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FILE CARD FOLLOWER MECHANISM

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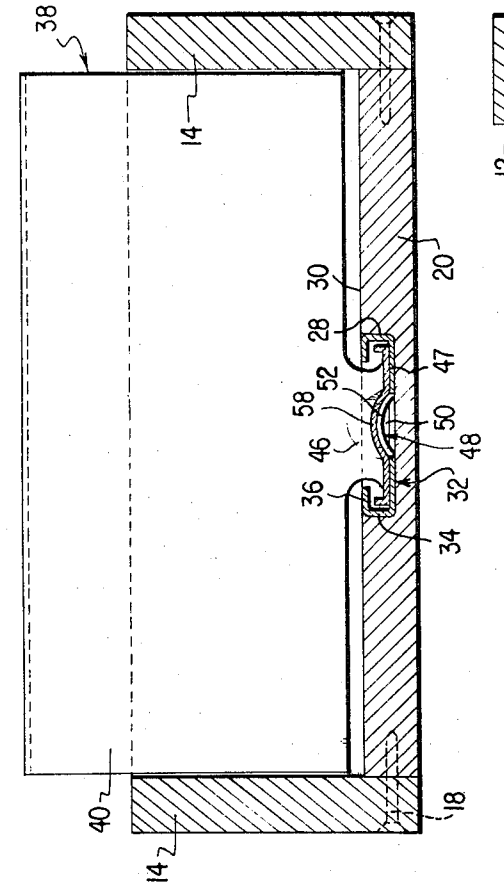


