United States Patent

[11] 3,603,659

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[54] **DRAWER HEAD FOR INDEX CARD FILE DRAWERS**
9 Claims, 4 Drawing Figs.

[52] U.S. Cl. 312/330, 220/22.5, 312/234.4
[51] Int. Cl. A47b 88/00
[50] Field of Search 312/330, 183, 185, 61, 204, 234.4, 234.1; 402/61; 206/74; 217/64; 220/25.5

[56] **References Cited**

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1,678,357	7/1928	Sampson, Sr.	402/61 X
2,139,283	12/1938	Regenhardt	220/22.5
3,179,480	4/1965	Brinker	312/234.1
3,511,550	5/1970	Hilfinger et al.	312/330
3,527,515	9/1970	Grau et al.	312/330

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ABSTRACT: A file drawer, such as an index card drawer of rectangular cross section, having a composite drawer head comprising: a frame plate which attaches to the front wall of the drawer and has (1) a forward projection serving as a drawer pull hook and (2) a marginal forwardly projecting flange; a cover plate which fits tightly within the marginal flange of the frame plate and has an aperture allowing the hook to pass through; and a label frame which fits tightly in an aperture in the insert plate. The label frame is adapted to receive a label and has at least one pair of facing grooves for holding edges of the label. The label, or a label cover, or both, may be resilient and slightly larger than the label frame opening for the purpose of being retained in said grooves in resilient fit.

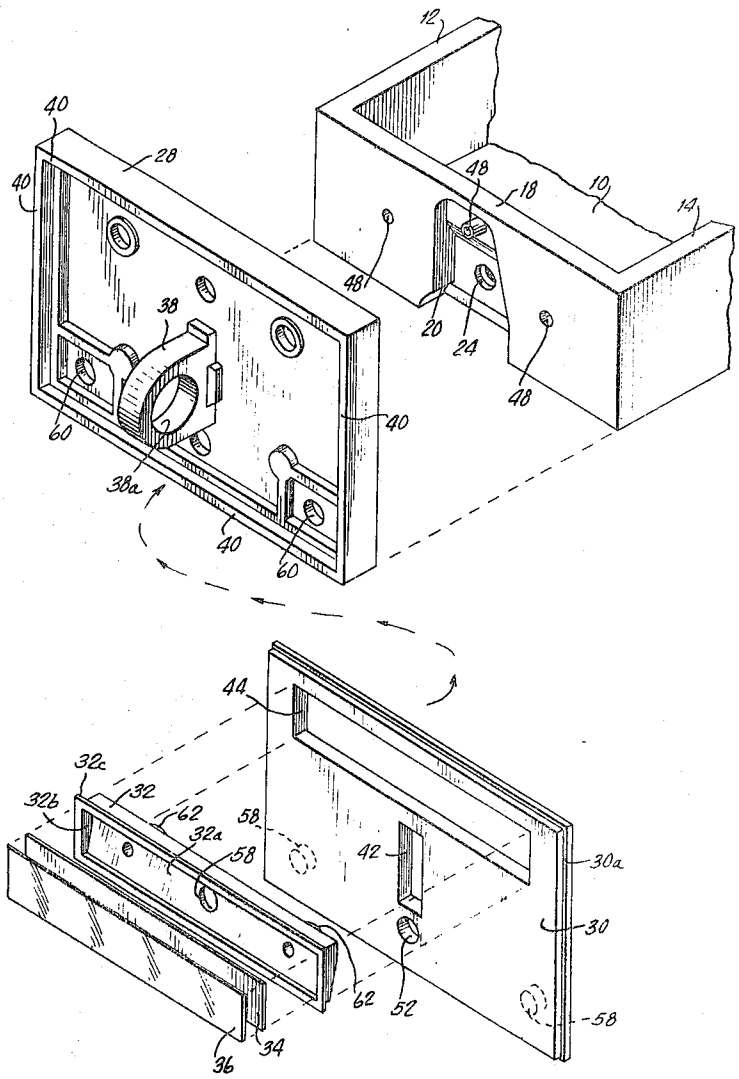
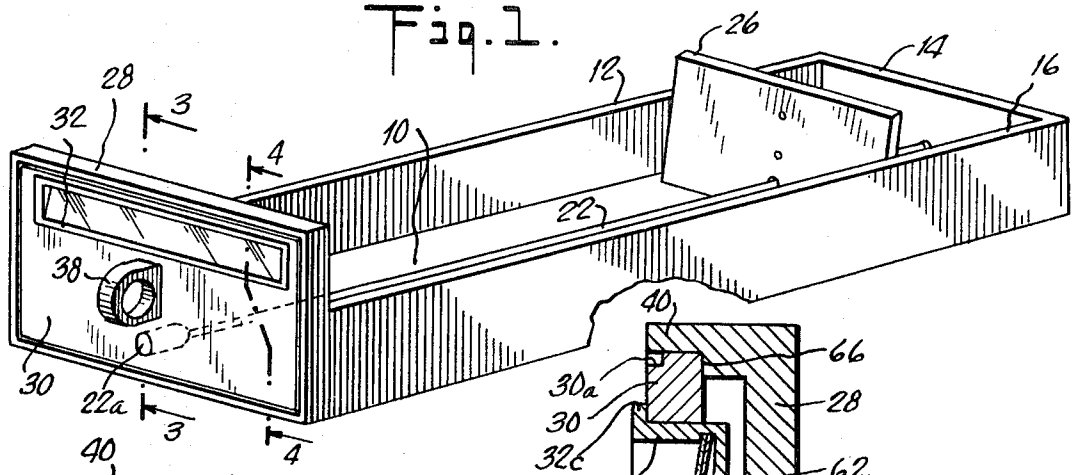


