C. W. FISCHER.

BARBER'S CHAIR.

APPLICATION FILED APR. 13, 1909.

935,480. Patented Sept. 28, 1909.

Fig. 1.

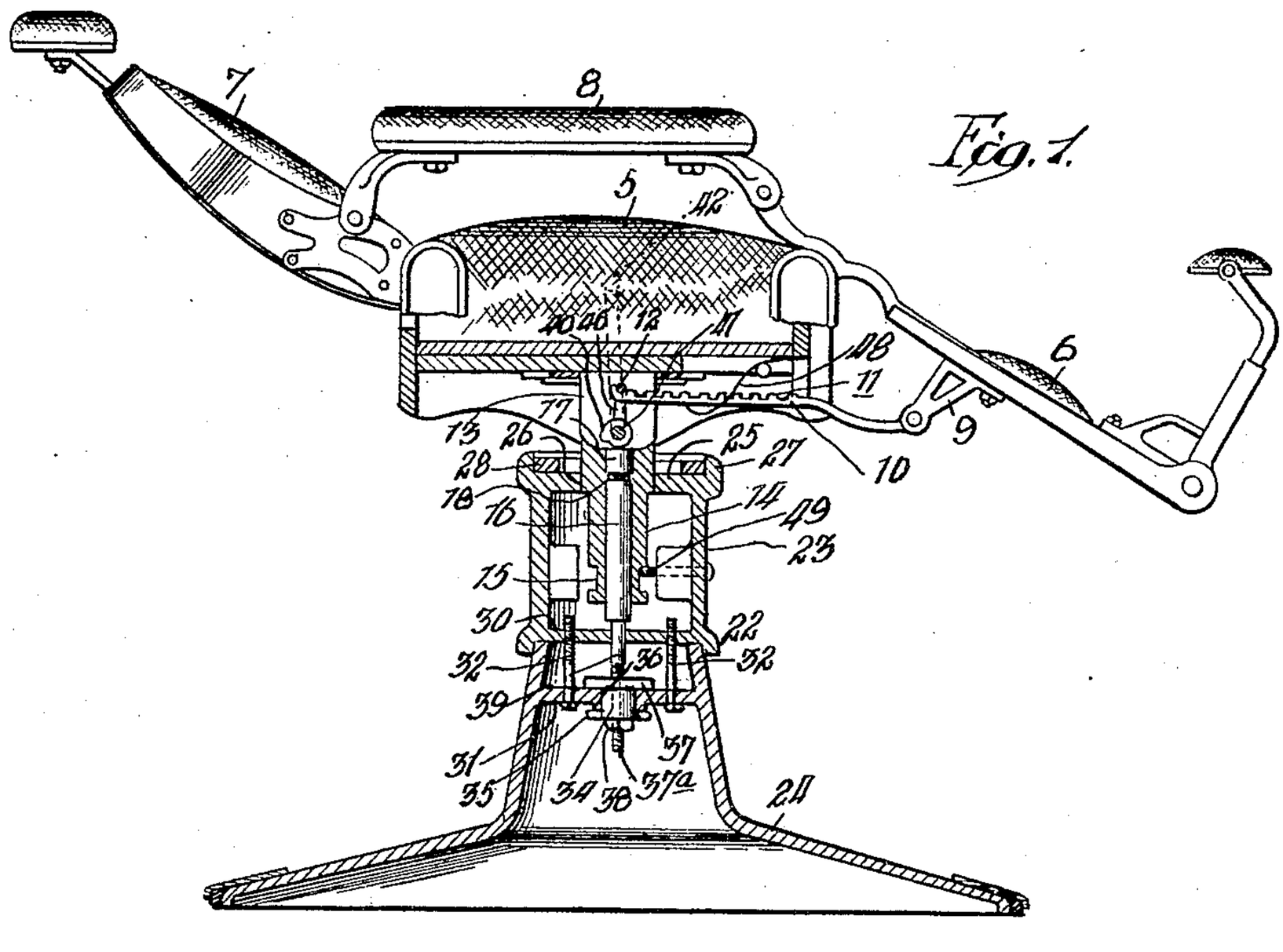


Fig. 4.

