Jan. 31, 1933. G. H. DAWSON ET AL 1,895,651

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Filed Sept. 21, 1931 4 Sheets-Sheet 1

Fig. 1.

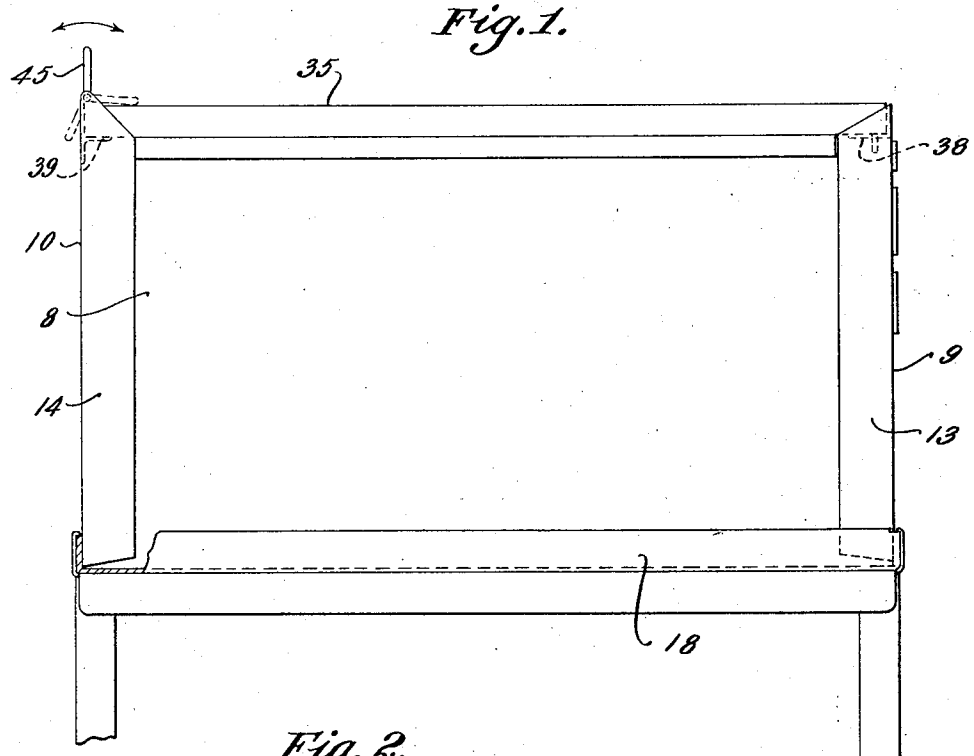
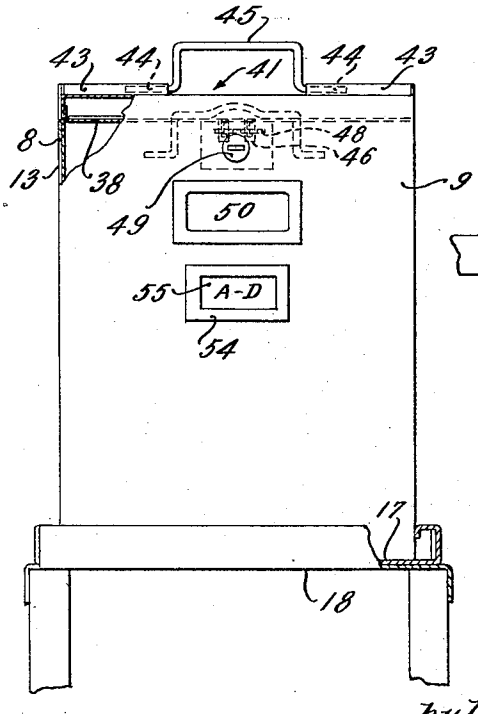


Fig. 2.



