

C. E. RICE, DEC'D.
 B. A. RICE, EXECUTRIX.
 BOOK SUPPORTING STAND.
 APPLICATION FILED JAN. 22, 1917.

1,244,373.

Patented Oct. 23, 1917.

2 SHEETS—SHEET 1.

Fig. 1

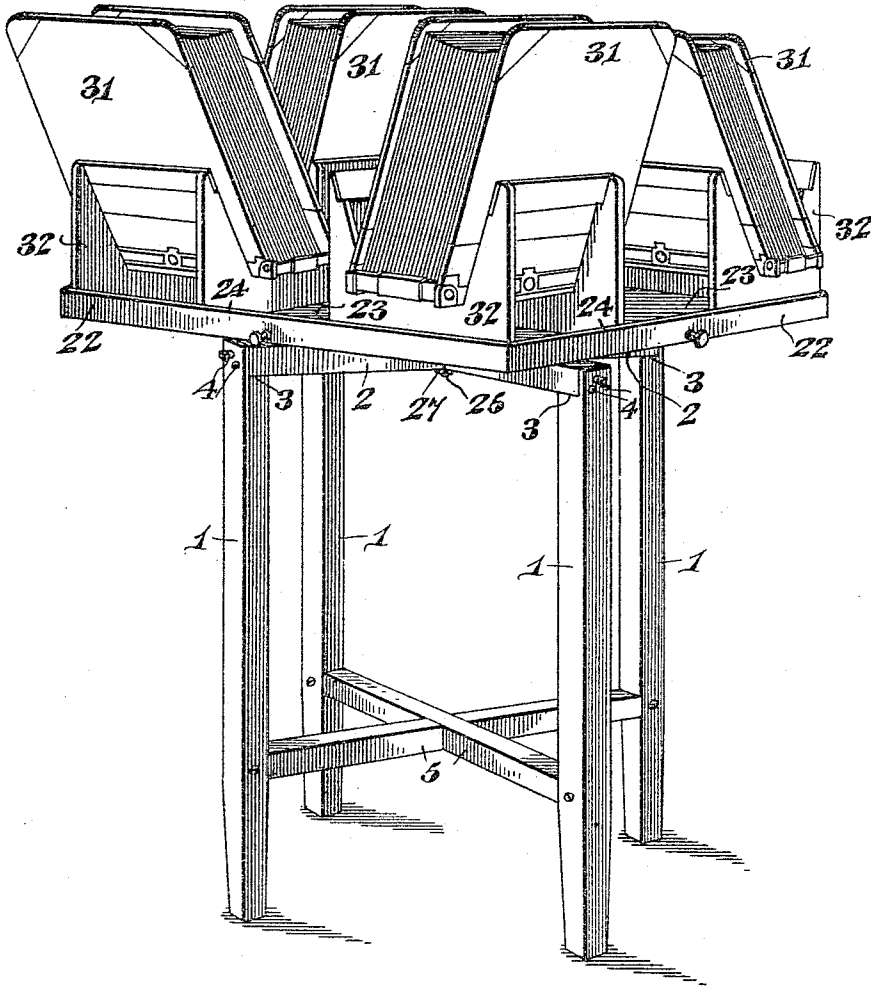
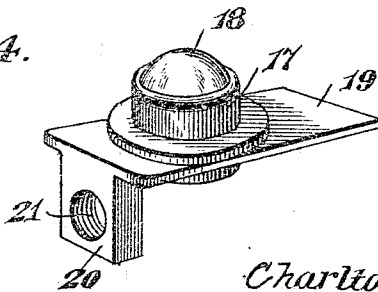


Fig. 4.



WITNESSES

Jas. E. McLaughlin
Howard D. Orr

INVENTOR
Charlton E. Rice, Deceased,
Bettie A. Rice, Executrix.

BY

E. J. Siggers

ATTORNEY

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2 SHEETS—SHEET 2.

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Fig. 2.

