United States Patent [19]

Nawman

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[45] **Feb. 12, 1974**

[54] **TELEPHONE BOOK HOLDER**

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[21] Appl. No.: **290,134**

[52] **U.S. Cl.** **281/46,** 248/447

[51] **Int. Cl.** **B42d 17/00**

[58] **Field of Search** ... 281/46, 47; 248/447; 16/152, 16/154

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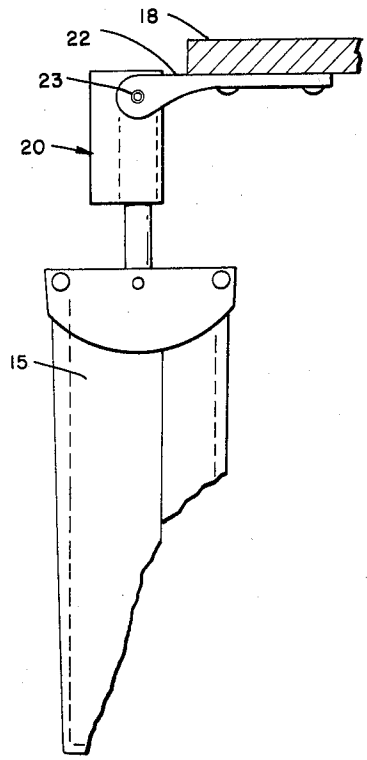
Primary Examiner—Wm. H. Grieb

Attorney, Agent, or Firm—Harris Zimmerman

[57] **ABSTRACT**

A book container employs metal rods interleaved among the pages of a book or passed through the spine of a book to hold the book within hinged, semi-rigid covers which are spring-biased to a closed position. The container depends subjacently from a shelf and parallel to the edge of the shelf by means of a doubly-pivoting bracket. The bracket allows the container to be revolved onto the shelf and rotated to be positioned for normal viewing of the book. The pivot shaft includes a transverse radial pin riding an annular cam, the weight of the container when depending from the bracket causing the pin to traverse the cam surface and rotate the container and return it parallel to the shelf edge.

