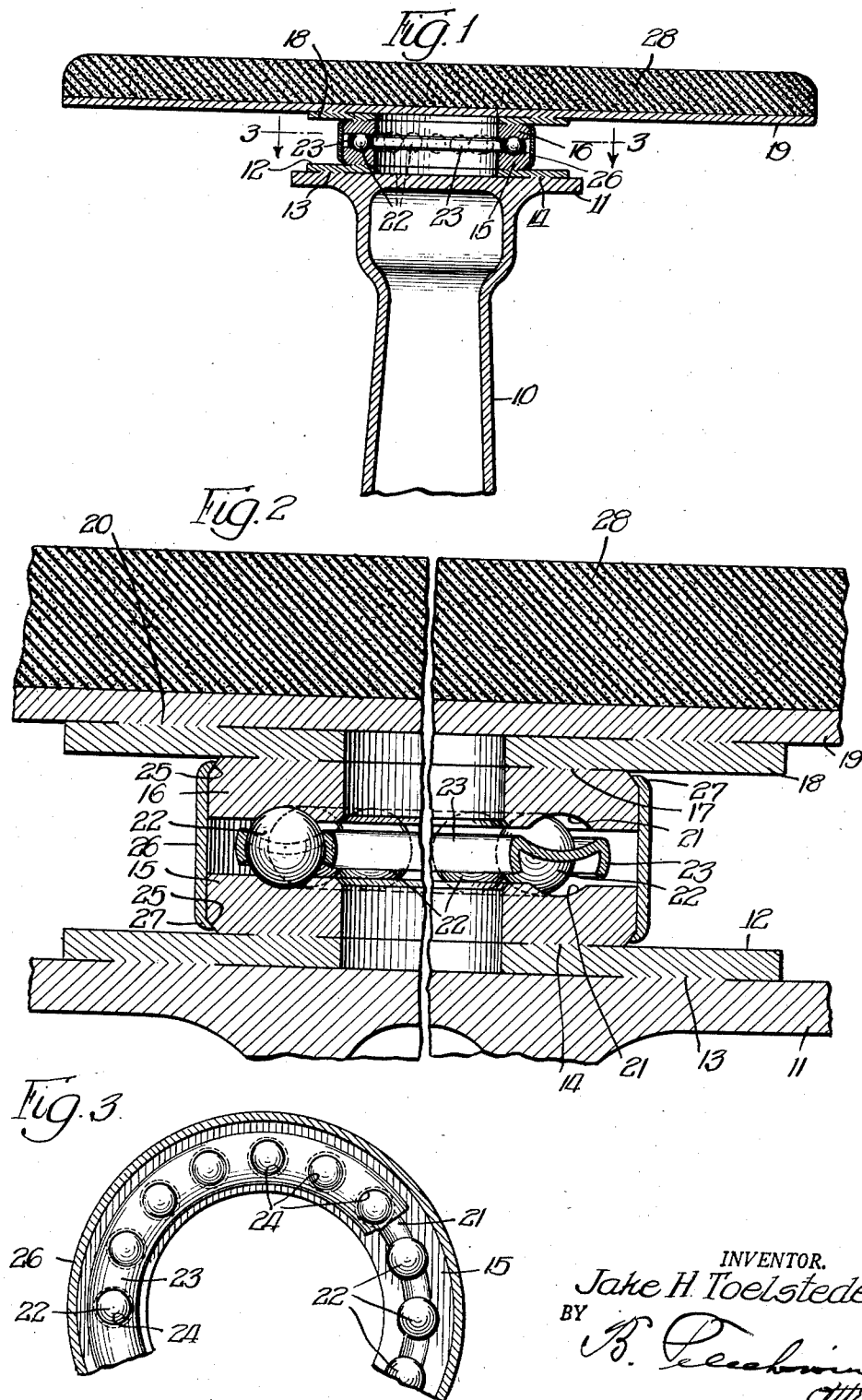


Feb. 20, 1951

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REVOLVABLE STOOL

2,542,218

Filed April 17, 1947



UNITED STATES PATENT OFFICE

2,542,218

REVOLVABLE STOOL

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Application April 17, 1947, Serial No. 742,033

2 Claims. (Cl. 155-95)

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The present invention relates to revolvable stools, and has for its main object the provision of simple and inexpensive revolvable mechanism by means of which the stool seat may revolve with relation to the stool base.

A still further object of the present invention is the provision in a revolvable stool of a pair of ball-bearing races, one attached to the base and the other to the seat section of the stool, with ball-bearings interposed between the races, for ready revolving of the seat section of the stool with relation to the base thereof, with means for maintaining the races connected on a vertical plane and in transverse relation with the base and the seat section.

With the above general objects in view and others that will appear as the invention is better understood, the same consists in the novel construction, combination and arrangement of parts hereinafter more fully described, illustrated in the accompanying drawing and pointed out in the appended claims.

In the drawing forming a part of this application, and in which like designating characters refer to corresponding parts throughout the several views;

Fig. 1 is a diametrical cross-sectional view, on a vertical plane, through the support, base, seat section of the stool and revolvable connection between the base and seat section of the stool;

Fig. 2 is an enlarged, fragmentary, cross-sectional view, similar to that of Fig. 1, showing revolvable connection between the base and the seat section of the stool; and

Fig. 3 is an enlarged, fragmentary cross-sectional view on line 3-3 of Fig. 1.

