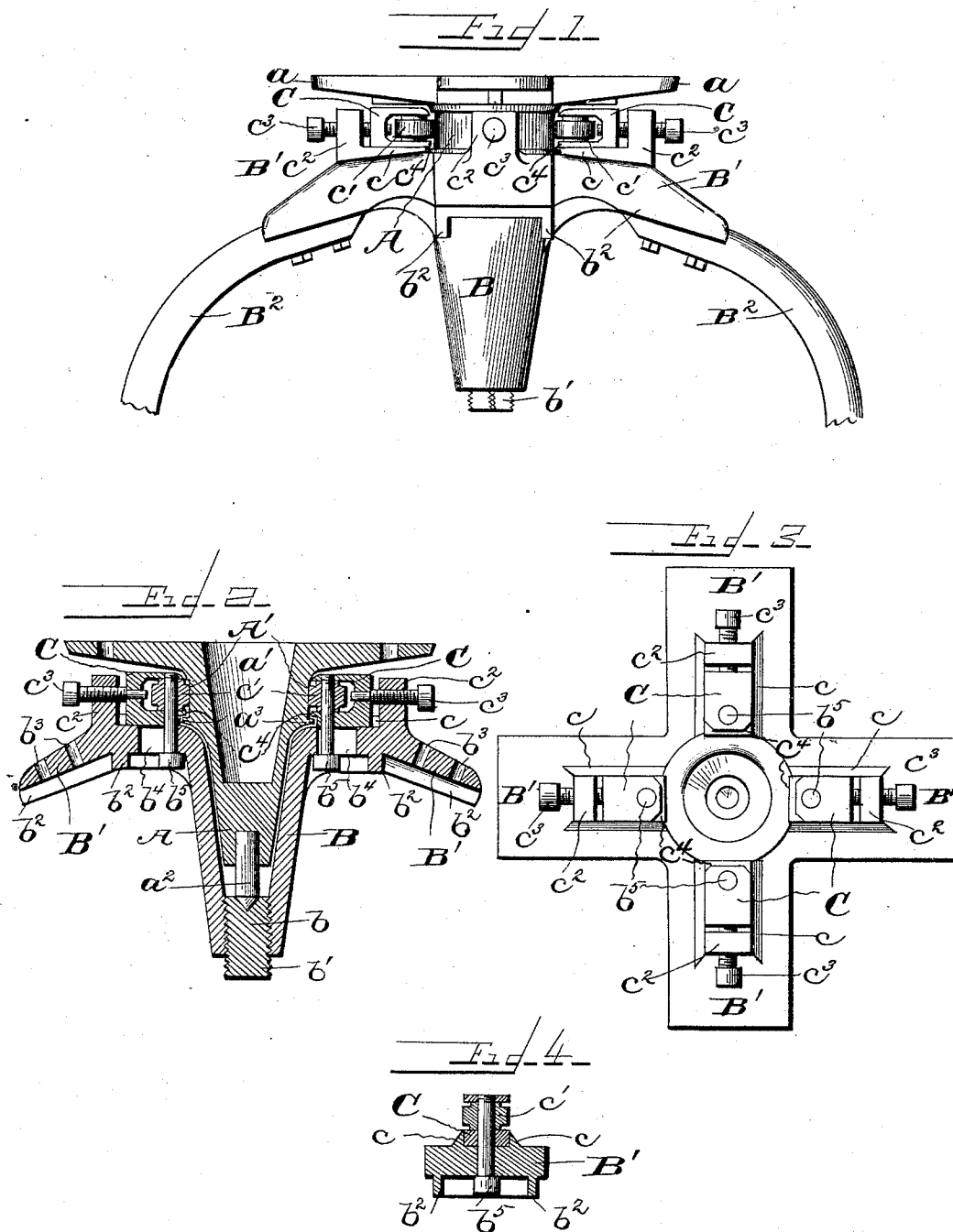


(No Model.)

W. H. HUBBARD & A. GOODRICH.
STAND, RACK, &c.

No. 468,502.

Patented Feb. 9, 1892.