Fig. 1.



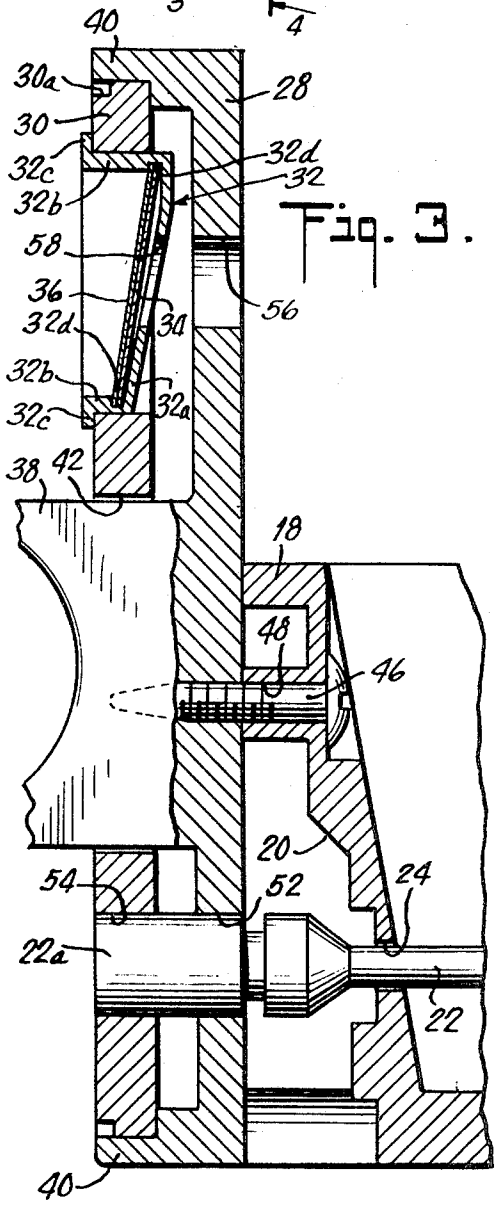


Fig. 3.