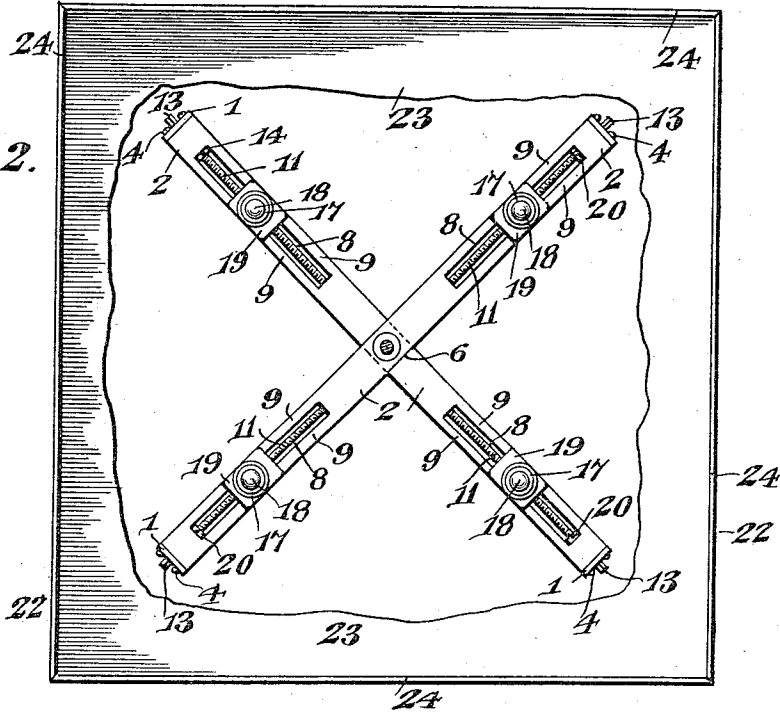


Fig. 3.

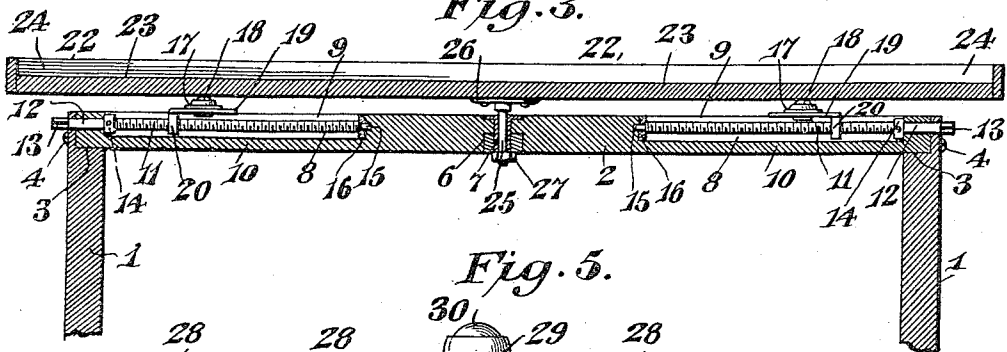
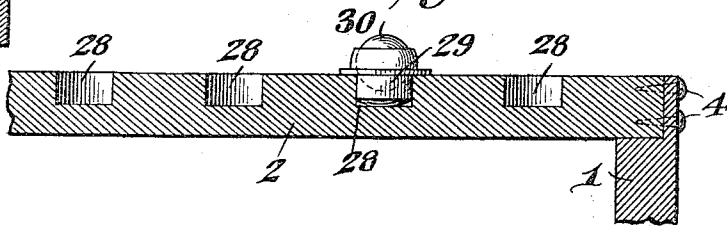


Fig. 5.



WITNESSES

Jas. K. McEachran
Howard D. Orr

INVENTOR
Charlton E. Rice, Deceased,
Bettie A. Rice, Executrix,

BY

E. G. Figgers

ATTORNEY

UNITED STATES PATENT OFFICE.

CHARLTON E. RICE, DECEASED, LATE OF FULTON, KENTUCKY, BY BETTIE A. RICE,
EXECUTRIX, OF FULTON, KENTUCKY.

BOOK-SUPPORTING STAND.

1,244,373.

Specification of Letters Patent.

Patented Oct. 23, 1917.

Application filed January 22, 1917. Serial No. 143,782.

To all whom it may concern:

Be it known that I, BETTIE A. RICE, a citizen of the United States, residing at Fulton, county of Fulton, State of Kentucky, executrix of the estate of CHARLTON E. RICE, late a citizen of the United States, and a resident of Fulton, in the county of Fulton and State of Kentucky, deceased, (as by reference to the duly-certified copy of letters testamentary, hereto annexed, will more fully appear,) do hereby declare that the said CHARLTON E. RICE invented a new and useful Improvement in Book-Supporting
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This invention relates to book stands, and more particularly to that class having a revoluble book support.

The object is to provide a stand of this character, which will occupy a minimum amount of floor space, and which is capable of supporting a plurality of books or other articles, at about table height, and to permit of easily imparting a revolving motion to the support for the purpose of bringing any one of the books or other articles within the reach of the operator, without the necessity of walking around the stand.

Another object is to provide a book stand having means for reducing or increasing the friction incident to the revolving motion of the support, when a heavy or light load is placed thereon, and to incorporate in the structure, means for shifting the position of said anti-friction means, in accordance with the amount of said load.

