

W. F. KOKEN.
BARBER'S CHAIR.

APPLICATION FILED JULY 16, 1910.

1,011,816.

Patented Dec. 12, 1911.

2 SHEETS-SHEET 1.

FIG. 1.

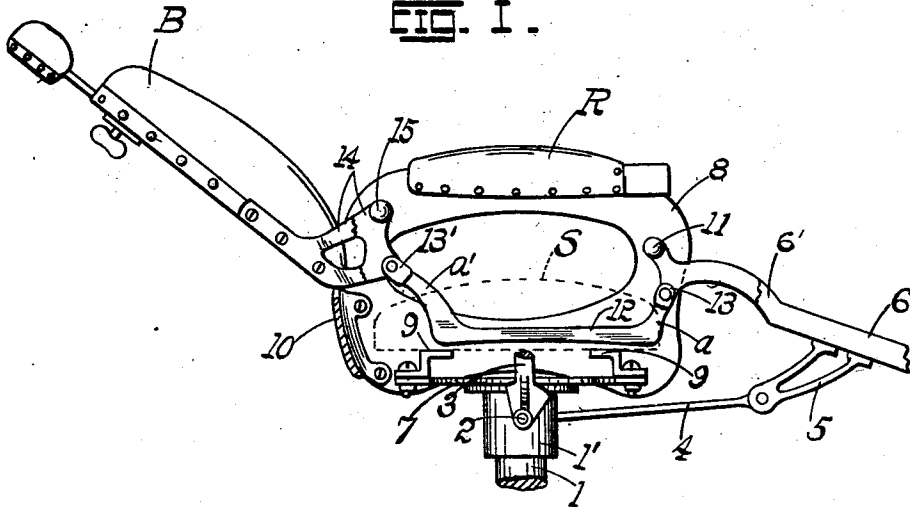


FIG. 2.

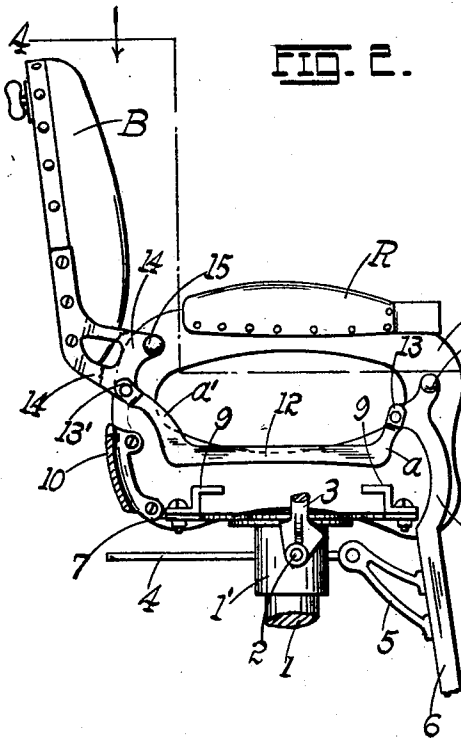
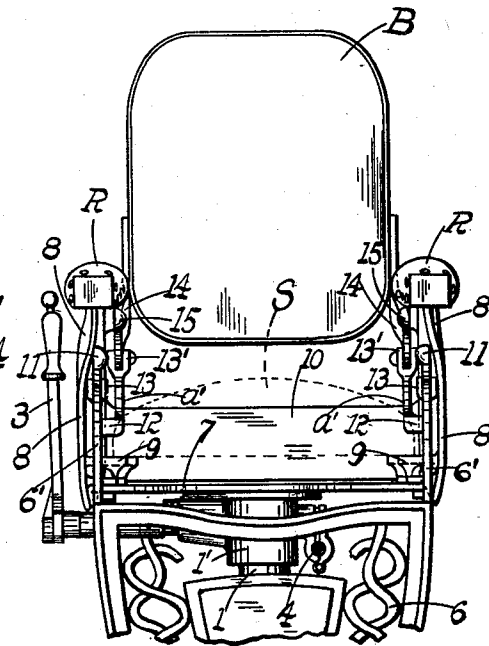


FIG. 3.



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2 SHEETS—SHEET 2.

