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SHELF CONTAINER FOR FILM STRIP

Filed Nov. 12, 1970

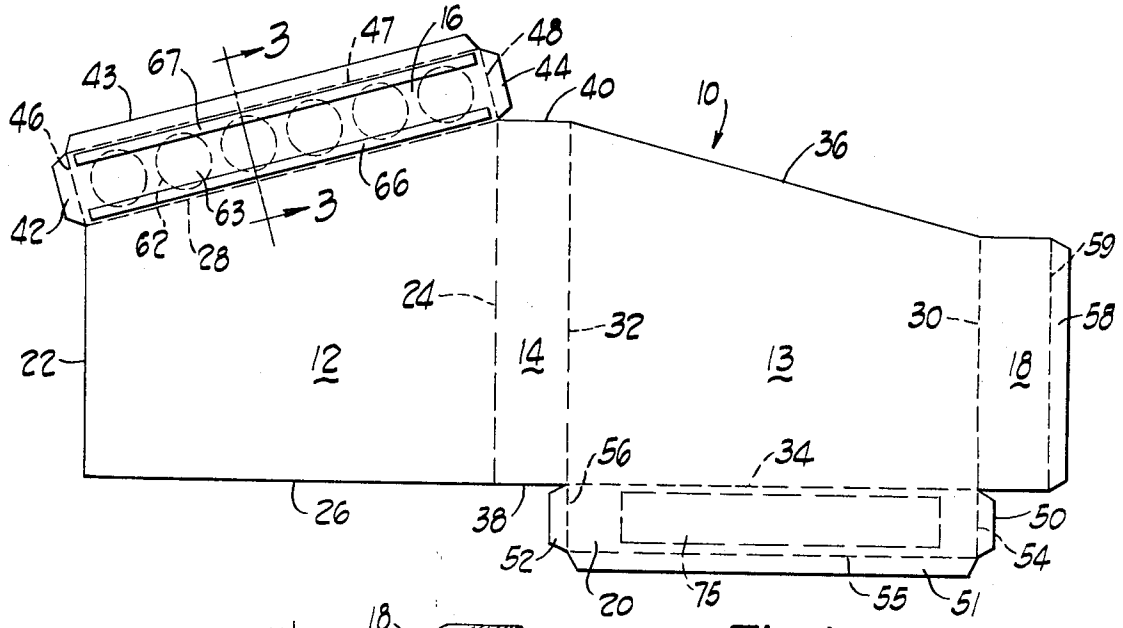


Fig. 1

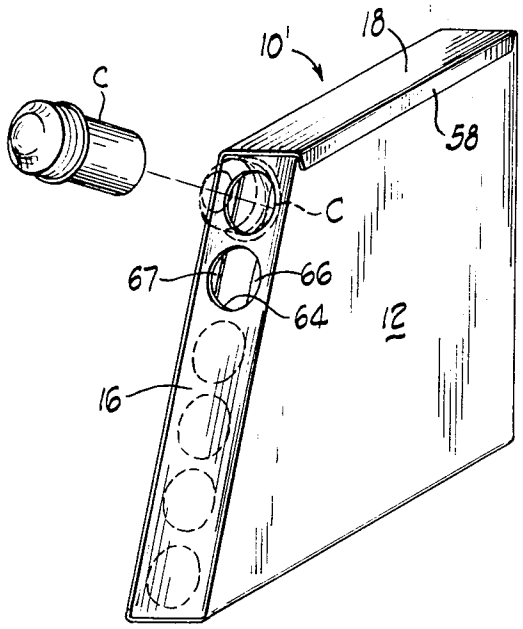


Fig. 2

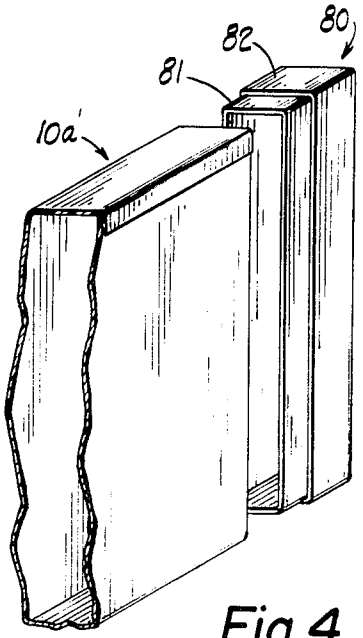


Fig. 4

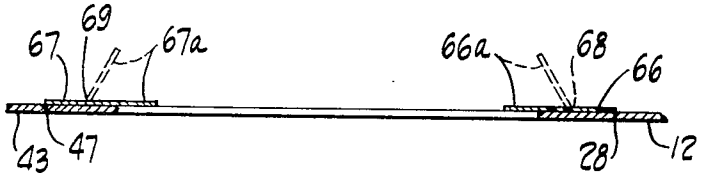


Fig. 3

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SHELF CONTAINER FOR FILM STRIP

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ABSTRACT OF THE DISCLOSURE

A container that holds film strips and related material for shelf storage and display. The container is box-like in construction, book-sized, and supports one or more film strip canisters in apertures along a narrower portion adapted to stand upright and face outwardly from a supporting shelf. A large opening is additionally provided for receiving material related to the film strip or strips, such as pamphlets, tape cassettes, or the like.

BACKGROUND OF THE INVENTION

Field of the invention

This invention relates to receptacles and more particularly to containers adapted to hold film strips and related printed or sound media for shelf storage and display.

Prior art

The present trend today toward the use of audiovisual materials for instruction and for independent study by students has led to the development and use of the so-called media library or resource center concept. In the media library or resource center, all teaching material, print and non-print are brought together at a centralized location, making them accessible to students and teachers. The various types of resource materials available for enhancing the educational process and typically found in a modern resource center or media library include film strips, slides, audio tapes, disc records, transparencies, book (including paperbacks), pamphlets, eight millimeter films, art prints, and the like. For optimum accessibility, these materials are best stored on open shelves of the resource center. Further, all types of media on a single subject should be shelved at a single location both for convenience and to apprise the students of the availability of the different materials as he searches the shelves. While books and pamphlets are readily indexed and stored on shelves, shelf storage for many non-print materials is awkward, wasteful of space, and sometimes impractical due to the nature of the materials. This is especially true of film strips. Typically, film strip canisters are merely boxed and stored in a cupboard or other off-the-shelf location. As a result, the availability of the film strips may remain unknown to those searching the shelves. In addition, the boxes themselves are not convenient to use, do not readily indicate to the librarian or to a student whether or not the film strip is within the box, and are often of somewhat elaborate and relatively expensive construction. Furthermore, there is no convenient way to assure that the film strips remain associated with specifically related subject matter, such as accompanying pamphlets or recordings.

