it is designed to carry. Back strip 28 is provided with openings 32 aligned with openings 27 and 8 in assembled relation.

The front edges of flanges 30 are curved to conform with the curvature of front members 9 which is likewise true of the front edge of flange 24 of top member 21 at either side of handle 25.

It is to be noted that flanges 24 and 30 have the wider dimension in the central portion of the drawer front while as the flanges progress toward opposite ends of the top and bottom members normally located at the side edges of the tray, they are of less width. This gives the drawer front a convex shape with substantial thickness in the central portion to provide a handle structure that may be readily engaged for the manipulation of the tray.

U-shaped clips 33 provided with apertures 34 are inserted between the rear faces of strips 11 of front members 9 and the front face of back portion 28 of bottom member 22 with apertures 34 in registry with apertures 32 so that the legs of these U-shaped clips will provide laterally extending stress distributing sections for preventing the front members from being bent in the event that trays may be roughly handled or the front structure comes in contact during its operation with some object that might otherwise cause its deformation.

Front members 9 have strips 10 and 11 assembled by inserting strip 11 by slidable movement from the outer end of strip 10 between return bend portions 13 until the inner ends engage flanges 17. The flanges 18 are then turned laterally to engage the ends of strips 11 for retaining the strips in assembled relation with strips 10. These front members are then assembled by placing them in the bottom member with strips 10 engaged inside of retaining flange 31 in the manner illustrated in the drawing. When the two front members are inserted on respective flanges 30 and engaged within retaining flanges 31 the top member is then applied by sliding back section 23 downwardly along the rear face of back section 28 of bottom member 22. This operation will engage flange 26 on laterally extending flange 24 over the upper margins of front members 9 as shown clearly in Fig. 3, U-shaped clips 33 having been just previously inserted in the rear of the front members.

Then retaining screws 35 are inserted through apertures 21 in strips 11 of front members 9 so as to engage through aligned apertures 34, 32, 27 and then threadedly engage in apertures 8 of attaching member 5. When screws 35 are turned tightly into place the front structure is rigidly assembled together in attached relation on the front of the tray. Protecting strip 16 and its label 15 may then be slidably inserted through slot 19 at the side edge of the tray as may be clearly seen in Fig. 2.

The invention claimed is:

1. A front for card index trays comprising a supporting portion on the tray, top and bottom front forming members, one of said members being formed to provide a handle, a front member engaging between said top and bottom members and retained in assembled relation thereby, and retaining means securing said top and bottom members and said supporting portion in assembled relation.

2. A front for card index trays comprising a front member, a pair of cooperating members engaging opposite edges of said front member, said front member being formed with an opening, securing means inserted through said opening engaging and retaining said cooperating members in assembled relation to retain said front member, and means securing said cooperating members to a card index tray.

3. A front for card index trays comprising a front member formed to provide a label holder and having an aperture in said label holding portion, a label being adapted for removable insertion in said holder for normally covering said aperture, a pair of members embracing said front member and retaining it in assembled relation, and securing means having parts engaged through said aperture to engage said pair of members and retain them in assembled relation on the front of said tray.

4. A front for card index trays comprising a front member formed to provide a label holder and having an aperture therein normally covered by a label, a pair of cooperating members embracing said front member and retaining it in assembled relation therewith, means engaged with said cooperating members through said aperture for retaining said members in assembled relation, one of said cooperating members being formed to provide a handle.

5. A front for card index trays comprising a front member formed of a pair of sheet metal strips to provide a label holder and having an aperture normally covered by a label, a top and bottom member having portions embracing opposite margins of said front member, one of said members being formed to provide a handle, and overlapping parts being formed on said top and bottom members having apertures in registry and aligned with the aperture in said front members, and means engaged in the apertures in said top and bottom members inserted through the apertures in the front members retaining said members in assembled relation and attached to the front of a tray.

6. A front for card index trays comprising a front member formed of a pair of sheet metal strips, one of said strips having a window formed therein, return bend portions on the side edges and lateral flanges on opposite ends, one of said flanges being formed with a slot, the other of said strips having the sides embraced by said return bend portions and engaged at the ends with said flanges, said strips cooperating to form a label holder to receive a label through the slot in one end flange for display through said

window, said other strip having an aperture normally covered by the label, top and bottom members embracing said front member, one of said members being formed to provide a handle, and securing means having parts engaged through said aperture for retaining said members in assembled relation and attaching them to a tray.

7. A front for card index trays comprising a front member formed to provide a label holder, top and bottom members each formed of a piece of sheet metal having angularly arranged sections, one section of each member contacting in overlapping relation, the other section of each member being in spaced parallel and opposed relation to each other and engaging opposite edges of said front member, said last-mentioned sections having flanges embracing the margins of said front member, said members being formed to provide a handle, and securing means engaging the overlapping sections of said top and bottom members and securing them on the tray in assembled relation.

8. A front for card index trays comprising a pair of spaced front members formed to provide label holders, top and bottom members having portions embracing opposite margins of said front members for retaining them in assembled spaced relation, said members being formed to provide a handle between said front members, said top and bottom members having other portions in engagement, and means connected with said other portions and the tray for mounting said members in assembled relation on the tray.

9. A front for card index trays comprising a pair of spaced front members formed to provide label holders, top and bottom members each having a pair of spaced flange portions embracing said front members along opposite margins, a handle formed on the top member between said front members, said top and bottom members having overlapping portions, and securing members extending through the overlapping portions of said top and bottom members and attached to parts on the front of a tray to secure said members in assembled relation on the tray.

10. A front for card index trays comprising a pair of spaced front members, each having a label holding portion and laterally extending end flanges, top and bottom members having spaced parallel flanged sections embracing the sides of said front members and the end flanges thereon, overlapping sections on said top and bottom members extending across the ends of the end flanges on said front members and forming a hollow front structure, and means retaining said members in assembled relation and attached to the front of a tray.

11. A front for card index trays comprising a pair of spaced front members, each having a label displaying section and end flanges extending laterally from opposite ends, top and bottom angle members having one section of each of said angle members formed to embrace opposite side margins of said front members including the end flanges thereon, and the other section of each member extending across the free ends of the end flanges on said front members, and means engaging said other sections of said top and bottom members securing said members in assembled relation on a tray.

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