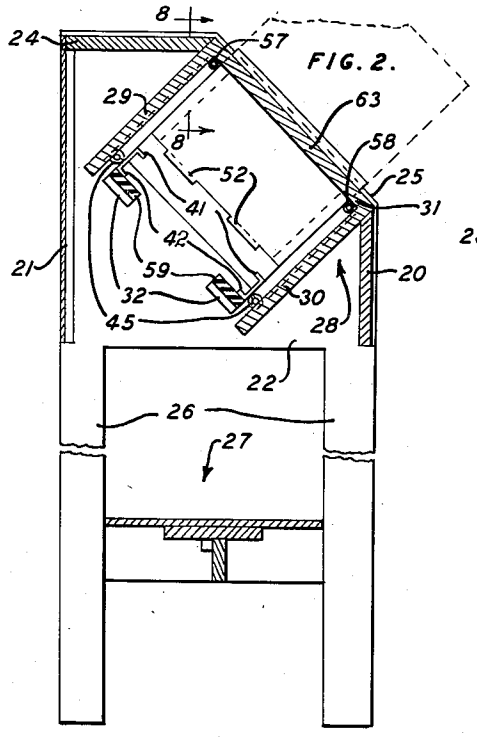
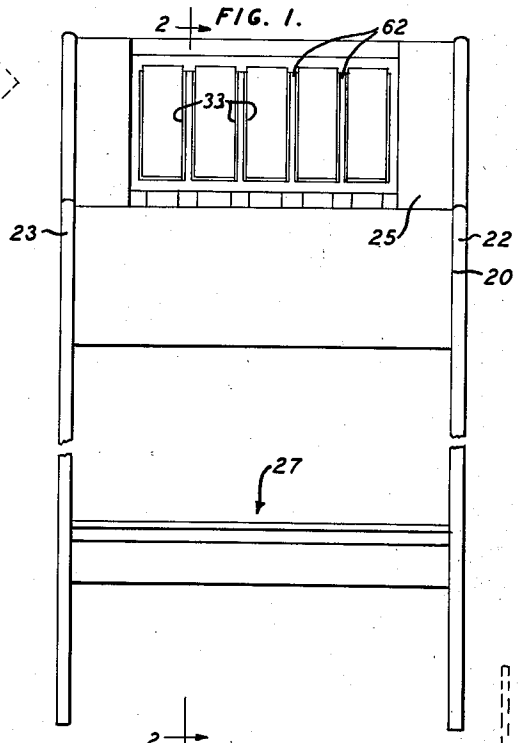
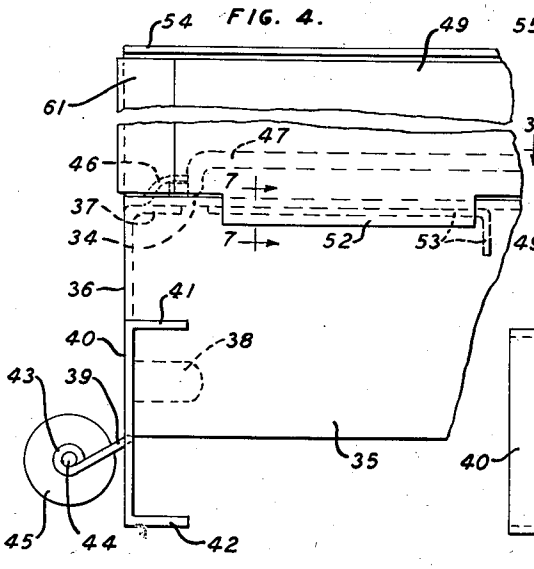
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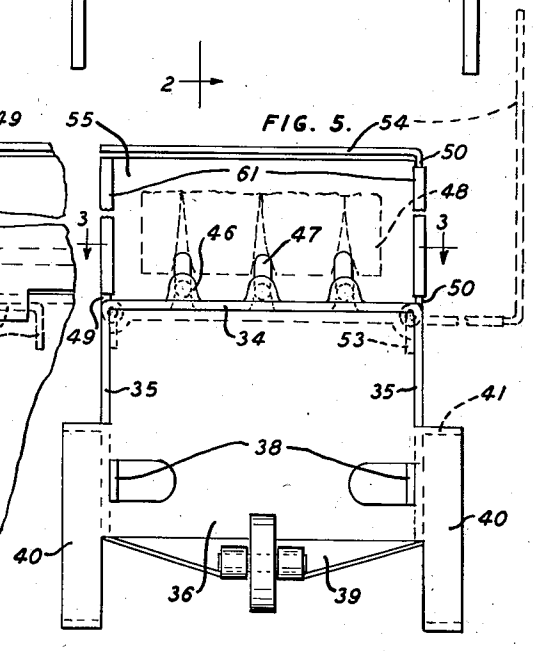
BOOK SUPPORT

Filed March 9, 1935 2 Sheets-Sheet 1









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BOOK SUPPORT

Filed March 9, 1935 2 Sheets-Sheet 2

FIG. 6.