SUMMARY OF THE PRESENT INVENTION

The present invention relates to a container that provides open shelf storage for film strips, in the same manner that a book is stored on a shelf. The container holds a plurality of film strip canisters exposed to view and removable from the container without the necessity of opening the container or, for that matter, removing the container from the shelf. In addition, the container is constructed to hold related source material, such as a tape cartridge, pamphlets or the like, thereby keeping all related material together. Along with these advantages, the container is also inexpensive and can be readily assembled from a flat blank, which facilitates both the shipment of the containers for subsequent assembly and also the convenient storage of a supply of containers at a resource center, where the librarian can assemble the container, apply the necessary indexing indicia, and transfer film strips from cartons or boxes to the container, for shelf storage.

Containers embodying the present invention are generally box-like, narrow in width, being slightly wider than a film strip canister, and approximately book size so that they can be conveniently stored on a library shelf while occupying a minimum of space. A preferred construction is readily fabricated from a prescored blank of foldable material, such as heavy carboard, and includes a narrow front wall adapted to stand up-right during storage, and which corresponds to the back or spine of a book. The front wall has one or more apertures of a size and shape adapted to receive a film strip canister or is scored to provide blanks that can be pressed out of the front wall, to provide such apertures. The apertures are typically circular and vertically aligned, of a size to snugly receive film strip canisters with the larger diameter cover portion remaining outside of the container, exposed to view.

A relatively large opening, typically at the back of the container opposite the front portion that corresponds to the back or spine of a book, provides access to the interior of the container and serves to receive pamphlets, tape cassettes, or the like. By providing a small lip around this aperture, additional reinforcement is provided to the container to aid in withstanding pressure from all sides, and the need for a cover is eliminated. Optionally, at somewhat additional expense, a cover can be provided.

