Nov. 20, 1956 W. E. HASKIN 2,770,913

BOOK RACK

Filed Nov. 19, 1954 3 Sheets-Sheet 1

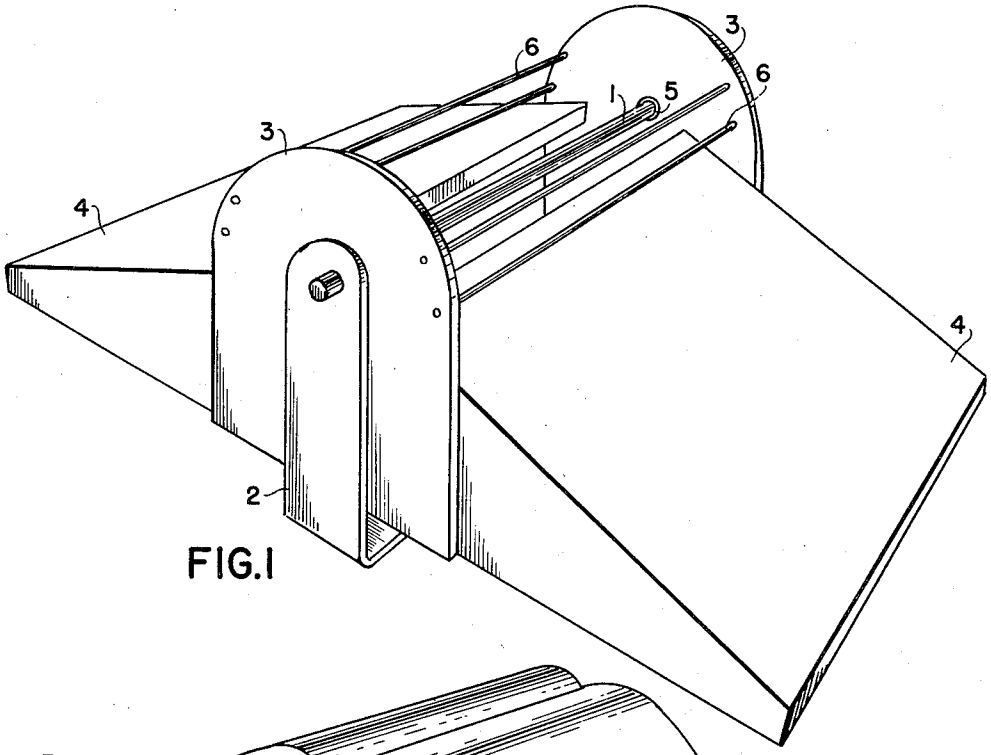


FIG.1

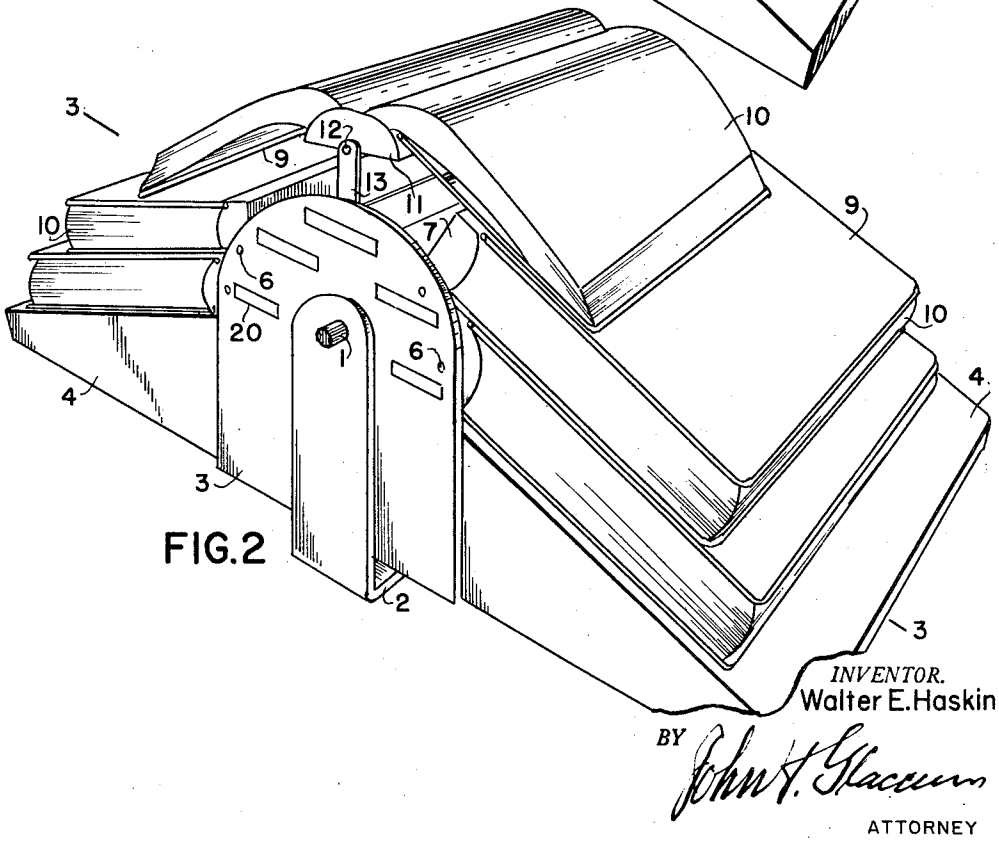