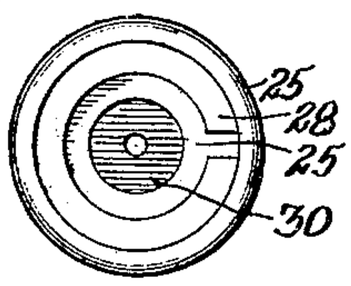


Fig. 3.

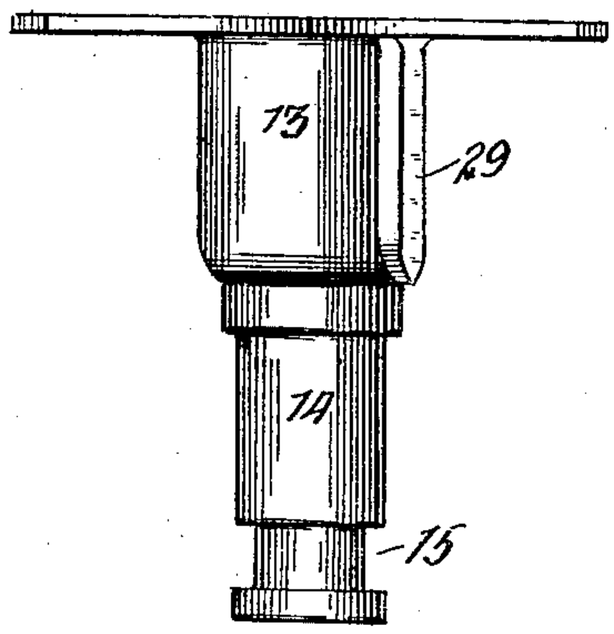


Fig. 5.

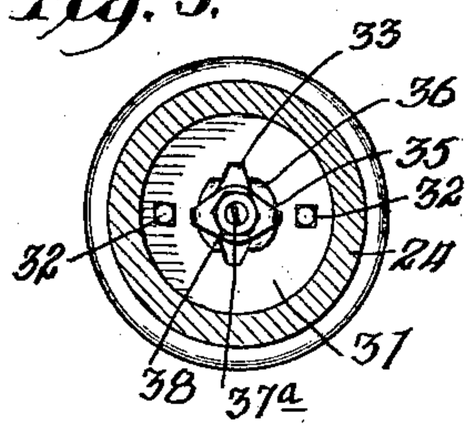


Fig. 2.

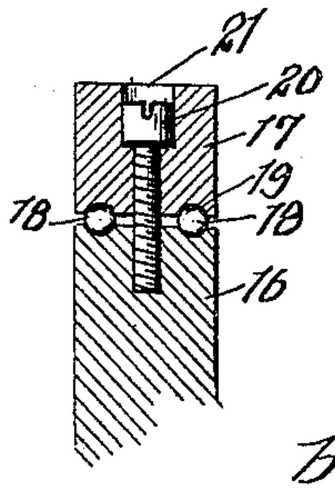
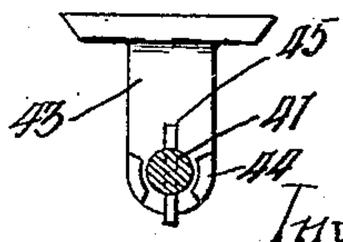


Fig. 6.



Witnesses:
Wm. P. Bond
Pierson W. Banning.

Inventor:
Charles W. Fischer
By Banning & Banning
Attys.

UNITED STATES PATENT OFFICE.

CHARLES W. FISCHER, OF CHICAGO, ILLINOIS, ASSIGNOR TO THEO. A. KOCHS COMPANY, OF CHICAGO, ILLINOIS, A CORPORATION OF ILLINOIS.

BARBER'S CHAIR.

935,480. Specification of Letters Patent. Patented Sept. 28, 1909.

Application filed April 13, 1909. Serial No. 489,673.

To all whom it may concern:

Be it known that I, CHARLES W. FISCHER, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Barbers' Chairs, of which the following is a specification.

This invention relates to barbers' chairs of the style which employ a toothed rack bar for regulating the position of the foot rest and back of the chair and employ a cam for actuating the rack bar and also rocking or releasing the bearing upon which the seat of the chair is swiveled.