In a preferred embodiment, the front wall containing the apertures is inclined at an acute angle relative to a bottom supporting surface. This not only aids in retaining the canisters in the aperatures, but also locates them more conveniently to view on shelves lower than eye level.

By providing score lines for apertures, rather than prepunching apertures, along the front surface, only those apertures that are to receive film strip canisters need be completed, when the container is assembled. This has the advantage of indicating, whenever an aperture is empty, that a canister belongs in the container, but has been removed for use.

A particular advantage of the present invention is that it permits storage of film strips on book shelves, with other source material, in a natural sequence, to facilitate the indexing of such film strips into the Dewey-decimal or other library classifications used for printed subject matter.

It will be apparent from the above that a principal object of the present invention is the provision of an inexpensive yet sturdy container that will facilitate open-

shelf storage of film strips together with related source material alongside books and other printed material, and which will expose the film strip canisters to direct view and for convenient removal, without the necessity of opening the container. This and other objects, features and advantages of this invention will become more apparent from the detailed description that follows, when considered in connection with the accompanying drawings.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a plan view of a blank formed to be foldable into a shelf container for film strip canisters and related pamphlets and tape cassettes;

FIG. 2 is a perspective view of a shelf container formed from the blank of FIG. 1;

FIG. 3 is a transverse sectional view of the blank of FIG. 1, taken along the line 3—3, with the aperture-forming blank intersected by the line 3—3 removed; and

FIG. 4 is a partial perspective view of a second embodiment of a shelf container, having a modified cover and back construction.

DETAILED DESCRIPTION OF PREFERRED EMBODIMENTS

With reference to the drawings, FIG. 1 shows a flat blank **10** for forming a container or receptacle adapted to hold film strips in canisters and related printed or sound media, for shelf storage and display. Preferably, from the standpoint of cost, acceptable strength and durability, minimum shipping weight, and ease of assembly, the blank is constructed of heavy cardboard. Alternatively, the blank may be constructed of other materials, including thin sheet metal, plastic, or other suitable material. When the blank **10** is folded and the panels secured together, a container **10'** is formed, as shown in FIG. 2.

Referring now to both FIGS. 1 and 2, the blank **10** and formed container **10'** are comprised of two side panels **12, 13**, a base panel **14**, a front panel **16**, a top panel **18**, and a back panel **20**, all connected and preferably of one-piece construction. Each of the two side panels **12, 13** are in the shape of a trapezoid in the preferred embodiment. The side panel **12** has a top edge **22** parallel to a bottom fold line **24** that forms the bottom edge of the trapezoid side panel **12**. The top edge **22** is shorter than the bottom fold line or edge **24**. Side panel **12** also has a back edge **26** perpendicular to the top and bottom edges **22, 24**, and a fold line **28** that forms a front edge at an acute angle with the bottom edge **24**.

The side panel **13** is of identical size and shape to the side panel **12**, but in mirror-image relationship. Thus, the side panel **13** has a fold line **30** forming a top edge and a fold line **32** parallel thereto, forming a bottom edge. The top edge **30** is shorter than the bottom edge **32**. A fold line **34** forming a back edge is perpendicular to the top and bottom edges **30, 32**. A front edge **36** joins the top and bottom edges and extends at an acute angle to the bottom edge **32**.

The rectangular base **14** lies between the two side panels **12, 13**, and is formed by the fold lines or edges **24, 32**, and by a back edge **38** and a front edge **40**. The back edge **38** is a straight-line extension of the back edge **26** of the side panel **12**. The front edge **40** extends contiguous with the front edge **36** of the side panel **13**, but at an angle thereto, the front edge **40** being parallel to the back edge **38**. Preferably, the fold lines **24** and **32** are scored or formed of spaced cuts, or creased to facilitate folding the side panels **12, 13** along the fold lines into parallel relationship, in a direction upward from the plane of the blank **10** as shown in FIG. 1, i.e., toward the viewer.

