United States Patent [19]

Beck

[11] **3,724,920**

[45] **Apr. 3, 1973**

[54] **STORAGE BOX FOR STORING HANGING FILE FOLDERS**

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[73] Assignee: **Follower Manufacturing Company,** Franklin Park, Ill.

[22] Filed: **Mar. 17, 1971**

[21] Appl. No.: **125,146**

[52] **U.S. Cl.**.....**312/184,** 229/14 C, 206/46 FR

[51] **Int. Cl.**.....**B65d 5/58,** B65d 85/00

[58] **Field of Search**.....229/15, 39 B, 14 C; 206/1 A, 206/46 FR; 312/184

[56] **References Cited**

UNITED STATES PATENTS

2,679,927	6/1954	Hennessey	206/46 FR
3,294,226	12/1966	McFarland et al.	229/146 X
3,396,731	8/1968	Peebles	312/184 X

FOREIGN PATENTS OR APPLICATIONS

1,150,459	8/1957	France	312/184
1,162,307	4/1958	France	312/184

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Attorney—Hume, Clement, Hume & Lee

[57] **ABSTRACT**

There is disclosed an insert structure for use in combination with a conventional storage box having a first pair of walls, a second pair of walls, and a bottom connected thereto. The insert means is constructed from a single piece of stiff, foldable material and is adapted for insertion into the storage box to enable the storage of at least one hanging file folder. The insert means has a pair of parallel edges and a pair of folds parallel to the pair of parallel edges. The folds segment the insert means into three sections, whereby the first and second sections are adapted to form a plane parallel to the first pair of walls of the storage box, thereby enabling the pair of parallel edges to support the hanging file folder.

7 Claims, 6 Drawing Figures

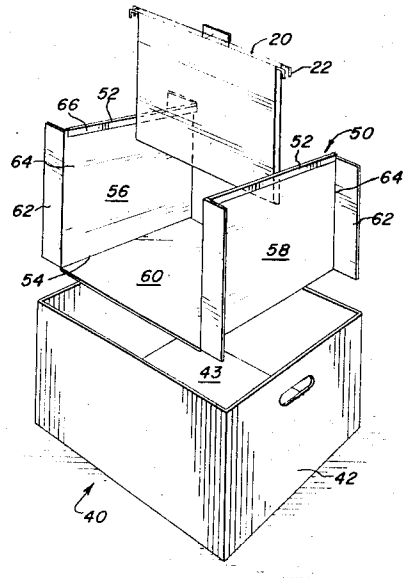


FIG. 6

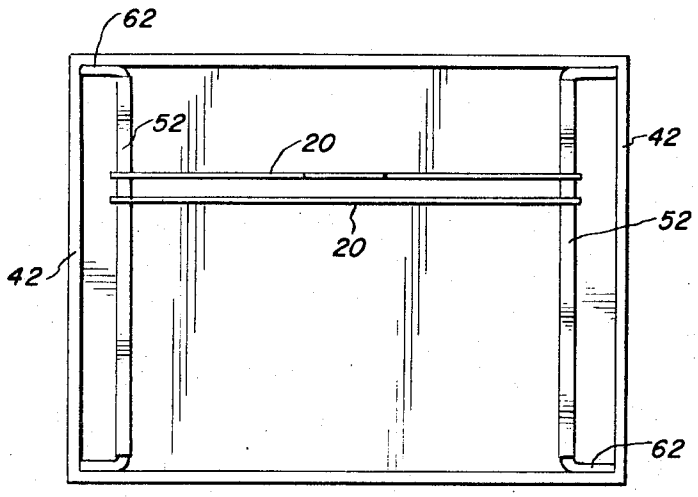
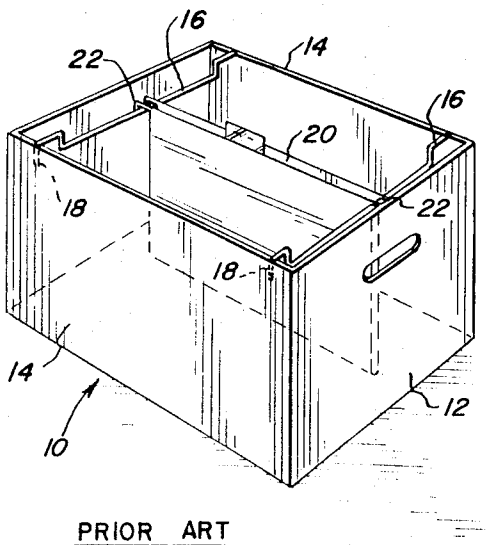
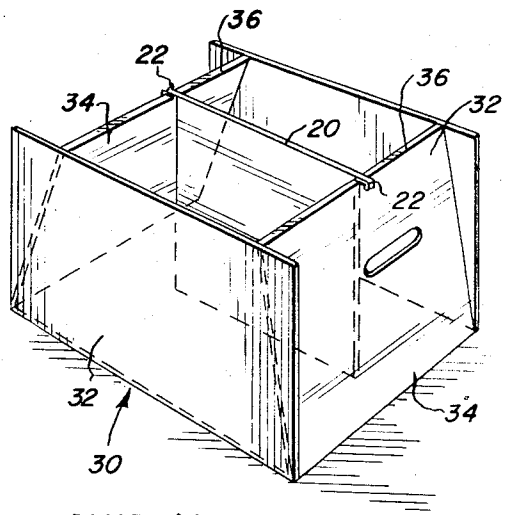


