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SURGICAL PILLOW HAVING OXYGEN TUBE SUPPORTING MEANS

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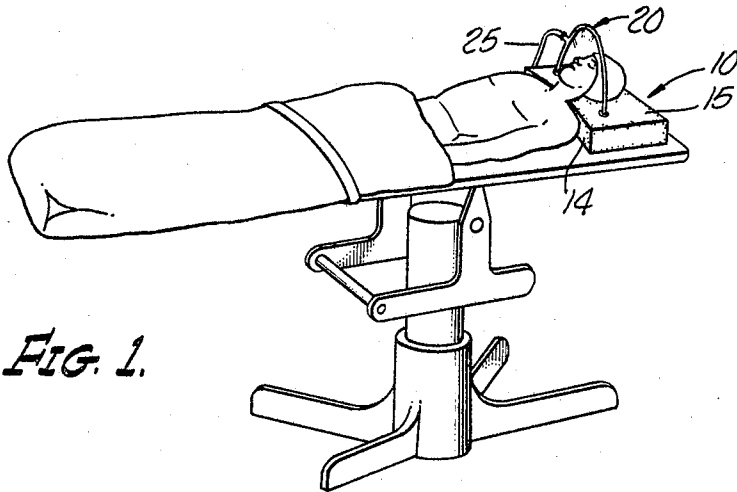


FIG. 1.

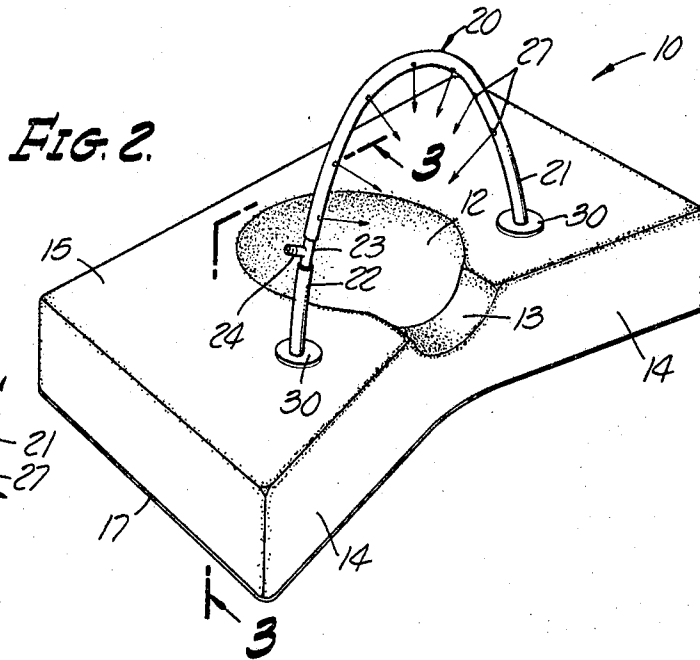


FIG. 2.

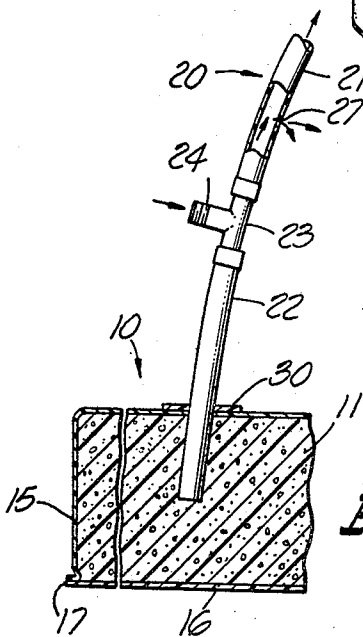
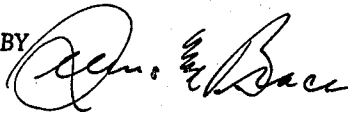


FIG. 3.

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1

2

3,482,571

SURGICAL PILLOW HAVING OXYGEN TUBE SUPPORTING MEANS

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7 Claims

ABSTRACT OF THE DISCLOSURE

An operating table accessory comprising a semi-resilient headrest formed to seat the head of a patient on an operating table and designed to hold the head firmly during surgery. The accessory is enclosed in an impervious casing adapted to withstand repeated sterilization and includes an oxygen dispensing tube supported closely above the patient's nose.