A full and complete understanding of the invention will be obtained upon a careful consideration of the following detailed description, taken in connection with the accompanying drawing forming a part of this specification; it being understood that while the drawing shows a practical form of the invention, the latter is not confined to strict conformity therewith, but may be changed or modified, as long as such changes or modifications mark no material departure from the salient features of the invention, as specifically pointed out in the claims hereto appended.

In the drawings, in which like reference characters designate like parts in each of the several views:—

Figure 1 is a perspective view of the im-

proved stand supporting a plurality of individual book rests, each containing a ledger.

Fig. 2 is a plan view of the device, the revolving book supporting table being broken away to expose the stationary member of the stand.

Fig. 3 is a vertical cross section, on an enlarged scale illustrating the manner of mounting the revolving table, the lower portion of the stand being omitted.

Fig. 4 is a detail perspective view of one of the adjustable ball-bearing casters.

Fig. 5 is a detail sectional view illustrating a modified form of adjustment for the anti-friction device.

The improved book supporting stand comprises a stationary member, consisting of a plurality of upright legs 1 and adapted to rest at their lower ends upon the floor. In the drawings four of such legs are illustrated, though it is to be understood that a greater number may be employed. The legs 1 are spaced an equal distance apart, and are connected at their tops to the diametrically opposite leg by bars 2, which rest upon shoulders 3 formed in the tops of the legs 1 by cutting out or mortising the latter a distance equal to the thickness of the bars 2, and leaving a front wall at the upper extremity of the legs 1, through which screws 4 are passed into the ends of the bars 2, thus rigidly securing the same together.

Similar bars 5 are secured to the inner, opposing faces of the legs 1 near the bottoms thereof, without, however, the necessity for shouldering the legs at this point. The bars 2 and 5 are halved in the ordinary manner at the point of crossing as at 6, in order to permit of the top surfaces of the same to lie in a horizontal plane with each other. The structure of the stationary member, as described, provides for the rigid maintenance of the legs 1 in an upright position, and is capable of supporting considerable weight, but I do not wish to be limited to the construction of the stand.

The upper bars 2 at their point of crossing are provided with a central, vertically disposed bearing 7, which may be in the form of a metallic sleeve set into the arms 2 and having a flange at its upper end, countersunk into the top faces of the bar 2, to hold the sleeve from displacement.

Longitudinally disposed channels 8 are

formed in the tops of the arms 2 and extend inwardly from the inner faces of the legs 1 to a point slightly beyond the half way point between the said legs and the bearing 7. These channels 8 are formed by cutting out the material from the top faces of the upper arms 2 to leave side walls 9 and a bottom wall 10. Mounted for rotation in each of the channels 8 are longitudinally disposed screws 11, which extend throughout the entire length of the channel 8, and are provided on their outer ends with a smooth bearing portion 12, adapted to pass through the outer end walls of the channel 8 and the relatively thin wall formed upon the upper extremities of the legs 1, and are there provided with outwardly extending squared terminals 13, for the purpose of having a wrench or other implement applied thereto, in order to turn the said screws 11, for a purpose to be explained. Collars 14 are secured to the screws 11, and bear against the inner faces of the outer end walls of the channels 8, in order to prevent the withdrawal of the screws 11 from their positions within the said channels. The inner terminals of the screws 11 are reduced, as illustrated at 15 and are adapted to rotate in an aperture formed in a wear-plate 16, which is set into the arm 2 at the inner end of the channels 8, and adapted to form a bearing for the inner ends of the screws 11.

Casters 17 carrying anti-friction devices such as balls 18, mounted in any well known manner, are adapted to rest upon the top edges of the side walls 9, flanking the channels 8 and comprise base plates 19, of a width substantially equal to the width of the upper bars 2. The outer ends of the base plates 19 are provided with downwardly extending lugs 20, having suitable threaded apertures 21, adapted to receive the threaded portion of the screws 11, and to be reciprocated backwardly and forwardly toward and away from the axis of the centrally located bearing 7, when the said screws 11 are turned in one or the other direction.

A revoluble member in the form of a turntable 22 is adapted to be swiveled in the central bearing 7, and to bear upon the anti-friction devices 18. The said table 22 comprises a solid bottom 23, having an upstanding marginal flange 24 extending around its sides. In the present form of the device, the table 22 is shown as rectangular in formation, but it is to be understood, as in the case of the hereinbefore described stationary member, that the same may be of any other desirable form.