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Filed Sept. 21, 1931 4 Sheets-Sheet 2

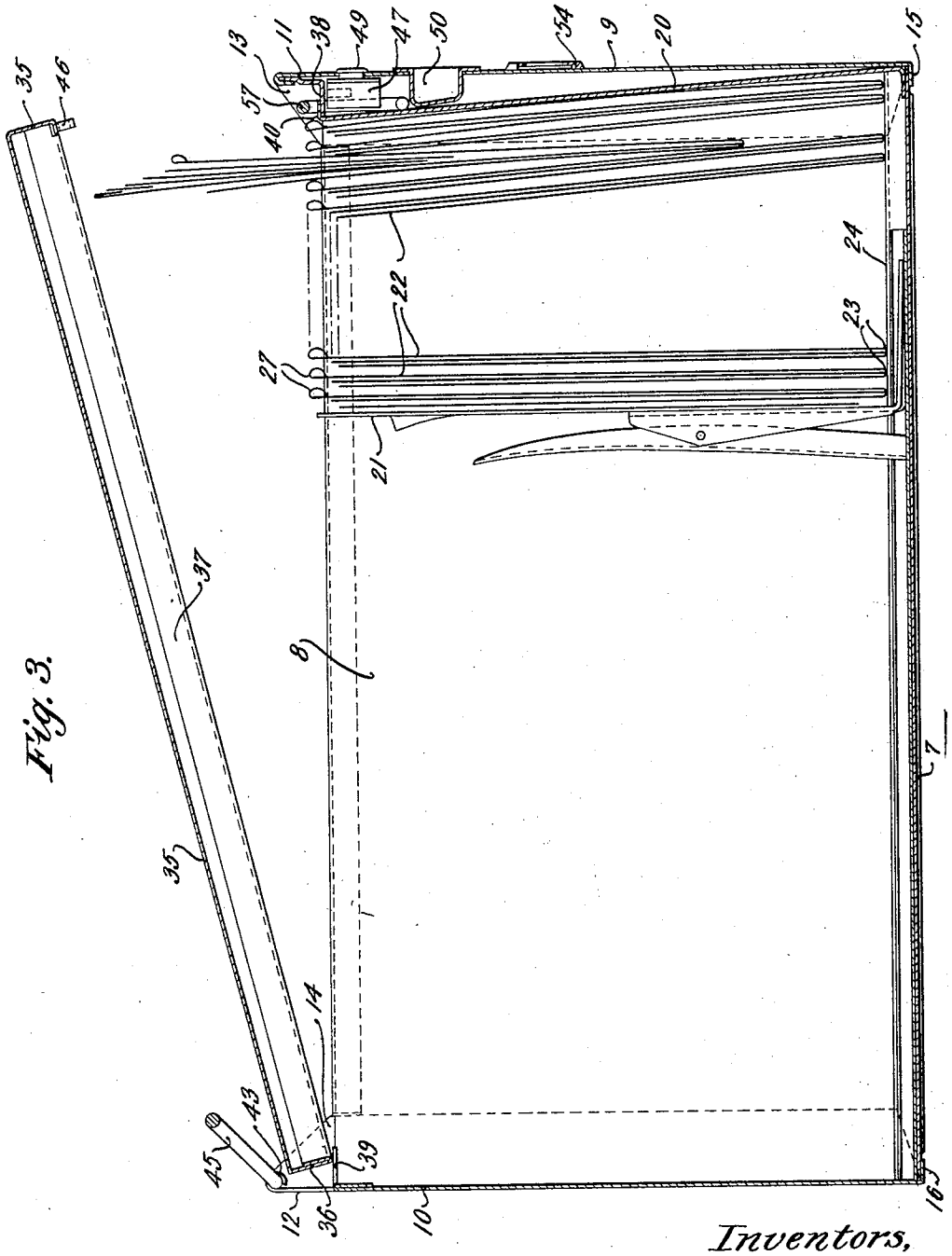


Fig. 3.

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Filed Sept. 21, 1931 4 Sheets-Sheet 3

Fig. 4.