This invention relates to a surgical accessory and more particularly to a sterilizable headrest for use on the operating table to support the patient's head firmly and comfortably and includes provision for dispensing oxygen to the patient.

Surgery of a wide variety of types performed upon the head necessitate use of some means for holding the head firmly in a desired position. Heretofore, it has been commonplace to employ sandbags, stacked and disposed as found most appropriate and effective but this practice is subject to numerous objections and disadvantages. Thus, such bags are heavy, difficult to manipulate and distribute, can result in objectionable concentration of pressure on areas of the patient's head and not infrequently the sand shifts allowing the head to move unexpectedly.

The present invention seeks to overcome the numerous shortcomings of prior practice and makeshift expedients by providing a surgical head support comprising a broad-based thick block of semi-resilient material featuring suitably shaped recesses in its upper surface for firmly seating and supporting the head and neck. The resilient material is enclosed in an impervious plastic enclosing jacket preformed to conform snugly with the contour of the main body of the accessory. The accessory also features a pair of sockets disposed to either side of the head seating recess for detachably supporting an oxygen distributing device having apertures for dispensing oxygen toward the patient's nose and which device may serve additionally as a support for an impervious sheet of plastic draped over the patient's head.

Accordingly, it is a primary object of the present invention to provide a formed headrest for holding a patient's head firmly in a desired position on an operating table while undergoing surgery.

Another object of the invention is the provision of a surgical headrest accessory enclosed in impervious sterilizable material and featuring means for distributing oxygen to the patient while his head is supported on the accessory.

These and other more specific objects will appear upon reading the following specification and claims and upon considering in connection therewith the attached drawing to which they relate.

Referring now to the drawing in which preferred embodiment of the invention is illustrated.

FIGURE 1 is a perspective view showing the preferred embodiment of the invention accessory in use on an operating table;

FIGURE 2 is a perspective view of the head rest on an enlarged scale; and

FIGURE 3 is a fragmentary sectional view taken along line 3—3 on FIGURE 2.

Referring more particularly to FIGURES 1 and 2, there is shown an illustrative embodiment of the surgical accessory designated generally 10 embodying the principles of the present invention. The accessory comprises a thick block 11 of resilient elastomeric material, as spongy rubber or plastic compounded to withstand sterilizing temperatures. The spongy material should have considerably more firmness than a conventional foam rubber pillow, a firmness which responds to light finger pressure being found quite satisfactory for general use. However, for delicate eye surgery and the like, greater firmness is often desired and is readily attainable by selection of an appropriate elastomeric foam material as foam urethane. The main body of the accessory preferably has a thickness of 3 to 4 inches. The central portion of the plaque is formed with a semi-spherical recess 12 to receive the head which opens into a semi-cylindrical recess 13 extending through the forward edge of the accessory. It will be understood that recesses 12 and 13 are sized and contoured to fit the rear of the head and neck and are not so deep as to interfere with shifting the head to various alternate positions to either side of the position shown in FIGURE 1.

It will be understood that the forward side walls 14, 14 of the accessory to either side of the neck seating recess 13 diverge outwardly and forwardly in a manner to rest firmly against the adjacent shoulder areas of the patient as is clearly illustrated in FIGURE 1. This important feature of the accessory aids materially in holding the patient's head axially aligned with his body and also prevents shifting and rotation of the accessory about the center of recess 12.

Spongy material 11 is fully encased with a covering jacket of suitable impervious material comprising upper and lower halves 15, 16 sealed or bonded together about the entire lower rim edge 17 of the accessory. Flexible pliant thermoplastic sheeting, as polyvinyl chloride or polyethylene may be employed. Upper half 15 is molded to fit snugly about the main body and the contour of recesses 12 and 13 by well known vacuum forming technique whereas lower half 16 comprises a flat sheet of the same material.

Oxygen may be supplied to the patient through the oxygen dispensing device 20 which is formed from semi-rigid plastic tubing arched into an inverted U-shaped configuration. As here shown, two lengths of tubing 21, 22 are employed, their adjacent ends being socketed over the opposite ends of a hollow T-fitting 23. The latter preferably includes threads at its opposite ends to hold the parts assembled while permitting limited rotation of the stem end 24 which may be connected to the oxygen supply through a flexible hose 25. Tube 21 is provided with a row of oxygen dispensing outlets 27 disposed to direct oxygen toward the nose of the patient.