8 Claims, 13 Drawing Figures



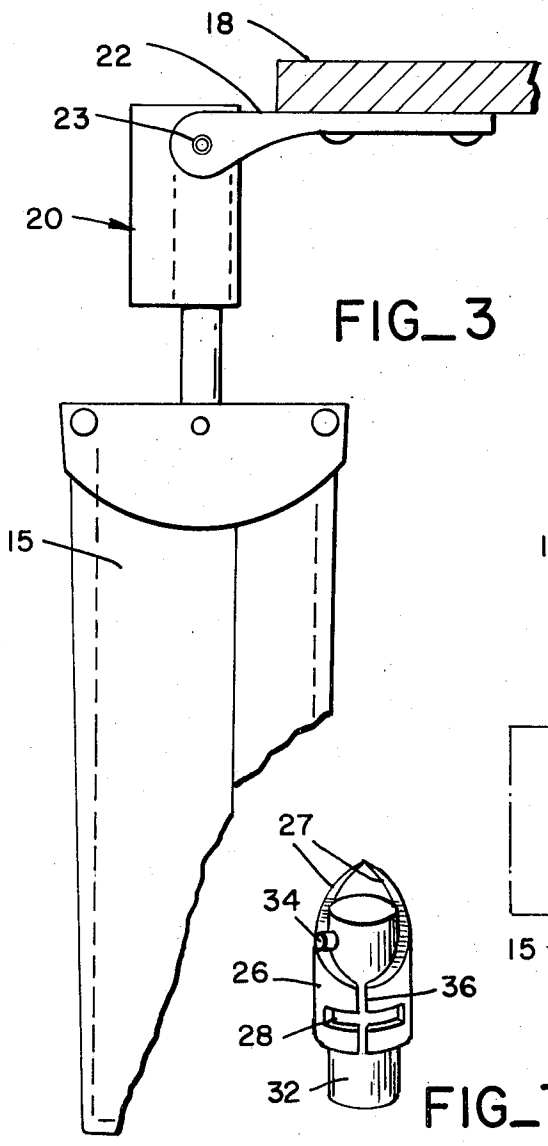


FIG_3

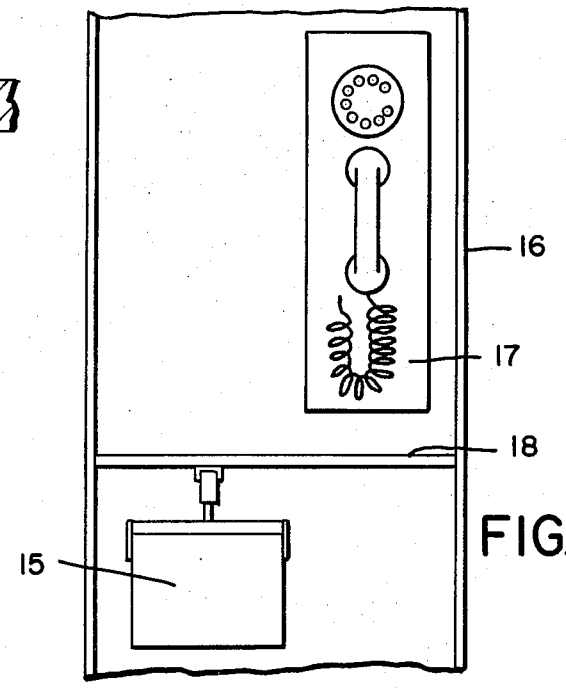


FIG_1

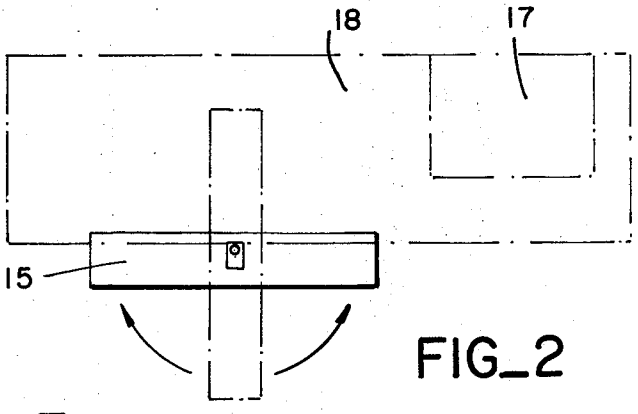


FIG_2

FIG_7

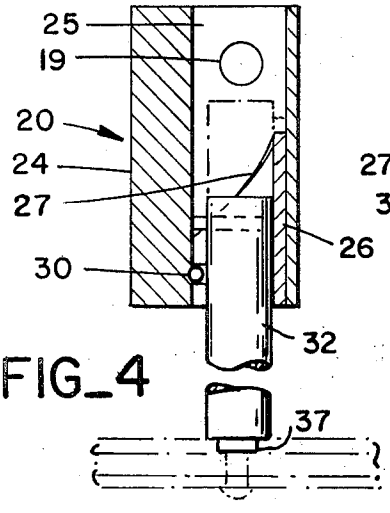


FIG_4

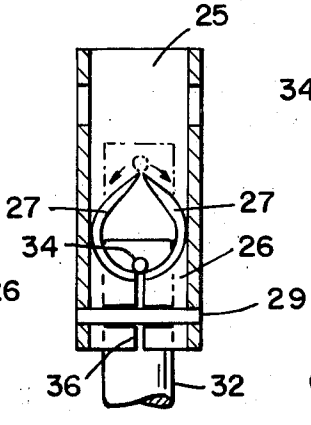


FIG 5

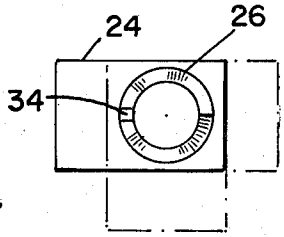


FIG_6

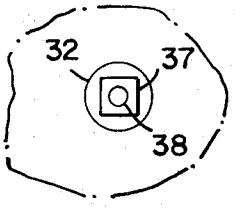


FIG_8

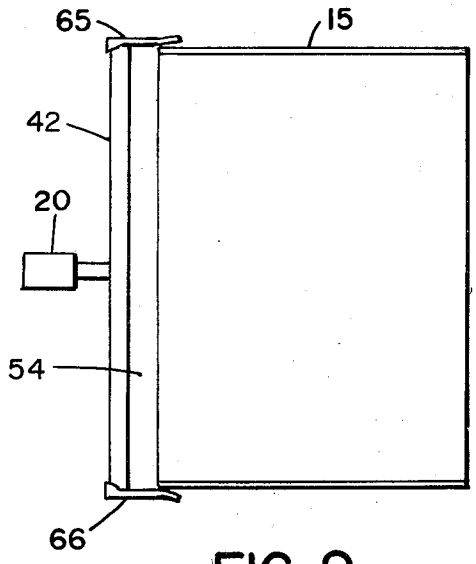


FIG_9

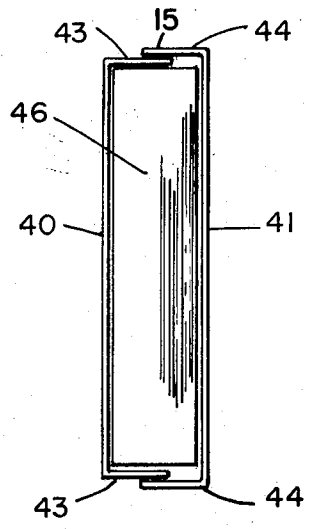


FIG_10

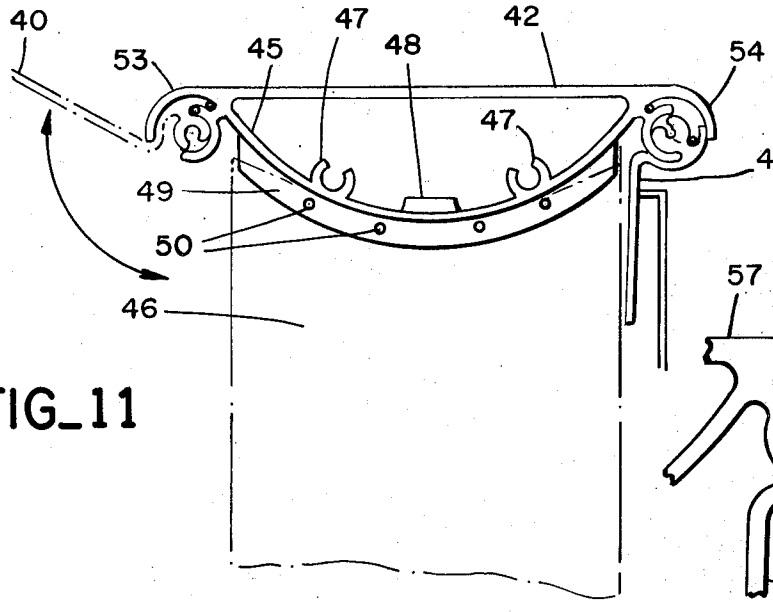


FIG_11

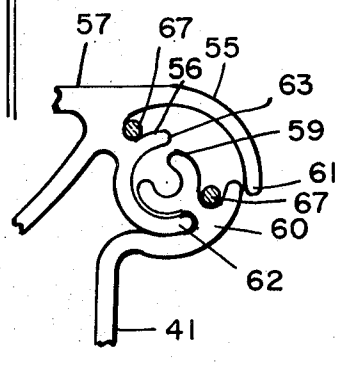


FIG_12

