Oct. 21, 1947. C. G. MAXSON 2,429,472

HEADREST

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Fig. 1

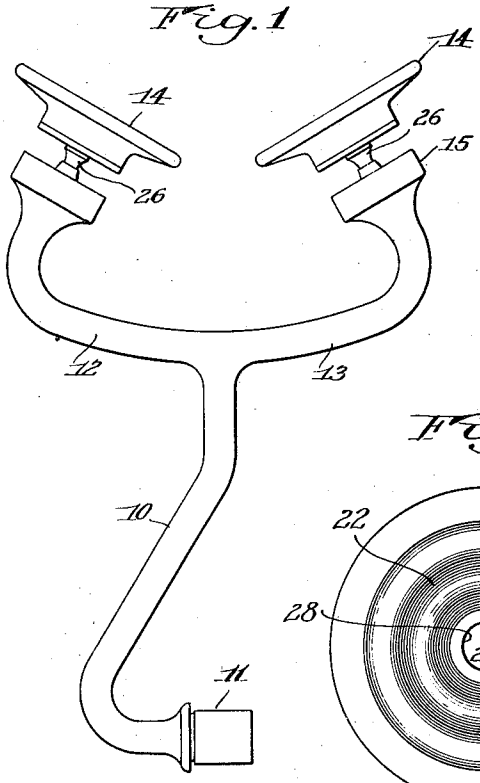


Fig. 3

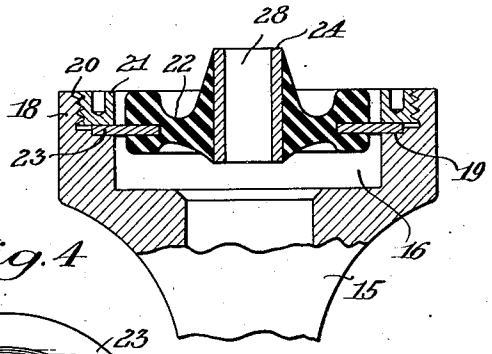


Fig. 4

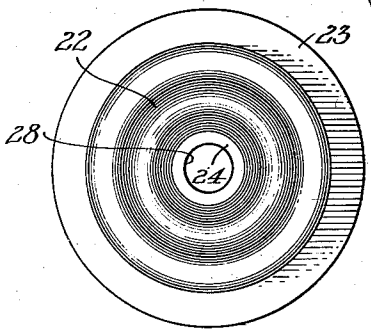


Fig. 5

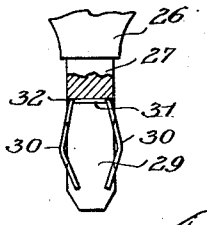
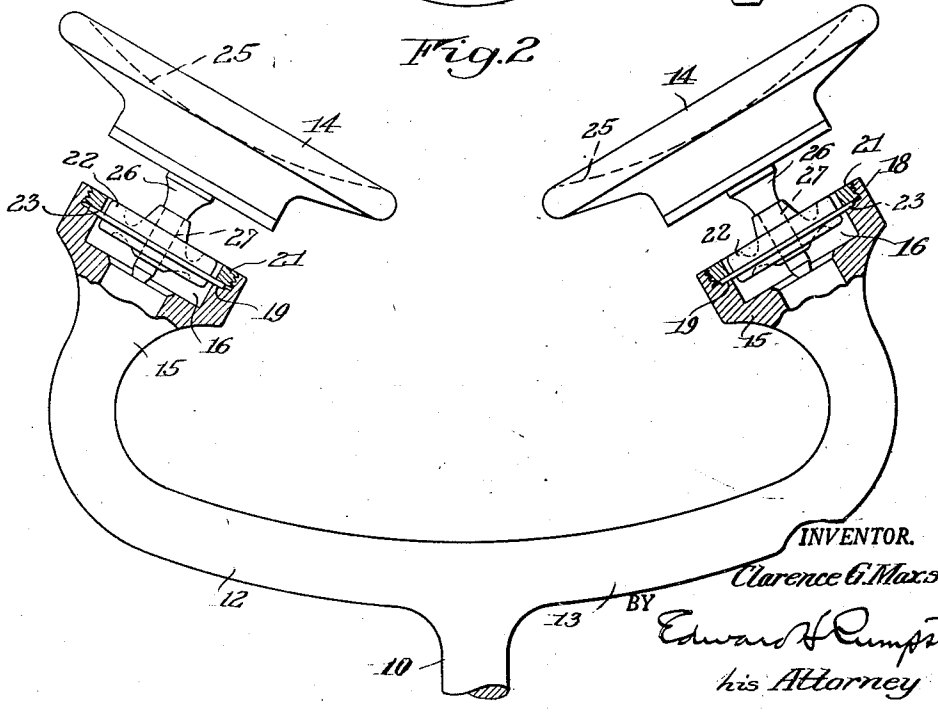


