Dec. 19, 1933. A. J. MAY 1,940,361

HEADREST

Filed Dec. 29, 1928

Fig. 1

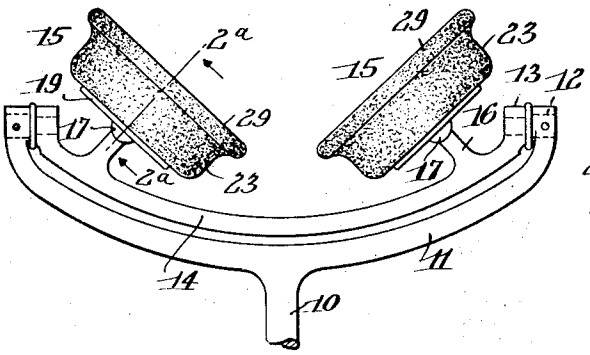


Fig. 2

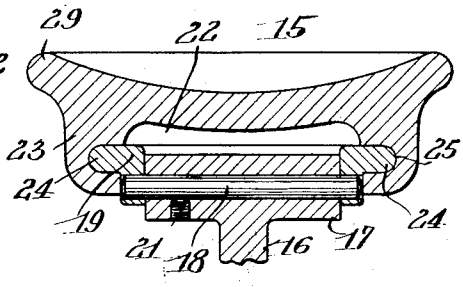


Fig. 3

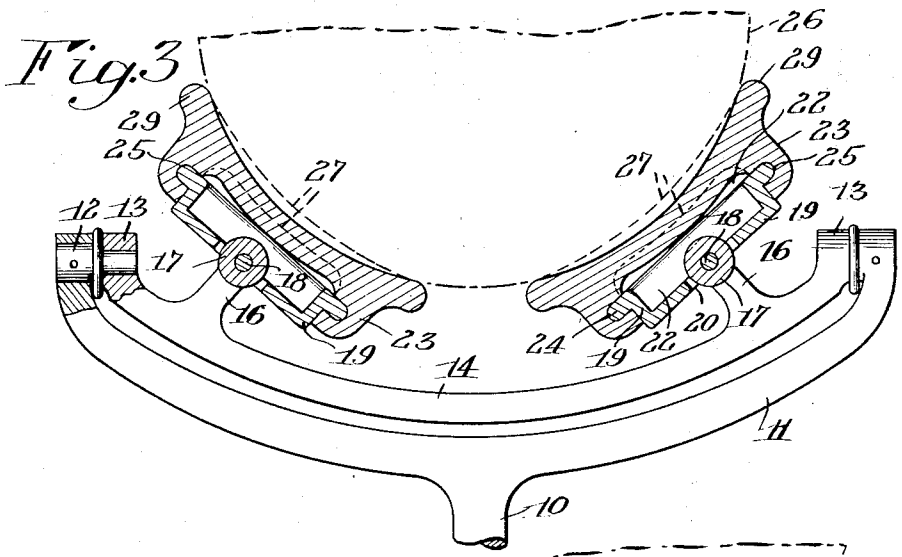
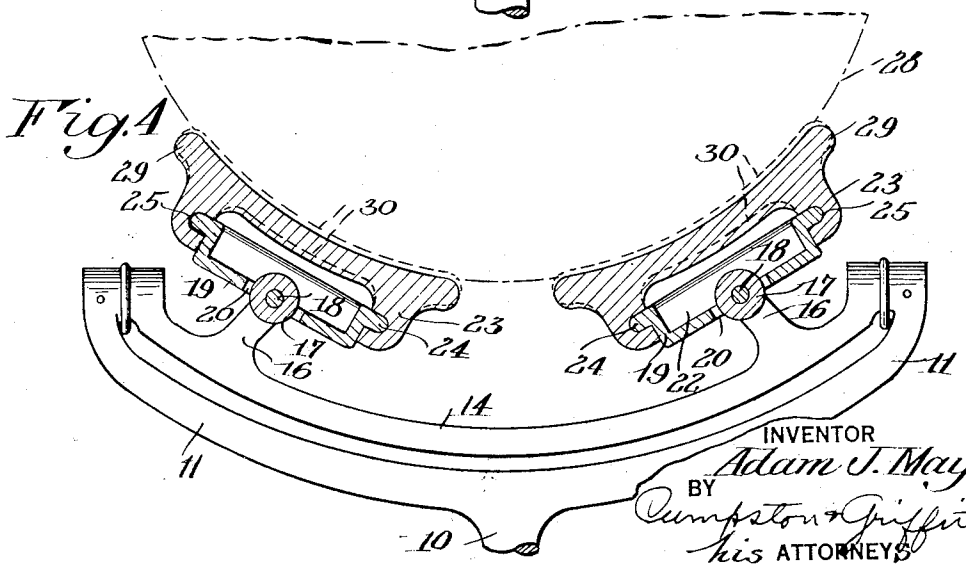