The rectangular front panel **16** is co-extensive with the side panel **12** along the fold line or front edge **28**. The fold line **28** is scored, weakened or otherwise constructed to facilitate the folding of the front panel **16** relative to the side panel **12**.

The top panel **18** is co-extensive with and attached to the side panel **13** along the fold line or top edge **30**, which is constructed similarly to the fold lines **24, 28** and **32**. The rectangular back panel **20** is co-extensive also with the side panel **13**, along the fold line or back edge **34** and is attached thereto, the fold line **34** being constructed similarly to the fold line **30**.

To facilitate securing the aforementioned panels together to form the container **10'**, the front, top and back panels each have flaps. The front panel **16** has flaps **42, 43, 44** on the three sides that are not contiguous with the side panel **12**. The flaps are adapted to be folded inward, i.e., upward in the orientation of FIG. 1, and to be overlapped by the panels **18, 13** and **14**, respectively. Each of the flaps **42, 43, 44** of the front panel **16** is defined by a fold or score line **46, 47, 48**, respectively.

In a similar manner, the back panel **20** has flaps **50, 51, 52** defined by fold lines **54, 55, 56**, respectively, and adapted to be folded upward from the plane of the blank **10**, in the orientation of FIG. 1, at right angles to the panel portion **20**, and to be overlapped by the top panel **18**, side panel **12**, and bottom panel **14**, respectively. The top panel **18** has a flap **58** formed by a fold line **59** parallel to the fold line or edge **30**. The flap **58** is adapted to be folded upward at right angles to the panel **18**. When the blank **10** is assembled into the container **10'**, the flap **58** overlaps the top edge **22** of the side panel **12**, extends along the outer upper surface portion of panel **12**, immediately adjacent to the edge **22**. By overlapping the flap **58** on the outside surface of the side panel **12**, the flap can be secured with a suitable adhesive, without requiring access to the interior of the container, assuming that the panel **18** is that last panel to be folded into position, during assembly. Alternatively, the flap **58** can be inserted into the interior of the container, so as to lie adjacent the edge **22** of the side panel **12**, to be secured to the interior surface of the side panel, if access to the interior is provided during assembly through the back panel **20**, as will be apparent subsequently from the construction of the back panel **20**.

In addition to the flap construction of the front panel **16**, additional curved spaced cuts **62** are provided, forming a plurality of circular blanks **63**. Each blank, when removed, forms an aperture **64** (see FIG. 2), suitable for holding a film strip canister C. In the embodiment shown, six such score lines **62** are provided along the length of the panel **16**, spaced uniformly and providing a marginal portion along opposite sides, adjacent the fold lines **28** and **47**. In the preferred embodiment shown, adapted to receive film canisters having a one and one-half inch diameter, the blanks **63** are scored to have a one and one-half inch diameter, are spaced apart on **1** and three-fourth to two inch centers, and the width of the panel **16** is approximately two inches. Alternatively, rather than providing score lines **62** to form blanks **63** for subsequent removal, the apertures **64** can be directly formed during the manufacture of the blank **10**. It is preferred, however, to provide the blanks **63** for subsequent removal, because with that construction only those blanks required for the particular film strips to be stored in the particular container need be punched out. In this manner, in use, an empty or open aperture **64** will be an indication that a film strip canister belongs in the container, but has been removed.

Two strips **66, 67** are secured to the inside surface of the panel **16** and extend along the length thereof. The strip **66** extends along the fold line **28** and the strip **67** extends along the fold line **47**. As best shown in FIG. 3, these strips are of a width that extends part way across side portions of each aperture **64** or blank **63**. The strip **66** has a longitudinal fold line **68** and the strip **67** has a longitudinal fold line **69**, which are located between the apertures **64** or cuts **62** and the adjacent respective fold