The oxygen dispensing device 20 is detachably supported on the main body of the headrest in a manner which will be best understood by reference to FIGURES 2 and 3. Thus, the lower ends of the resilient tubes 21 and 22 are insertable through rigid washers 30 bonded to the upper side of the headrest adjacent the opposite sides of neck rest 13. Since these tubes tend to straighten, their lower ends have a firm frictional engagement with the openings in socket washers 30, 30 and this action along with the support provided by the spongy material suffices to support dispenser 20 firmly in an upright position. The underlying portion of spongy material 11 is pierced or slotted to permit reception of the tube ends which have a loose sliding fit with the opening through washers 30. The spongy material serves to seal the lower ends of the tubes upon being inserted and it is therefore unnecessary to close

3

these ends. If the oxygen dispensing device is not needed or interferes with the work being performed by the surgeon or anesthetist, it may be quickly detached simply by lifting it from its seating sockets. Likewise it is quickly placed in use by grasping the opposite sides of the tubing and flexing them toward one another sufficiently for insertion into the seating sockets. Also since T-fitting 23 is readily rotated about the axis of the tubing, supply hose 25 can be shifted to any position found most convenient by the surgeon and his attendants.

After use in an operation, the accessory headrest and oxygen dispensing device are readily disassembled, sterilized and sealed in sterile bags until needed for the next operation.

While the particular surgical head support herein shown and disclosed in detail is fully capable of attaining the objects and providing the advantages hereinbefore stated, it is to be understood that it is merely illustrative of the presently preferred embodiments of the invention and that no limitations are intended to the details of construction or design herein shown other than as defined in the appended claims.

I claim:

1. A surgical accessory for a patient while undergoing surgery and adapted to provide relaxing but firm support for the head on an operating facility, said accessory comprising a thick block of semi-spongy material having a semi-spherical recess opening upwardly from the mid-portion thereof sized to seat snugly a substantial portion of the patient's head, a snug-fitting enclosing jacket for said main body of impervious material adapted to withstand repeated sterilization, oxygen dispensing means overlying said head seating recess comprising a perforated inverted U-shaped tube, and means on said main body for supporting said oxygen dispensing means in a position spaced closely above the nasal passages of a patient's head while using said accessory.

2. The accessory defined in claim 1 characterized in that said oxygen dispensing means comprises a semi-flexible tube formed with oxygen dispensing openings positioned to discharge along downwardly converging paths, and means for detachably coupling an oxygen supply to said oxygen dispensing means.

3. The accessory defined in claim 2 characterized in that the means on said main body for supporting said oxygen dispensing means comprises a pair of sockets disposed one to either side of said semi-spherical head seat-

4

ing recess and sized to have a close frictional fit with the opposite lower ends of said oxygen dispensing tube.

4. The accessory defined in claim 1 characterized in that said oxygen dispensing means comprises a pair of plastic tubes swivelly interconnected between their adjacent ends by a T-fitting and bent into inverted U-shaped configuration, said oxygen dispensing means including dispensing openings in at least one of said plastic tubes disposed to dispense oxygen downwardly along converging paths.

5. The accessory defined in claim 4 characterized in that said oxygen dispensing means and the supporting means therefor on said thick block of semi-spongy material include means for holding the same firmly but detachably assembled.

6. The accessory defined in claim 1 characterized in that said enclosing jacket includes a first half comprising a flat sheet of impervious thermoplastic material underlying the flat bottom of said thick block and a deeply drawn second half snugly conforming to the top, sides and head seating recess, and the juxtaposed rim edges of said first and second halves of said enclosing jacket being fused together along a continuous fluid-tight seam adjacent the lower rim edge of said accessory and effective to hold said halves permanently assembled to one another.

7. The accessory defined in claim 1 characterized in that the transverse edges of said block of semi-spongy material diverge forwardly toward the patient's shoulders at an appropriate angle to rest firmly against his shoulders when his head is resting in said semi-spherical recess and being adapted to hold the head aligned with the patient's body while outstretched on an operating table.

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U.S. Cl. X.R.

5—338; 128—140