Fig. 2



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HEADREST

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Fig.6

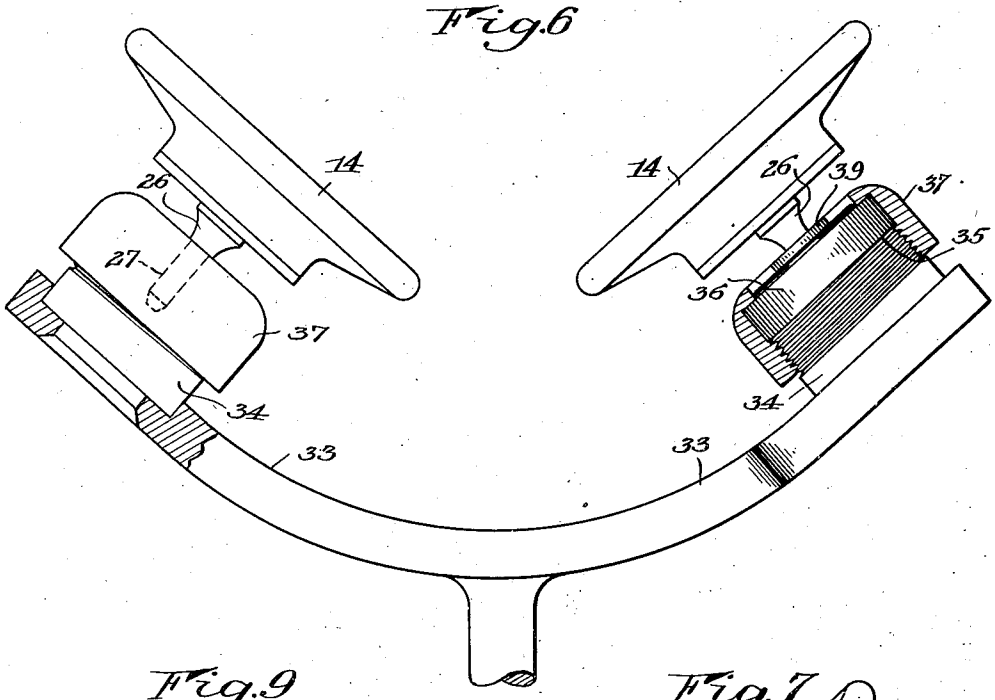


Fig.9

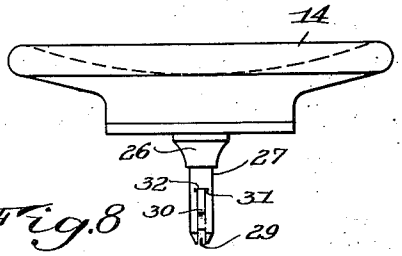


Fig.8

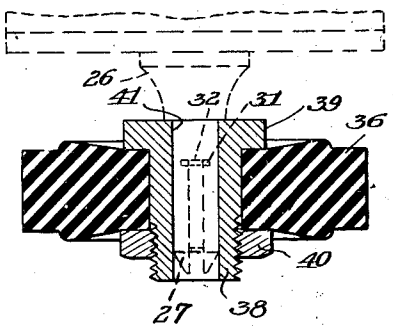


Fig.7

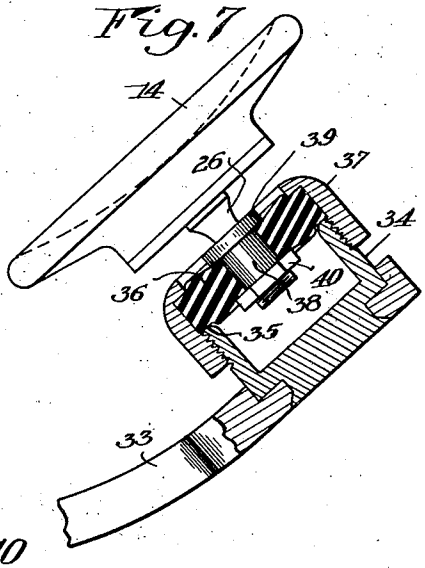
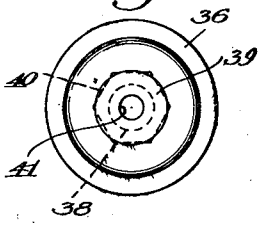


Fig.10



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UNITED STATES PATENT OFFICE

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HEADREST

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Application January 27, 1944, Serial No. 519,898

8 Claims. (Cl. 155—173)

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This invention relates to head rests for operating chairs, such as employed by dentists, surgeons and the like, and, more particularly, to means for mounting the head rest pads, one object of the invention being to provide an improved mounting of the above character for flexibly supporting the pad for movement to position to conform to the head of the occupant of the chair and comfortably and firmly support the head against operating pressures.

Another object is the provision of such a head rest pad mounting so constructed that the pad, while normally supported as described, may be quickly and easily detached and remounted for sterilizing treatment in accordance with sanitary requirements.

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 specification.

In the drawings:

Fig. 1 is an elevation of a head rest embodying the present invention;

Fig. 2 is an enlarged view of the same, partly in section and partly broken away;

Fig. 3 is an enlarged, central, sectional view of parts of the mounting for one of the pads;

Fig. 4 is a plan view of parts thereof detached;