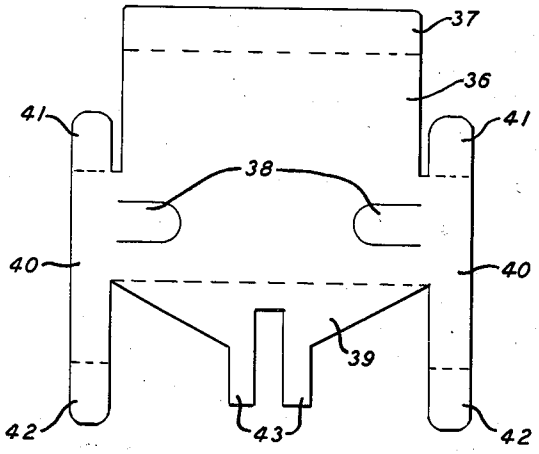


FIG. 8.

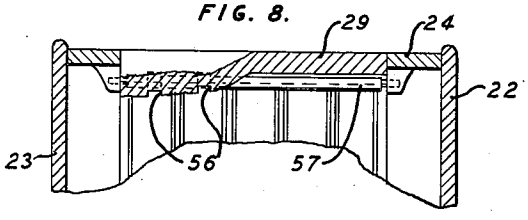


FIG. 7.

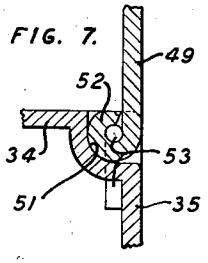
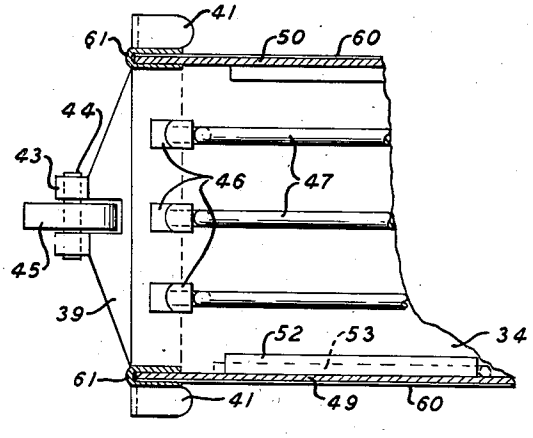


FIG. 3.



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BOOK SUPPORT

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Application March 9, 1935, Serial No. 10,260

8 Claims. (Cl. 312—34)

This invention relates to a book support and more particularly to a support for holding and protecting books frequently and briefly in use such as directories, dictionaries, large reference books in general and the like.

In the case particularly of telephone directories for use in connection with telephone pay stations and other public telephone stations, it is desirable that the books be easily and conveniently accessible for use and be neatly and securely housed and protected when not in use.

One object of the present invention is to provide a simple, rugged and sightly support for telephone directories and other analogous relatively large books of reference in which one or more such books may be substantially completely housed out of the way of each other and out of sight as well as under protection from accidental injury, and having means whereby any one of the books contained therein may be drawn out into a convenient position for use by a single straight line motion.

One embodiment of the invention contemplates a stand having a housing therein within which is housed a set of one or more carriages, each provided with means to hold one or more closed books and with means whereby it may be nearly completely withdrawn from the casing to a position in which the books may be easily opened and conveniently consulted, the opening of the book serving to hold the carriage in withdrawn position, and closing of the book permitting the carriage to slide back into the casing under gravity, the motion of the carriage being straight line and being at all times under lateral control.

Other objects and features of the invention will clearly appear from the following detailed description of one embodiment thereof taken in connection with the accompanying drawings in which like reference numerals are appended to like parts in the several figures and in which

Fig. 1 is a broken view in front elevation of a stand constructed in accordance with the invention ;

Fig. 2 is a sectional view on the line 2—2 of Fig. 1;

Fig. 3 is a detached broken sectional plan view on the line 3—3 of Fig. 5 of one book carriage;

Fig. 4 is a broken side view thereof;

Fig. 5 is an end view thereof;

Fig. 6 is a detached plan view of a carriage end wall blank;

Fig. 7 is an enlarged broken section on the line 7—7 of Fig. 4, and

Fig. 8 is an enlarged broken section on the line 8—8 of Fig. 2 with the carriages removed.