FIG. 3

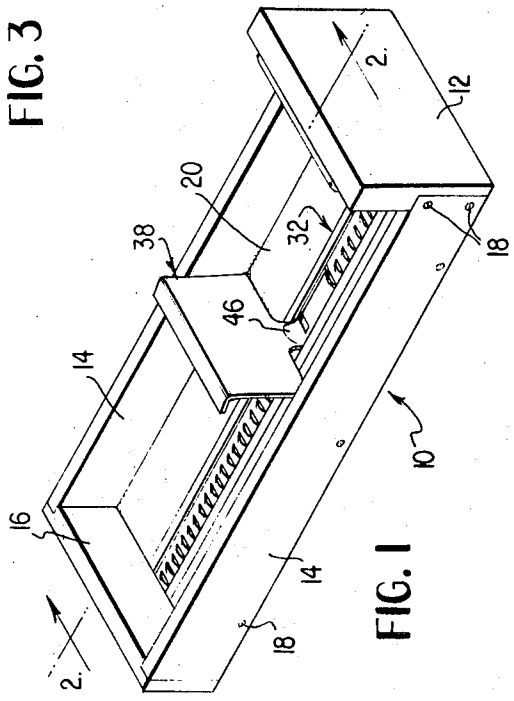


FIG. 1

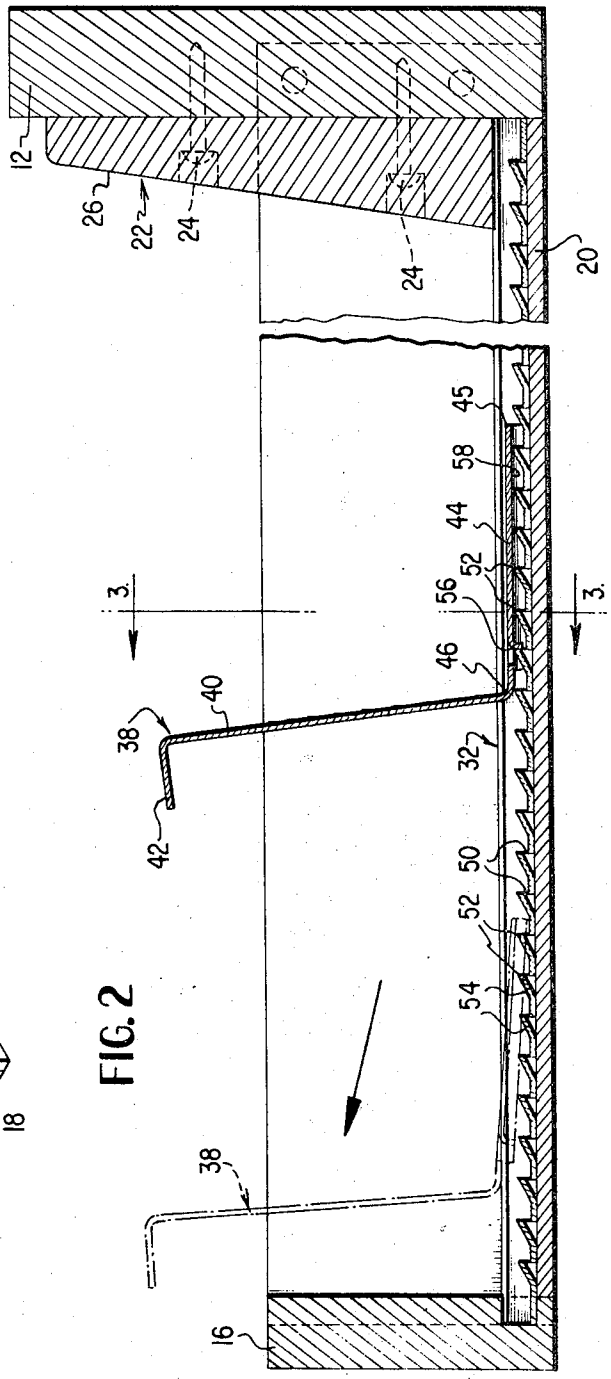


FIG. 2

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FILE CARD FOLLOWER MECHANISM

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ABSTRACT OF THE DISCLOSURE

The bottom of a card file drawer carries a U-shaped track which receives the base of the card follower allowing the card follower to slide therein. The track includes a series of upstruck, inclined detents. A depending tab from the follower base contacts the upstruck detents so as to readily slide over the inclined surfaces in one direction but is fully restrained in the opposite direction.

BACKGROUND OF THE INVENTION

Field of the invention

This invention relates to card file drawers and more particularly to a simplified unitary card follower which may be readily moved lengthwise of the card file drawer but is gravity locked in a selected position.

Description of the prior art

Card files of the drawer type, normally employ a file card holding rod which passes through the face plate of the card file drawer, and supports a card follower. Spring means or the like latch the card follower at preselected longitudinal positions by exerting a clamping pressure on the card holding rod. Where the card file drawer does not employ a holding rod or similar element, it is conventional to employ one or more spring locking member for locking the card follower in a selected longitudinal position. Such spring locking members act directly on the drawer bottom or sides.

In order to define the longitudinal path or movement of the card follower within the card file drawer, various guide means have been employed. In some cases, a configured, longitudinal track is carried on or recessed within the sidewalls or a single track is carried on or embedded within the drawer bottom. The card follower locking means are associated with the guide track and separate spring members may be carried by the card follower. Even where the spring member is integral with the card follower itself, the designs have been relatively complex and the locking means unreliable.

SUMMARY OF THE INVENTION

The present invention is directed to a card file drawer or like container of rectangular configuration which includes a longitudinally extending guide track carried by the drawer bottom with a card follower including a base portion slidably positioned with the track. The improvement resides in a plurality of unidirectional detent means at spaced longitudinal positions on the track and detent engaging means carried by the card follower base portion allowing the follower to be readily slid along the track in one direction but positively restrained in the opposite direction.

Preferably, the rack is formed from sheet metal bent into U-shaped cross section and carried by a recess within the bottom of the drawer. The detent means comprises a series of longitudinally spaced, upwardly inclined, struck out portions, and the detent comprises a single depending struck out tab axially overlying the track detent means. The side walls of the U-shaped track terminate in lateral edges which extend towards each other. The follower base

is wider than the gap between the track lateral edges, allowing the follower to be released from the detent means by merely tilting the base in opposite inclination to the upstruck detent means. The upstruck portions of the track are half-moon in plan configuration and the center of the follower base portion is arched to conform to the same.

