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ADJUSTABLE TILTING PLATE BOOKSHELF

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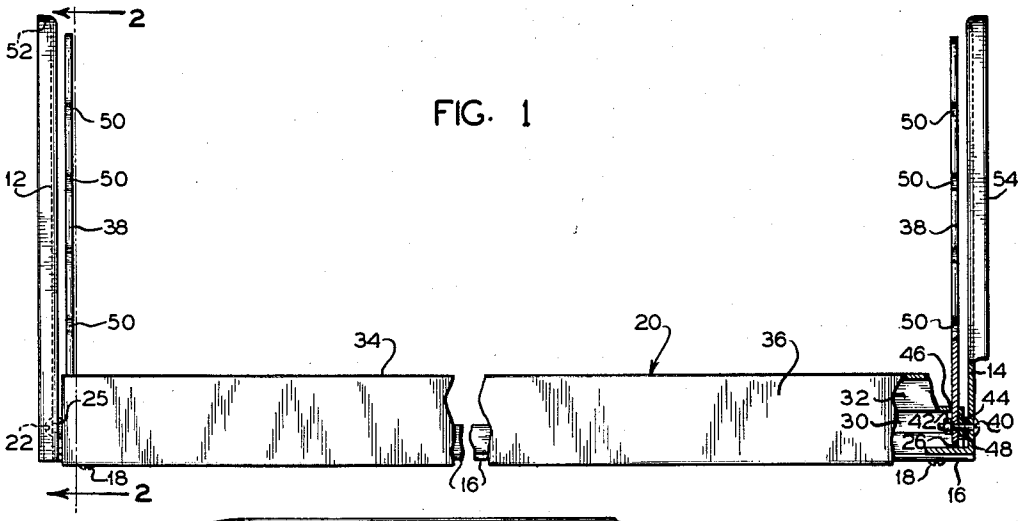


FIG. 1

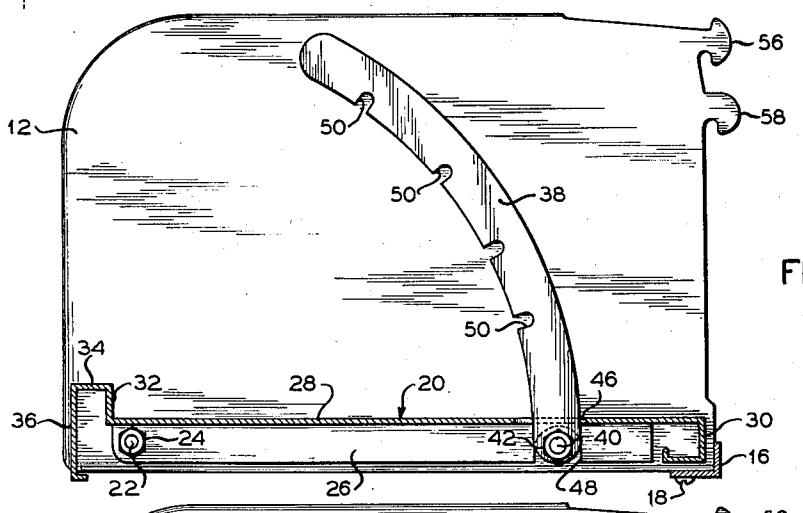


FIG. 2

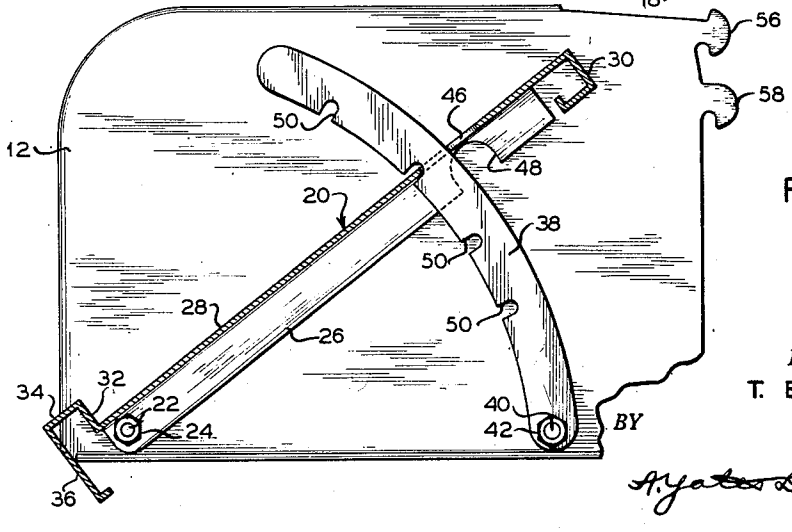


FIG. 3

INVENTOR.
T. B. TISDALE

BY

A. Yates Dowell
ATTORNEY

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ADJUSTABLE TILTING PLATE BOOKSHELF

Thomas B. Tisdale, Orange, Va., assignor to Virginia Metal Products Corporation, Orange, Va., a corporation of New Jersey

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3 Claims. (Cl. 45—82)

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This invention relates to a book shelf and more particularly to an adjustable tilting plate book shelf wherein the book shelf may be mounted by means on the end brackets at any desired height on a suitable support, and the shelf may be inclined with respect to the front edge of the book shelf and maintained at different inclined positions or in a horizontal position by means of adjustable arms.

Adjustable tiltable tables and book rests have been well known and inclined book shelves are frequently provided in libraries, however, none of these combine the features of a book shelf which may be mounted at any desired height and may be used with the shelf in a level position or at any desired tilted position to provide a suitable support at a convenient level for perusing the books taken from other shelves in the book stack or to incline the books in such a manner as to facilitate reading titles on the lower or upper sections of the book stacks.