Fig. 4



INVENTOR
Adam J. May
BY
Cumpston & Griffith
his ATTORNEYS

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HEADREST

Adam J. May, Rochester, N. Y., assignor to Ritter Dental Manufacturing Company, Inc., Rochester, N. Y., a corporation of Delaware

Application December 29, 1928
Serial No. 329,293

2 Claims. (Cl. 155—173)

The present invention relates to head rests and has for its object to provide an improved head rest for use, for example, with dental, surgical and other type of chairs.

A further object of the invention is to provide for use with chairs of different classes improved pad means for receiving and supporting the occupant's head, comprising a simple construction of few parts designed to afford an effective and economical support, capable of being easily assembled and applied to the chair.

A further object of the invention is to provide an improved unitary head receiving pad comprising a yieldable element capable of accommodating itself to the head of the patient and designed for ready and convenient insertion upon and removable from a suitable support or holder carried by the chair.

To these and other ends the invention resides in certain improvements and combinations of parts, all as will be hereinafter more fully described, the novel features being pointed out in the claims at the end of the specification.

In the drawing:

Fig. 1 is a view in elevation illustrating one embodiment of the invention;

Fig. 2 is an enlarged sectional view taken on the line 2*a*—2*a* of Fig. 1;

Fig. 3 is a part sectional elevation showing the head pads slightly deflected and conforming to the contour of the patient's head, and

Fig. 4 is a somewhat similar view showing the pad in a more flattened position, as when accommodating itself to a head of larger proportions than that indicated by the dotted outline shown in Fig. 3.

Similar reference numerals throughout the several views indicate the same parts.

The present invention embodies an improved construction including a head pad or cushion for use with dental, surgical, and other types of chairs, which is constructed of yieldable material of a more or less solid nature, such for example, as a suitable grade of sponge-like rubber. The present pad is, therefore, clearly differentiated from one of the pneumatic type into which air is pumped and maintained at the desired pressure. Furthermore, the present pad is capable of being readily attached to and removed from its holder without the use of any securing devices therefor, as heretofore required for holding pads of this kind in position. The one piece construction of the pad and the fact that it is designed for quick attachment to a holder and for maintenance thereon through frictional engagement therewith, renders a pad of this kind highly advantageous over the usual pneumatic or upholstered type of pad commonly in use.

Referring to the drawing 10 represents a frame or bracket constructed in any suitable manner for attachment to the back of a chair, not shown. The bracket includes oppositely disposed arm like portions 11, on the outer ends of which are suitably secured bearing members 12 forming pivots for the opposite ends 13 of a support 14 carrying the pads 15 and arranged to swing about the axes of the bearing members 12. The pivoted support 14 is provided with upstanding post like members 16 carrying transverse bearing portions 17, each of which is adapted to receive a pivoted pin 18, the opposite ends of which project from the bearing portion, Fig. 2. A holder 19 is provided for supporting the pad 15, said holder preferably comprising a dish-shaped member 19, a portion of the bottom wall of which is cut away to afford an opening 20 through which projects the bearing portion 17 of the post 16, as indicated in Fig. 2. The holder is pivotally mounted on the ends of the pin 18, the axis of which is preferably at right angles to the pivotal axis of the support 14. The pin 18 is held in position by a set screw 21 threaded in the bearing 17, Fig. 2. The holder 19 is disposed within a pocket or recess 22 of the pad surrounded by a wall portion 23 projecting from the body of the pad at the rear side thereof. The holder within the pocket or recess is provided with a flange-like portion 24 engaging in a groove 25 formed in the wall portion 23. As before stated, the pad is of flexible or yieldable material, such for example, as sponge-like rubber, and can, therefore, be readily forced upon the annular flange-like member under pressure sufficient to cause it to yield the necessary amount to permit the flange to take into the groove 25, whereby the pad will be securely held in position through frictional engagement with said flange.