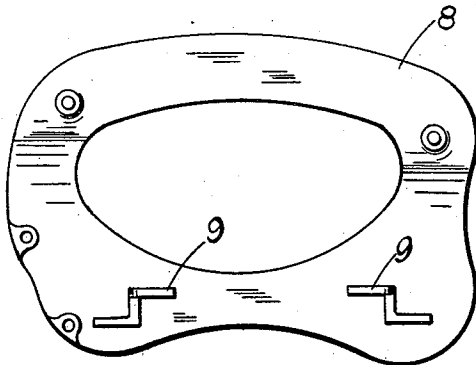
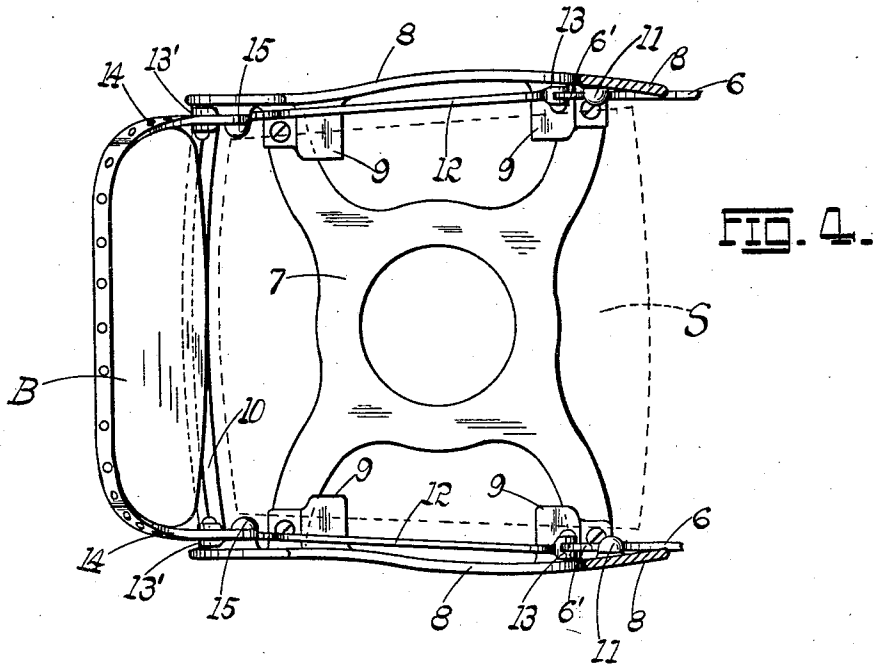


FIG. 5.

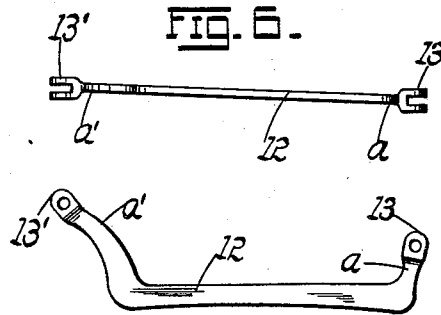


FIG. 7.

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BARBER'S CHAIR.

1,011,816.

Specification of Letters Patent.

Patented Dec. 12, 1911.

Application filed July 16, 1910. Serial No. 572,358.

To all whom it may concern:

Be it known that I, WALTER F. KOKEN, a citizen of the United States, residing at St. Louis, State of Missouri, have invented certain new and useful Improvements in Barbers' Chairs, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part hereof.

My invention has relation to improvements in barbers' chairs; and it consists in the novel features of construction more fully set forth in the specification and pointed out in the claim.

In the drawings, Figure 1 is a side elevation of the upper portion of my improved chair shown in reclining position, portions on the side nearest the observer being broken, and parts being in section; Fig. 2 is a similar view with chair in upright position; Fig. 3 is a front view of Fig. 2; Fig. 4 is a horizontal plan and section on the line 4-4 of Fig. 2; Fig. 5 is a detached elevational view of one of the side or arm-rest supporting members; Fig. 6 is a top plan of the link connecting the back to the front apron; and Fig. 7 is a side view of said link.

Reclining barbers' chairs may be conveniently divided into three types or classes, viz., (1) those having a stationary seat and a movable back, apron and arms; (2) those having stationary arms and a movable seat, back and apron; and (3) those in which the seat and arms are stationary and the back and apron movable. The present improvement belongs to the last mentioned type, that is to say, the reclining of the chair is accomplished by a joint movement of the back and apron, the seat and arms being stationary. It is the object of my invention to construct a chair of the last mentioned type which shall be simplified in all essential particulars; one which may be readily manipulated; one which can be built light and yet possess durability and stiffness; one making special provision for the support of the cushion constituting the seat proper, and one possessing further and other advantages better apparent from a detailed description of the invention which is as follows:—

Referring to the drawings, 1, represents the plunger leading from the pump-cylinder (not shown) by which the chair is elevated and lowered as well understood in the art,

the enlarged head 1' of the plunger carrying the rock-shaft 2 which is controlled by the lever 3, by which the sliding lock-bar 4 operating on the sides of the head 1' is released when the chair is to be reclined. The bar 4 is pivotally coupled at its front end to a bracket 5 secured to the apron 6.

The foregoing features are well known and understood in the art, requiring no detailed description, and being in no wise concerned with the subject-matter of the present improvement.

