Nov. 1, 1960 E. G. BEHRENS 2,958,373

HEAD REST

Filed Dec. 30, 1957

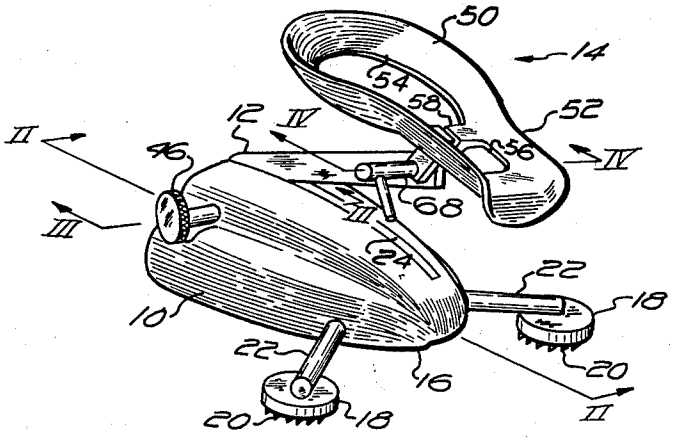


FIG. 1

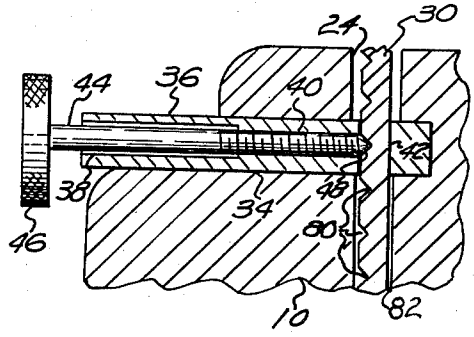


FIG. 3

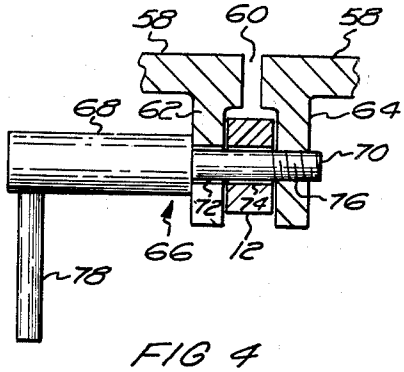


FIG 4

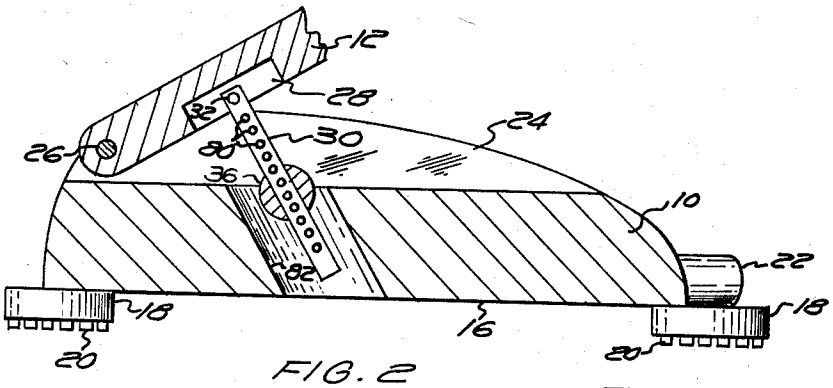


FIG. 2

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HEAD REST

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2 Claims. (Cl. 155—174)

The invention relates to a head rest and particularly relates to a head rest which is adjustable, stable and positive locking.

Physicians, morticians, chiropractors and the like often have the need of a head rest to support the patient's head when in a reclining or semi reclining position and it is an object of the invention to provide a head rest which may be used for these purposes.

Another object of the invention is to provide an adjustable head rest which is very stable and is adjustable through a wide range of vertical and tilting positions.

A further object of the invention is to produce an adjustable head rest which is easy to adjust yet has a positive lock in the desired vertical position.

These and other objects of the invention will become apparent when viewed with respect to the following description and accompanying drawings wherein:

Fig. 1 is a perspective view of the head rest of the invention,

Fig. 2 is a cross sectional elevational view taken along the line II—II of Fig. 1,

Fig. 3 is a cross section view taken along the line III—III of Fig. 1, and

Fig. 4 is a cross section view of the head plate adjusting means taken along the line IV—IV of Fig. 1.

