

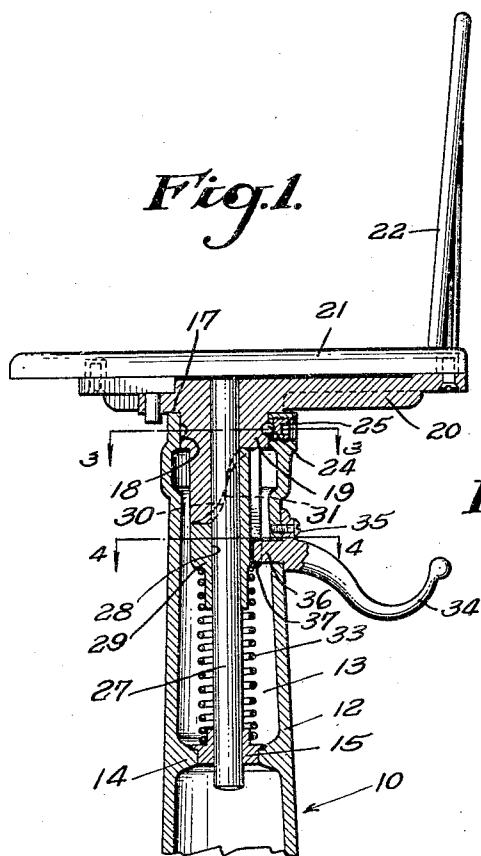
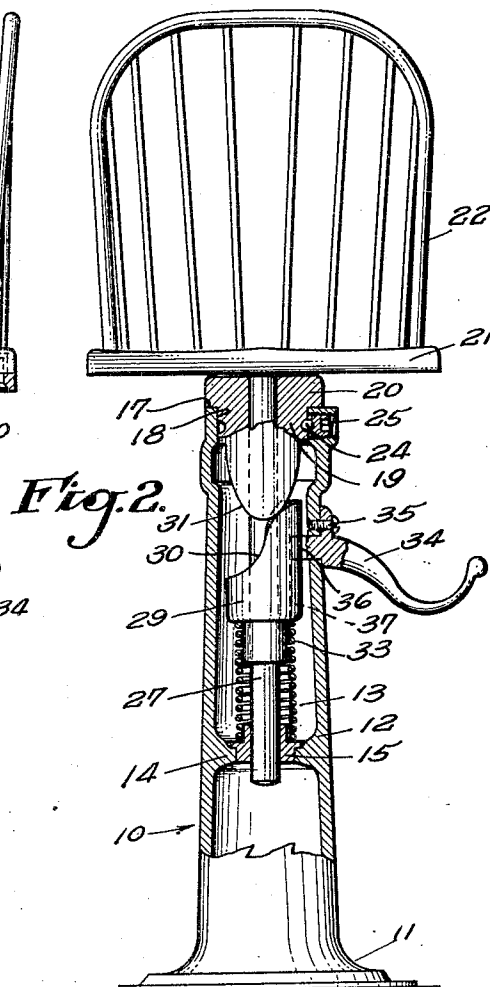
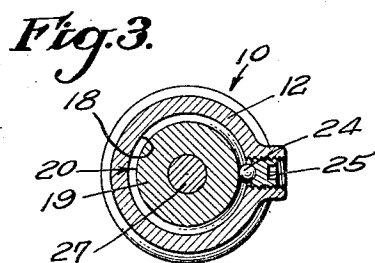
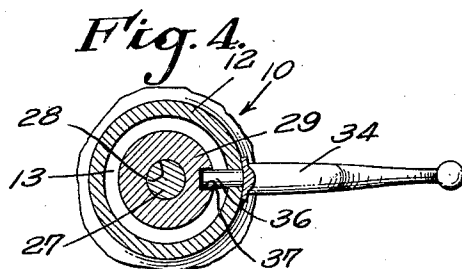
March 8, 1932.

P. MADSEN

1,848,183

SELF ALIGNING STOOL BASE

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UNITED STATES PATENT OFFICE

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SELF-ALIGNING STOOL BASE

Application filed June 21, 1929. Serial No. 372,634.

My invention relates to furniture, and in particular to a stool which finds special utility as a lunch-counter stool.

In stores, restaurants, and the like, it is common to have a counter in front of which are disposed a plurality of swivel stools on which customers may sit while making purchase. When the customers leave, it usually happens that the stools are left turned at an angle to the counter thereby presenting an untidy appearance.

It is an object of my invention to provide a swivel stool which is normally maintained facing a counter so that a row of such stools are all faced in the same direction to present a neat appearance.

A further object of my invention is to provide a stool of the character mentioned in which the positioning means is in the form of a cam arrangement which is enclosed by the base of the stool.

It is another object of my invention to provide a swivel stool which is strongly constructed. I secure this object by providing a stool in which a post thereof extends downward into a chamber in a supporting pedestal and is journaled in the pedestal at its lower end.

It is also an object of my invention to provide a swivel stool which is provided with a hanger for hats, caps, or other apparel, and which cooperates with other parts of the stool in a novel manner.

Further objects of my invention are found in the particular form of construction used in the preferred form of my device as will appear in the ensuing description.

In the accompanying drawings, I show a preferred form of my invention.

Fig. 1 is a side elevation, partly in section, showing a stool of my invention in the normal position.

Fig. 2 is a side elevation taken in the same direction as Fig. 1, showing the stool in a rotated position.

Fig. 3 is a sectional view, taken on the line 3—3 of Fig. 1, showing a retaining means of my invention.