FIG.2

INVENTOR.
Walter E. Haskin

BY John H. Glaccum

ATTORNEY

Nov. 20, 1956 W. E. HASKIN 2,770,913

BOOK RACK

Filed Nov. 19, 1954 3 Sheets-Sheet 2

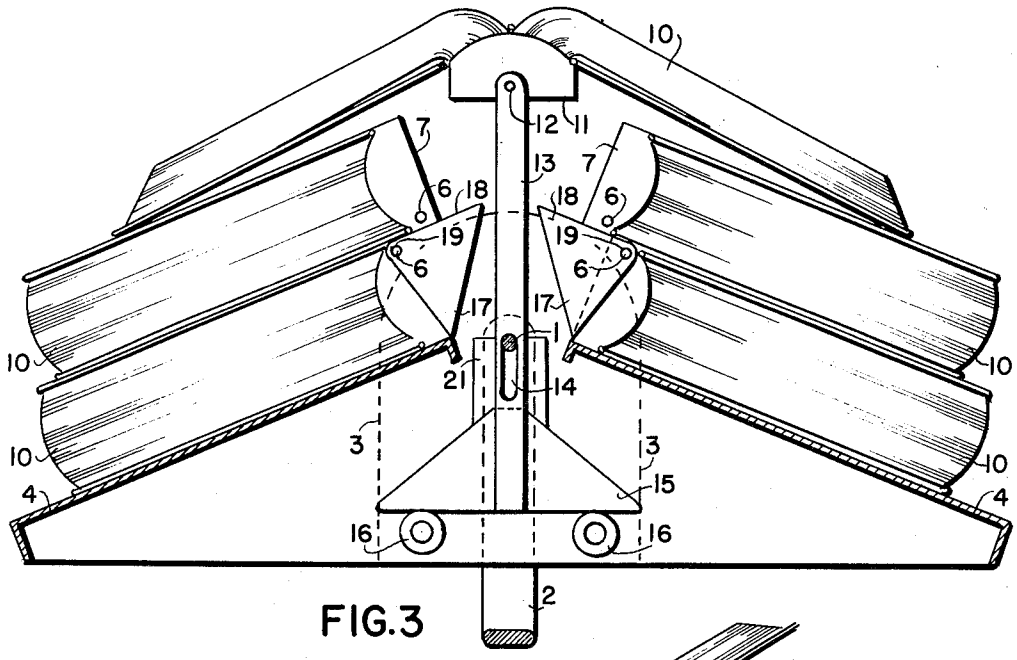


FIG.3

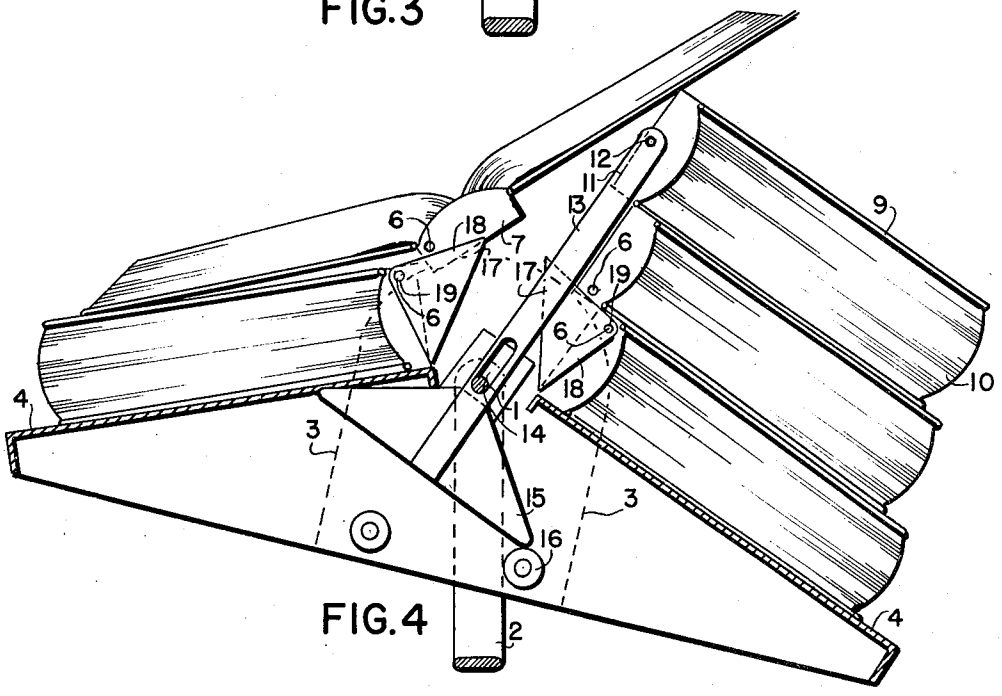


FIG.4

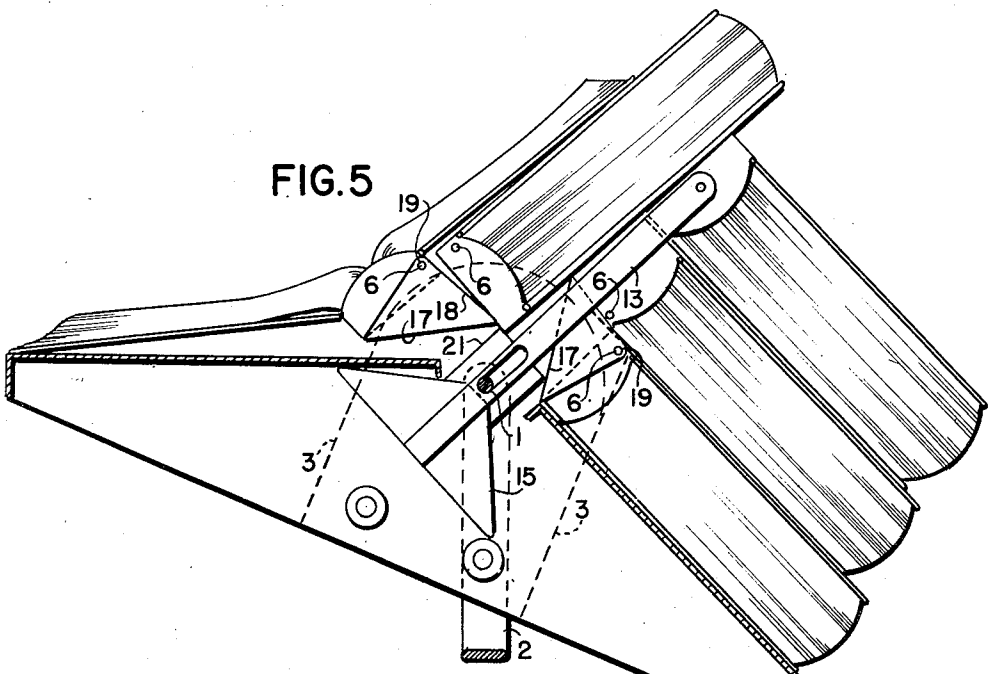
INVENTOR.
Walter E. Haskin
BY John V. Glaccum
ATTORNEY