FIG. 1



PRIOR ART

FIG. 2



PRIOR ART

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FIG. 4

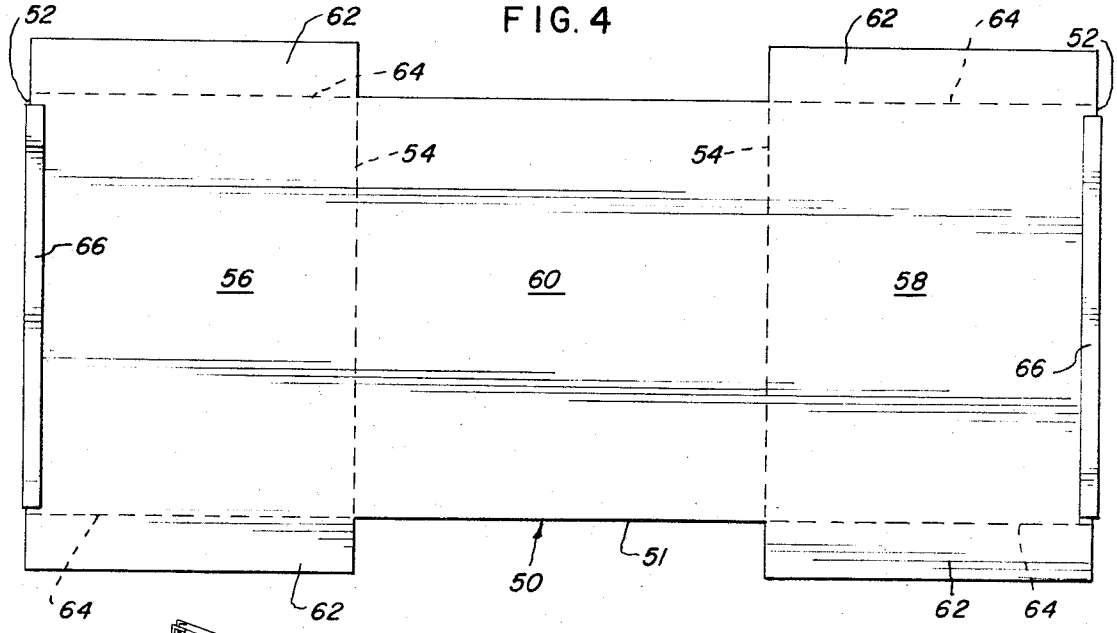


FIG. 5

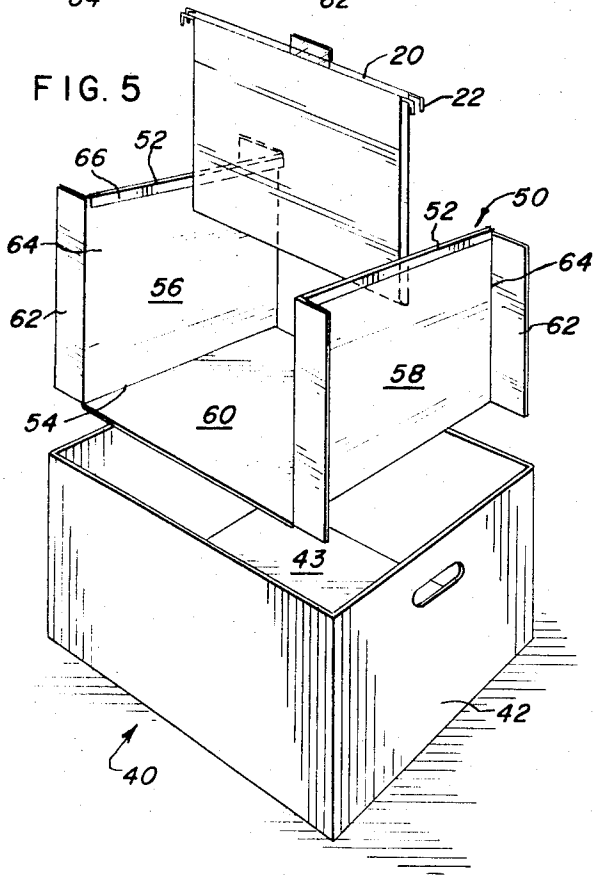
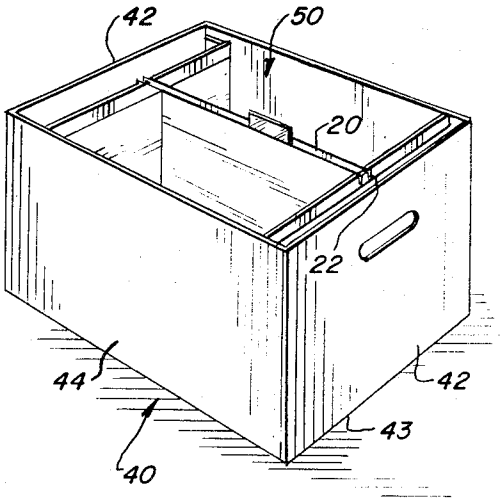


FIG. 3



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STORAGE BOX FOR STORING HANGING FILE FOLDERS

BACKGROUND OF THE INVENTION

The present invention relates to a storage box and, more particularly, to an insert means for use in combination with a storage box to enable the storage of a plurality of hanging file folders.

Those concerned with the development of storage containers have long recognized the need for an inexpensive collapsible storage box which is capable of conveniently storing conventional hanging file folders. Heretofore, it has not been possible to economically and practically convert any type of storage box into one suitable for use in storing a hanging file folder.

FIG. **1** discloses a prior art storage box which is suitable for use in storing a hanging file folder. It can clearly be seen that a conventional corrugated paper-board storage box **10**, having a pair of end walls **12** and a pair of side walls **14**, has been modified by placing a pair of parallel rails **16** across the top opening of the storage box **10**. The rails **16** are generally U-shaped and the two ends **18** of the rail **16** are embedded in the corrugated paper-board side walls **14** of the storage box. A conventional hanging file folder **20** having a pair of L-shaped hooks **22** is then placed such that the L-shaped hooks **22** rest on the rails **16**, thereby enabling the storage box **10** to store conventional hanging file folders.

A second prior art storage box is shown in FIG. **2**. A conventional four-sided corrugated paper-board storage box **30** is modified such that the end walls **34** are not perpendicular to the side walls **32** as in a conventional storage box. In this manner, the two L-shaped hooks **22** of the hanging file folder **20** may then be placed along the upper edges **36** of the end walls **34**, thereby enabling the storage of hanging file folders.

Although such prior art storage boxes have served the purpose, they have not proved entirely satisfactory under all conditions of service for the reason that considerable difficulty has been experienced in economically manufacturing such storage boxes and further, heretofore, it has not been possible to adapt all conventional storage boxes of any material or type of construction to enable the storage of hanging file folders.

SUMMARY OF THE INVENTION

The general purpose of this invention is to provide an insert means for use in combination with a conventional storage box to enable the storage of hanging file folders. To attain this, the present invention contemplates the utilization of a single piece insert means which can be placed within any conventional storage box, collapsible or non-collapsible, to enable the storage of at least one hanging file folder. The insert means has at least one pair of parallel edges and a pair of folds parallel to the parallel edges. The folds segment the insert means into three sections whereby the first and second sections are adapted to form a plane parallel to a first set of walls of the storage box, thereby enabling the pair of parallel edges to support the hanging file folder.