line 28 and 47. Each strip is secured, as by a suitable adhesive, to the inside surface of the panel 16 only along that portion of the strip between the respective fold line 68 or 69 of the strip and the adjacent longitudinal edge 28 and 47, respectively. With this construction, the unsecured portion 66*a* and 67*a* of each strip can be folded inwardly of the panel 16 in assembled condition, as will be apparent from FIGS. 2 and 3, when a film strip canister C is inserted into an aperture 64. The overlapping portions of the strips will be pushed inwardly by the canister out of overlapping position with the apertures. This is indicated by the dotted line position in FIG. 3. Inherent resiliency of the material forming the strips 66, 67 will hold them biased against the sides of a canister C inserted into the aperture. If it is desired, each portion of the strips 66, 67 that overlaps individual apertures 64, can be made to function independently from the rest of the strip, by providing cuts laterally of the strips, from the unsecured side edge to the fold line 68, 69. In this manner, when one portion of each strip is biased inwardly or forced inwardly by the insertion of a canister C, the remainder of the strip portions will remain in overlapping condition. This assures that the strip portions adjacent each aperture will function to securely hold the individual canisters, rather than being held in a removed position by one or more other canisters, which tends to reduce the contact pressure against the side of a particular canister.

The back panel 20 has a scored or pre-cut rectangular shaped aperture 75, adapted when removed from the back panel 20, to form an opening or aperture into the container 10'. As shown in FIG. 1, the edges of the blank 75 are spaced inwardly from the adjacent edges of the panel itself, and are parallel thereto. The portion of the back panel between the edges 54, 55, 56 and 34 of the panel and the blank 75 provides a partial transverse rear wall to the container 10' after the blank has been removed and adds rigidity and reinforcement to the container to hold the side panels 12, 13 apart against lateral forces, and also serves to retain pamphlets, cassettes, and the like within the container, yet provides an opening to the interior.

It is contemplated that the outside surface of the blank 10 can be printed with a color or pattern, or may be covered with a decorative sheet of paper, cloth or the like for appearance purposes.

As will be evident from the above description, the blank 10 is formed into the container 10' by folding the side panels 12, 13 in an upward direction in the orientation of FIG. 1, toward the viewer, so that when the front panel 16 is folded at right angles to the panel 12, the strips 66, 67 will be on the inside of the container. The front panel 16, the back panel 20, and the top panel 18, are all folded upward in the orientation of FIG. 1, perpendicular to the panels to which they are attached, and the associated flaps of the front, back and top panels are folded inward, i.e., upward or toward the viewer in the orientation of FIG. 1, at right angles to the panels to which they are attached, except for the two flaps 42, 44 associated with the front panel 16. The flap 42 is folded to form a somewhat greater angle than a 90 degree angle and the flap 44 is folded to a somewhat smaller angle than a 90 degree angle, due to the inclined angular relationship of the front edges 28 and 26 with the planes of the bottom panel 14 and top panel 18. Typically, the angle of the front panel 16, to the bottom panel 14 will be between 60 degrees and 90 degrees, preferably about 75 degrees.

All of the flaps of the front and back panels are overlapped by the adjacent front, side or bottom panel, when the container 10' is formed, so that the flaps are positioned within the interior of the container 10'. This enhances the appearance and has the further advantage of avoiding externally exposed flap edges that would be subjected to tearing, loosening or catching or adjacent books, pamphlets or other containers on a shelf. In the event the back panel opening blank 75 is removed prior to assembly of the container 10', the flap 58 can also be positioned inside the container, since access to the interior can be obtained through the aperture formed by the removal of the aperture blank 75. It will be understood that access to the interior, either through the top or the back aperture, is desirable during assembly so that pressure can be applied to the inside as well as the outside of the container in adhering the flaps to the adjacent panel. The flaps may be provided with a suitable adhesive limited to the flap area and applied by the manufacturer, or the blanks can be provided without adhesive, the adhesive being applied at the time of assembly. Adhesive, if provided originally on the blank, may be of the self-adhering type, covered with a protective but readily removable covering, or alternatively may be of a dry, water-activated type typically used on envelope flaps, or of some other suitable type. Prior to or after assembly, the front aperture blanks 63 and the back aperture blank 75 are punched out, but only the aperture blanks 63 are removed that are necessary to accommodate the number of film strip canisters desired to be stored in the particular container 10'.