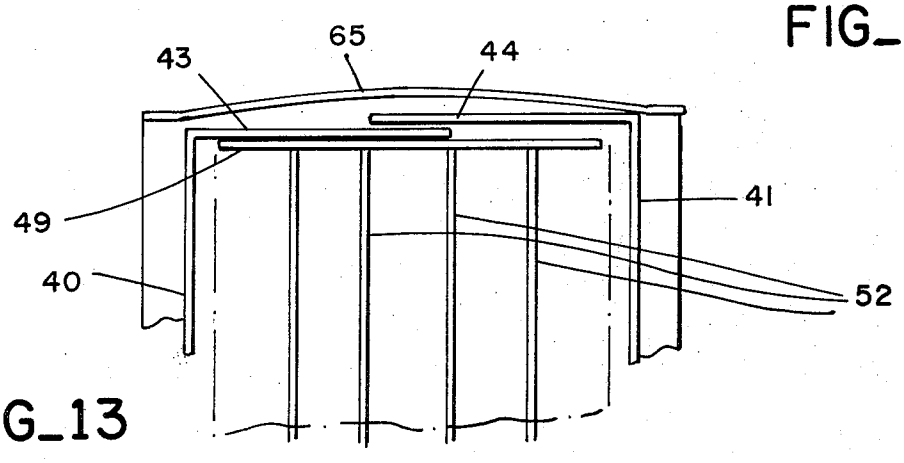


FIG_13

TELEPHONE BOOK HOLDER

BACKGROUND OF THE INVENTION

Reference books which receive frequent use have often been encased in protective enclosures. These books, such as telephone directories, catalogues, dictionaries, and the like, must be protected from wear while at the same time being readily available for viewing. And, because these books may be valuable or difficult to replace, they must be protected from theft. Telephone directories in particular, because they are often subject to theft and to extreme wear conditions, must be housed in a protective container.