The table 22 is provided at its central point with a downwardly extending pivotal post 25 which is preferably formed, at its upper end, integral with an attaching plate

26, which is screwed or otherwise secured to the under side of the bottom member 23 of the turntable. A nut 27 is applied to the lower end of the pivotal post 25, in order to prevent the table from being dislodged from its proper position upon the stationary member of the stand, the post 25 being screw-threaded at its lower terminal for the reception of the nut 27, which is adapted to permit the post 25 to freely turn within the bearing 7, without having any binding action thereon.

It will be seen that an extremely simple book stand of the revolving type has been devised, and that the means for moving the anti-friction devices 18 toward and away from the axis of rotation is also simple in construction and capable of manufacture at a low cost.

In Fig. 5 of the drawing, there is illustrated a modified form of the invention, wherein the top bar 2, instead of having the continuous channel 8, is provided with a series of round sockets 28, into which is adapted to be seated the container 29 for a ball bearing 30. The latter, together with the container or housing 29 is of a commercial type of anti-friction device, and may be readily found upon the market.

In the use of the latter form of the device, the member 29 is to be removed from one socket 28 and placed in another, as desired, in order to locate the ball 30 a greater or a less distance from the axis of rotation of the table 22.

The first described means of adjustment for the anti-friction devices necessitates the application of a wrench or similar device to the adjusting screws for the purpose of moving the anti-friction devices toward or away from the axis of rotation, it being desirable, when a heavy load is placed upon the table 22, to change the position thereof to a different point than when a light load is placed upon said table. For instance, the anti-friction devices must be moved outwardly away from the central pivot of the table when a light load is placed upon the table and adjusted inwardly for a heavy load. It is desirable that the table should not turn too freely, and the adjustment of the anti-friction device makes provision for this.

The book stand is designed to be used, particularly as an accessory to ledger posting machines, or with any mechanical posting machine, such as used in banks, shipping houses, offices, or the like; and it is only necessary to place the ledgers or other heavy books 31, as illustrated in Fig. 1 of the drawings, within the individual book rests 32, which are of ordinary construction, and locate the same, one in each corner of the table 22 in the manner illustrated in Fig. 1. In this arrangement, the weight of the ledgers or other books is equally distributed

throughout the area of the table 22, so that the latter is capable, through the medium of the anti-friction devices, of being easily rotated upon its axis, and will remain in its adjusted position. The operator of the posting machine may easily have access to any one of the books desired by a simple rotation of the table 22, thus obviating the necessity for lifting or handling the books when they are once placed in position.

From the foregoing, it will be seen that a device capable of supporting a plurality of ledgers in a minimum amount of space has been provided, and that it is not necessary to provide other desk room for the same.

What is claimed is:—

1. A book stand comprising a relatively stationary member provided with radial arms which are maintained in fixed relation to each other, a revoluble table located above the said arms, means for pivotally connecting the table and member at the center, anti-friction devices carried by the radial arms and contacting with the under side of the table to support the load thereon, and means provided on the said radial arms for permitting the individual adjustment of the said anti-friction devices on the arms toward and away from the central axis of the table without disturbing the position of the arms.

2. A device of the class described comprising a relatively stationary support, a rotatable table located above the support and having a central pivotal connection with the same, anti-friction devices carried by the support and adapted to bear on the under-side of the table to support the weight thereof, and means for positioning the anti-friction devices on the said support at different distances from the axis of rotation of the table, said means permitting the individual adjust-

ment of the anti-friction devices without disturbing the said support or the table.

3. A book stand comprising a relatively stationary support including spaced legs and crossed radial arms, a revoluble table centrally pivoted to the arms and movable over the same, anti-friction devices mounted on said arms and bearing against the under-side of the table, and means for adjusting the anti-friction devices longitudinally along the arms toward and from the central axis of the table, said means including screws engaging the anti-friction devices and adapted to be turned to effect the desired adjustment.

4. A book stand comprising a relatively stationary member including spaced legs and crossed radial arms, longitudinal channels formed in the arms, screws located longitudinally in the channels, means for retaining the said screws in position and permitting their turning movement, plates mounted upon the said arms, anti-friction devices carried by the plates and having downwardly directed lugs extending into the said channels and having threaded engagement with the screws, whereby upon a manipulation of the latter, the anti-friction devices are moved along the arms, and a table centrally pivoted to the arms and adapted to be revolved upon the said anti-friction devices.

In testimony, that I claim the foregoing as the invention of CHARLTON E. RICE, I have hereto affixed my signature in the presence of two witnesses.

BETTIE A. RICE,

Executrix of the estate of Charlton E. Rice, deceased.

Witnesses:

R. C. WADE,
EDWIN C. RICE.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."