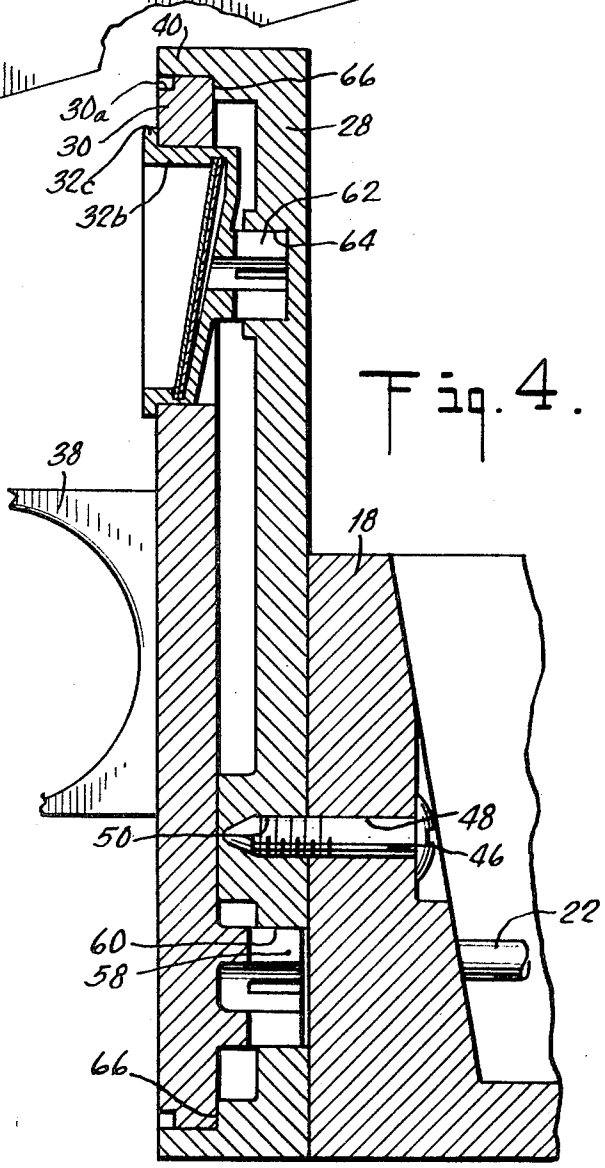
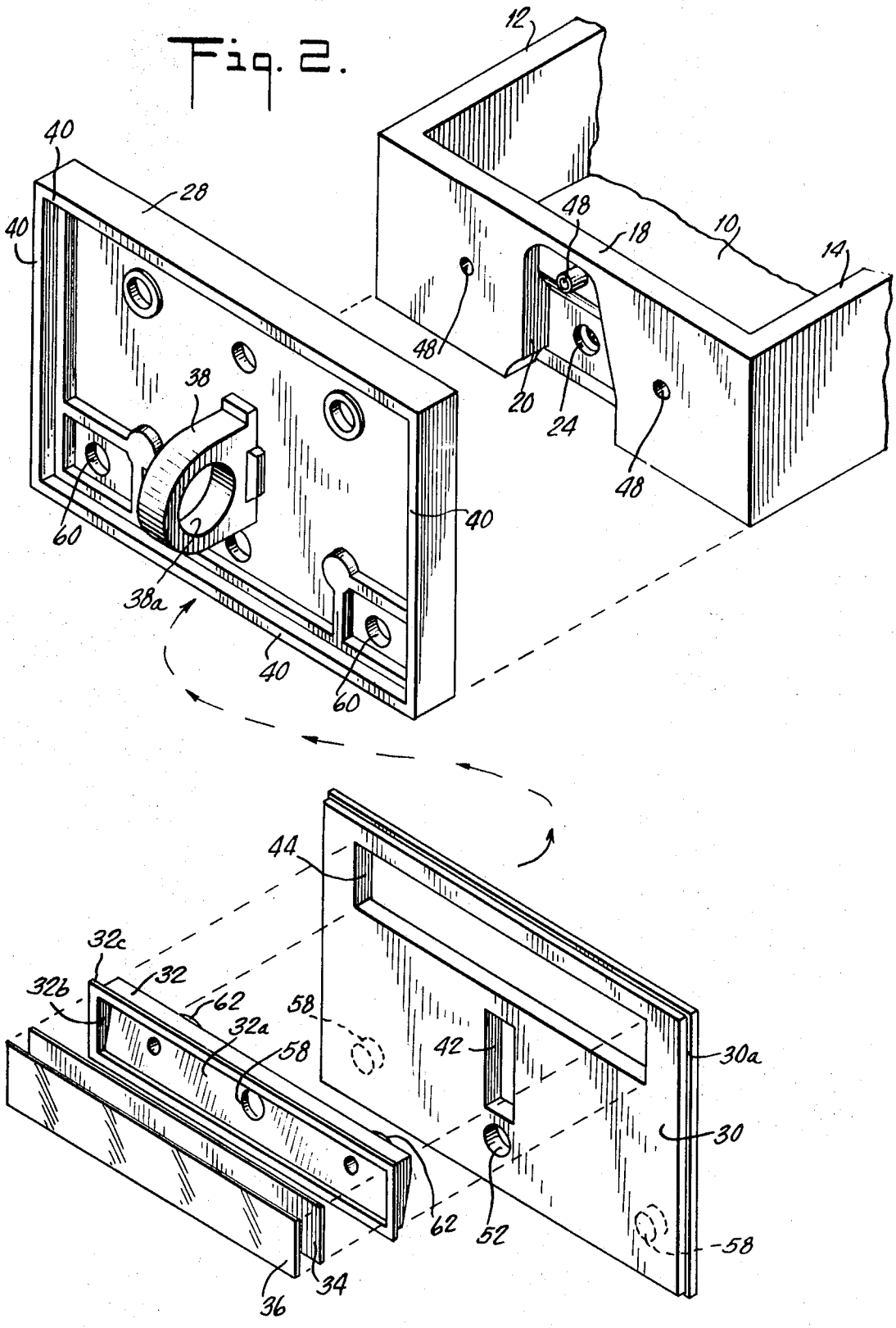