In the embodiment herein disclosed there is a stand comprising a bottomless upper casing having vertical parallel front and rear walls 20 and 21, vertical side walls 22 and 23, and a top comprising a solid horizontal panel 24 and a frame panel 25 sloping down from the top to the front wall at any suitable angle, here shown as about 45°. The side walls 22 and 23 extend down and are formed as supporting legs 26 which may be tied together by any suitable form of cross bracing indicated at 27.

A housing generally indicated at 28 is secured to the under face of the panel 25 and comprises a parallel top 29 and bottom 30, a front frame 31 and rear cross bars 32 as shown in Fig. 2. The housing may have end walls independent of the walls 22 and 23, but for simplicity these are here assumed to be end walls of both housing and casing. The front frame is formed with one or more, preferably a plurality, of rectangular apertures 33 through which the book carriages hereinafter described may move as requisite.

A book carriage is movably mounted in the housing to correspond to each aperture 33. Such a carriage comprises a body portion and a book holder. As best shown in Figs. 3, 4 and 5, the body portion of a carriage has a channel shaped main member of nearly square cross section having a top wall 34 and integral parallel side walls 35, 35 dependent therefrom. At each end of this main member is a transverse end wall 36, 36 rigidly secured thereto, so that the body of the carriage is a rectangular bottomless box.

A blank cut for an end wall but not yet formed is shown in Fig. 6. It comprises the actual wall part 36; a strip 37 to be bent at right angles (Fig. 4) and spot welded or otherwise rigidly secured to the main member top wall 34; ears 38, 38 to be bent at right angles and secured by spot welding or otherwise to the side walls 35 of the main member; a wheel support and spring portion 39; and two wing members 40 each formed with a forward stop member 41 and a rear stop member 42 to be bent at right angles as best shown in Fig. 4.

The portion 39 is bent at a suitable angle (Fig. 4) and is formed with two tabs 43 (Fig. 6) which are bent around and form journals 43 (Fig. 4) for the axle 44 of a wheel 45, there being such a wheel at each end of the carriage.

The top wall 34 of the main carriage member is formed near each end with one or more integral struck up bearings 46, each pair of which is adapted to receive the ends of a book retaining

rod 47 which may be placed in and removed from its bearings 46 by being sprung in the middle. Each rod 47 is an appropriate length of metal rod bent at each end as shown in Fig. 4 to pivot slightly in its bearings 46, 46. The back of a book to be held may be placed against the top face of the wall 34 between the two rows of bearings 46, 46, 46—and one or as many as may be necessary of the rods 47 are inserted between its leaves and are sprung into their bearings thus fastening the book with its back to the wall 34 and its covers, when closed, normally extending perpendicularly up therefrom as indicated in dotted lines at 48 in Fig. 5.

Book guards 49 and 50 are pivoted to the main member. The main member is formed along part of each of the two junctures of its wall 34 with its walls 35 with a reentrant trough 51 (Fig. 7). The plane side walls of the book guards are curled around at their bottom edges as shown at 52 to fit into the troughs 51 and around hinge pins 53 supported in appropriate apertures in the end walls of the troughs 51.

The guard 50 has an integral top 54 extending at right angles thereto over and (Fig. 5) parallel to the wall 34 and over the free edge of the guard 49. The guard 49 has at its upper end an integral end 55 extending at right angles thereto and (Fig. 5) also at right angles to both the wall 34 and the guard 49 when in the solid line position of Fig. 5. In this position the end 55 extends over and covers the end edge of the closed book and the top 54 extends over and covers the free top edge of the book. The free end of the end 55 abuts against the guard 50 and prevents the guards from closing further than a mutually parallel position.

The top wall 29 of the housing 28 is formed with a plurality of parallel guide grooves 56, one for the upper one of the pair of wheels 45 of each carriage, and a roller 57 is journalled parallel to the top wall 29 and transverse to the grooves 56 on which the upper end edges of the guards 49 and 50 ride. The bottom wall 30 of the housing 28 is similarly formed with guide grooves for the other wheel 45 of each carriage and a roller 58 is journalled in the casing to support the lower ends of the guards 49 and 50.

