(No Model.) 2 Sheets—Sheet 1.

C. BOSTAD & O. O. KRABOL.

REVOLVING FURNITURE.

No. 556,732. Patented Mar. 24, 1896.

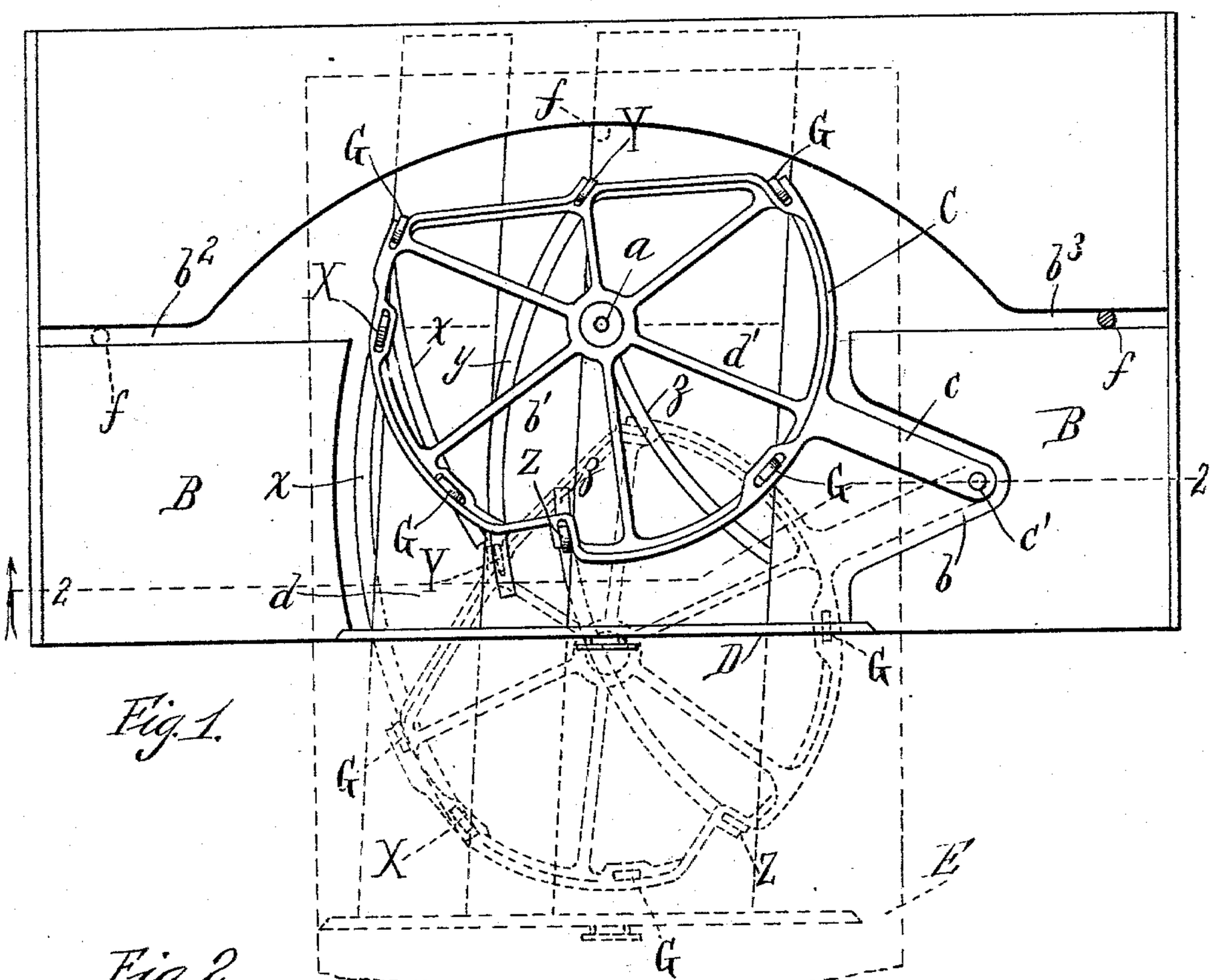
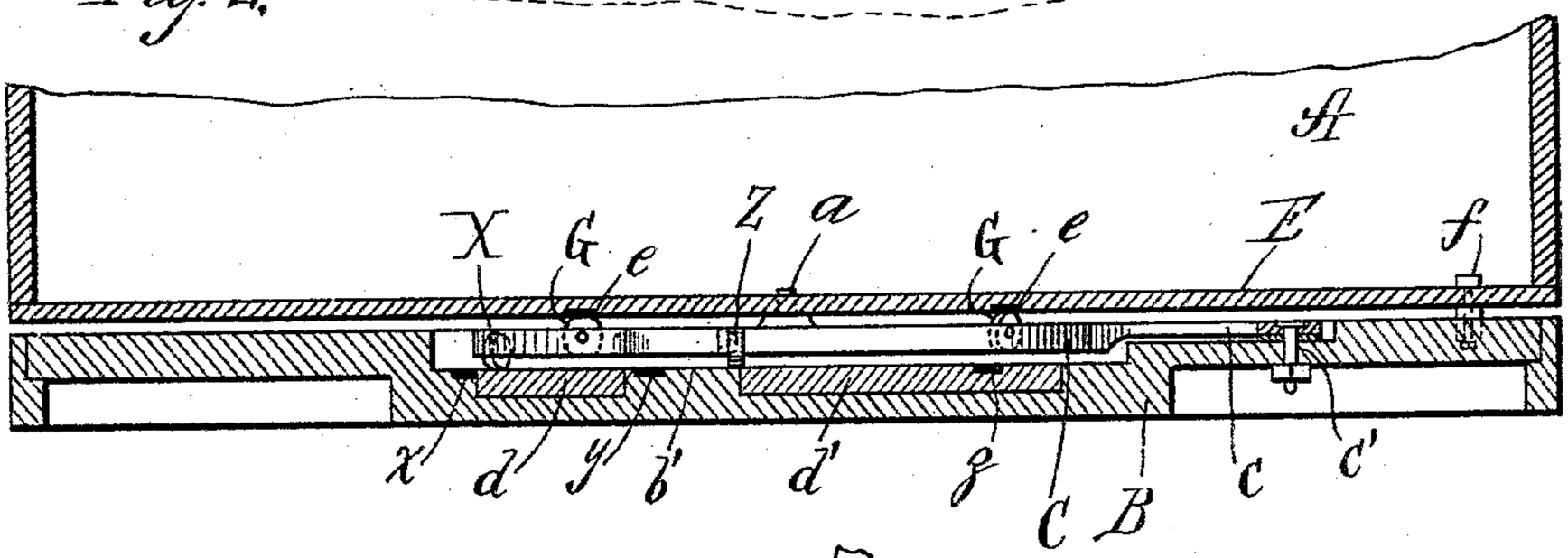