Fig. 4.

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Fig. 2.


12
40
28
40
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18
10
14
48
20
24
48
38
60
40
38a
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60
44
32c
32
32b
62
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32a
58
42
30a
30
62
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58
34
36

DRAWER HEAD FOR INDEX CARD FILE DRAWERS

CROSS-REFERENCE TO RELATED APPLICATIONS

This application is related to copending applications:

Guide Rod Locking and Releasing Mechanism for File Drawers, by Robert H. Savage (deceased) Deborah Savage, executrix, Ser. No. 47,028, filed June 17, 1970.

Follower Assembly for File Drawers by Murray Rothenberg, Kurt H. Burgold and Gordon L. May, Ser. No. 47,021, filed June 17, 1970.

BACKGROUND OF THE INVENTION

The invention is in the field of file drawers and particularly in the field of file drawers for sheet material and apertured sheet material such as apertured index cards.

In the prior art, the drawer heads of file drawers have generally been of single panel construction; examples of such file drawers are Mott, U.S. Pat. No. 980,993 and Stark, U.S. Pat. No. 3,115,881.

Such drawers are commonly elongated boxes with open tops. The drawer head of such a drawer must accommodate several separate functions. It must include a label holder so that the contents of the drawer may be identified by simply looking at the label. It is customary to provide a finger grip, usually either a hook or a loop, to allow the drawer to be carried on one finger. The drawer head also must receive the front end of the guide rod which holds the filed contents in place. Provision must be made for locking or latching the guide rod firmly, and for releasing the guide rod to allow changing of the drawer contents.

All of these mechanical functions require specialized structures in the drawer head, which commonly present a multiplicity of small surfaces of various shapes and sizes, detracting from the appearance of that panel, and making the manufacture of the front panel a rather complex procedure.

SUMMARY OF THE INVENTION

The file drawer disclosed herein has a composite drawer head, consisting of a frame plate which is attachable to the front wall of a drawer box and which supports all the other parts of the drawer head. A cover plate is attached to the front of the frame plate. The cover plate is designed primarily for ornamentation, except as it may be apertured so that various parts mounted on the baseplate may extend forwardly through it so as to be accessible from the outside. The frame plate illustrated has a forwardly projecting marginal flange, and the cover plate fits within the marginal flange of the frame plate. A label frame fits in an aperture in the insert plate and is attached to the frame plate for support. The label frame is adapted to receive a label and has at least one pair of facing grooves for holding edges of the label.