Nov. 20, 1956 W. E. HASKIN 2,770,913

BOOK RACK

Filed Nov. 19, 1954 3 Sheets-Sheet 3

FIG.5



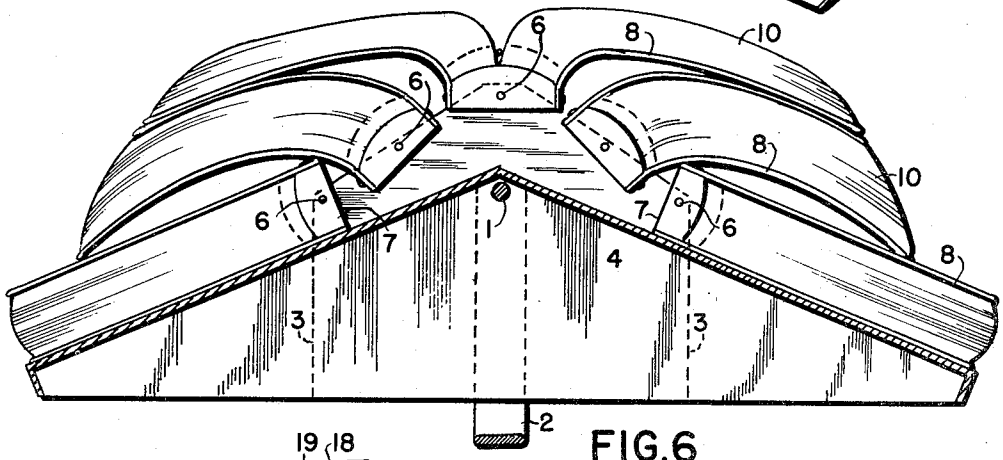


FIG.6

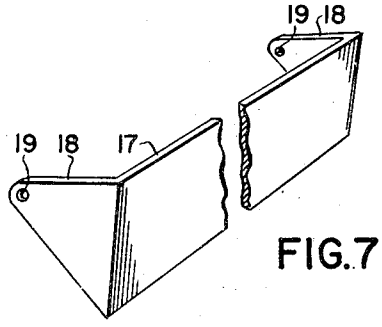


FIG.7

INVENTOR.
Walter E. Haskin

BY John W. Glenn

ATTORNEY

United States Patent Office 2,770,913 Patented Nov. 20, 1956

2,770,913

BOOK RACK

Walter Easter Haskin, New York, N. Y., assignor to Pressed and Welded Steel Products Company, Inc., Long Island City, N. Y., a corporation of New York

Application November 19, 1954, Serial No. 469,907

2 Claims. (Cl. 45—58)

This invention relates to a book rack, an object of the device being to provide a rack requiring a relatively small amount of space in which a plurality of book holders or binders are positioned and adapted to hold a series of books for convenient reference and enable any one book to be moved to an open position for reading without detaching the book from its binder whereby the books are retained in orderly arrangement for continued and frequent reference.

A further object of the invention is to provide a pendulous shelf structure adapted to oscillate from side to side on which a multiple of telephone directories or the like are symmetrically mounted about the center so that each of the several books may be positioned for reading in a relatively horizontal plane whereby the legibility of the books is greatly improved.

A further object is to provide a device especially designed for public use in displaying a group of paper bound telephone directories or loose-leaf material, mounted in a compact tiered and symmetrical arrangement in binders adapted to pivot on a longitudinal axis and enable each book to swing on its pivot from a normally closed position into position for reading and to return to its closed position and out of the way so that another book may be likewise positioned for reading without interference with other books.

A further object is to provide a device of durable construction for public use which may be stationed on a horizontal surface or on a floor stand or it may be mounted on a wall or other vertical surface. The books may be arranged to open with their spines in a horizontal plane or legibility may be improved by disposing the spines in an inclined plane.