These directories, which are usually situated within the confines of a telephone booth, must be stored in a manner which does not interfere with the use of the telephone, yet must be available to the user. Prior art devices, which typically hold the directory in a hard-cover enclosure suspended from a chain, are difficult to use and readily removed by thieves and vandals. Other devices, which pivot from below a shelf, hold the directory perpendicular to the shelf and jutting into the space occupied by the user.

SUMMARY OF THE INVENTION

The present invention is directed to a book container which stores a book within semi-rigid hinged covers which completely enclose and protect the book. The book is held within the container by means of metal rods which are either interleaved among the pages of the book or passed through the spine of the book. The container depends subjacently from a shelf or other horizontal member by means of a shaft secured perpendicularly to the spine of the container. The shaft is held within a cylindrical opening in a pivot bracket by a radial pin through the shaft which impinges on an annular cam member within the cylindrical opening. The weight of the hanging container causes the radial pin to ride the cam surface, rotating the shaft and container to a predetermined storage orientation.

The pivot bracket is joined to a supporting arm by a second pivot shaft transverse to the first shaft, allowing the container to be revolved from the storage position below the shelf to a viewing position on the shelf surface, while being rotated to the proper viewing orientation. The hinged covers may then be opened to view the book. After the book has been satisfactorily perused by the user, the hinged covers, which are spring biased, close to protect the book. The container is then revolved to below the shelf, where its weight causes it to rotate out of the way of the user.

THE DRAWINGS

FIG. 1 is a plan view of the present invention employed in a telephone booth.

FIG. 2 is a top view of the present invention.

FIG. 3 is a side view of the present invention.

FIG. 4 is a sectional side view of the cammed pivot.

FIG. 5 is a front sectional view of the cammed pivot.

FIG. 6 is a top view of the cammed pivot of the present invention.

FIG. 7 is a detail perspective view of the pivot shaft within the cam.

FIG. 8 is a bottom view of the pivot shaft.

FIG. 9 is a front view of the cover portion of the present invention.

FIG. 10 is a side view of the cover portion.

FIG. 11 is a top sectional view of the cover portion of the invention.

FIG. 12 is a detail top view of a hinge of the cover portion.

FIG. 13 is a sectional end view of the cover portion of the invention.

DESCRIPTION OF THE PREFERRED EMBODIMENT

As shown in FIG. 1 the book container 15 of the present invention typically may be employed in a telephone booth 16 containing a telephone 17 and a shelf 18. The container depends vertically from the shelf and, as shown in FIG. 2, parallel to the edge of the shelf. The vertical pivot 20 allows the container to be rotated clockwise or counterclockwise perpendicularly to the edge of the shelf, as shown in phantom line in FIG. 2.

The container is secured to the underside of the shelf by means of a bracket 22 which is bolted or otherwise affixed to the shelf. The end of the bracket projecting from the shelf is formed into a hinge 23 with the hinge pin horizontal and parallel to the shelf edge. This hinge allows the container 15 to be revolved from the storage position shown in FIG. 3 to a position above the shelf where the book within the container may be used. At the same time the container may be rotated about vertical pivot 20 to properly orient the book within for reading.

The vertical pivot 20 consists of a housing 24 with a cylindrical passage 25 therethrough, as shown in FIG. 4. A cylindrical hole 19 transverse and radial to passage 25 receives the hinge pin of hinge 23. Within the passage 25 is an annular cam 26 with opposed spiral edges 27, as shown in FIG. 7. A transverse slot 28 cooperates with a pin 29 passed through a hole 30 in the housing to secure the cam vertically and rotationally in place. A pivot shaft 32 received within the cam carries a radial riding pin 34 which bears on the cam surface.

When the container is initially revolved to below the shelf, the pivot shaft 32 is in the position shown in phantom in FIG. 4 and FIG. 5. The weight of the book and container causes the shaft 32 to descend vertically downward within the cam 26, the riding pin 34 riding on the cam surface and rotating the shaft either clockwise or counterclockwise, as shown in FIG. 7. The descent and rotation continues until the pin 34 comes to rest in the slot 36 of the cam, as shown in FIG. 5. The container 15 secured to the lower end of the shaft 32 is thus rotated parallel to the shelf, as shown in FIG. 2.

It should be noted that the shaft 32 and container 15 will always come to rest in the same position. And as shown in FIG. 6, despite the initial orientation of the container when revolved to below the shelf, the action of the cam and riding pin will return the container to desired position parallel to the shelf. Further, the doubly-pivoting bracket assembly, when properly installed, is virtually tamper-proof.

