No. 866,753. PATENTED SEPT. 24, 1907.

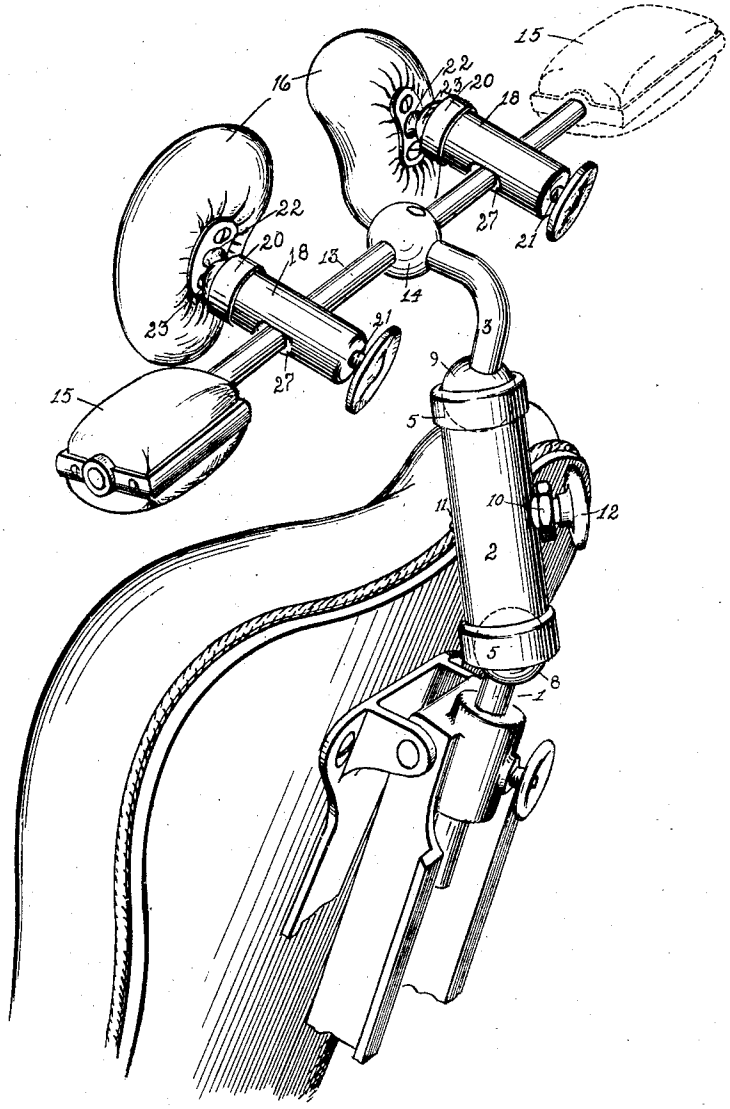
H. E. WEBER.

HEAD REST.

APPLICATION FILED NOV. 23, 1906.

2 SHEETS—SHEET 1

Fig. 1.



Witnesses
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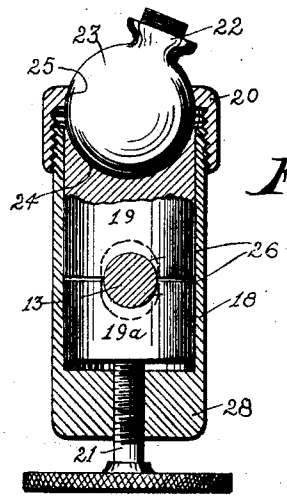


Fig. 7.

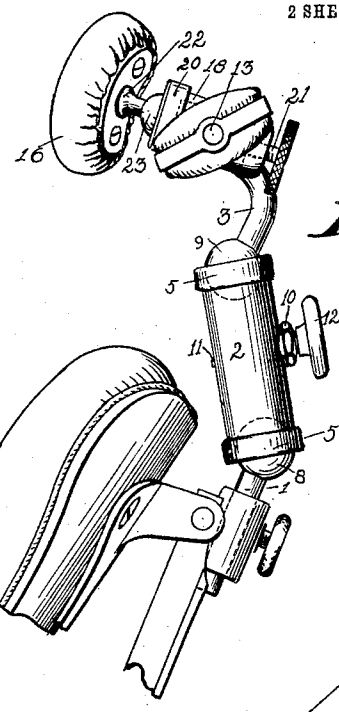


Fig. 2.

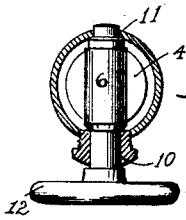


Fig. 6.