The cross bars 32 of the housing may be provided with cushions 59 of rubber or other appropriate material. The outer faces of the book guards may be faced with ornamental material such as imitation leather or the like as indicated at 60 and may further be provided on their end edges with reinforcing members 61 clamped thereover. The panel 25 ordinarily has cross pieces 62 between and defining the aperture 33.

In Fig. 2, a carriage assumed to contain a book is shown in full lines in its retired position within the housing with the stops 42 resting on the cushions 59 and thus supporting the carriage. In this position the outer edges of the closed guards extend slightly above the outer plane of the panel 25 enabling a user to grip the closed guards and pull the carriage up into the position indicated in dotted lines in Fig. 2. In this position, the guards may be opened out on the hinge pins 53 to lie substantially flat against the panel 25 or against the ends 54 of the neighboring carriages, and the book may then be opened upon the guards for consultation.

Closing the guards together again will close the book and the carriage will then fall back by gravity into its original position.

During these motions of the carriage it is guided and supported by the wheels 45 running in the grooves 56 and by the edges of the guards riding on the two rollers 57 and 58. The carriage is prevented from being raised too far by the stops 41 coming against the under surface of the panel 25 or of its cross pieces 62.

Ordinarily the top and bottom 29 and 30 of the housing will be provided with a number of grooves to correspond to the maximum number of carriages housable therein. The number of carriages need not, however, be so great, but the casing may be adapted for a smaller number by substituting a panel 25 having fewer apertures 33, this being the only change required for the purpose.

The embodiment of the invention herein disclosed is illustrative merely and may be variously modified and departed from without departing from the scope and spirit of the invention as pointed out in and limited solely by the appended claims.

What is claimed is:

1. In a book support, book carriage means comprising a movable body having a book supporting surface, journal members on the said surface, a member pivotally supported in the journal members to be placed between the leaves of a book and to bridge across the back thereof from end to end to secure the book to the carriage means, and a pair of book guard members each pivotally secured to the carriage means and one book guard member including a flanged shield extending over one cover and one edge of a closed book secured to the carriage means and the other book guard member including a flanged shield extending over the other cover and another edge of the book.

2. In a book support, book carriage means comprising a movable body having a book supporting surface, journal members on the said surface, a member pivotally supported in the journal members to be placed between the leaves of a book and to bridge across the back thereof from end to end to secure the book to the carriage means, and a pair of book guard members each pivotally secured to the carriage means and one book guard member including a flanged shield extending over one cover and one edge of a closed book secured to the carriage means and the other book guard member including a flanged shield extending over the other cover and another edge of the book and the flange of one shield abutting at its edge against the body of the other shield.

3. In a book support, book carriage means comprising a main body member of sheet metal having a channel form and integral journals formed therein, a book securing member pivotally secured in the journals, book guards of sheet metal pivotally secured to the main member at the angles of the channel thereof, an end wall member of sheet metal across one end of the main member and secured thereto and formed with integral means to support the axle of a roller and further formed with an integral stop member extending out beyond a side wall of the main member.

4. In a book support, book carriage means comprising a main body member of sheet metal having a channel form and integral journals formed therein, a book securing member pivotally secured in the journals, book guards of sheet metal pivotally secured to the main member at the angles of the channel thereof, an end wall member of sheet metal across one end of the

main member and secured thereto and formed with integral means to support the axle of a roller and further formed with an integral stop member extending out beyond a side wall of the main member, in combination with a casing wherein the book carriage means is movably housed and having a groove therein to coact with a roller held in the axle supporting means of the said end wall and having stop means to coact with the said stop member to limit the motion of the carriage means within the housing.

5. In a book support, book carriage means comprising a main body member having a channel form and journals, a book securing member pivotally mounted in the journals, book guards pivotally mounted on the body member, an end wall secured across one end of the main body member, a roller mounted on the end wall, and a stop member extending out beyond a side wall of the main member.

6. In a book support, book carriage means comprising a main body member of sheet metal having a channel form, an end wall member secured across one end of the body member, and integral roller supporting means formed on the end wall.

7. In a book support, book carriage means comprising a main body member of sheet metal having a channel form, an end wall member secured across one end of the body member, and integral stop means formed on the end wall and projecting out beyond a side wall of the main body member.

8. In a book support, book carriage means comprising a main body member of sheet metal having a channel form, an end wall member secured across one end of the body member, integral roller supporting means formed on the end wall, and integral stop means formed on the end wall and projecting out beyond a side wall of the main body member.

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