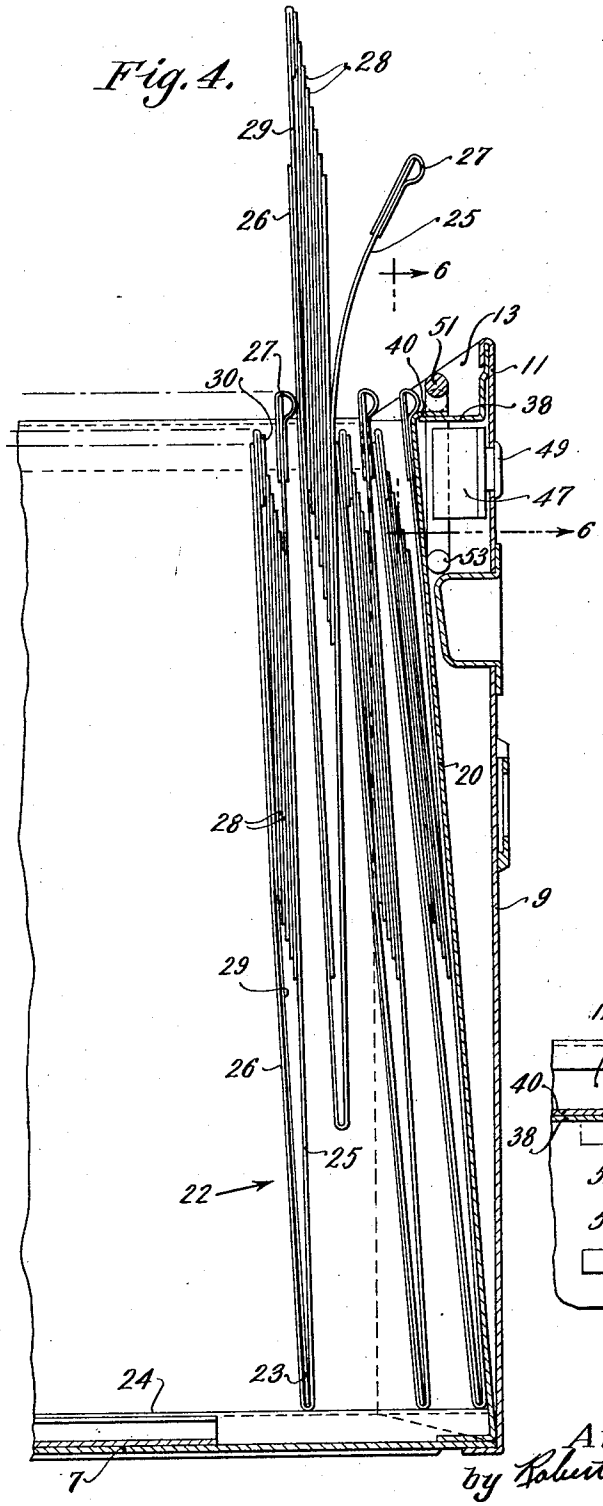


Fig. 5.

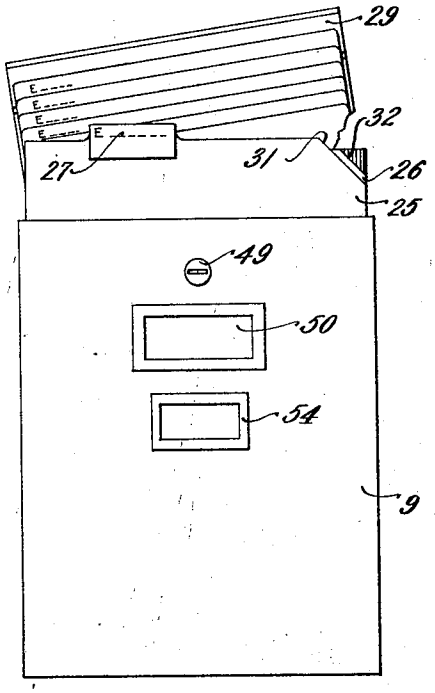
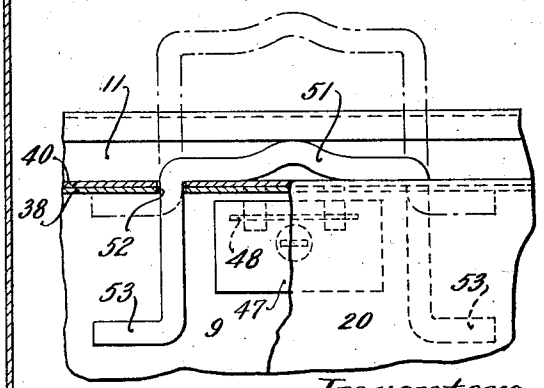


Fig. 6.



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Jan. 31, 1933. G. H. DAWSON ET AL 1,895,651

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Filed Sept. 21, 1931 4 Sheets-Sheet 4

Fig. 7.