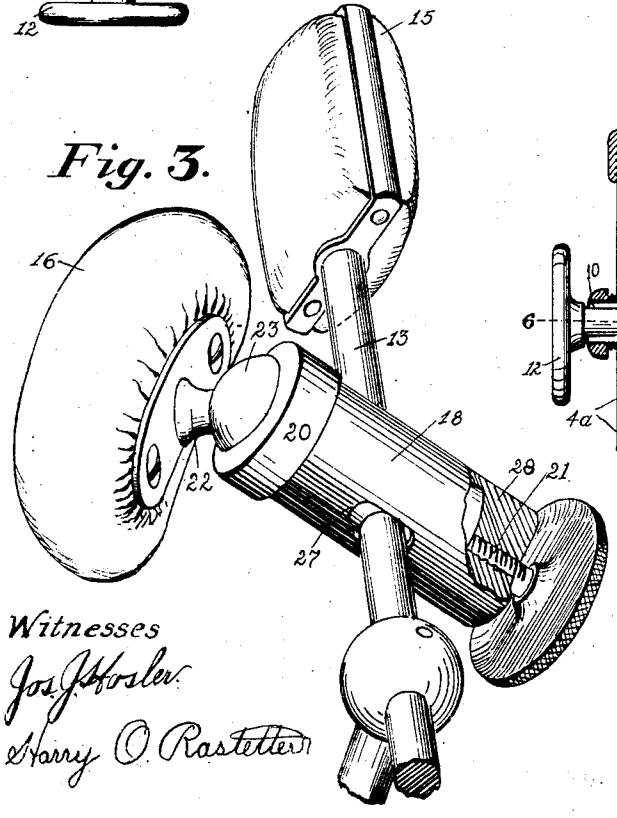


Fig. 3.

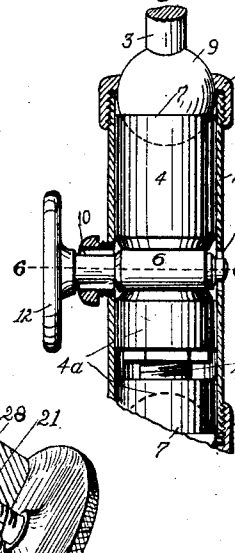


Fig. 5.

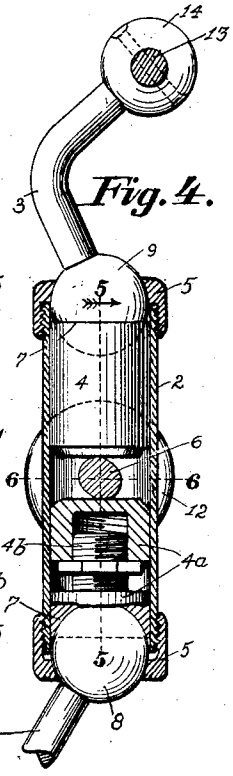


Fig. 4.

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UNITED STATES PATENT OFFICE.

HENRY E. WEBER, OF CANTON, OHIO.

HEAD-REST.

No. 866,753. Specification of Letters Patent. Patented Sept. 24, 1907.

Application filed November 23, 1906. Serial No. 344,719.

To all whom it may concern:

Be it known that I, HENRY E. WEBER, a citizen of the United States, residing at Canton, in the county of Stark and State of Ohio, have invented a new and useful Improvement in Head-Rests, of which the following is a specification.

The invention relates to a head rest for use on a surgical, dental or other chair, and in one feature pertains particularly to that class of head rests wherein the rest proper is divided into two separate lateral sections or halves, each one of which is independently adjustable; and among the objects of the improvements are to provide an adjustable supporting connection for the head rest with the back of the chair which can be readily and rigidly locked in any desired position, and to provide means whereby each one of the rest sections can be readily adjusted and rigidly locked on the cross bar on which they are mounted. These objects and other minor ones are attained by the construction, arrangement and mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a perspective view of the head rest as applied to the back of a chair; Fig. 2, a side elevation of the same; Fig. 3, a fragmentary perspective view showing one of the sections of the rest proper, on the cross bar; Fig. 4, a longitudinal section of the supporting barrel showing the parts therein; Fig. 5, a longitudinal section of same on line 5—5, Fig. 4; Fig. 6, a cross section on line 6—6, Figs. 4 and 5; and Fig. 7, a longitudinal section of one rest-section tube, showing the parts therein.

Similar numerals refer to similar parts throughout the drawings.

The supporting connection comprises the stem 1, the barrel 2, the shank 3, the blocks 4 and 4^a, the caps 5 and the locking cam 6. The blocks are cylindric in form of a size to neatly fit and operate endwise in the barrel, and their outer ends 7 are spherically concaved to neatly fit the periphery of the balls 8 and 9 respectively on the ends of the stem and shank, which balls are preferably of the same diameter as the blocks. The caps are screwed or otherwise fastened or formed on the ends of the barrel, and are shaped as rings which neatly fit around a small portion of the outer half of the respective balls, thus forming sockets in which the balls are retained and adapted to be rotated as far in each direction as the stem or shank will permit. The locking cam 6 is transversely mounted between the inner adjacent ends of the blocks, and is preferably journaled in the bearings 10 and 11 formed or attached in the wall of the barrel, and on one side the handle 12 is provided, by means of which the cam can be rotated.