Witnesses

J. A. Taubenschmidt
E. Wolf.

Inventors,
William H. Hubbard
and Abram Goodrich
By Whitaker & Brewster Attorneys

UNITED STATES PATENT OFFICE.

WILLIAM H. HUBBARD AND ABRAM GOODRICH, OF AUBURN, NEW YORK.

STAND, RACK, &c.

SPECIFICATION forming part of Letters Patent No. 468,502, dated February 9, 1892.

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To all whom it may concern:

Be it known that we, WILLIAM H. HUBBARD and ABRAM GOODRICH, citizens of the United States, residing at Auburn, in the county of Cayuga and State of New York, have invented certain new and useful Improvements in Stands, Racks, &c.; and we do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

Our invention is an improvement in revolving stands, &c.; and it consists in the novel features of construction hereinafter fully described.

In the accompanying drawings we have illustrated one form in which we have contemplated embodying our invention, and the same is fully disclosed in the following description and claims.

Referring to said drawings, Figure 1 is a side elevation of our improved revoluble base. Fig. 2 is a sectional view of the same. Fig. 3 is a top view of the lower member of the revolving base, the upper member being removed. Fig. 4 is a detail of part of the mechanism.

In the drawings we have shown our improved base applied to a revolving stand for books or other articles; but it will be obvious that the said base may be employed to support chairs, stools, tables, racks, and other devices wherever a revoluble support is desired.

In the drawings, A represents the revoluble pedestal of our improved revoluble base, which is preferably formed of cast metal, as iron. The pedestal is conveniently made pyramidal in shape, and is provided at its upper end with flanges *a*, which are perforated to enable the stand, rack, or other device to be supported, to be secured thereto, as shown in Figs. 5 and 6. The pedestal may also be cast with a hollow portion *a'*, if desired, to render it lighter. The lower end of the pedestal A is provided with a pivotal support *a*², suitably secured to the same, (here shown as a short shaft set into a recess in the pedestal,) said support being of very hard metal, as steel, and having its lower end provided with a cone-shaped bearing portion. The pedestal

A is also provided adjacent to the flanges *a* with a turned cylindrical portion A', which terminates at its lower edge in a projecting peripheral flange *a*³, for a purpose hereinafter described.

The pedestal A is supported in a casing B, which is hollow and of the same general form as the pedestal. The lower extremity of the casing B is fitted with a bearing-block *b*, which consists, preferably, of a screw-threaded plug tapped into the end of said casing and having a cone-shaped concave bearing portion to engage the spindle or shaft *a*². We might, however, provide the bearing-block *b* with a convex bearing-surface and the support *a*² with a concave bearing-surface if found desirable; but the construction here shown is the more desirable, as the concave bearing portion of the block *b'* serves as an oil-cup to retain a quantity of oil to keep the parts properly lubricated. The bearing-block *b* is also provided with a polygonal head *b'* or a polygonal aperture to receive a wrench or key, by means of which said block may be turned and the parts adjusted to compensate for wear.

From the casing B extend outwardly the radial arms B', preferably four in number, which are provided on their lower faces with the webs or flanges *b*² which form guides to receive the supports or legs B² B² of the device, and the arms B' are also provided with suitable perforations *b*³ to receive the attaching-bolts, which secures such supports or legs to the base. On the upper side of each of the arms B' B' is a pair of parallel guiding webs or flanges *c* *c*, which guide radially-movable yokes C, carrying friction-rolls *c'*. At the outer extremities of the guiding-flanges *c* *c* is an upwardly-extending lug *c*², which is provided with a screw-threaded aperture. An adjusting-screw *c*³ extends through said screw-threaded aperture and engages the yoke C. Below the yoke C the arm B' is slotted at *b*⁴, and receives a set-screw *b*⁵, which extends up through said arm and engages the yoke, supporting it and also clamping or securing it in its adjusted position after it has been adjusted by the screw *c*³.

We prefer to make the parts as shown in Figs. 2 and 4, the set-screw *b*⁵ forming the spindle of the friction-roll and having its up-

per end screw-threaded to engage a screw-threaded aperture in the upper member of the yoke C.