This invention relates to my co-pending application filed herewith for a patent on a book binder provided with means enabling the binder to pivot on a longitudinal axis which binder is used in combination with this improved book rack.

With these and other objects in view, the invention consists in certain novel features of construction and combination and arrangement of parts which will be more fully hereinafter described and pointed out in the claims.

In the accompanying drawings:

Fig. 1 is a perspective view of my improved book rack without binders;

Fig. 2 is a view similar to Fig. 1 showing a series of five binders having rigid side covers installed in the rack;

Fig. 3 is a view in transverse section on the line 3—3 of Fig. 2 showing the center or top book positioned for reading;

Fig. 4 is a view similar to Fig. 3 showing an intermediate book positioned for reading;

Fig. 5 is a view similar to Fig. 3 showing a bottom book positioned for reading;

Fig. 6 is a view in transverse section of an alternate arrangement showing a series of five binders having flexible side covers installed in the modified rack; and

Fig. 7 is a perspective view of the automatic stop.

My improved book rack combines five elements comprising a primary axle and supporting rod attached at each end in a cradle, an oscillating shelf mounted at its center to rotate from side to side on the rod, a plurality of secondary spindles positioned above the shelf and supported at each end in uprights integral with the shelf, a multiple of book binders mounted at each end longitudinally of the secondary spindles, and enabled to rotate thereon and a multiple of paper bound telephone directories or the like coupled to the binders.

Referring to the accompanying drawings by numerals, as illustrated in Fig. 1, the primary axle and supporting rod **1** is secured at each end in a cradle **2** which is adapted to be mounted on a vertical surface such as a wall or on a horizontal surface such as a table, counter or floor stand.

Mounted to oscillate on the axle rod **1** is a shelf, preferably constructed of sheet metal, consisting of central front and rear uprights **3** to which are attached two symmetrical half sections **4** spaced apart to provide an opening at the center and arranged in an inverted V formation with their surface inclined from the said central uprights downward towards the outer ends. Positioned in the uprights **3** on the center line between the shelf half sections **4** are aligned extruded round apertures **5** through which the primary axle and supporting rod **1** is passed so that when the shelf structure is thus mounted on and supported by a fixed axle the shelf becomes pendulous and enabled to oscillate from side to side.

The said uprights **3** are each provided with a multiple of round aligned apertures positioned above the shelf proper and symmetrically disposed above the axle **1**, and in which are removably mounted secondary round spindles **6** traversing the shelf from front to back and on which are mounted a multiple of book binders **7**. The binder backs are formed with aligned round apertures in their end walls through which the secondary spindles **6** are passed so that the binders are enabled to rotate on a longitudinal axis. The binders **7** are provided with flexible side covers **8** or rigid side covers **9** as desired and coupled thereto are books **10**.

As shown in Figs. 2, 3 and 4 illustrating an arrangement of five binders having rigid side covers, mounted in the rack it will be noted that provision is made for closing all the books when not in use so that the pages are protected by the side covers against cumulations of dust or other abuse and represents the preferred embodiment of my invention.

An alternate arrangement of binders having flexible side covers **8** is shown in Fig. 6. The respective secondary spindles **6** are all positioned on the longitudinal center line of the binders which affords a more compact grouping and constitutes what is in effect a single large book made up of the several components with the flexible side covers acting as indexes and dividers. This construction is more open to impairment of the books from dust and rough usage as compared to rigid side covers but is less costly in construction.

In the case of an even number of directories **10** installed in the book rack they are arranged in pairs, right and left hand, disposed in tiers and symmetrically grouped above the primary axle **1** so that the weight of the books when closed is substantially balanced above the axle.