BRIEF DESCRIPTION OF THE DRAWING

FIG. 1 is a perspective view of a wooden card file drawer incorporating the simplified follower arrangement of the present invention;

FIG. 2 is a side elevational view, in section, of the card file drawer shown in FIG. 1 with the follower in solid lines in latched position and in unlatched position by phantom lines.

FIG. 3 is a front elevational view, in section, of the card file drawer of FIG. 2 taken about line 3—3.

DESCRIPTION OF THE PREFERRED EMBODIMENTS

Referring to the drawing, a card file drawer **10** is shown as being of wooden rectangular frame construction including a face plate **12** at the front end, opposed side walls **14** and a rear wall or end plate **16**, coupled together in conventional fashion by screws **18** or the like. The bottom **20** of the file card drawer may be open or as shown, formed of wood as are elements **12**, **14** and **16**. In conventional fashion, face plate **12** carries on its inner surface, an inclined backup plate **22** also formed of wood and coupled to the face plate **12** by a suitable screws **24** or the like. The surface **26** of the backup plate is inclined such that the cards (not shown) carried by the card file drawer **10** lie inclined slightly from the vertical when they are stored within the drawer. The function of the file card drawer is to store identically sized file cards (not shown) whose number may be readily varied, with the cards vertically oriented for limited separation to facilitate searching. In this respect, as indicated previously, it is conventional to employ a longitudinally adjustable card follower **38** which acts in conjunction with the inclined surface **26** of the backup plate to define the drawer file card receiving area whose longitudinal dimension may be readily varied to allow access to the cards for searching purposes, or removal, placement and replacement of the same.

In this respect, the file card drawer **10** has its bottom wall **20**, recessed at **28**, the full extent thereof, the longitudinal recess **28** positioned centrally of the drawer and opening up onto the drawer bottom surface **30**. The rectangular recess **28** carries a guide track **32** formed of sheet metal stock and bent into U-shape in cross section. Side wall portions **34** terminate in lips or lateral edges **36** which extend towards each other and define a gap therebetween which is somewhat less than the lateral dimension of recess **28**. The opposed lateral edges **36** of the sheet metal track **32** lie flush with the bottom surface **30** of the file card drawer.

The card follower indicated generally at **38** is unitary in construction, formed of sheet metal stock and includes a card support portion **40** which is inclined rewardly, slightly from the vertical and further includes, at its upper end, right angle lift tab portion **42** and at its lower end, a card follower base portion **44** which extends horizontally and generally at right angles to the card support portion **40**. The base portion **44** has a width which is in excess of the gap between edges **36** of the track such that the base portion **44** is captured within the track. The neck **46** which joins the base portion **42** to the card support portion **40** is appropriately narrow and is of a lateral dimension less than the gap between the laterally opposed edges **36** of

the track. The width of the card follower card support portion **40** is slightly less than the distance between side walls **14** of the card file drawer and the height of the same is somewhat less than that of drawer face plate **12**.

The present invention is directed to a simplified detent latching or locking mechanism for locking the card follower at selected longitudinal positions between the end wall **16** and the backup plate **22**, while at the same time allowing the card follower **38** to be readily moved in either direction by instantly releasing the detent latching mechanism. In this respect, the bottom portion **47** of the sheet metal track carries a longitudinal series of struck out portions or detent means **48** which are half-moon in plan configuration (FIG. 1) defining narrow slits **50**, relatively sharp right angle edges **52**, and upwardly inclined surface portions **54** whose angle of inclination is towards the backup plate **22**. Cooperating with these detent means is the detent engaging means of the card follower comprising a depending, struck out tab **56**, integrally formed with base portions **44** of the card follower. Tab **56** extends downwardly a short distance from the bottom surface of follower base portion **44** and generally at right angles thereto.