When the parts are in position, the yokes C are forced inwardly by the adjusting-screws c^3 until the friction-rolls c' engage the turned cylindrical portion A' of the pedestal. After the parts are in their adjusted positions the set-screws are tightened up and the yokes held firmly against movement. The yokes C are also provided with a projecting shoulder c^4 , as shown in Figs. 2 and 3, which when the rolls c' are in engagement with the cylindrical portion A' project above the peripheral flange a^3 of the pedestal, thus preventing the pedestal and the device which it supports from being removed from engagement with the casing.

It will be seen that the stand, chair, table, or other device supported by our improved base may be revolved with great ease, as the cone-bearing at the lower part of the base will give rise to very little friction, and the cylindrical portion of the pedestal and the rolls c' form an anti-friction or roller bearing, thus reducing the friction to a minimum. As the two bearings are in different planes, the device supported by the base will be held in a perfectly vertical position and without upsetting. The construction is compact, light, very durable, and the parts are adjustable to compensate for wear, so that if they should become loose they may be accurately adjusted. The parts are also held securely in their adjusted positions, and will therefore not work loose or become accidentally displaced. It will also be seen that the device occupies very little vertical space, and it can also be located entirely beneath the article which it supports, thus allowing the entire space within the rack, stand, or casing to be utilized.

What we claim as new, and desire to secure by Letters Patent of the United States, is—

1. A pivotal support for revolving stands, located entirely beneath the horizontal plane of the stand, the same consisting of the part adapted to be secured to the stand provided with a vertical pivot and having a cylindrical portion in a different horizontal plane from the pivot, and the supporting part provided with a bearing to receive the said vertical pivot and having laterally-adjustable friction-rolls for engaging the said cylindrical portion, substantially as described.

2. A pivotal support for revolving stands, consisting of the pedestal provided with a vertical pivot and a cylindrical portion in a different horizontal plane from said pivot, and a supporting part having a bearing for said pivot and provided with radially-extending arms adapted to receive legs or other supports, yokes removably secured to said arms and provided with friction-rolls for engaging the cylindrical portion of the pedestal,

means for adjusting said yokes toward and from said pedestal, and means for clamping said yokes rigidly in their adjusted positions, thereby preventing strain upon their adjusting devices, substantially as described.

3. A pivotal support for revolving stands, consisting of the pedestal provided with a vertical pivot, and a cylindrical portion in a different horizontal plane from the pivot, and a supporting part having a bearing for said pivot and having radially-extending slotted arms, yokes movably secured to said arms and carrying friction-rolls adapted to engage the cylindrical portion of the pedestal, means for adjusting said yokes and their rolls with respect to said arms, and screws extending through the slots of said arms and engaging said yokes, whereby said screws may be tightened to secure said yokes and rolls rigidly in their adjusted positions, substantially as described.

4. In a pivotal support for revolving stands, the combination, with the supporting part, of the pedestal revolvably supported thereby, said supporting part being provided with a series of slotted arms, sliding yokes carrying friction-rolls secured to said arms by bolts passing through said slots and forming the spindles of said rolls, and means for adjusting said yokes, substantially as described.

5. In a pivotal support for revolving stands, the combination, with the pedestal having the cylindrical portion and the peripheral shoulder, of the supporting part adapted to pivotally support said pedestal, provided with the sliding yokes carrying friction-rolls adapted to engage the said cylindrical portion of the pedestal, said yokes having portions adapted to engage said peripheral flange and prevent the removal of the pedestal from engagement with said supporting part, substantially as described.

6. In a show-stand, the combination, with the supporting part having laterally-extending arms and the legs or supports connected to said arms, said supporting part being provided with a pedestal-bearing below said arms, of a pedestal adapted to be secured to the base of a stand or other structure to be supported and having a downwardly-extending pivot to engage the said bearing, and friction-rolls adjustably mounted on the arms of the supporting part, whereby a pivotal support for show-stands and like articles is provided which is situated below the stand, substantially as described.

In testimony whereof we affix our signatures in presence of two witnesses.

WILLIAM H. HUBBARD.
ABRAM GOODRICH.

Witnesses:

CHAS. O. SMITH,
C. F. W. HUBBARD.