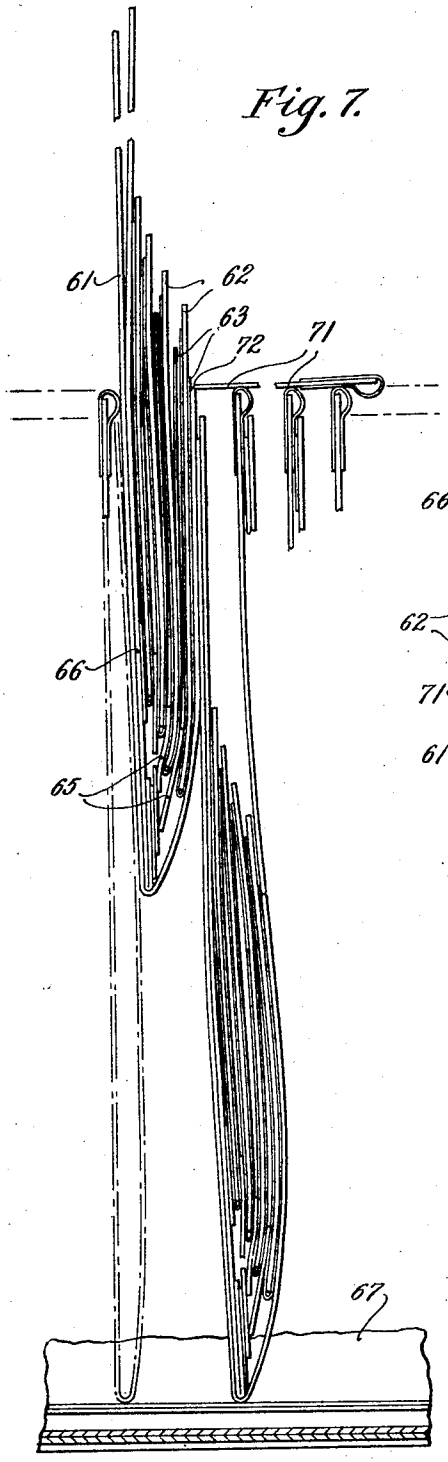
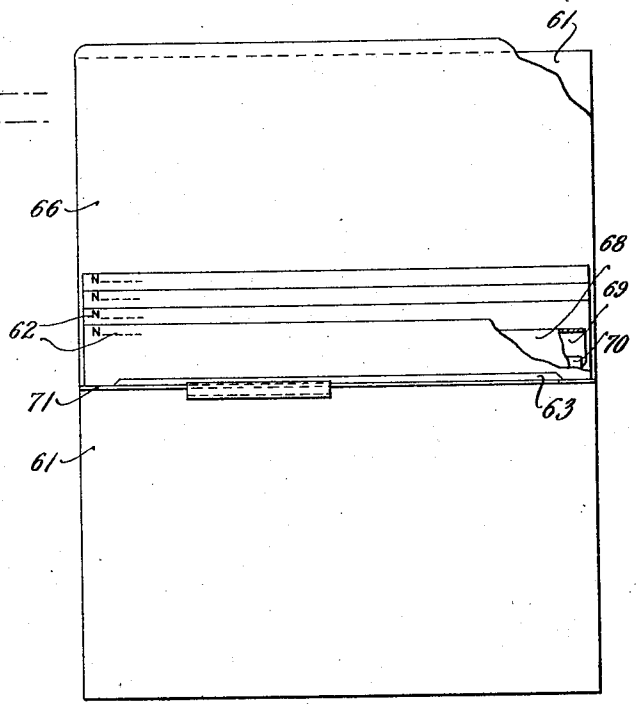


Fig. 8.



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Patented Jan. 31, 1933

1,895,651

UNITED STATES PATENT OFFICE

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Application filed September 21, 1931. Serial No. 563,996.

This invention relates to index devices and pertains more particularly to improvements in filing trays or containers for holding folders, record sheets, pockets, index cards or the like. The principal purposes of the invention are to provide a strong, durable and portable tray which may be completely enclosed to protect its contents from dust or moisture and which holds the indexed material in convenient position for easy location and ready removal for the purpose of inspection or posting; and to arrange a plurality of folders within the container in such a manner that any one of the folders may be partially lifted from the group and will be supported in raised position, whereby the contents of the elevated folder may be quickly and easily removed and subsequently replaced without wasting the time and effort usually expended in refiling the index material or the entire folder and contents.

To this end, the improved index or file provides several advantageous features of structure and arrangement which are hereinafter more particularly described in connection with the accompanying drawings of recommended embodiments of the invention, and which are pointed out in the appended claims. It will be understood, however, that the structural details of the devices herein set forth may be varied to suit particular purposes without departing from the spirit of this invention as defined in said claims.