When five or an uneven number of binders having rigid side covers **9** are installed in the rack, the center or top book is mounted separately in the manner shown in Figs. 2 and 3 in a binder **11** having the aligned extruded end wall apertures positioned on its longitudinal center line to which a book **10** is coupled and which is mounted to rotate on a secondary spindle **12** supported at each

end by a rocker arm **13** having an elongated slot **14** therein through which the primary axle **1** is passed to enable the binder to be moved thereon from side to side. Attached to the lower extremity of each rocker arm **13** is a cam extension **15** which rests upon two rollers **16** mounted on the said uprights **3** with the axle positioned at the top of the slot **14** in which position the book is stabilized in position for reading. To move the center or top book to either side the binder **11** is shifted laterally as shown in Fig. 4 so that the rocker arm is pivoted on the axle **1** out of its perpendicular position and the cam **15** is moved across the roller **16** whereupon the rocker arm is elevated to the limit of the movement of the axle **1** in the slot **14** so that the binder is elevated and the book contained therein may be rotated on the secondary spindle **12** and laid flat upon the next adjacent book in a closed position for dustproofing and preservation of the directory and also out of the way for the manipulation of the other books of the series.

In the operation of the book rack Fig. 3 illustrates the manner in which five books are disposed and the center book laid open for reading. It will be noted that the left and righthand books are in balance over the axle **1** and that the center book is stabilized by the cam **15** resting by gravity on the two spaced apart rollers **16**.

If it is desired to position an intermediate book for reading as illustrated in Fig. 4 the center book is first moved to one side out of the way as above described resulting in a preponderance of weight to one side of the axle **1** so that the shelf will be depressed by gravity on the heavy side and the said intermediate book will be correspondingly elevated and may be opened for reading with its side covers resting upon the two adjacent binders and affording the widest possible included angle of opening for reading.

Also illustrated in Figs. 3 and 4 it will be seen that the pivot for the intermediate binder is positioned off center and near one side thereof so that when partially rotated to a position for reading the binder comes to rest upon a temporary stop as shown in Fig. 7 consisting of a plate **17** having triangular end flanges **18** with apertures **19** therein through which the spindle **6** of the lowest binder is passed so that the stop is enabled to rotate on the pivot rod outside of and independently of the binder.

In order to position the lowest or bottom book for reading the intermediate book is first closed and further rotated on its pivot out of the way to a position as shown in Fig. 5. The weight of all of the books to one side of the axle **1** is thereby increased and the shelf is further

rotated by gravity about the axle **1** to elevate the bottom book for reading. It will also be seen that the spindle **6** for the bottom binder is positioned off center and near the top side thereof so that when the intermediate book is moved to its out of the way position with the back of its binder resting on a permanent stop **21** mounted on the rocker arm to limit the rotation, the stop **17** is then automatically actuated to partially rotate the lower binder to a position which, when the book is opened for reading with its side covers resting upon the shelf **4** and the next adjacent binder, will afford the widest possible included angle of opening for reading.

As shown in Fig. 2 labels **20** are positioned on the outer upright **3** indicating the contents of the various binders so that quick reference thereto is facilitated.

While I have illustrated and described what I believe to be the preferred embodiment of my invention, it is obvious that changes may be made in the general form and arrangement of the parts without departing from the spirit of the invention; hence I consider myself at liberty to make such changes and alterations as fairly fall within the scope of the claims.

I claim:

1. In a book rack a fixed cradle, a pivot rod supported by said cradle, a pendulous shelf mounted at its center on said rod and free to oscillate relative to said cradle, a plurality of book mounting means pivotally secured to said shelf and disposed transversely thereof above the rod whereby any one of the books and book mounting means may be readily positioned for use by tilting the shelf.

2. A device in accordance with claim 1, having a pendulous shelf provided at its center with front and rear upright extensions, a plurality of pivot rods positioned transversely of the shelf and supported at their ends by the said extensions, a plurality of book securing means secured to said pivot rods and rotatable thereon, whereby, when it is desired to position a book in one of said book securing means for reading, the other books are swung on their pivots to one side and the shelf is caused to sway by gravity to elevate the book to a position most advantageous for reading.

References Cited in the file of this patent

UNITED STATES PATENTS

888,879	Fulton	May 26, 1908
1,715,233	Haskin	May 28, 1929
1,722,811	Martin	July 30, 1929
2,528,318	Payne	Oct. 31, 1950