Fig. 1.

Fig. 2.



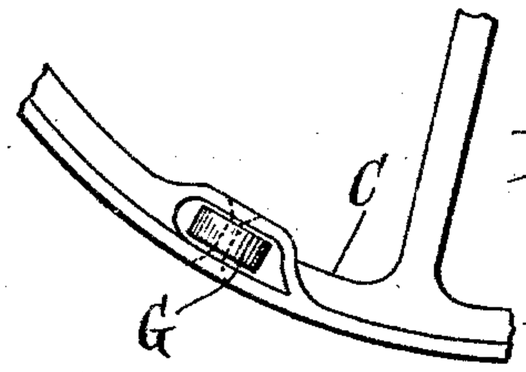


Fig. 3.

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Jno. A. Christianson.

Inventors
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Their attorney.

(No Model.) 2 Sheets—Sheet 2

C. BOSTAD & O. O. KRABOL.

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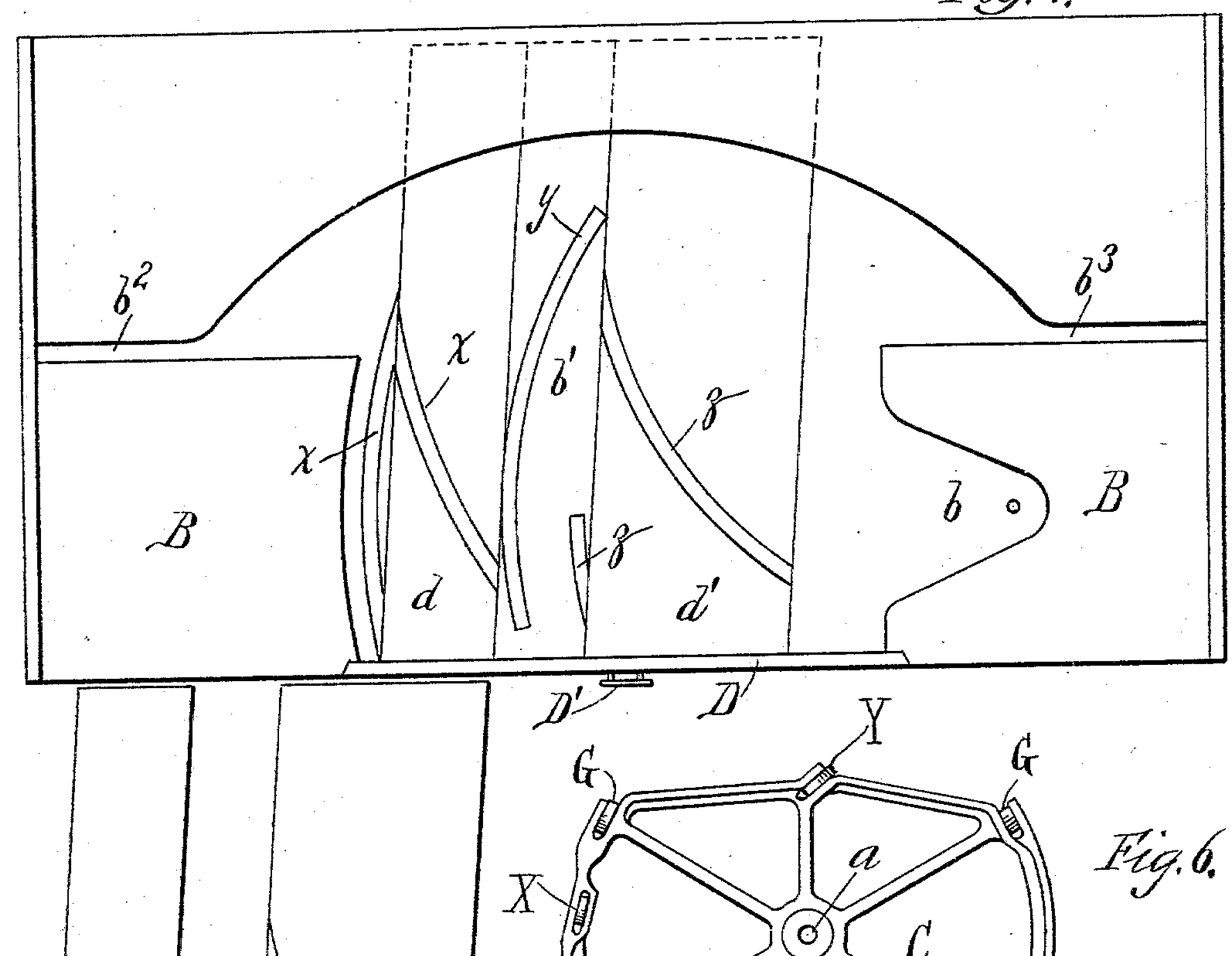
Fig. 4.