In the drawings,

Figs. 1 and 2 are side and front elevations, respectively, of the improved index tray, the tray being supported upon a movable table;

Fig. 3 is a central longitudinal section of the tray, showing the cover partially lifted and illustrating the preferred arrangement of its contents;

Fig. 4 is an enlarged sectional detail of the front end of the tray shown in Fig. 3;

Fig. 5 is a front elevation of Fig. 3 with the cover removed;

Fig. 6 is an enlarged sectional detail taken on lines 6—6 of Fig. 4, a portion of the tray construction being broken away;

Fig. 7 is a fragmentary view similar to Fig. 4, showing a modified arrangement of the folder contents; and

Fig. 8 is a front view of one of the folders of Fig. 7.

In the particular embodiment chosen for the purpose of illustration, the tray is made of sheet-metal and has a bottom 7, sides 8 and front and rear walls 9 and 10 respectively, the front and rear walls having upper extensions 11 and 12 projecting above the sides 8, lateral flanges 13 and 14, overlapping said sides, and bottom flanges 15 and 16 underhanging the base 7. These parts may be united by spot welding or by any suitable fastenings to provide a strong and rigid structure. As shown in Figs. 1 and 2, the tray is supported upon the platform 17 of a wheeled table 18, but it will be understood that any suitable desk or table may be used for this purpose and that the trays may be housed in a closed cabinet when not in use.

The tray may be made in the usual standard sizes and is adapted to contain files, folders, sheets, cards, or other filing material which is desirably collected, classified by name or subject matter, and accessibly housed in a safe and handy receptacle. Special advantages are afforded, however, by the provision of an index of the character illustrated, in which a plurality of folders for indexed material are so assembled and compacted within the tray that any one of the folders may be partially withdrawn from the collection and will be held in raised position preferably by frictional engagement of adjacent folders, whereby the folder contents may be inspected or removed without disturbing the relation arrangement of the several folders.

For this purpose, the tray is preferably provided with a panel 20 which extends approximately across its front end and which is inclined forwardly toward the tray bottom; and an adjustable, upright follower block 21 of common type is arranged to slide longitudinally on the tray bottom, thereby to compress the group of intervening folders 22 between the vertical face of the follower and the inclined surface of the panel 20. As the folder-supporting surfaces converge upwardly, it is apparent that the upper portions of the folder are normally compressed to a greater degree than their folded

lower portions 23 which rest upon the tray bottom 24. Hence, when one of the folders is elevated, as shown in Figs. 3 and 4, it is frictionally supported in uplifted position by pressure of adjacent folders upon its opposite faces or leaves. (It will be understood that the space between the folders is exaggerated in Figs. 3 and 4 of the drawings for the sake of distinctness; in practice, the folders are squeezed into juxtaposition in accordance with this aspect of the invention.)

The folders 22 may be made of heavy paper, cardboard or the like, and are folded along their lower ends 23 to provide front and rear leaves 25 and 26 respectively (Figs. 4 and 5). The front leaf preferably extends above the rear leaf and is equipped with a relatively broad projecting index tab 27 which serves as a convenient handle for pulling up the folder as well as a signal identifying the contents of the folder. The filed material shown in Figs. 3 to 5 may consists of one or more cards 28 preferably mounted in overlapping relation upon a relatively stiff backer 29 of sheet material. The backer and its attached sheets (which may be interconnected as shown in Patent No. 1,761,877, dated June 3, 1930) are inserted between the leaves of the folder until the lower edge of the backer seats on the bottom fold 23. The backer is preferably taller than leaf 26 and shorter than leaf 25, so that the upper edge of the inserted backer is disposed intermediate the tops of the respective folder leaves as indicated at 30 (Fig. 4). Hence, when the folder is elevated the front leaf 25 may be bent or tilted forwardly to expose the index cards on the backer, and the projecting top of the backer may be grasped for the purpose of withdrawal by rapid and easy movements of the fingers of one hand. When the backer is removed for examination or posting upon its attached cards or record sheets 28, the folder remains in place until the backer is refiled and pushed down to relocate the folder in normal position.

One upper corner of the front leaf 25 is preferably cut away as at 31 and the corresponding corner of the rear leaf 26 is colored as shown at 32 so that the absence of the folder contents will be revealed by exposure of the colored signal whether the folder is in raised or lowered position. In the latter position the presence of the empty folder may be detected by fanning the index tabs to reveal the corners of the folders. It will be understood that the backer is substantially as wide as the folder leaves and that its upper corner covers the signal area 32 when the backer is properly filed. As the backer seats at the bottom of the folder, it is also evident that the index or carrier strips suspended or mounted thereon will not be bunched or crushed into the folder during filing or handling, thereby preserving the folder contents and preventing distortion or collapse of the folder leaves.