In use, the container is placed on a shelf, upright like a book, with the front panel 16 facing outward. One or more canisters C are inserted into apertures 64 that have been formed, and are held in place by the flaps 66*a*, 67*a*. Canisters are typically inserted bottom end inward, up to the cap, which is of larger diameter and prevents the canisters from sliding completely into the container. Associated pamphlets, cassettes or the like are inserted into the container through the back opening 75. If desired, a separate means for holding tape cassettes can be secured to the inside of the container, as to the inside surface of one of the side panels 12, 13. For example, a preformed plastic receptacle can be placed within the container 10' or a cardboard bracket or pocket can be formed to receive and hold the cassette. Canisters, when held with the covers outside the front panel 16, are retained both by gravity and the flaps 66*a*, 67*a*. When one of the canisters has been removed, it is readily apparent due to the presence of the empty aperture 64. If all of the blanks 63 have not been removed the number of canisters, if any, that are in use can be readily determined.

A modified construction 10*a*' is shown in FIG. 4, identical to the container 10' of FIG. 2, except that the original blank is formed without a back panel 20 so that the container has a completely open back portion defined by the side panels 12, 13, the bottom panel 14, and the top panel 18. A separate back closure or cover is provided, of telescoping construction of double thickness and rectangular shape, having an extending portion 81 adapted to telescopically slide within the back aperture of the container, so that an outside layer 82 abuts the back aperture in a flush relationship, providing an attractive and secure cover or back for the container 10*a*'. By virtue of the back cover 80, the container 10*a*' is somewhat sturdier than the container 10' and the back of the container is completely closed. On the other hand, the embodiment has the disadvantage that the cover 80 cannot be shipped flat, without necessitating substantial additional assembly steps to form the container.

From the above description, it will be seen that an economical and useful shelf container has been provided, that receives and stores film strip canisters and at the same time displays the canisters and provides storage for related material so that both the film strips and the related material are located together at a convenient place on a shelf. The container can be labeled and cataloged externally, on the front surface, if desired. To the extent that labeling on the front panel 16 is desired, additional height may be provided, without increasing the number of aperture blanks 63 so as to provide a portion of the front surface available and useable only for labeling. In the preferred embodiment, the blank 10 can be shipped flat to a library or resource center, stored conveniently until needed, and then be easily assembled by the librarian or resource center director, for receiving film canisters

and associated materials. This container makes it possible to keep all media relating to a given subject on a book shelf, in proper location with other material in the resource center or library.

While preferred embodiments of this invention have been disclosed in detail, it will be understood that various modifications may be made therein, without departing from the spirit and scope of the invention set forth in appended claims.

What is claimed is:

1. A container adapted to stand on a book shelf or the like and constructed to support and display one or more film strip canisters, said container being in the form of a box-like structure that is narrow relative to its height and depth and comprising two parallel, laterally spaced, thin, side wall portions connected by relatively narrow and thin transverse wall portions, including one wall portion adapted to face outwardly from a supporting shelf on which said container may be placed, said one wall portion and at least one side wall being continuous and integral, the juncture therebetween defining a right angle, and one or more apertures extending through said one wall portion of a width substantially large with respect to the width of said one wall portion and shaped to receive a film strip canister in a snug fashion with a portion of the canister extending through said one wall portion into the container and a portion extending outward from said one wall portion.

2. A container as defined in claim 1 including tabs secured within the container adjacent said one wall portion with a non-secured edge portion at least in part overlying said one or more apertures and serving to frictionally engage a canister received in an aperture.

3. A container as defined in claim 1 wherein said one wall portion extends the height of said container and forms a front wall thereof, said transverse wall portions include a flat portion adjoining said front wall portion and adapted to form a support base and wherein said front wall portion is flat and is inclined at an actuate angle relative to said base.

4. A container as defined in claim 3 wherein said transverse wall portions include a further flat portion forming a back and adjoining said base at an opposite end thereof from said front wall portion, said back having a central aperture extending a substantial portion of the length and width thereof, providing both transverse reinforcement and an opening to the interior of said container.

5. A container as defined in claim 1 wherein said side wall and transverse wall define an opening to the container between said side walls and said container further includes a cover member in part received in telescoping fashion in said opening between the side walls for closing said opening.

