

was an acute cystitis of the urinary bladder and generalized muscular atrophy.

It is the opinion of the members of the otolaryngology service that the ulcerations were of minor consequence and would have healed promptly had recovery occurred. The advantages of an endotracheal tube in comparison with a tracheotomy for a respirator patient are considerable. Both devices require a conditioned atmosphere, and its provision is easier with an endotracheal tube. Tracheal secretions do not appear to be as copious with an endotracheal tube as with a tracheotomy and are perhaps more easily removed. The difficulty of the respirator collar over-riding the tracheotomy opening is avoided by the endotracheal tube.

#### SUMMARY

A case report of a 24 year old woman who had an endotracheal tube in place for forty-two days is presented. This patient had almost total muscular paralysis from

infectious polyneuritis. Respiratory exchange was maintained with a respirator.

A conditioned atmosphere was provided first by partially humidifying room air, later by giving oxygen with high humidity, and finally by giving a highly humidified air-oxygen mixture.

During this period aspiration bronchoscopy was done twice. For a few days papain solution was used to liquefy the crusted secretions. Feedings were given through a stomach tube. The patient's temperature ranged between 101° and 106°. She died on the forty-third day of hospitalization following a period of anoxia.

At autopsy ulcerations were found over each arytenoid cartilage and two small ulcerations in the trachea.

The advantages of an endotracheal tube in comparison with a tracheotomy in a respirator patient are discussed.

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#### THE EATON HEADREST

During the past twenty years, despite a search of the surgical supply catalogues and at surgical exhibits, I have failed to find a headrest which was simple enough to be instantly available, which would facilitate the application of the facepiece of the anesthesia apparatus, give the anesthetist complete control of the patient's head, and afford freedom from neck and shoulder discomfort after operation.

A friend of mine, Mr. Charles Eaton, designed the headrest to be described after we had discussed the requisites of a headrest from the standpoint of the anesthetist, the surgeon and the patient.

The headrest consists of a base with an eccentric platform, which ensures nontipping. The upright portion of the base is made high in order to provide adequate room for the application of the facepiece

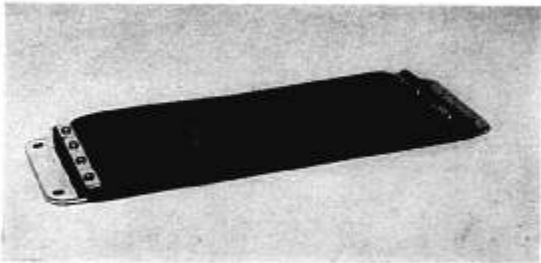


FIG. 1.

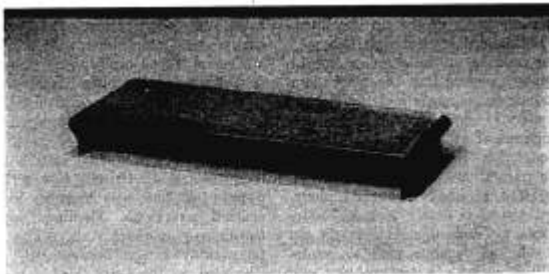


FIG. 2.

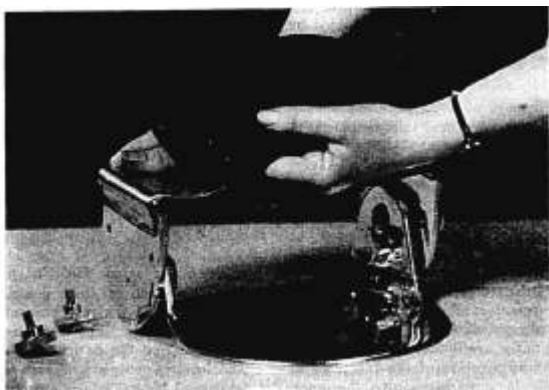


FIG. 3.

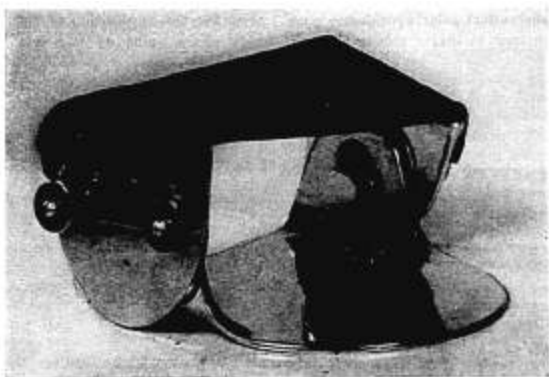


FIG. 4.