While the arrangement above described is particularly recommended as an aid to speedy, accurate and easy filing, the index trays possess further features of more general application which contribute to the protection of the tray contents and the portability of the container. For example, the tray is preferably provided with a cover 35 having front and rear ends 35 and 36 respectively and sides 37, corresponding to the shape of the open top of the tray. The cover is adapted to fit between the upward extensions 11 and 12 and side flanges 13 and 14 of the ends of the tray, and said ends are provided with supports 38 and 39 arranged approximately at the level of the tops of the sides 8. The front support 38 may extend substantially across the tray and serves as a brace for the flanged upper end 40 of the panel 20 as well as a seat for the forward end of the cover. One or more angle brackets may be affixed to the rear wall 10 to constitute the rear support 39.

Rear wall extension 12 is preferably cut away to provide a central recess 41 (Fig. 2) and the divided top portions thereof are preferably rolled over inwardly as at 43 to provide spaced, aligned sleeves for receiving the outwardly bent ends 44 of a pivoted handle 45. The rolled hinge sleeves 43 overhang the rear supports 39 and hence furnish an intermediate channel for receiving the rear end 36 of the cover. Thus, when the cover end is inserted between the brackets 39 and sleeves 43 in the manner shown in Fig. 3, it is locked against vertical displacement by the overhanging abutment afforded by the sleeves.

The front end of the cover closes upon the shelf 38, which is preferably apertured to receive depending locking lugs 46 attached to the front cover wall 35. Suitable locking mechanism 47 having, for example, a sliding plate 48 and a key-receiving sleeve 49 is mounted beneath the shelf 38. The casing of the lock is also apertured to receive the lugs 46 and the sliding plate 48 or other locking element is adapted to engage in the notched lugs in the usual manner to hold the cover in closed position. It is thus apparent that the cover is held safely and securely by locking mechanism at the front of the tray and by the overhanging sleeves at the rear.

A pocket or recess 50 is provided in the front wall 9 for receiving the fingers of one hand while the other hand grasps the handle 45, thereby affording convenient means for lifting and carrying the closed container. When resting on the table 18 or in a filing cabinet, the handle 45 may be swung over the cover or against the back wall 10 as indicated by the broken line positions of Fig. 1.

An auxiliary front handle 51 is preferably provided for carrying the uncovered tray

when the finger recess is not accessible (for example, when the tray is housed in an open-top desk). As best shown in Fig. 6, this handle has its legs extending downwardly through registering notches or openings 52 in the shelf 38 and panel flange 40, and is formed with outwardly bent ends 53 which engage under said shelf when the handle 51 is lifted. In its normal position the handle rests by action of gravity upon the top of the shelf 38 and flange 40 with its depending legs disposed in the chamber between the front wall 9 and panel 20. It will be observed that casings of the locking mechanism 47 and lifting pocket 50 are also located in said chamber, so that none of these elements reduce the filing space within the tray or interfere with the folders 22. The tray front 9 may also have a label holder 54 of any suitable construction for displaying an index slip 55.

In the modified arrangement shown in Figs. 7 and 8, the folder 61 contains record sheets 62 removably inserted within a series of upstanding relatively overlapping pockets 63 respectively attached to carrier strips 65 which are interconnected and attached to the backer 66 as illustrated in Patent No. 1,761,877, above mentioned. The backer 66 fits within the folder in the same manner as above described, and the folders 61 are preferably compacted within the index tray 67 as previously set forth. In the present arrangement, however, the backer usually remains in the uplifted folder, and one or more of the sheets 62 are removed from their pockets or envelopes 63 for posting. For easy removal and reinsertion of the record sheets, the sheets are taller than the pockets and the rear portion or leaf 68 of each pocket projects above its front leaf, and is preferably provided with a flap 69 which is folded over the margin of the front leaf 70 of the next adjacent pocket, (Fig. 8).