6. A container as defined said wall portions are one piece and formed of cardboard.

7. A container adapted to stand on a book shelf or the like and constructed to support and display one or more film strip canisters and to contain related matter, such as printed and recorded matter, said container being in the form of a box-like structure that is narrow relative to its height and depth and comprising two parallel, laterally spaced, thin side wall portions connected by relatively narrow and thin transverse wall portions, including one wall portion adapted to face outwardly from a supporting shelf on which said container may be placed, said one wall portion and at least one side wall being continuous and integral, the juncture therebetween defining a right angle, said side wall and transverse wall portions defining an opening to the container between said side walls, and a plurality of perforations in said one wall portion delineating blanks which, when removed, provide apertures shaped to receive film strip canisters in a snug fashion with a portion of the canister extending into the container and a portion extending outward from said one wall portion.

8. A container as defined in claim 7 wherein said transverse wall portions include a flat portion adapted to form a support base and wherein said one wall portion is flat and is inclined at an acute angle relative to said base.

9. A container blank adapted to be folded or bent into a box-like container that will stand on a book shelf or the like for supporting and displaying one or more film strip canisters and for containing related matter, such as printed and recorded matter, said blank having at least five connected panel portions defined by score lines, including two identical shaped side panel portions adapted to form parallel, transversely spaced, side walls and three rectangular-shaped transverse wall portions adapted to adjoin one another to form three connected transverse walls between said sidewalls, a plurality of flaps extending from panel portions of said blanks for securing adjacent panel portions together, and a plurality of aperture-delineating score lines in one of said transverse wall portions adapted to facilitate the selective forming of apertures therein that will receive and hold film strip canisters.

10. A container blank as defined in claim 9 wherein said side panel portions are in the shape of trapezoids, with one of two non-parallel edges of each being perpendicular to the two parallel sides thereof and the other of said non-parallel edges of at least one said side panel portions adjoining the transverse wall portion that contains the aperture delineating score lines.

11. A container adapted to stand on a book shelf or the like and constructed to support and display one or more film strip canisters and to contain related matter, such as printed and recorded matter, said container being in the form of a box-like structure that is narrow relative to its height and depth and comprising two parallel, laterally spaced, side wall portions connected by relatively narrow transverse wall portions, including one wall portion adapted to face outwardly from a supporting shelf on which said container may be placed, said side wall and transverse wall portions defining an opening to the container between said side walls, one or more apertures in said one wall portion of a width substantially large with respect to the width of said one wall portion shaped to receive a film strip canister in a snug fashion with a portion of the canister extending into the container and a portion extending outward from said front wall portion, and tabs secured within the container adjacent said one wall portion with a non-secured edge portion at least in part overlying said one or more apertures and serving to frictionally engage a canister received in an aperture.

12. A container blank adapted to be folded or bent into a box-like container that will stand on a book shelf or the like for supporting and displaying one or more film strip canisters and for containing related matter, such as printed and recorded matter, said blank having at least five connected panel portions defined by score lines, including two identical shaped side panel portions adapted to form parallel, transversely spaced, side walls and three rectangular-shaped transverse wall portions adapted to adjoin one another to form three connected transverse walls between said sidewalls, a plurality of flaps extending from panel portions of said blanks for securing panel portions together, and at least one aperture-defining boundary in one of said transverse wall portions of a size and shape suitable for receiving and holding film strip canisters.

13. A container blank as defined in claim 12 wherein said side panel portions are in the shape of trapezoids, with one of two non-parallel edges of each being perpendicular to the two parallel sides thereof and the other of said non-parallel edges of at least one said side panel portions adjoining the transverse wall portion that contains the aperture-defining boundary.

14. A container adapted to stand on a book shelf or the like and constructed to support and display one or more film strip canisters, said container being in the form of a folded cardboard structure that is narrow relative to its height and depth and comprising two parallel, laterally

spaced, thin, side wall portions connected by relatively narrow and thin transverse wall portions at least some of which are interconnected through tabs, including one inclined wall portion adapted to face outwardly and upwardly relative to a supporting shelf on which said container may be placed, and one or more apertures extending through said inclined wall portion of a width substantially large with respect to the width of said inclined wall portion shaped to receive a film strip canister in a snug fashion with a portion of the canister extending through said inclined wall portion into the container and a portion extending outward from said inclined wall portion.

15. A container as set forth in claim **14** further including means to receive and hold a tape cassette.

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JAMES T. McCALL, Primary Examiner

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