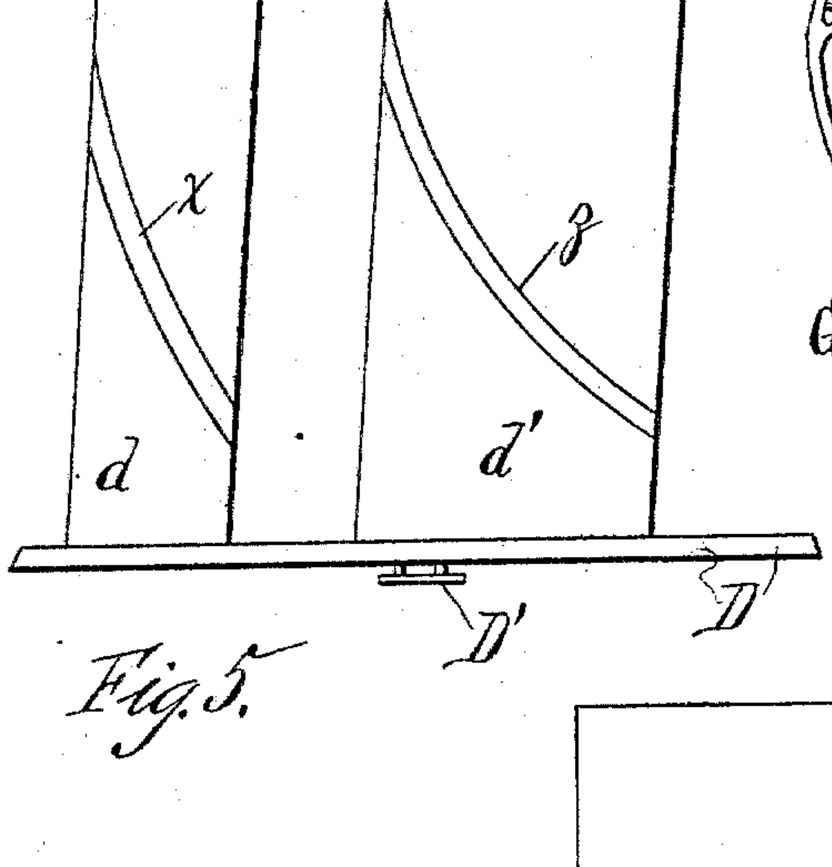


Fig. 5.