Referring in detail to the present drawing there is shown therein stool supporting standard 10, which by its lower end may be rigidly affixed to a floor. Rigidly affixed or integrally formed with the upper end of said standard 10 is a circular base 11. Positioned upon upper face of base 11, and centrally thereof is washer 12 which is rigidly affixed to said base 11 by any suitable means, such as welds 13. Positioned upon the upper face of said washer 12, and rigidly affixed thereto by welding, as at 14, or any suitable means, is lower ball-bearing race 15. Superimposed over said race 15, in a cooperative relation therewith, is similar race 16. Said latter race 16, by its upper face is rigidly affixed by any suitable means, such as welds 17, to washer 18. The latter is affixed to the under-face of seat base 19, by being welded thereto as at 20, or by any other suitable means.

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Races 15 and 16 are in a mutually spaced relation, and on their opposed faces are each provided with annular channel 21, each of which is of an arcuate formation on transverse cross-section, for seating a plurality of ball-bearings 22, the latter being interposed between two races 15 and 16, and are there retained in an operative and spaced position by means of a conventional ball-bearing supporting ring 23. The latter is provided with conventional openings 24 within which ball-bearings 22 are seated in a transverse relation with ring 23.

The corner of each race 15 and 16, defined by the outer face of each race and the adjacent periphery thereof is reduced for effecting bevel 25. Placed around the two races and in contact with their outer peripheries is cylindrical member 26, having its ends inwardly flanged for effecting inwardly directed lips 27, each of which overlies and contacts with the respective bevel 25 in races 15 and 16.

It is noted that the engagement of cylindrical member 26 with races 15 and 16 is accomplished before the latter are affixed to washers 12 and 18, respectively, and before lips 27 have been formed. This is done by first inserting races 15 and 16 with ball-bearings 22 and ring 23 in the operative position between said races, as best shown in Fig. 2, and thereupon spinning over the ends of said cylindrical member 26 towards bevels 25 until lips 27 are formed and brought in an operative contactual relation with bevels 25 as is seen in Fig. 2. Thus, when said lips 27 have been formed and engaged with said bevels 25, races 15 and 16, ball-bearings 22 and cylindrical member 26 will constitute a unit to be interposed and rigidly affixed by welds 14 and 17 to the respective washers 12 and 18.

Lips 27, contacting with bevels 25, prevent separation of races 15 and 16 in vertical direction, but the contactual engagement of cylindrical member 26 with the peripheries of races 15 and 16, and of lips 27 with bevels 25, is sufficiently loose so as to permit free and unobstructed rotary motion of one race with relation to the other, the rotary motion of said races is facilitated by ball-bearings 22. Before cylindrical member 26 is applied to races 15 and 16 a lubricant may be spread between said races and channels 21, as well as upon ball-bearings 22 for the purpose of facilitating free rotation of races 15 and 16 with relation to each other. The inner periphery of cylindrical member 26 may likewise be lubricated before the insertion therewithin of said races 15 and 16, for facilitating rotation of said

races with relation to said cylindrical member 26.

Sponge rubber cushion 23, or cushion made of any other suitable material, positioned and attached to seat section 19 of the stool, completes the structure of the present invention. Parts other than said cushion 23 are preferably made of any suitable metal. It is understood that welding connections 13, 14, 17 and 20 may be eliminated and bolts, screws or any other suitable means may be substituted therefor.

From the hereinabove description it will be apparent that due to the revoluble connection between base 11 and seat section base 19, through the medium of races 15 and 16 and cylindrical member 26 joining therewith by means of bevels 25 and lips 27 the seat section of the stool cannot be detached or removed from base 11, while permitting complete rotary movement of the seat section of the stool with relation to base 11, the latter through the medium of ball-bearings 22 and races 15 and 16.

It is further observed that base 11 may be unattached to any support such as standard 10, and further said base may be enlarged to conform to the diameter of the seat section base 19, and when thus constructed the entire stool unit may be easily carried and when in that condition the stool may be used for boats as a seat to be placed upon boat bench to be used while fishing or operating a motor, with full facility for the user for turning in all directions without changing the seating position with relation to the stool.

It is also noted that washers 12 and 18 may be entirely eliminated in which case races 15 and 16 may be directly affixed to stationary base 11 and seat base 19, respectively. For all practical purposes washers 12 and 18 may be considered as parts of stationary base 11 and seat base 19, respectively.

While there is described herein a preferred embodiment of the present invention, it is nevertheless to be understood that minor changes may be made therein without departing from the spirit and scope of the invention as claimed.

What I claim as new is:

1. A revoluble stool comprising a stationary base, a race rigidly affixed to said base, a seat base in a spaced relation with said stationary base, a race rigidly affixed to said seat base, the two races being of an annular formation and of equal diameter, anti-friction elements interposed

between said races, the corners in the two races defined by their farthest removed faces and the adjacent portions of their peripheries being filed off for effecting bevels, and a cylindrical member surrounding said races and in contact with their outer peripheries, the ends of said cylindrical member being spinned over for effecting lips, said lips contacting with and overlying said bevels, said bevels, lips and anti-friction elements constituting means for maintaining said races in a rigid mutual relation transversely thereof, and for permitting free rotary movement of one race with relation to the other on a horizontal plane, for permitting rotation of said seat base with relation to said stationary base.

2. A revoluble stool comprising a stationary base, a race rigidly affixed to said base, a seat base in a spaced relation with said stationary base, a race rigidly affixed to said seat base, the two races being of an annular formation and of equal diameter, anti-friction elements interposed between said races, and a cylindrical member surrounding said races and in contact with their outer peripheries, the ends of said cylindrical member being bent toward the longitudinal center of said cylindrical member for effecting lips, said lips contacting with and overlying the portions of the outer end faces of said races adjacent their peripheries, said lips and said anti-friction elements constituting means for maintaining said races in a rigid mutual relation transversely thereof, and for permitting free rotary movement of one race with relation to the other on a horizontal plane, for permitting rotation of said seat base with relation to said stationary base.

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