An object of the present invention is to provide a storage box capable of storing hanging file folders.

Another object is to provide an insert means which may be used in combination with a conventional storage box to enable the storing of conventional hanging file folders.

A further object is to provide an economical collapsible storage box capable of storing hanging file folders.

Still another object is to provide an insert means for use in a conventional storage box which does not require any taping and which may be inserted in a storage box to enable the storing of hanging file folders.

Other objects and many of the attendant advantages will be readily appreciated as the same becomes better understood by reference to the following detailed description when considered in connection with the accompanying drawings.

BRIEF DESCRIPTION OF THE DRAWINGS

FIGS. **1** and **2** are perspective views of two prior art storage boxes.

FIG. **3** is a perspective view of a storage box and an insert means constructed in accordance with the description of the preferred embodiment of the present invention.

FIG. **4** is a plan view of the insert means shown in FIG. **3** is an unfolded condition.

FIG. **5** is an exploded perspective view of the preferred embodiment of the invention.

FIG. **6** is a top plan view of the preferred embodiment of the invention.

DESCRIPTION OF THE PREFERRED EMBODIMENT

Referring now to the drawings, wherein like reference characters designate like or corresponding parts throughout the several views, there is shown in FIG. **3**, which illustrates the preferred embodiment of the invention, a storage box **40** having an insert means **50** inserted therein. Stored within the storage box **40** is a conventional hanging file folder **20** which is supported by the insert means **50**. The storage box **40** may be any conventional storage box or container having a pair of end walls **42**, a pair of side walls **44** and a bottom **43**, connected thereto. The storage box **40** may be constructed from a rigid material such as metal or plastic or may be constructed from a foldable material such as a corrugated paper-board material. It may be made in one piece or in several pieces in any conventional manner. One suitable storage box is disclosed in U.S. Pat. No. 3,018,029, issued Jan. 23, 1962. However, it will be understood that any four-sided storage box may be utilized in practising the invention.

Referring now to FIG. **4**, it can be seen that the insert means **50** is constructed from a single sheet of foldable material **51**. In the preferred embodiment, the material is a single sheet of paper-board. It will, however, be recognized that any other foldable material may be utilized, such as plastic or metal. The insert means **50** comprises a first pair of parallel edges **52** and a pair of folds **54** which are made substantially parallel to the parallel edges **52** and spaced therefrom. In the preferred embodiment, the pair of folds **54** are made by first scoring the paper-board material and then folding it. However, this is not essential and any suitable method for folding the material **51** may be utilized. The folds **54** segment the insert means **50** into three sections **56**, **58** and **60**. The distance between the two folds **54** is determined such that it is slightly larger than the width of the hang-

ing file folder **20** which is to be stored within the storage box **40** (see FIG. **5**). Thus, if the hanging file folder **20** were twelve inches wide, the space between the two folds **54** would be approximately 12¼ inches wide. However, it will e recognized by one skilled in the art that depending upon the width of the hanging file folder **20** to be stored, the distance between the folds **54** will vary accordingly. It will also be noted in FIG. **4** that sections **56** and **58** of the insert means **50** each includes a pair of flaps **62** extending therefrom. The flaps **62** are made foldable with respect to sections **56** and **58** by providing a fold **64** associated with each flap **62**. In the preferred embodiment, the fold **64** is made perpendicular to the pair of folds **54**.