Fig. 5 is an enlarged elevation, partly broken away, of the shank of the pad, showing spring retaining means;

Fig. 6 is a view similar to Fig. 1 of a modified embodiment;

Fig. 7 is a sectional elevation of one of the pad mountings shown in Fig. 6;

Fig. 8 is an enlarged, central, sectional view of parts of the mounting shown in Fig. 7, detached;

Fig. 9 is a side elevation showing one of the pads and its shank, and

Fig. 10 is a plan view on a smaller scale of the parts shown in Fig. 8.

The invention is embodied in the present instance, by way of illustration, in a head rest of the general type disclosed in United States Letters Patent to A. J. May, No. 2,062,592, comprising a bracket arm 10, Fig. 1, having a lower end 11 formed for attachment, by any known or suitable means, to the back of an operating chair, as disclosed in said patent and as well understood in the art. At its upper end, the arm has oppositely extending branches 12 and 13, the extremities of which carry the mountings for the head rest pads and are turned inwardly through a suitable angle for inclining the pads 14 to

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jointly receive and support the head of the occupant of the chair. As the pad mountings are alike, a description of one will serve for both.

Each bracket arm terminates in an enlarged hollow element or head 15 having a recess 16 for the reception of portions of the pad mounting. The peripheral wall 18 of the head is formed internally with a radially extending seat 19 beyond which the inner surface of the wall is formed with screw threads 20 for engagement by a threaded annular part or ring 21 adapted to be screwed into the head 15, as by means of a spanner wrench, and to be detachably clamped against certain parts of the pad mounting hereafter described.