As the reinsertion of the record sheets might tend prematurely to move the backer 66 and folded 61 downwardly, the front leaf of the folder preferably has a hinged portion 71 which swings forwardly over the tops of the other folders when one of folders is lifted to its raised or accessible position. The fold line 72 of the flap 69 may be located below the upper edge of the front leaf of the lowermost pocket so that the sheets 62 are readily available. The forwardly folded flap tends to supplement the frictional engagement of adjacent folders in supporting a selected folder in elevated position; and by resting the hand upon the flap, the folder is positively held against displacement during removal or insertion of the index sheet. The exposed upper margins of the record sheets may display a name or other index notation, and it is apparent that several sheets may be located in any one of the pockets 63, if desired.

An index constructed as herein described is adapted for various types of filing systems and provides a safe, compact and handy filing arrangement accommodating a very large number of record cards or sheets which are quickly accessible and which occupy a minimum of filing space. The important features of the improved arrangement are set forth in the following claims, and we do not intend to limit this invention to the precise construction disclosed as therein defined.

We claim:

1. An index comprising a folder having front and rear leaves, the front leaf being higher than the rear leaf, and a removable backing sheet disposed between the leaves and having its lower edge normally seating on the bottom of the folder, the backing being shorter than the higher leaf and longer than the lower leaf of the folder so that the top of the sheet is normally disposed between the upper edges of the respective leaves, and index slips mounted on the backing sheet and normally supported above its bottom edge.

2. An index comprising a folder having front and rear leaves, a relatively stiff backer removably inserted between the leaves and normally seating on the bottom of the folder, and index sheets detachably suspended on the front of the backer, the front leaf of the folder having a relatively broad index tab providing a handle for raising the folder and flexing its front leaf to expose said index sheets.

3. An index comprising a tray, a plurality of upright parallel folders housed within the tray, relatively stiff backers removably inserted between the front and rear leaves of the folders, index sheets mounted on said backers, and means for compacting the folders within the tray, the front leaves of the respective folders having hinged flaps adapted to swing forwardly over the tops of other folders when a selected folder is partially removed from the tray.

4. An index comprising a tray having front, rear and side walls, the front and rear walls projecting above the sides, horizontal supports mounted on the inner sides of the front and rear walls respectively, the upper end of the rear wall having an inward projection overhanging the rear support, a removable cover having its rearward end fitting between said rear support and said projection and its forward end seated upon the front support, and means for locking the forward end of the cover in closed position.

5. An index comprising a tray having front, rear and side walls, the front and rear walls projecting upwardly above the sides and having side flanges fastened to the respective side walls, interior cover supports mounted on the front and rear walls respectively, a cover adapted to rest on said supports between the upward projections and side flanges of the front and rear walls, an in-

wardly directed abutment on the upper edge of the rear wall overhanging the rear support to provide a channel for receiving the rearward end of the cover, said abutment preventing vertical displacement of said cover end, and means for securing the forward end of the cover upon its support.

6. An index comprising a tray having front, rear and side walls, the front and rear walls projecting upwardly above the sides and having side flanges fastened to the outer surfaces of the respective side walls, interior cover supports mounted on the front and rear walls respectively, a cover adapted to rest on said supports between the upward projections and side flanges of the front and rear walls, the upper end of the rear wall having inwardly rolled sleeves overhanging the rear support to provide a channel for receiving the rearward end of the cover, a handle pivoted in said sleeves, and means for securing the forward end of the cover upon the front support.

7. An index comprising a tray having front, rear and side walls, the front and rear walls projecting upwardly above the sides and having side flanges fastened to the respective side walls, interior cover supports mounted on the front and rear walls respectively, a cover adapted to rest on said supports between the upward projections and side flanges of the front and rear walls, the upper end of the rear wall having integral hinge sleeves overhanging the rear support, and a handle pivoted in said sleeves, the front wall having a pocket for receiving the fingers, whereby the covered tray may be carried by gripping said handle and said pocket.

8. An index comprising a tray having front, rear and side walls, the front and rear walls projecting upwardly above the sides and having side flanges fastened to the respective side walls, interior cover supports mounted on the front and rear walls respectively, a cover adapted to rest on said supports between the upward projections and side flanges of the front and rear walls, the upper end of the rear wall having integral hinge sleeves overhanging the rear support, a handle pivoted in said sleeves, the front wall having a pocket for receiving the fingers, whereby the covered tray may be carried by gripping said handle and said pocket, and an auxiliary handle movably mounted in the front support and normally resting thereon, said auxiliary handle being concealed by the closed cover and adapted to be pulled upwardly for use as a front handle of the uncovered tray.