The plunger 1, 1', supports the base-plate 7, which is of conventional design and which is secured to the plunger in any well known mechanical manner. To the plate 7 are secured the side members or arm-rest supports 8, 8, (shown detailed in Fig. 5) the front and rear bottom ends of the inner face of each member having cast thereon Z-shaped angle-brackets 9, 9, the basal horizontal flanges of said brackets being screwed to the base-plate 7, and the upper horizontal flanges (which are somewhat more extended than the bottom flanges) serving as direct supports for the cushion or seat S (indicated by dotted lines so as not to obscure the features identified with the present improvement). The rear basal portions of the members 8 are connected by a brace-plate or member 10 secured thereto in any well known mechanical manner. The arm rests are represented by R.

The upper ends of the side extensions or arms 6' of the apron 6 are hinged about pivotal pins or studs 11 to the inner faces of the arm-rest supports 8, there being pivotally secured to each such arm 6' at a point relatively below and removed from the stud 11, the front end of a link 12 having front and rear upwardly deflected arms *a*, *a'*, respectively (the rear arm being the longer), terminating in forks 13, 13', respectively. The general vertical plane of disposition of the link 12 is at a slight angle to the parallel planes of disposition of the forks (Fig. 6) and to the general plane of movement of the link. The fork of the arm *a* is pivotally coupled to the arm 6' of the apron at the point above specified, the fork of the rear arm *a'* being pivotally coupled to the inner face of the lower front corner of the bottom side casting or bracket 14 of the back B, the said casting being pivoted about the stud 15 to the inner face of the member 8 at a point relatively above the pivotal connection of

the link 12 with said casting. What is true of one side of the chair is true of the opposite side, so that a single description suffices for both. The cushion or seat S is of course, 5 located between the planes of operation of the links 12, 12.

The operation of the reclining mechanism may be best explained by a reference to Figs. 1 and 2; and for convenience it may 10 be well to start with the chair in its upright folded position as shown in Fig. 2. It will be seen that the pivotal points of the forks 13, 13', of the link 12 have there reached the highest positions in the arcs 15 through which they sweep (as a result of the rotations of the members 6' and 14 about their respective pivots or studs 11 and 15). When therefore the lock-bar 4 is released by the proper manipulation of the lever 3 (in 20 a manner well known in the art and forming no part of the present invention), and the back B is tilted backward (Fig. 1), the pivotal point of connection of the fork 13' with the casting 14 drops below the point it occupied when the back was up (Fig. 2), said 25 point describing the arc of a circle in such drop. In describing such arc, however, the point also advances forward thus shoving the entire link 12 forward. In this forward 30 movement of the link the latter likewise drops as is obvious, and while thus moving forward the links force the members 6', 6', forward causing the apron to swing about the common axis of the studs 11, 11, in which 35 swing the pivotal connections of the front forks 13, 13, of the links 12 describe arcs sweeping downwardly, so that the links 12 move substantially in vertical planes and in lines parallel to the links. The result is that 40 by the time the back B has reclined its full position, the apron 6 has been swung outwardly and upwardly its full limit, and the chair is ready for the occupant to be shaved. Of course, the degree to which the chair is 45 allowed to recline is governed by the point of arrest of the lock-bar 4 as well understood in the art. To restore the back and apron

to their first position, the movement of the several parts will of course, be the reverse of that already described. It will be seen 50 from the foregoing that by virtue of the specific position of the pivots and hinge connections, any binding of the movable parts is entirely precluded. The rear inward inclination of the members 12, 12, (Fig. 4) is 55 for the obvious necessity of preventing binding, the general direction of that inclination following the direction of the side-arms 8, 8. The forks 13, 13', however, must move in parallel planes disposed substantially at 60 right angles to the axes of oscillation of the back B and apron 6 respectively. The position of the upper legs or ledges of the brackets 9 is such that they clear the links 12 even when the latter are in their lowest 65 position, or that to which it is necessary to drop them for the usual degree of inclination imparted to the parts B and 6 for purposes of shaving the occupant of the chair. The inequality of the lengths of the arms 70 a , a' , of the links comes from the fact that the axis of suspension and oscillation of the apron is relatively below the corresponding axis of the back B (Figs. 1, 2).

Having described my invention, what I 75 claim is:—

In a chair of the character described, a pair of rigid side members provided with inner basal seat-supporting means, a back 80 hinged about a fixed axis between the side members, a front apron hinged about a fixed axis between the side members, and links operating above the seat-supporting means, having their opposite ends pivoted to the 85 back and apron respectively at points relatively below the axes of oscillation of the said back and apron.

In testimony whereof I affix my signature, in presence of two witnesses.

WALTER F. KOKEN.

Witnesses:

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