One object of the present invention is to provide a book shelf having end brackets with means for conveniently attaching the book shelf at any desired height to a suitable support and provided with a shelf which is pivotally mounted on the end brackets and provided with means for adjustably supporting the shelf in a number of inclined positions relative to the end brackets.

Another object of the present invention is to provide an adjustable book shelf having a tiltable shelf which may conveniently be set to any desired angle to facilitate the use thereof for perusal of books or for inclining the books to facilitate reading the titles thereon at an upper or lower position in the stack of book shelves.

Further objects and advantages of the invention will be apparent from the following description taken in conjunction with the drawings, wherein:

Fig. 1 is a front elevational view of an adjustable tilting plate book shelf with portions broken away and parts in section;

Fig. 2, a section taken on the line 2—2 of Fig. 1; and

Fig. 3, a sectional view similar to Fig. 2 but showing the shelf in an elevated or inclined position.

Referring now to the drawings in detail, an adjustable book shelf is shown in Fig. 1 having a pair of end brackets 12 and 14 connected at their lowermost rear edges by an angle iron 16 secured thereto by machine screws 18.

A tiltable shelf 20 is pivotally mounted on the end brackets 12 and 14 by bolts 22 and nuts 24, the bolts extending through the end brackets 12 and 14, and through washers 25 and the flanges 26 on the ends of the plate shelf. Plate shelf 20 consists of a flat elongated portion 28 on which the books rest, a flange 30 extending downwardly and inwardly along the longitudinal rear edge, an upwardly extending flange 32 extending along the longitudinal forward edge of the portion 28, an outwardly extending portion 34, and an L-shaped flange 36 extending downwardly and inwardly to provide a smooth appearance along the forward edge. Flange 32 serves to prevent the books of other material from sliding off the shelf 20 in the inclined position, as shown in Fig. 3.

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A pair of curved arms 38 is pivotally mounted on the end brackets 12 and 14 by means of bolts 40 and nuts 42 with washers 44 maintaining the arms in proper spaced relation from the end brackets.

The curved arms 38 extend through slots 46 in the plate 28 adjacent each of the opposite end edges thereof, and the curved recesses 48 in flanges 26 provide clearance for the shelf to move down into the horizontal position, as shown in Fig. 2.

Each of the curved arm 38 is provided with a plurality of spaced notches 50 along the inner curved edge to engage the forward edge portion of the slot 46 for maintaining the shelf in any desired tilted position.

The end brackets 12 and 14 are provided with conventional reinforcing flanges 52 and 54 respectively along the top and front edges thereof. Each of the brackets is provided with a pair of hook-like projections 56 and 58 such as those shown on bracket 12 in Figs. 2 and 3 which are adapted to engage two of a series of spaced vertically lined slots in a supporting member.

It will be obvious that the book shelf of the present invention may be used in the normal manner with the books resting thereon and with the titles facing forwardly or the shelf may be tilted to an inclined position and a book taken from another shelf laid thereon in opened position for perusal. Furthermore, the shelves may be used in the inclined position adjacent the bottom or upper portion of the book stack to incline the front edge of the books and facilitate reading the titles thereon from a normal standing position, thus eliminating stooping or moving back an excessive distance away from the book shelf to clearly see the titles of the books in the upper or lower sections of the stacks.

It will be obvious to those skilled in the art

that various changes may be made in the invention without departing from the spirit and scope thereof, and therefore the invention is not limited by that which is shown in the drawings or described in the specification, but only as indicated in the appended claims.

What is claimed is:

1. An adjustable tilting plate book shelf including substantially vertically disposed end brackets having means on the rear edges thereof for attachment to an upright supporting element at different elevations thereof, a shelf having turned down flanges around the periphery thereof pivotally mounted at its opposite ends between said end brackets adjacent the forward edge thereof, a slot provided adjacent each of the opposite ends of said shelf adjacent the rear edge thereof, and a curved arm pivotally mounted on the inner face of each end bracket in spaced relation thereto adjacent the rear edge of said end bracket, each of said arms extending through an associated slot in said shelf and being provided with notches on the forward edge thereof, said notches being adapted to engage with the forward edge of the associated slot in said shelf for selectively maintaining said shelf in desired angular relationship with respect to said end brackets, the turned down end flanges of said shelf being recessed for the accommodation of the pivotal mountings of said curved arms.

2. An adjustable tilting plate book shelf including substantially vertically disposed end brackets, a shelf pivotally mounted at its opposite ends between said end brackets adjacent the forward edge thereof, a slot provided adjacent each of the opposite ends of said shelf adjacent the rear edge thereof, and a curved arm pivotally mounted on the inner face of each end bracket in spaced relation thereto adjacent the rear edge of said end bracket, each of said arms extending through an associated slot in said shelf and being provided with notches on the forward edge thereof, said notches being adapted to engage with the forward edge of the associated slot in the shelf for selectively maintaining said shelf in desired angular relationship with respect to said end brackets.

3. An adjustable tilting plate book shelf including substantially vertically disposed end brackets, a shelf pivotally mounted at its opposite ends between said end brackets adjacent the forward edge thereof, at least one slot provided in said shelf adjacent an end thereof, said slot being located adjacent the rear edge of said shelf, and at least one arm pivotally mounted on the inner face of one of said end brackets in spaced relation thereto and adjacent the rear edge of said end bracket, said arm extending through the slot in said shelf and being provided with notches on the forward edge thereof, said notches being adapted to engage with the forward edge of said slot for selectively maintaining said shelf in desired adjusted angular relationship with respect to said end brackets.

THOMAS B. TISDALE.

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