9. An index comprising a tray having front, rear and side walls, the front and rear walls projecting upwardly above the sides, interior cover supports mounted on the front and rear walls respectively approximately at the level of the tops of the side walls, the upper end of the rear wall having integral hinge sleeves overhanging the rear support, a handle pivoted in said sleeves, a cover adapted to rest on said supports and above the sides of the tray, the rearward end of the cover fitting beneath said overhanging sleeves to prevent upward displacement thereof, an interior panel fastened to the rearward edge of said front support and inclining forwardly toward the bottom of the tray, and a handle slidably mounted on the front support, the legs of the handle passing through said support into the space between said panel and the front wall of the tray.

10. An index comprising a tray having front, rear and side walls, the front and rear walls projecting upwardly above the sides, interior cover supports mounted on the front and rear walls respectively, approximately at the level of the tops of the side walls, the upper end of the rear wall having integral hinge sleeves overhanging the rear support, a handle pivoted in said sleeves, a cover adapted to rest on said supports and above the sides of the tray, the rearward end of the cover fitting beneath said overhanging sleeves to prevent upward displacement thereof, an interior panel fastened to the rearward edge of said front support and inclining forwardly toward the bottom of the tray, the front end of the cover having depending lugs, and locking mechanism mounted on the front wall of the tray and between said wall and said panel for engaging said lugs to secure the closed cover.

11. An index comprising a tray, a front panel inclining forwardly toward the tray bottom, a follower movable toward and from said panel, the forward face of the follower being substantially vertical so that the opposed surfaces of the panel and follower converge upwardly, a plurality of folders compacted between said converging surfaces, each folder having front and rear leaves connected at a bottom fold thereof, and backing sheets for index material removably inserted between the leaves of the respective folders, each backing sheet being readily removable from and replaceable within its folder while the latter is sustained in elevated position by pressure of adjacent folders against its opposite sides.

12. An index comprising a tray, a front panel inclining forwardly toward the tray bottom, a follower movable toward and from said panel, the forward face of the follower being substantially vertical so that the opposed surfaces of the panel and follower converge upwardly, a plurality of folders compacted between said converging surfaces, each folder having front and rear leaves connected at a bottom fold thereof, and backing sheets for index material removably inserted between the leaves of the respective folders, the front leaf being taller than the rear leaf

and the backing sheet being taller than the rear leaf and shorter than the front leaf, whereby the folder may be raised and opened by lifting and bending forward its front leaf to permit ready removal and replacement of the backing sheet while the folder is sustained in elevated position by pressure of adjacent folders against its opposite sides.

13. An index comprising a tray, a front panel inclining forwardly toward the tray bottom, a follower movable toward and from said panel, the forward face of the follower being substantially vertical so that the opposed surfaces of the panel and follower converge upwardly, a plurality of folders compacted between said converging surfaces, each folder having front and rear leaves connected at a bottom fold thereof, and backing sheets for index material removably inserted between the leaves of the respective folders, the front leaf having a relatively broad index tab constituting a handle whereby the folder may be raised and flexed forwardly by grasping the tab, thereby to permit ready removal and replacement of the backing sheet while the folder is sustained in elevated position by pressure of adjacent folders against its opposite sides.

14. An index comprising a tray, a plurality of upright parallel folders housed within the tray, index fillers removably inserted between the front and rear leaves of the folders, said fillers comprising interconnected index sheets, and means for compacting the folders within the tray, the front leaves of the respective folders having hinged flaps adapted to swing forwardly over the tops of other folders when a selected folder is partially removed from the tray.

15. An index comprising a tray, a front panel inclined forwardly toward the tray bottom, a follower movable toward and from said panel, the forward face of the follower being substantially vertical so that the opposed surfaces of the panel and follower converge upwardly, a plurality of folders compacted between said converging surfaces, each folder having front and rear leaves connected at a bottom fold thereof, and index fillers removably inserted between the leaves of the respective folders, each filler being readily removable from an replaceable within its folder while the latter is sustained in elevated position by pressure of adjacent folders against its opposite sides.

Signed by the said GEORGE H. DAWSON and EDWARD A. DUNN at New York, New York, this 11th day of September, 1931.

GEORGE H. DAWSON.
EDWARD A. DUNN.

Signed by the said ARCHER M. NICKERSON, Jr., at Cambridge, Massachusetts, this 17th day of September, 1931.

ARCHER M. NICKERSON, JR.