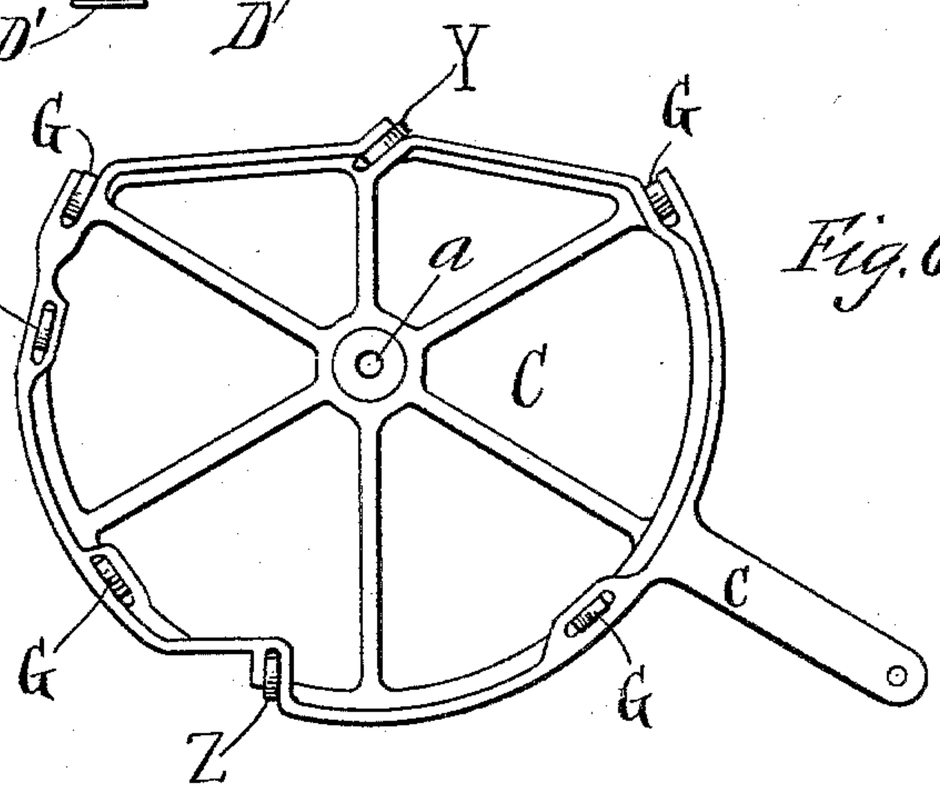
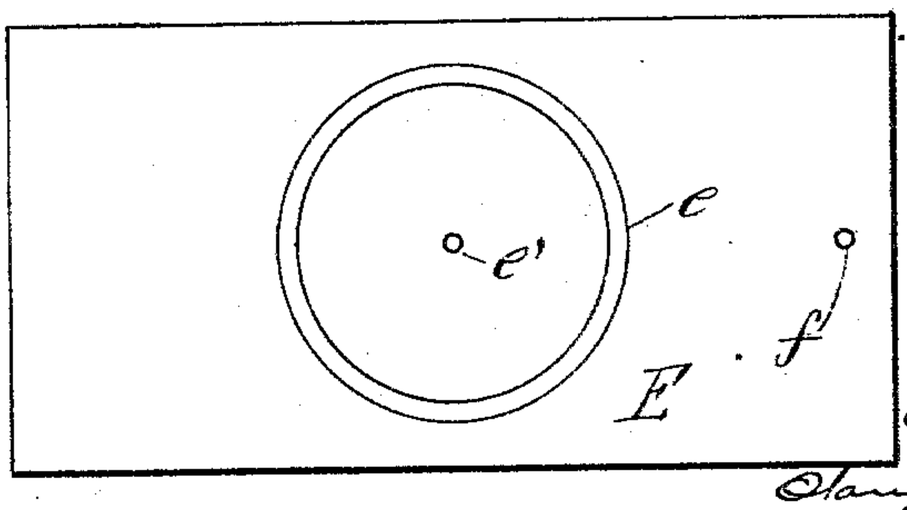


Fig. 6.

Fig. 7.



Witnesses:
W. C. Curtis
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Inventors
Christian Bostad
Olaus O. Krabol
By Louis K. Gillson
Their Attorney.

UNITED STATES PATENT OFFICE.

CHRISTIAN BOSTAD AND OLAUS O. KRABOL, OF CHICAGO, ILLINOIS, ASSIGNORS TO THE AUTOMATIC FOLDING BED COMPANY, OF SAME PLACE.

REVOLVING FURNITURE.

SPECIFICATION forming part of Letters Patent No. 556,732, dated March 24, 1896.

Application filed February 1, 1894. Serial No. 498,726. (No model.)

To all whom it may concern:

Be it known that we, CHRISTIAN BOSTAD and OLAUS O. KRABOL, citizens of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Revolving Furniture; and we do 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, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

Our invention relates to revoluble furniture. Its object is to provide means for easily turning heavy furniture, such as folding beds, which is carried upon a base or platform and designed to turn thereon while the base stands adjacent to a wall.

The invention consists in the use of a swinging frame, upon which the article of furniture is pivotally supported and which is pivoted to the base so as to swing forwardly.

It consists, further, in the use of a slide unconnected with the frame and adapted to be drawn out to supply a track therefor, and so constructed that the frame does not bear upon it when the article is in its normal position.

It consists of such further parts and arrangement of parts as are hereinafter described.