The frame plate has an integral forwardly projecting finger grip which passes through a suitable aperture in the cover plate and protrudes in front of the cover plate to serve as a drawer pull. Apertures may be provided in the insert plate, in the frame plate and in the drawer front wall to support a guide rod passing through and extending longitudinally toward the rear of the file drawer.

The frame plate attaches to the front wall of the drawer by means of a pair of screws; the cover plate is held by the frame plate by means of a pair of slotted annular bosses received in pressure fit in suitable holes in the frame plate. The label frame is held in the cover plate by means of another pair of slotted annular bosses received in pressure fit in suitable bores in the frame plate. Each slotted annular boss is received in a hole somewhat smaller in diameter than the outside diameter of the boss, so that the parts of the boss separated by the slots are compressed by the hole when they are inserted, and hence grip the sides of the hole tightly. Two crossed slots are employed in each boss, so that the boss is divided into quarters. A boss is not effective to hold the parts together accurately, since one part of the boss may compress more than another. The accurate positioning of the cover plate is determined by a close fit with the marginal flange. The accurate positioning of the label holder is determined by a close fit with the cover plate.

Provisions may be made for allowing a guide rod to pass through suitably centered apertures in the insert plate, in the frame plate and in the front wall of the drawer. A cavity may be provided in the front wall of the drawer for the purpose of enclosing a guide rod locking and releasing mechanism accessible for operating it through the bottom of the drawer front wall. All the mechanically functioning parts in the drawer head are concealed from view, except those parts which must be seen to perform their function. In particular, all the fastening elements are concealed.

BRIEF DESCRIPTION OF THE DRAWING

FIG. 1 is a perspective view of a file drawer with a drawer head embodying the invention.

FIG. 2 is an exploded perspective view of the front end of the drawer of FIG. 1 showing individually the several components of the drawer head.

FIG. 3 is a sectional view along lines 3—3 of FIG. 4.

FIG. 4 is a sectional view along lines 4—4 of FIG. 1.

DETAILED DESCRIPTION

The drawer head may be used in an index card file drawer of the type shown in FIG. 1 which is of rectangular cross section and comprises bottom wall 10, left sidewall 12, rear wall 14 and right sidewall 16. The drawer further includes a front wall 18, visible in FIG. 2, which is integral with the sidewalls 12 and 16 and with the bottom wall 10. The front wall 18 includes a cavity 20 provides for the purpose of enclosing and hiding from view a locking and releasing mechanism (not shown) for a guide rod 22 which passes through an aperture 24 in the drawer front wall 18 and extends longitudinally rearwardly along the bottom wall 10. The drawer may also include a follower assembly 26 provided for the purpose of allowing the drawer to accommodate different quantities of filed sheet material.

Referring in particular to FIG. 2, the drawer head is a composite structure which includes a frame plate 28, a cover plate 30 and a label frame 32 adapted to receive a label 34 and a transparent label cover 36. The frame plate 28 may be an integral structure of material such as molded plastic and includes a forwardly projecting hook 38 adapted to serve as a drawer pull hook. The frame plate 28 also includes a forwardly projecting marginal flange 40 which forms a frame adapted to receive the cover plate 30 in a close fit.

The cover plate 30 is dimensioned laterally to fit closely within the confines of the frame defined by the flange 40 and includes an aperture 42 adapted to receive the hook 38 and to allow it to pass through so that the opening 38*a* of the hook 38 is entirely in front of the front surface of the cover plate 30 when the cover plate is in its place within the confines of the marginal flange 40 of the frame plate 28.

Referring to FIGS. 2 and 3, the frame plate 28 is fixedly and detachably connected to the drawer front wall 18 by means of screws 46 passing through suitable triangularly disposed apertures 48 in the drawer front wall 18 and threaded into suitable bores 50 at the rear of the frame plate 30. An opening 52 in the frame plate 30 is adapted to receive the enlarged head 22*a* of the guide rod 22.