The overall shape and configuration of the head rest embodying the concepts of the invention is best shown in Fig. 1 where it will be observed that basically the head rest consists of a base 10, an elevating arm 12, and a head plate 14. The base 10 is preferably formed from a single piece of cast metal whereby the center of gravity will be close to the lower surface 16 and may be rounded on the upper surfaces to produce a pleasing appearance. The base 10 is supported upon three pads 18 which may be made of metal and to which ribbed rubber feet 20 may be attached for non-slip support. As noted in Fig. 1 the two front pads 18 are transversely positioned from the base 10 by the legs 22, mounted on base 10, for lateral stability.

A longitudinal slot 24 is formed within base 10 to provide for the arm 12. As best illustrated in Fig. 2, the arm 12 is pivotally supported to base 10 by a pin 26 within the slot 24. Thus the arm 12 may be adjusted from a vertical to a horizontal position. A recess 28 is formed in arm 12 to provide clearance for the adjusting brace 30 which is pivotally affixed to arm 12 within recess 28 by the pivot pin 32.

A horizontal bore 34 is formed in base 10 into which the cylindrical barrel 36 is inserted and rotatably supported. As illustrated in Fig. 3, the barrel 36 is provided with an axial bore 38 which is threaded at 40, a second bore 42 is provided in barrel 36 at right angles to bore 38 and intersecting therewith. A threaded locking detent shaft 44 cooperates with the threads 40 and is provided with a knurled knob 46 for manual rotation.

The end 48 of shaft 44 is tapered to a point for reasons which will later be apparent.

The head plate 14 is attached to the upper end of arm 12 for adjustable pivotal movement thereto. As shown in Fig. 1, the head plate 14 consists of a large concave portion 50 adapted to support the head of the user and a smaller elongated portion 52 for supporting the neck. Openings 54 and 56 are provided in the portions 50 and 52, respectively, forming a narrow connecting web 58 which is slit at 60 and formed with a pair of downward extending ears 62 and 64.

A cylindrical bolt 66 having a head 68 and a threaded shank 70 extends through a smooth hole 72 in ear 62, a hole 74 in arm 12 and screws into the threaded hole 76 in ear 64. A handle 78 is formed on head 68 to facilitate rotation of the bolt.

As will be observed in Figs. 2 and 3 the brace 30 is inserted through the hole 42 in barrel 36 and is provided with a series of recesses 80 which will receive the end 48 of shaft 44. Thus the arm 12 will be positively locked in any desired elevational position by rotating knob 46 to engage the shaft 44 with a recess 80 and may be adjusted by unscrewing knob 46 to remove engagement of the end 48 and recess. An opening 82 is provided in base 10 to provide clearance for the brace 30.

Adjustment of the angular position of head plate 14 is effected by rotating bolt 66 to draw ears 62 and 64 toward each other compressing the arm 12 to produce a frictional locking action. The size of web 58 and clearances provided between ears 62, 64 and arm 12 are such that little deformation of web 58 is required to produce a locking engagement.

It will thus be understood that the invention produces a headrest which will have a low center of gravity having excellent stability and which will lock to hold the head in the desired elevation. The height of the head plate is readily adjusted by operating shaft 44 by knob 46 and the non skid feet 20 resist moving the base on the supporting surface.

It is not intended that the invention be limited to the illustrated embodiment as various modifications may be apparent without departing from the spirit and scope of the invention.

I claim:

1. A head rest comprising a heavy base adapted to be supported on a planar surface, legs extending from said base laterally thereto, a slot formed in the upper surface of said base, an arm pivotally supported at one end within said slot and adapted to be received within said slot during pivoting thereof, a brace affixed to said arm, notches formed on said brace, a cylindrical barrel rotatably supported by said base parallel to the pivotal axis of said arm, longitudinal and transverse bores in said barrel, said brace adapted to slidingly engage said transverse bore, a detent shaft within said longitudinal bore adapted to selectively engage said notches, a head plate affixed to the other end of said arm and means positionably locking said head plate in relation to said arm.

2. In a head rest as in claim 1 wherein said means positionably locking said head plate comprises ears carried by said head plate adapted to frictionally engage said arm.

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