In the drawings, Figure 1 is a plan view of the base and the carrying-frame. Fig. 2 is a longitudinal section on the line 2 2 of Fig. 1. Fig. 3 is a detail of the carrying-frame. Fig. 4 is a plan view of the base with the frame removed. Fig. 5 is a plan view of the slide. Fig. 6 is a plan view of the frame. Fig. 7 is a bottom plan, upon a smaller scale, of the article of furniture to be carried by the base.

It is common to construct folding beds in combination with bookcases and other articles of furniture, the two pieces facing in opposite directions. In the daytime the entire piece stands with the bed toward the wall. At night it is turned around, so that the bed may be lowered. Such furniture is too heavy to be easily turned upon the floor by means of casters. Furthermore, to so turn it is very detrimental to carpets or the floor. Such furniture has been pivotally mounted upon a base which remains stationary while the article is turned, a sliding carriage carrying the pivot-pin and sliding forward to allow the article to turn without striking the wall. When this sliding carriage rests upon the floor, it is open to the same objection of damaging the carpets, &c., as is the use of casters upon which to rotate the piece of furniture. When it runs in ways in the base, the friction is great and there is danger of cramping the slide in its ways. All of these difficulties are overcome in our invention. The article turns easily and freely and without danger to itself or the floor-covering.

As the invention relates only to the means of supporting and turning the furniture, we have not deemed it necessary to show the entire structure.

The article of furniture to be carried is indicated at A, its bottom being shown at E. The base upon which the piece rests is shown at B′, and is an oblong rectangular platform having its upper surface recessed and grooved, as hereinafter described.

The frame C, for carrying the article, is preferably of cast-iron, and, as shown, is substantially of wheel form, with one side flattened. It is provided with an arm *c*, projecting from its periphery and by means of which it is pivotally secured to the platform B, as shown at *c′*, a recess *b* being formed in the platform to accommodate this arm and allow it to swing on its pivot-pin. The frame C is supported upon rollers X Y Z, the first being opposite the stem *c* and the others intermediate of the roller X and the stem and upon opposite sides of the frame. These rollers are so journaled as to travel in the directions of the movements of the frame as it swings upon the pivot *c′*.

The pivot *a* of the article A is fixed in the center of the frame C and projects upwardly. Rollers G G (as shown four in number) are journaled in the frame C at intervals around its periphery, so as to turn in the direction of its circumference. These rollers project upwardly and serve as bearings for the bottom of the article A, which is armed with a circular metallic track *e* for contact with them. At *e′* is shown the socket in the bottom E of the article A to receive the pivot-pin *a*.

The top of the platform B is recessed to receive the frame C, so that only its rollers G G project above the upper surface of the platform, admitting of the article A being located very near it. Across the floor of this recessed portion and extending diagonally back from the front of the platform are ways for the slide D, which is adapted to be drawn out to carry the frame C when it is swung forwardly. This slide is composed of two boards d d' of such thickness that they are flush with the floor of the recessed portion of the platform.

A cleat attached to the forward ends of the boards d d', as shown, holds them together and serves as a means of attachment for the pull D', by which the slide is moved in its ways. The width of the boards d d' and their location relatively to the rollers X Y Z cause these rollers to rest upon the floor of the recess of the platform when the frame C is in its normal position, the rollers Y Z bearing upon the rib b' between the boards d d'.

Metal tracks x y z are provided for the rollers X Y Z to run upon, the tracks x z being in part upon the floor of the platform and in part upon the slide D, the two portions of each being so disposed that they coincide when the slide is drawn forward. The diagonal adjustment of the slide relatively to the platform B is necessary to admit of the inner ends of the tracks x y z being upon the floor of the platform, the inclination of the ways for the slide from front to rear being toward the pivotal point of the frame C.

The track y is wholly upon the rib b' of the platform between the ways for the boards d d', which being diagonal to the platform follow the general direction of this track.