The cover plate 30 fits closely within the confines of the forwardly projecting marginal flange 40 of the frame plate 28. When the insert plate 30 is in its place within the flange 40 of the frame plate 30, the front face of the cover plate 30 is substantially in the same plane as the front edge of the flange 40 to present a smooth and aesthetic appearance. The aperture 42 in the cover plate 30 allows free passage of the finger grip 38, but is closely dimensioned such that there are no crevices between the hook 38 and the sidewalls of the aperture 42. An

additional aperture 54 is provided for the purpose of allowing the passage of the enlarged head portion of the guide rod 22. The apertures 54, 52 and 24, which are respectively through the cover plate 30, the frame plate 28 and the drawer front wall 18, are aligned along the axis of the guide rod 22.

The cover plate 30 also includes an aperture 44 adapted to receive in close fit a label frame 32. The label frame 32 fits tightly within the suitably dimensioned aperture 44 and comprises a back wall 32*a*, a forwardly projecting marginal flange 32*b* forming a frame for a label, and a marginal flange 32*c* extending laterally from the forward edges of the flange 32*b*. The lateral dimensions of the flange 32*c* are larger than the corresponding lateral dimensions of the aperture 44; thus the label frame 32 can be pushed into the aperture 44 in the cover plate 30 only until the flange 32*c* comes in contact with the front surface of the cover plate 30.

The label frame 32 is provided with two grooves 32*d* cut into the top and bottom portions of the forwardly projecting flange 32*b* where it joins with the back wall 32*a*. The grooves are for the purpose of retaining the label 34 and the label cover 36. The label 34 may be a resilient piece of cardboard and the label cover 36 may be a resilient piece of transparent plastic sheet, each dimensioned to snap into the grooves 32*d* and to be retained against coming out of the label frame by means of the sidewalls of the grooves 32*d*.

When it is desired to remove the label 34 from the label frame 32, such as for the purpose of changing the label, an object such as a pencil may be inserted through a suitably positioned aperture 56 in the frame plate 28 and through an aligned aperture 58 in the backwall of the label frame 32 to push the label 34 and the label cover 36 out forwardly. The label 34 and the cover 36 can thus be deformed and caused to snap out of the groove 32*d* and to come out of the label frame 32.

Referring to FIGS. 2, 3 and 4, and particularly to FIG. 4, the means for connecting the cover plate 30 to the frame plate 28 includes a pair of bosses 58 extending rearwardly from the back face of the insert plate 30 and received in pressure fit in suitably disposed and suitably dimensioned openings 60 in the frame plate 28. Similarly, the label frame 32 has a pair of bosses 62 extending rearwardly of the backwall 32*a* and received in pressure fit in a pair of suitably disposed and dimensioned bores 64 in the frame plate 28.

Each of the bosses 58 and 62 is annular and has two longitudinal crossed slots dividing the boss into quarter sections. When the boss is inserted in a hole or a bore slightly smaller in diameter than the outside diameter of the boss, the quarter sections separated by the crossed slots are compressed toward each other and hence grip the sidewalls of the hole tightly. Such bosses are not effective for accurate lateral positioning because quarter sections may deform differently from one another. Therefore, the accurate positioning of the cover plate 30 is determined by the tight fit between the lateral walls of the cover plate and the inside walls of the marginal flange 40, and the accurate positioning of the label frame 32 is determined by the tight fit of the label frame within the aperture 44 in the cover plate 30.

The frame plate 28, the cover plate 30 and the label frame 32 may each be an integral component individually molded of material such as plastic. These components may be of differently colored material, or they may be of different materials altogether so as to allow assembling drawer heads varying in color or in texture.

The drawer head is assembled by pressing the cover plate 30 into the frame plate 28 to force a pressure fit of the bosses 58 of the insert plate 30 into the holes 60 of the frame plate 28 and to bring the rear face of the insert plate 30 against a ledge 66 of the frame plate 28. The label frame 32 is added to the front panel by forcing the bosses 62 of the label frame 32 in pressure fit into the bores 64 of the frame plate 28 until the laterally extending flange 32*c* of the label frame 32 is brought against the front face of the cover plate 30. The label 34 and the label cover 36 may be snapped in place before the label frame 32 is fitted in place in the cover plate 30 and the frame plate 28, or they may be added at a later time. The composite drawer head assembled in this manner can then be attached to the drawer front wall 18 by means of the screws 46 passing through apertures 48 in the front wall 18 and threaded into suitable bores 50 in the frame plate 28.