The locking cam is rounded and slightly oval or elliptical in cross-section, as shown in Fig. 4, and the parts are so proportioned and arranged that when the cam is rotated to bring its major axis transverse the barrel with its flattened sides against the abutting ends of the blocks, the parts of the supporting connection are in loose contact with each other; but when the cam is rotated to bring its minor axis at or near the transverse position, the elongated diameter of the cam acts to force the blocks outward and to bind the stem- and shank-balls rigidly in their sockets; whereby the parts are locked in any desired relative position in which they may be placed. The journal bearings 10 and 11 of the locking cam are preferably enlarged lengthwise of the barrel, to permit an endwise movement of the blocks with the cam at all times from the beginning to the end of the rotation of the cam, whereby they will each press with equal force against the respective balls; and to provide a further adjustment of the parts to bring them into proper relation, one or more of the blocks, as 4^a may, be formed in two pieces adjustably joined by the screw 4^b, whereby the length of the blocks can be adjusted as may be desired; and a further adjustment is attained by the screw connection of the caps on the ends of the barrel, as shown in the drawings.

The cross-bar 13 is formed or attached on the head 14 of the shank, and on one or both ends of the cross-bar may be formed or attached the arm rests, as 15. The head rest sections 16 are mounted on the cross-bar, one on each side of the head 14 of the shank, by means of the tubes 18, the blocks 19 and 19^a, the caps 20 and the screws 21. A post 22 is formed or attached on the back of each head rest section and terminates in the spherical head 23, which is adapted to operate and be clamped in the socket formed by the concave cavity 24 in the outer end of the block 19 and the reversely concave ring 25 of the cap 20. The half-round transverse grooves 26 are formed in the adjacent ends of the blocks 19 and 19^a, which grooves are adapted to fit neatly around the cross-bar 13, which bar in turn extends through the endwise elongated slots 27 formed in the sides of the tube. The locking screw 21 is longitudinally located in and through the closed end 28 of the tube and is adapted to be turned against the adjacent end of the block 19^a, and by the endwise thrust of this screw, the cross-bar is clamped between the blocks and at the same time the sphere-head of the rest section is clamped between the adjoining block and the cap-ring. It is evident that by means of these devices, each head-rest section can be independently adjusted substantially at will on the cross-bar, by turning the locking screw outward so that the tube and its contained parts are in loose contact, and that the rest-section thus adjusted can likewise be rigidly locked in any desired position by merely turning the screw inward; and that the elongated slots in the sides of the tube give the cross-bar sufficient freedom for the endwise movements of the blocks in the tube in the various adjustments.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. A head rest supporting connection comprising a barrel, endwise elongated bearings in the sides of the barrel a rotatable cam transversely mounted in the barrel and journaled in the bearings, endwise movable blocks in the barrel abutting the cam with their inner ends and having spherical cavities in their outer ends, a chair-stem and a head-rest-shank each having balls on their ends said balls being adapted to fit in the block-cavities, and caps on the ends of the barrel having reversely concaved rings adapted to fit over the outer parts of the balls.

2. A head rest supporting connection comprising a barrel, endwise elongated bearings in the sides of the barrel a rotatable cam transversely mounted in the barrel and journaled in the bearings, endwise movable blocks in the barrel abutting the cam, a chair-stem and a head-rest-shank each having balls on their ends said balls abutting the outer ends of the blocks, and caps on the barrel abutting the outer parts of the balls.

3. A head rest supporting connection comprising a barrel, endwise elongated bearings in the sides of the barrel a rotatable cam loosely mounted transversely in the barrel and journaled in the bearings, endwise movable blocks in the barrel abutting the cam, a chair-stem and a head-rest-shank each having balls on their ends said balls abutting the outer ends of the blocks, and caps on the barrel abutting the outer parts of the balls.

4. A head rest supporting connection comprising a barrel, endwise elongated bearings in the sides of the barrel a rotatable cam transversely mounted in the barrel and journaled in the bearings, endwise movable adjustable blocks in the barrel abutting the cam, a chair-stem and a head-rest-shank each having balls on their ends said balls abutting the outer ends of the blocks, and caps on the barrel abutting the outer parts of the balls.

5. A head rest supporting connection comprising a barrel, endwise elongated bearings in the sides of the barrel a rotatable cam transversely mounted in the barrel and journaled in the bearings, endwise movable blocks in the barrel abutting the cam, a chair-stem and a head-rest-shank each having balls on their ends said balls abutting the outer ends of the blocks, and adjustable caps on the barrel abutting the outer parts of the balls.

6. In a head rest, a tube having slots in its sides, a transverse bar in the tube extended through the slots, blocks in the tube having grooves in their adjacent ends fitting around the bar, a spherical cavity in the outer end of one block and a screw in the end of the tube adapted to abut the outer end of the other block, a rest-section having a post with a spherical head thereon adapted to fit in the block-cavity, and a cap on the adjacent end of the tube having a reversely concaved ring adapted to fit over the outer part of the spherical-head.

7. In a head rest, a tube having slots in its sides, a transverse bar in the tube extended through the slots, blocks in the tube abutting the bar, a screw in the end of the tube abutting the outer end of one block, a rest-section having a spherical-head thereon abutting the outer end of the other block, and a cap on the adjacent end of the tube abutting the outer part of the spherical head.

In testimony whereof, I have hereunto signed my name to this specification in the presence of two subscribing witnesses.

HENRY E. WEBER.

In presence of—
HARRY FREASE,
MARY A. CAVANAUGH.