In operation, the card follower **38** rests by gravity with the base portion **44** being captured within the longitudinally extending track **32** and with the bottom surface **58** resting on the edges **52** of the upstruck detent means **48** of the track. Further, the depending tab **56** or detent engaging means is in abutment with the edge **52** of one of the upstruck, half-moon detent means **48**. Assuming that the card follower **38** is in the position shown in FIG. 2, any attempt at moving the card follower from right to left, such as the force exerted by the pack of cards (not shown) position between the card follower **38** and the backup plate **22**, is resisted by engagement of the detent engaging means or tab **56** with the detent means **48**, precisely, on upstruck edge **52** of the same. Dis-engagement of the detent latching or locking means is accomplished merely by lifting and tipping the card follower towards the face plate **12** as indicated by the phantom line position of the card follower. This raises the front end or the neck **46** of the card follower **38**, normally accomplished by lifting up on lift tab portion **42**. The end **45** of base portion **44** remote from the detent engaging means or tab **56** merely rides on the sheet metal track **32** as the card follower **38** moves longitudinally as indicated by the arrow in FIG. 2 with the card follower in inclined or lift position. It is important to note, however, that in returning the card follower **38** towards the face plate **12** of the file card drawer, there is no necessity to maintain upward pressure on the card follower. The inclined portions **54** of the detent means allow the detent engaging tab **56** to easily ride over the same during movement of the card follower from left to right. The card follower thus may be returned toward the front end or face plate **12** of the file card drawer by sliding the same such that the tab **56** rides over each succeeding inclined portion **54** of the detent means of the track.

The present invention has been described with reference to a single embodiment in which the sheet metal track is carried within a central recess formed within a bottom wall **20** of the file card drawer. Multiple sheet metal tracks and multiple card follower base portions may be employed at laterally spaced positions on or within the file card drawer bottom wall. Further, while the face plate, backup plate, rear plate, side wall, and bottom wall have been shown and described as being formed of wood and while the card follower and the track as being formed of metal, such construction is exemplary only and all parts may be formed of metal, wood, plastic, or a combination of the same as desired.

What is claimed is:

1. In a file card drawer or the like having a longitudinally extending track carried by the drawer bottom and a card follower including a base portion slidably positioned therein, the improvement comprising:

detent engaging means carried by said card follower base portion and unidirectional detent means carried by said track whereby said follower may be readily slid along said track in a first direction but is positively restrained from movement in the opposite direction due to gravity engagement between said detent means and said detent engagement means.

2. The file card drawer as claimed in claim **1** wherein said detent means comprises a series of longitudinally spaced, upwardly inclined surface portions carried by said track, and said detent engagement means comprising a tab depending from said follower horizontal base portion in detent engaging position.

3. The card file drawer as claimed in claim **2** wherein said track is formed of sheet metal stock, is U-shaped in cross sectional configuration and includes side walls terminating in lateral edges which extend toward each other, said follower base portion is positioned within said track, and has a lateral width in excess of the gap between the lateral edges of said track.

4. The file card drawer as claimed in claim **3** wherein said follower is formed of sheet metal stock, bent into Z-shaped configuration including a horizontal lift tab portion at the upper end, a generally vertical card support portion and a horizontal base portion connected by a neck whose width is less than the gap existing between the opposed lateral edges of said track.

5. The card file drawer as claimed in claim **2** wherein said detent means comprises a series of longitudinally spaced struck out portions of said track including inclined surface portions which are directed toward the front end of said card file drawer.

6. The card file drawer as claimed in claim **5** wherein said struck out portions are half-moon shaped in plan configuration, said base portion includes an upwardly curved central portion whose curvature corresponds to the curvature of the upstruck detent means.

7. The card file drawer as claimed in claim **4** wherein said detent means comprises a series of longitudinally spaced struck out portions of said track including inclined surface portions which are directed toward the front end of said card file drawer.

8. The card file drawer as claimed in claim **7** wherein said struck out portions are half-moon shaped in plan configuration, said base portion includes an upwardly curved central portion whose curvature corresponds to the curvature of the upstruck detent means.

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