The pad mounting further comprises a resiliently flexible means in the form of a disk 22, preferably of rubber, or rubber-like material, having molded in and fixed to its periphery an annular portion or ring 23, preferably made of metal, or plastic, or other substantially rigid material and of larger diameter than the periphery of disk 22 and resting on the seat 19 to which it is detachably clamped by said part 21, for detachably holding the mounting disk 22 in the recessed head 15 of the arm.

The disk 22 has molded in and fixed thereto also a concentric supporting member, or metal sleeve, 24, providing a socket for receiving the shank of the head rest pad, which will now be described.

The head rest pad 14 may be constructed of any suitable material, such as soft or hard rubber, plastic composition, or the like, with a slightly concave or cupped front face 25 to engage and support the head, as well understood in the art. The back of the pad has fixed centrally thereto, by any suitable means, a metal shank 26, Figs. 2 and 5, comprising a reduced portion 27 of a length equal to or somewhat greater than the length of the socket member 24, as shown in Fig. 2. Shank portion 27 is of such a diameter as to closely fit in the socket 28 formed by the interior of sleeve 24, but so that the shank can be readily inserted and removed, for detaching the pad 14 as a unit.

Means are preferably provided for yieldably retaining the pad shank 27 in socket member 24 comprising, preferably, a longitudinal slot 29 formed in the end of the shank for the reception of a U-shaped spring clip 30. The central portion of the clip has laterally projecting flanges 31 pressed into transverse grooves formed at 32 in the side walls of slot 29, for retaining the clip in the slot. The angular sides of the clip

project somewhat beyond the diameter of the shank for frictional engagement with the side walls of the socket member 24 to fractionally retain the shank and pad on the bracket arm against inadvertent detachment.

It will be apparent from the above description that the shank 27 of the head rest pad may be quickly and easily inserted into the socket formed by sleeve 24 of the resiliently flexible disk 22. By means of such disk, the pad is flexibly supported for movement to conform its position to the head of the occupant of the chair, for comfortably and firmly supporting the head.

In normal use, the head pads may be quickly and easily removed from and replaced in their supporting socket parts 24, for the purpose of cleaning and sterilizing the pads, from time to time, in accordance with sanitary requirements. The disk 22 itself may be readily removed by unscrewing the clamping part 21.

A modified form of the invention is disclosed in Figs. 6 to 10 of the drawings, in which each of the bracket arms 33 has a separately formed recessed element 34 inserted therein. The end 35 of the element forms an annular seat on which rests a disk 36 of resiliently flexible rubber or rubber-like material corresponding to the disk 22 of the preferred embodiment. In this form of the invention, however, the peripheral edge of the disk itself rests upon the seat and is clamped thereon by a cap-like annular part 37 threadedly engaged with the outer wall surface of the recessed element 34, as shown. The disk has a central opening, Fig. 8, in which is received a sleeve 38 having at one end a flange 39 for engagement with one face of disk 36. The opposite end of the sleeve is threaded and carries a nut 40 by means of which the sleeve or socket member 38 is secured to the disk. Member 38 is formed with a central opening or socket 41 for the reception of the shank 26 of a head rest pad 14, such as described in connection with the preferred embodiment. The spring clip 30 of the pad shank frictionally engages the walls of the recess 41 of the socket member to frictionally and yieldably retain the shank in the socket, as described in connection with the preferred embodiment. In this modification, however, the flexible disk 36 has its periphery directly clamped on the seat by the sleeve 37 and the socket member is not molded in it but subsequently inserted and secured by the nut 40. In this modification also the flexible disk 36 is of thicker and more rigid shape, the responsive tilting of the pad being subject to restraint by suitable selection of the thickness and material of the flexible disk. The operation of this modification is substantially the same as described above in connection with the preferred form.

It will thus be seen that the invention accomplishes its objects and while it has been herein disclosed in connection with the details of certain embodiments, such disclosure is intended in an illustrative, rather than a limiting sense, as it is contemplated that various modifications and changes in the construction and arrangement of the parts will readily occur to those skilled in the art within the spirit of the invention and the scope of the appended claims.