The cover plate 30 is provided around the periphery of its front face with a recess 30*a*, so that when the cover plate and the frame plate are connected, the recess 30*a* and the adjacent flange 40 on the frame plate cooperate to define a channel extending completely around the frame plate 28. This channel is provided for esthetic purposes only. It helps to emphasize the line of demarcation between the cover plate 30 and the flange 40.

The principal parts of the file drawer may be made of molded plastic material. For example, the drawer box 10, the frame plate 28, the cover plate 30, and the label frame 32 may each be molded in a single piece. It is desirable to have the label frame 32, the frame plate 28 and the head 22*a* of the guide rod all the same color, and to make the cover plate 30 of a contrasting color. This provides an improved esthetic appearance. It also draws attention of an observer to the location of the functional parts of the drawer head, such as the label holder 32, the finger grip 38, and the head 22*a* of the guide rod.

We claim:

1. A file drawer including a composite drawer head comprising:
   a. a frame plate having a rigidly affixed forwardly projecting finger grip serving as a drawer pull;
   b. means for affixing the frame plate to the front end of the drawer rigidly and detachably;
   c. a cover plate having means defining an aperture adapted to receive the forwardly projecting finger grip of the frame plate and to allow the grip to protrude forwardly of the front face of the cover plate; and
   d. cooperating means on the back of the cover plate and on the frame plate for affixing the cover plate to the front of the frame plate rigidly and detachably, so that the cover plate conceals both the affixing means.

2. A file drawer as in claim 1 including in said frame plate a marginal forwardly extending flange adapted to receive the cover plate within the confines of the marginal flange.

3. A file drawer as in claim 2 wherein the marginal flange and the cover plate are dimensioned such that the front wall of the marginal flange and the front wall of the plate are substantially in the same plane when the plate is affixed in its place within the confines of the marginal flange.

4. A file drawer as in claim 1 including a label frame and including in said plate means defining an aperture for receiving said label frame.

5. A file drawer as in claim 4 including in said label frame means defining a frame for a label, said label exposed to view from the front of the drawer, said frame plate and said label frame having aligned apertures allowing access to the label from the rear of the frame plate for the purpose of pushing the label out of the frame plate.

6. A file drawer as in claim 5 including in said label frame marginal forwardly projecting flanges on at least two facing sidewalls of the label frame, and including in at least two facing marginal flanges means defining facing grooves adapted to receive edges of a label for the purpose of retaining a label whose corresponding dimension is slightly larger than the distance between the facing grooves.

7. A file drawer as in claim 4 including means for affixing detachably said label frame to said frame plate.

8. A file drawer as in claim 7 wherein the means for affixing the plate to the frame plate includes at least one boss extending rearwardly from the back face of the plate, said frame plate having at least one aperture for receiving said boss in pressure fit, and the means for affixing the label frame to the frame plate includes at least one boss extending rearwardly from the backwall of the label frame, said frame plate having

at least one aperture to receive said label frame boss in pressure fit.

9. A file drawer as in claim 4 in which the drawer has a front wall with a cavity having an opening in the bottom surface of the drawer front wall for receiving a guide rod locking and releasing mechanism.

UNITED STATES PATENT OFFICE

CERTIFICATE OF CORRECTION

Patent No. 3,603,659 Dated 7 September 1971

Inventor(s) Murray Rothenberg, Donald A. Richardson

It is certified that error appears in the above-identified patent and that said Letters Patent are hereby corrected as shown below:

Change the name of the assignee from "ART METAL KNOLL-CORPORATION" to

--KNOLL INTERNATIONAL, INC.--

Signed and sealed this 17th day of April 1973.

(SEAL)
Attest:

EDWARD M.FLETCHER,JR.
Attesting Officer

ROBERT GOTTSCHALK
Commissioner of Patents

FORM PO-1050 (10-69)

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