Fig. 4 is a sectional view, taken on the line 4—4 of Fig. 1, showing a hanger means.

Referring to the drawings, my invention consists of a pedestal 10 having a base 11 adapted to be supported on a floor, and a cylindrical portion 12 which is supported in an upright position by the base 11. The cylindrical portion 12 provides an interior chamber 13 which extends downward from the upper end thereof. Intermediate between the base 11 and the upper end of the pedestal 10 is an annular ring 14 projecting into the chamber 13 which is machined or otherwise formed to support a bearing 15. The upper end of the cylindrical portion 12 is likewise machined to provide an upper bearing surface 17 and an inside bearing surface 18. Journaled by the bearing surface 18 and supported on the bearing surface 17 is a cylindrical portion 19 of a seat member 20, the seat member 20 supporting a conventional horizontal seat 21 and a conventional upright back 22 secured at the back of the seat 21. As best shown in Figs. 1 and 3, the seat member 20 is retained in the pedestal 10 by a ball 24 which is held in the upward end of the pedestal 10 by a plug 25 and which extends into an annular groove in the cylindrical portion 19 of the seat member 20. This permits rotation of the seat member 20 but prevents vertical movement thereof. Secured to the seat member 20 and extending downward therefrom is a post 27, the lower end of which is journaled by the bearing 15. The post 27 is received into a central longitudinal opening 28 in a follower or cam member 29 so as to permit the follower 29 to slide on the post 27.

The follower 29 is provided with an upper cam surface 30 which has the same contour as a lower cam surface 31 formed on a lower face of the cylindrical portion 19. One end of a spring 33 engages the bearing 15 and the other end thereof engages the follower 29 so as to normally urge the cam 30 on the follower 29 into contact with the cam 31 on the seat member 20. As clearly shown in Figs. 1 and 4, a hanger 34 is secured by a screw 35 to the pedestal 10 near the upper end thereof and extends outward therefrom. A pin 36 on the hanger 34 extends through an opening formed through the wall of the pedestal 10

and extends into a vertical longitudinal slot 37 formed in the follower 29 so as to prevent rotation of the follower 29 but permit vertical movement thereof.

As the seat 21 is rotated to a position as shown in Fig. 2, the cam surfaces 30 and 31 provide sliding contact therebetween and the cam follower 29 is moved downward against the action of the spring 33. This is clearly shown in Fig. 2 in which the cam follower 29 is shown as moved downward and compressing the spring 33. When the seat 21 is unoccupied, the cams 30 and 31 being normally forced into contact by expansion of the spring 33, slide relatively to each other and rotate the stool to a normal position, as shown in Fig. 1. The stool is thus returned to a normal position by the action of the spring 33 on the cams 30 and 31 whenever it is unoccupied.

It will be noted that my stool is constructed very strongly by providing an upper bearing 18 and a lower bearing 15 for the post 27. The particular construction used in supporting the seat member 20 also provides an economical method of constructing the stool as it is only necessary to machine the surfaces 17 and 18 and the surface of the ring 14. The construction of my hanger 35 also performs the double duty of a hanger and of a means for preventing rotation of the follower 29.

I claim as my invention:

1. In a swivel stool, the combination of: a pedestal having a chamber extending downward from its upper end; a seat member mounted so as to rotate on said pedestal and providing an inclined cam surface on a lower face thereof; a post member secured to said seat member and extending downward into said chamber; a follower mounted for axial translation on said post and providing a slot in an outer surface thereof; a pin means engaging the walls of said slot so as to prevent rotation of said follower; and compression means yieldingly urging said follower against said inclined cam.

2. In a swivel stool, the combination of: a pedestal having a chamber extending downward from its upper end; a seat member mounted so as to rotate on said pedestal and providing an inclined cam surface on a lower face thereof; a post secured to said seat member and extending downward into said chamber; a follower mounted for axial translation on said post and providing a slot in an outer surface thereof; a hanger secured to and extending from said pedestal and having a pin engaging the walls of said slot so as to prevent rotation of said follower; and compression means yieldingly urging said follower against said inclined cam.

3. In a swivel stool, the combination of: a pedestal having a chamber extending downward from its upper end; a seat member mounted so as to rotate on said pedestal and

providing an inclined cam surface on a lower face thereof; a post secured to said seat member and extending downward into said chamber; a follower mounted for axial translation on said post and providing a vertical slot in an outer surface thereof; a pin means engaging the walls of said slot so as to prevent rotation of said follower; and compression means yieldingly urging said follower against said inclined cam.

4. In a swivel stool, the combination of: a pedestal having a chamber extending downward from its upper end; a seat member mounted so as to rotate on said pedestal and providing an inclined cam surface on a lower face thereof; a post secured to said seat member and extending downward into said chamber; a follower mounted for axial translation on said post and providing a vertical slot in an outer surface thereof; a hanger secured to and extending from said pedestal and having a pin engaging the walls of said slot so as to prevent rotation of said follower; and compression means yieldingly urging said follower against said inclined cam.

5. In a swivel stool, the combination of: a pedestal having a chamber extending downward from its upper end; a seat member mounted so as to rotate on said pedestal; means for preventing vertical movement of said seat member; a post secured to said seat member and extending downward into said chamber; a member associated with said post and rotatable therewith, said member having an inclined cam; bearing means for journaling the lower end of said post member; a follower mounted for axial translation on said post and maintained against rotation thereon; and spring means engaging said bearing means and yieldingly urging said follower against said inclined cam.

In testimony whereof, I have hereunto set my hand at Los Angeles, California, this 17th day of June, 1929.

PETER MADSEN.