The object of the present invention is to construct the bearing in such manner as to prevent the parts from becoming unevenly worn, and the action of the cam from being thereby rendered imperfect. Furthermore the bearing of the present invention is intended to relieve the cam from all friction due to the revolution of the chair upon its swivel, and to provide a distinct bearing point for the chair, other than the cam itself, whereby the chair may be more easily revolved and the cam more readily actuated.

Further objects will appear from a detailed description of the invention, which consists in the features of construction and combination of parts hereinafter described and claimed.

In the drawings, Figure 1 is a side elevation of a barber's chair, showing the bearing of the present invention in section; Fig. 2 an enlarged sectional detail of the upper end of the bearing post, showing the pivot block swiveled therein; Fig. 3 a side elevation of the seat socket, showing the wedge formed thereon; Fig. 4 a detail of the split ring with which the wedge coöperates; Fig. 5 a detail of the base construction; and Fig. 6 an enlarged detail, showing the stop bracket for the operating arm.

The chair is of the usual style, comprising a seat 5, a leg rest 6, and a back 7 connected by arms 8 which are pivoted to the foot board and back rest respectively in the usual manner. The foot board has secured thereto a bracket 9 to the end of which is pivoted a rack bar 10 provided with teeth 11 in its upper edge. The teeth are adapted to engage with a pin 12 which extends from side to side of a divided bracket 13, which is bolted or otherwise secured to the seat of the chair at the center thereof. The divided bracket merges into a depending socket stem 14 provided, near its lower end, with a circumferential groove 15. The socket stem has entered through its center a supporting post 16 which carries a pivot block 17, which rests upon balls 18 which are entered between upper and lower grooves 19 in the supporting post and pivot block respectively and constitute a runway for the balls. The block is held against displacement by means of a headed screw pin 20 entered into the top of the supporting post, and the head of which is countersunk within a recess 21 in the top of the pivot block.

The socket stem is supported within a base 22, which consists of an upper cylindrical section 23 and a lower flaring section 24. The upper cylindrical section is provided, near its upper end, with an upper cross wall 25 provided in its center with an opening 26 of a size to receive the socket stem 14, and above the cross wall around the edge of the upper section of the base is a flange 27 inside of which is located a split expansible ring 28, best shown in Fig. 4. The split in the ring is adapted to receive a wedge 29 on the outer wall of the bracket 13, which, when the end of the wedge is forced into the split in the ring by the weight of the chair, serves to expand the ring sufficiently against the flange 27 to prevent rotation of the chair. The upper section of the base is furthermore provided in its bottom with a lower cross wall 30 which rests upon the upper edge of the lower section of the base. The lower base section is provided with a cross wall 31 through which are entered tie bolts 32 the upper ends of which are entered through the lower cross wall 30 of the upper section and serve to bind the upper and lower sections of the base into an integral structure having a center post-like formation which merges at its lower end into an enlarged bell shaped structure. The cross wall 31 is provided in its center with an elongated opening 33 through which is entered a block 34 provided on its lower end with wings 35 which, when the wings are in register with the major axis of the opening 33 permit the insertion of the block, but which are thereafter adapted to be turned into transverse relation to the major axis of the opening, and when so turned are adapted to lie on the cam lugs 36 which serve to lock the block tightly in

position to clamp its shouldered inner end 37 tightly against the inner face of the wall 31. The block 34 serves as a bearing for an adjusting screw 37ª which is adapted to be held in adjusted position by means of a jam nut 38. The upper end of the adjusting screw serves as a support for the reduced lower end 39 of the post 16, the vertical elevation of which can be regulated by turning the adjusting screw and thereafter locking it in adjusted position by means of the jam nut.

The pivot block 17 serves as a support for a cam 40 which is carried by a rock shaft 41 which terminates in a handle 42. The rock shaft passes through the sides of the divided bracket, and its outer end is journaled and supported in a hanger bracket 43 which is secured to the bottom of the chair seat, and which is provided with a pair of stop lugs 44 on opposite sides of the rock shaft, which stop lugs coöperate with a stop pin 45 which extends through the shaft and serves to limit the forward and reverse movements of the handle. The cam 40 is provided with a pair of arms 46, the upper ends of which engage the rack bar 10 in a manner which is old and well known and serve the usual function of bearing down the rack bar against the tension of a spring 48 out of engagement with the pin 12. In order to hold the socket stem 14 against displacement, a screw pin 49 is entered through the wall of the upper section of the base in position to bring its inner end into engagement with the slot or channel 15 in the socket stem.