Referring now to FIGS. **5** and **6**, it can be seen that the insert means **50** is adapted to be readily inserted within the storage box **40**. The single piece insert means **50** is folded along the fold **54** such that sections **56** and **58** form planes parallel to the end walls **42** of the storage box **40**. Each of the flaps **62** is folded along its respective fold **64** in a manner as shown in FIG. **5**. The flaps **62** are generally folded in a plane perpendicular to the plane of the sections **56** and **58** and function to position the insert means **50** within the storage box **40** in a proper position such that the sections **56** and **58** are spaced a preselected distance apart from the end walls **42** of the storage box **40**. The dimensions of the flaps **62** are not critical and need only be such that when the insert device **50** is inserted within the storage box **40**, enough clearance is present between the end walls **42** and the sections **56** and **58** such that the L-shaped hooks **22** of the hanging file folder **20** do not come in contact with the end walls **42**. After the flaps **62** and the sections **56**, **58** and **60** are folded, the insert means **50** is inserted into the storage box **40** such that the third section **60** of the insert means **50** rests on the bottom **43** of the storage box **40** and thus, in this manner, the parallel edges **52** of the sections **56** and **58**, respectively, form parallel rail surfaces capable of supporting a plurality of hanging file folders **20**. Lastly, in order to provide for smooth, sliding movement for the hanging file folders **20**, an optional glide means **66** may be provided along the parallel edges **52** such that the L-shaped hooks **22** of the hanging file folder **20** may readily slide upon them. In the preferred embodiment, the glide means **66** may be some suitable form of plastic. However, it will be recognized by one skilled in the art that the glide means **66** is not critical to the invention. In this manner, by utilizing the insert means **50**, any conventional storage box may be adapted to store hanging file folders.

It will be appreciated by one skilled in the art that the dimensions of the insert device **50** may be varied in accordance with the dimensions of the storage box **40** and of the hanging file folder **20** such that both legal size and regular size hanging file folders may be utilized. Further, while the preferred embodiment of the invention has been described in combination with a storage box, it will be recognized by one skilled in the art that any four-sided container may be utilized and that the foregoing disclosure relates to only a preferred embodiment of the invention and that numerous modifications or alterations may be made therein without departing from the spirit and the scope of the invention as set forth in the appended claims.

What is claimed is:

1. In combination with a storage box having a first pair of walls, a second pair of walls and a bottom connected thereto, the improvement comprising:

a unitary structure insert means adapted for insertion into said storage box to enable the storage of at least one hanging file folder, said insert means having,

at least one pair of parallel edges having sufficient strength to support the weight of a plurality of said hanging file folders and wherein each of said edges forms a substantially straight surface having no discontinuities therein, and

a first pair of folds parallel to said pair of parallel edges, said folds segmenting said insert means into three sections whereby the first and second sections are adapted to form a parallel to said first pair of walls of said storage box, thereby enabling said pair of parallel edges to support said hanging file folders, whereby the thickness of said third section is no greater than the thickness of said first and second sections and whereby said entire third section is supported by said bottom of said storage box.

2. The insert means of claim **1** further comprising:

means for positioning said insert means in said storage box wherein said first and second sections are spaced a preselected distance from said first pair of walls.

3. The insert means of claim **2** wherein said positioning means comprises:

a pair of flaps extending from each of said first and second sections of said insert means.

4. The insert means of claim **3** wherein said third section is supported by said bottom of said storage box.

5. The insert means of claim **4** further comprising a glide means placed on each of said parallel edges to facilitate the movement of said hanging file folders which are supported thereon.

6. The combination of claim **5** wherein said insert means comprises a single piece of foldable, stiff paperboard material.

7. In combination with a collapsible paperboard material storage box having a first pair of walls, a second pair of walls and a bottom connected thereto, the improvement comprising:

an insert means made of a single piece of foldable stiff paper-board material adapted for insertion into said storage box to enable the storage of at least one hanging file folder, said insert means having,

at least one pair of parallel edges having sufficient strength to support the weight of a plurality of said hanging file folders and wherein each of said edges forms a substantially straight surface having no discontinuities therein,

a first pair of folds parallel to said pair of parallel edges, said first pair of folds spaced a preselected distance apart from each other, said preselected distance being less than the distance between said first pair of walls whereby said first pair of folds segment said insert means into three sections, the first and second of said sections being adapted to form planes parallel to said first pair of walls and said third section, being intermediate of said first and second sections and whereby the thickness of said third section is no greater than the thickness

of said first and second and is supported by said bottom of said storage box, and

a second pair of folds on each of said two sections, said second pair of folds being perpendicular to said first pair of folds, thereby forming a pair of flaps extending from each of said two sections of said insert means, said flaps being adapted to position said insert means in said storage box and to space said first and second sections a preselected distance from said first pair of walls, thereby enabling said pair of parallel edges to support said hanging file folder.

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