Furthermore, the pads may be easily removed from the holders whenever desired and replaced, or new pads substituted when required. This may be done without the use of any tools or the employment of any devices for securing the pads upon the holders. The pads are preferably dish-shaped as shown, to conform substantially to the contour of the patient's head as indicated by the dotted line 26 in Fig. 3. It will be understood that the material of the pad is sufficiently yieldable under the weight of the

patient's head to assume a position substantially as shown by full lines in Fig. 3, the normal position being indicated by the dotted lines 27 in this figure. Where the head is of larger proportions, as indicated by the dotted line 28, Fig. 4, it will, upon moving into engagement with the pad, first engage only the peripheral flange or bead-like portion 29 of the pad, and this portion being of less thickness than the adjacent body portion of the pad will yield more readily and somewhat in advance of the latter, thus permitting the patient's head to accommodate itself to the pads, which under the pressure applied thereto will be flexed from the normal position indicated by the dotted lines 30 in Fig. 4 to approximately the full line position shown in this figure where the front or body portion of the pad is in spaced relation with respect to the holder 19. The positions of the pads indicated in Figs. 3 and 4, have, of course, merely been approximated and will vary according to the shape and size of the patient's head and the pressure applied to the pads as well. At any rate, the pad is sufficiently yieldable to afford the desired cushioning effect under all conditions of usage to which it may be subjected.

While the pad is preferably constructed of a single section of sponge-like rubber having sufficient elasticity to afford the desired yieldability, it may be formed of any inherently yieldable material, either of one part or a plurality of parts united to form a unit which will function in the manner described. Furthermore, the position of the flange receiving groove formed in the pad may be varied and the holder designed accordingly. For example, the groove may be provided in the outer part of the rearwardly projecting wall portion 23 of the pad without departing from the scope of the invention as embodied in the claims.

In certain cases the flange-like portion 29 of the pad may be relied on as a cushioning means for the greater part of the weight of the patient's head, while in other cases both the flange-like and central portions of the pad will yield as indicated in Fig. 3. In other cases with heads of larger proportions the pads will assume a more flattened position, as indicated in Fig. 4, where the pressure is more evenly distributed and the deflection at the center of the pad less than that indicated in Fig. 3. It will be seen, therefore, that the extent and particular area of deflection will depend to a large degree on the shape and size of the head, but in any event the resilient pads will readily accommodate themselves to the heads of different sizes and shapes, and will form effective cushioning means for the purpose provided.

I claim as my invention:

1. In a headrest for dental chairs and the like, a pad formed of a section of rubber or rubber-like material comprising a body having a head receiving portion at its front side and provided with a pocket in rear of said portion, said body having a groove formed in the wall of the pocket, a holding member for the pad having a recessed end wall and a side wall projecting within the pocket and terminating in a flange-like portion extending within said groove, and a support for the holding member extending within the recessed end wall thereof and having opposite end portions pivotally receiving the holding member.

2. In a headrest for dental chairs and the like, a pad formed of a single section of rubber or rubber-like material comprising a body having a head receiving portion at its front side and provided with a recess in the rear of said portion, said body having an annular groove formed therein and communicating with said recess in spaced relation with the bottom of said recess, and a holder disposed within the pad recess in spaced relation with the bottom thereof and having an annular portion projecting within said groove.

ADAM J. MAY.