Guide-channels b^2 b^3 are cut in the platform B, extending one from each end thereof and located midway between the sides. A pin f is set in the bottom of the article A near one of its ends and midway of its sides and engages the channels b^2 b^3.

When it is desired to turn the article the slide D is first drawn forward by means of the pull D', and pressure is then applied at the end opposite that at which the pin f is located, so as to force it forward. The article turns upon the pin f as a pivot, carrying the frame C with it. The frame C swings upon its pivot c', and hence carries the pivot-pin a and necessarily the article A in a longitudinal as well as a lateral direction with reference to the platform, and the pin f slides along the groove b^3. When the frame C reaches the limit of its forward movement the further turning of the article A must be upon its pivot-pin a. From the point reached by the pin f when the movement of the frame C ceases the rearward line of the groove b^3 is curved across the rearward portion of the platform to describe the arc of a circle, having the then location of the pin a as a center and terminating at the groove or channel b^2. The platform B forward of this curved line is cut away to form the recess, before mentioned, for the frame C and to admit of the movement of the pin f as the article A is swung upon the pin a. The forward line of the channels b^2 b^3 extends without curve inwardly beyond the point of curvature of the rearward line. When the pin f reaches the forward side of the channel b^2 it is stopped and further movement of the article A must be upon it as a pivot, the frame C being carried backwardly, and thereby forcing the article longitudinally, so as to carry the pin f along the channel b^2. The next action in turning the article is of course in the opposite direction.

The frame C is round for convenience of construction. Its rearward side is flattened, as shown, to admit of the recess within which it is set terminating at the curve already described and serving as a guide for the pin f. The function of this guide is simply to prevent the frame C from being moved inwardly too soon and thus throwing the article A against the wall.

Were the article A to rest upon the slide D when in its adjusted position it would be exceedingly difficult to move the slide because of the great weight of the article.

One advantage in the use of the frame C swinging about a fixed point is the positive action of the mechanism.

We claim as our invention—

1. The combination with an article of furniture, A, adapted to be rotated upon a pivot, of a platform, B, having longitudinal guideways, b^2, b^3, adjacent to its ends; a frame, C, pivoted upon the platform in such manner as to swing forwardly; a pivot-pin, a, for the article, A, carried by such frame, and a guide-pin set in the bottom of the article, A, for engaging the guideways, b^2, b^3, substantially as described.

2. The combination with an article of furniture, A, adapted to be rotated upon a pivot, of a platform, B, having longitudinal guideways, b^2, b^3, near its ends; a frame, C, pivoted at one side to the platform; rollers for supporting the frame; a slide located below and unconnected with the frame and being extensible with reference to the platform; a guide-pin set in the bottom of the article, A, for engaging the ways, b^2, b^3, and a pivot-pin for the article, A, carried by the frame, C, substantially as described and for the purpose specified.

3. The combination with a rotatable article of furniture, A, and with a platform, B, therefor and a frame, C, pivoted upon the platform, so as to swing beyond its edge, of rollers, as, X, Y, Z, for supporting the frame; a slide, D, carried in ways extending diagonally across the platform below the frame whereby the rollers may rest upon the platform when the frame is not extended, and run therefrom upon the slide when the latter is drawn out, substantially as described and for the purpose specified.

4. The combination with a relatively stationary base and with a platform or article of furniture supported by and adapted to rotate upon the base, of an extensible track carried by the base and adapted to be drawn out to support the platform or article as it turns, substantially as described.

5. The combination with a relatively stationary base and with a platform or article of furniture supported by and in pivotal connection with the base, of an extensible track independent of the pivotal relation of the base and the platform or article, said track lying normally within the area of the base and adapted to be extended beyond such area to increase the width of the base and support the platform or article as it turns, substantially as described.

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

CHRISTIAN BOSTAD.
OLAUS O. KRABOL.

Witnesses:
LOUIS K. GILLSON,
M. H. L. WING.