I claim:

1. In a head rest for an operating chair, a bracket for said chair, a head rest pad, a disk-shaped flexibly resilient, rubber mounting member having a peripheral attaching portion and a central attaching portion, coacting parts on said bracket and on one of said attaching portions for securing said mounting member to said bracket, and means for detachably connecting said pad to the other attaching portion of said mounting member to support said pad for resiliently flexible movement to conform its position to the head of an occupant of the chair and for detachment from said mounting member for sterilizing treatment.

2. In a head rest for an operating chair, a bracket for said chair, a head rest pad member, and a disk-shaped, flexibly resilient, rubber mounting member connected to said bracket, one of said members being formed with a socket and the other of said members having a shank portion detachably mounted in said socket to support said pad member for resiliently flexible movement to conform its position to the head of an occupant of the chair and for detachment from said mounting member for sterilizing treatment.

3. In a head rest for an operating chair, a bracket for said chair formed with an annular seat, a head rest pad member, a resiliently flexible member positioned on said seat, and an annular part threadedly engaged with said bracket for detachably clamping said flexible member on said seat, one of said members being formed with a socket and the other of said members having a shank detachably mounted in said socket to support said pad member for resiliently flexible movement to conform its position to the head of an occupant of the chair, and for detachment from said other member for sterilizing treatment.

4. In a head rest for an operating chair, a bracket for said chair formed with an annular seat, a head rest pad member, a resiliently flexible member resting on said seat, an annular part threadedly engaged with said bracket for detachably clamping said flexible member on said seat, said flexible member being provided with a socket and said pad member having a shank detachably mounted in said socket to support said pad member for resiliently conforming its position to the head of an occupant of the chair, and means for yieldably retaining said shank in said socket.

5. In a head rest for an operating chair, a bracket for said chair provided with an annular clamping means, a resiliently flexible disk-shaped member having a peripheral portion clamped and supported in said clamping means, and a head rest pad member, one of said members being formed with a socket and the other of said members having a shank detachably mounted in said socket to support said pad member for resiliently conforming its position to the head of an occupant of the chair and for detachment from said flexible member for sterilizing treatment.

6. In a head rest for an operating chair, a bracket for said chair provided with an annular clamping means, a resiliently flexible disk constructed mainly of rubber material and having a peripheral portion clamped and supported in said annular clamping means, said disk having a socket member secured centrally therein, and a head rest pad having a shank detachably mounted in said socket member to support said pad for resiliently flexible movement to conform its position to the head of an occupant of the chair and for detachment from said socket member for sterilizing treatment.

7. In a head rest for an operating chair, a bracket for said chair provided with a recessed element formed with an annular seat, a supporting member formed with a socket, resiliently flex-

ible disk-shaped means connected to said supporting member and resting on said seat, an annular part threadedly connected with said element and clamping said means on said seat, and a head rest pad having a shank detachably mounted in said socket member for flexibly supporting said pad for movement to conform its position to the head of an occupant of the chair and for detachment from said socket for sterilizing treatment.

8. In a head rest for an operating chair, a bracket for said chair provided with a recessed element formed with an annular seat, a resiliently flexible disk constructed mainly of rubber material and having a peripheral portion resting on said seat, an annular part threadedly connected with said element for detachably clamping said disk on said seat, a metal member secured centrally in said disk and formed with a socket, a head rest pad having a shank detachably mounted in said socket to flexibly support

said pad for movement to conform its position to the head of an occupant of the chair, and means for yieldably retaining said shank in said socket.

CLARENCE G. MAXSON.

REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
229,062	Stiles	June 22, 1880
1,706,634	Seils	Mar. 26, 1929
1,860,861	Knutson	May 31, 1932
2,018,860	Lord	Oct. 29, 1935
2,099,655	MacFadden	Nov. 16, 1937

FOREIGN PATENTS

Number	Country	Date
392,262	Germany	1924
783,530	France	Apr. 8, 1935