In use, when it is desired to adjust the back and foot board, the handle is thrown forward, which throws down the rack bar out of engagement with the pin 12, and permits the parts to be adjusted to any desired position, after which the handle is moved to its center or upward position, which is the neutral position in which the back and foot board are held against adjustment and in which the chair is held against rotation. When it is desired to rotate the chair, the handle is moved to the rear, which brings the enlarged portion of the cam 40 into engagement with the pivot block 17, and thereafter the continued movement of the handle toward the rear serves to raise the entire chair upon the pivot block 17 as a center sufficiently to lift the wedge 29 out of engagement with the slot in the split ring, which permits the ring to contract, and allows the chair to be revolved upon the balls 18 as a bearing. In certain prior constructions it has been the practice to utilize the cam block itself as a pivotal bearing for the rotation of the chair, but in the present case there will be no relative rotation between the cam and the pivot block, so that the cam will not be subjected to any wear during the rotation of the chair. At the same time a much more perfect and easy rotation is secured by the provision of the balls than would be possible if the cam itself were utilized as a bearing. The method of forming the base in sections secured together in the manner indicated results in a very strong and rigid structure for the base of the chair and at the same time one which permits the parts to be easily cast in sections and thereafter secured together into a unitary structure. By adjusting the screw 37ª, the vertical elevation of the pivot block can be regulated to the extent necessary to give the proper action to the chair and thereafter the parts can be adjusted by setting the jam nut. If it should become necessary, by reason of the wearing of the cam, to readjust the parts, such readjustment can be quickly and easily made in the manner described.

What I claim as new and desire to secure by Letters Patent is:

1. In a barber's chair, the combination of locking members adapted to prevent revolution of the chair when lowered, a cam adapted to elevate the chair sufficiently to release said locking members, a pivot block adapted to be engaged by the cam, and a ball bearing upon which the pivot block revolves, substantially as described.

2. In a barber's chair, the combination of locking members adapted to prevent revolution of the chair when lowered, a cam adapted to elevate the chair sufficiently to release said locking members, a pivot block adapted to be engaged by the cam, a ball bearing upon which the pivot block revolves, and an adjustable member supporting the ball bearing, substantially as described.

3. In a barber's chair, the combination of locking members adapted to prevent revolution of the chair when lowered, a cam adapted to elevate the chair sufficiently to release said locking members, a pivot block adapted to be engaged by the cam, a ball bearing upon which the pivot block revolves, a post which carries the ball bearing, and an adjusting screw bearing against the lower end of the post for regulating the vertical elevation thereof, substantially as described.

4. In a barber's chair, a base comprising an upper section and a lower section, tie bolts connecting the two sections, a bracket, a socket stem depending therefrom and entered into the upper section of the base, a post extending through the stem, an adjusting screw carried by the lower section of the base and bearing against the post, a chair seat supported upon the bracket, and bearing members supported by the post for swiveling the seat thereon, substantially as described.

5. In a barber's chair, a base comprising an upper section and a lower section, tie bolts connecting the two sections, a bracket, a socket stem depending therefrom and en-

tered into the upper section of the base, a post extending through the stem, an adjusting screw carried by the lower section of the base and bearing against the post, a chair seat supported upon the bracket, a pivot block swiveled on the post, a cam engaging the pivot block for regulating the vertical height of the bracket and locking members adapted to be locked and released by the vertical movements of the bracket, substantially as described.

6. In a barber's chair, a base comprising an upper section and a lower section, tie bolts connecting the two sections, a bracket, a socket stem depending therefrom and entered into the upper section of the base, a post extending through the stem, an adjusting screw carried by the lower section of the base and bearing against the post, a chair seat supported upon the bracket, a pivot block swiveled on the post, a cam engaging the pivot block for regulating the vertical height of the bracket, a wedge on the bracket, and a split ring adapted to be distended by the wedge when lowered and released when the wedge is raised, substantially as described.

CHARLES W. FISCHER.

Witnesses:
SAMUEL W. BANNING,
PIERSON W. BANNING.