The lower end of the shaft 32 terminates in a square end 37 which is received in a square hole in the back of the container 15. A bolt or rivet or other means of securance is received through the hole in the back of the book and secured within an axial hole 38 in the

shaft **32**, affixing the container to the shaft. If it is desirable in a particular shelf or counter installation that the container comes to rest perpendicular to the edge of the structure, the container may be secured to the shaft in an orientation 90° from that shown in FIG. **4**. If other orientations are desired, the box end **37** of the shaft **32** may be modified accordingly.

The container **15** of the present invention comprises covers **40** and **41** hinged to a back support **42**. Cover **40** has sides **43** which protect the book **46** and fit within the sides **44** of the cover **41** to form a protective enclosure (as shown in FIG. **10**) for the book. The covers are preferably formed of a stiff, flexible material which maintains its shape yet can withstand the bending of normal use. Within the back support and secured thereto is a rigid, arcuate spine **45**, as shown in FIG. **11**. The arcuate shape not only provides strength to the spine, but also allows the book enclosed within the container to be opened easily. The spine carries longitudinal strengthening members **47** which are formed in partial cylindrical cross-section, and longitudinal strengthening member **48** along the center of the spine.

A flange **49** projecting perpendicularly from the spine has spaced holes **50** therethrough with support rods **52** depending through the holes, as shown in FIG. **13**, and being received by similarly spaced holes in a cooperating flange projecting from the other end of the spine. These support rods may pass through the backing of the book **46** or may be interleaved among its pages to securely affix the book within the container **15**. The ends of the support rods may be bent or expanded to secure them to the flanges and thus prevent removal of the book from the container.

The covers **40** and **41** are hinged to the container by means of opposed longitudinal hinges **53** and **54**. These hinges, which may be formed integrally with the spine **45** or otherwise secured to the spine, are formed of concentric cylindrical sectional members. As shown in detail in FIG. **12**, the fixed portion of each hinge comprises an arcuate flange **55**, and an inner arcuate member **56** spaced from the spine by support **57**. The rotatable portion of the hinge comprises arcuate members **59** and **60**, spaced apart by support **61**. The members **59** and **60** are rotatably received within member **56** and flange **55** respectively, thus eliminating any translational movement of the rotatable portion. The edge **62** of the member **56** limits the closed position of the cover **41** which is secured to the rotatable portion, while the edge **63** of the member **56** limits the extent of the open position of the cover **41**. End pieces **65** and **66** secured to the spine of the container eliminate any longitudinal movement of the hinges. Springs **67**, secured between the fixed and rotatable portions of the hinges, bias the covers **40** and **41** to the closed position, assuming that the book within the container will remain protected when not in use.

Thus the present invention has disclosed and described a novel means of displaying oft-used reference material which assures that the reference material will be protected and stored unobtrusively when not in use, and will not easily be stolen or vandalized.

I claim:

1. A container for storing and displaying reference material, comprising:

mounting means for securing said container to a mounting surface;

openable cover means for storing said reference material in a storage position and movable in a predetermined display position for displaying said reference material;

pivot means secured between said cover means and said mounting means for pivoting said cover means between said storage position and said predetermined dislay position, said pivot means including housing means and horizontal hinge means secured between said mounting means and said housing means, said housing means including a cylindrical opening transverse to said horizontal hinge means.

2. The container according to claim **1**, wherein said cover means pivots automatically from said predetermined display position to said predetermined storage position.

3. The container according to claim **2**, wherein said predetermined display position is spaced vertically above said storage position.

4. The container according to claim **1**, wherein said cylindrical opening contains hollow annular cam means secured therein.

5. The container according to claim **4** further including pivot shaft means secured at one end to said cover means

6. The container according to claim **5**, wherein said pivot shaft is slidably received within said hollow annular cam means.

7. The container according to claim **6** wherein the other end of said pivot shaft includes a riding pin projecting radially therefrom, said riding pin contacting the cam surface of said hollow annular cam means and thereby preventing the removal of said pivot shaft from within said hollow annular cam means.

8. The container according to claim **7**, wherein said hollow annular cam means comprises a length of hollow tubing said length being truncated at one end obliquely to the axis of said tubing to form said cam surface, the weight of said cover means depending from said pivot shaft causing said riding pin to ride said cam surface, imparting a torque to said pivot shaft and rotating said cover means to said storage position.

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