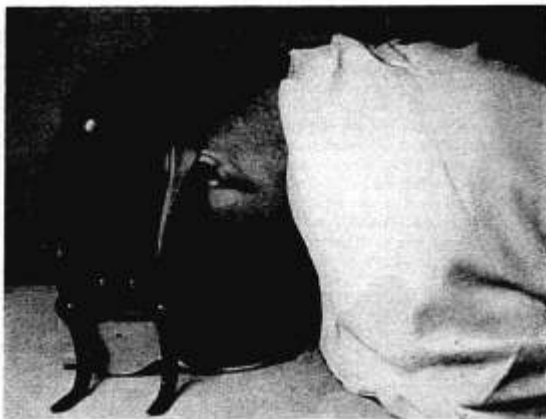


FIG. 5.



FIG. 6.

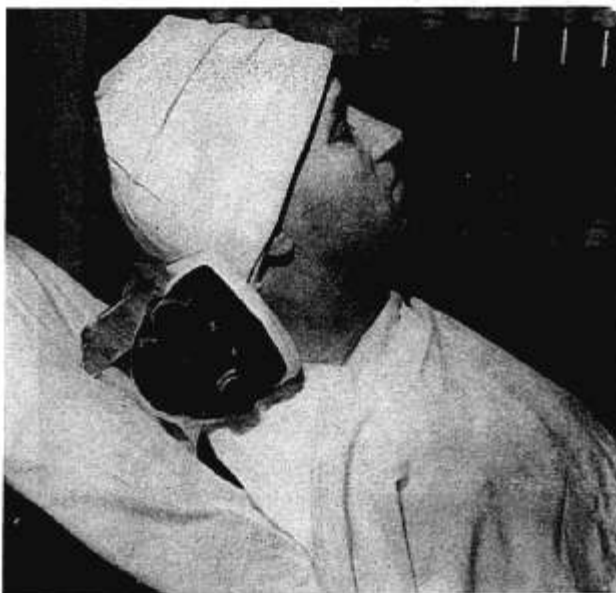


FIG. 7.

of the anesthesia apparatus with the patient in the prone position. Cut-out sections on the upright arms of the base allow adjustment of the head support up and down and thus compensate for the angle of the cervical spine. This is further aided by the ability of the anesthetist to swivel the head support backward, forward, or in a twisted manner. These positions are controlled and maintained by the thumb screws on the inside of the upright arms. The headrest proper is made of heavy sponge rubber to promote the comfort of the patient and to cause minimal interference with circulation. A metal plate may be inserted under the sponge rubber headpiece to give a firm support when required by the neurosurgeon; ophthalmologist, otolaryngologist or plastic surgeon.

The rough under surface of the base and

the nonslipping quality of rubber make it a stable piece of apparatus. If added stability is desired a piece of adhesive tape may easily be passed over the base and fastened to each side of the operating table. There is nothing to interfere with the application of the usual head strap.

A projecting screw has been set in the center of each of the four knurled screws which hold the sponge rubber head support in place. A strip of rubber containing multiple perforations may be slipped over each of these and the other end drawn taut and fastened to the corresponding hook on the facepiece. This makes a new head strap that does not touch the face of the patient at any point. The only pressure is that of the facepiece itself. This prevents interference with the flow of blood through the superficial temporal arteries and the posterior facial veins. It

is useful in the supine and lateral positions. In the prone position the ordinary headstrap must be used.

Since the headrest is small and light it is easy to keep within reach of the anesthetist for instant use. It can be stored in the cabinet of the gas machine.

Under actual operating conditions:

(1) The pillow may be eliminated entirely.

(2) With the patient in the supine position no adjustment is necessary for the average patient. The headrest proper can be adjusted as described to compensate for a short thick neck. If further decrease in height is necessary it is often helpful to remove the head part of the mattress and place the headrest directly on the table.

(3) In the lateral position no mattress adjustments are necessary, but it is best to place the base on the table at an angle of

about 45 degrees so that the neck and face are off the metal upright.

(4) The maximum height of the headrest is determined by the size of the facepiece of the anesthesia apparatus. Because the face protrudes forward more than the chest in the prone position it is usually advisable to remove the head portion of the mattress or place a pad about 1 or 2 inches thick under the patient's chest, or both. I use sponge rubber kneeling pads for this purpose. This maintains the height necessary for the facepiece and at the same time it prevents undue dorsiflexion of the neck.

In all positions free access to the face for the application of the mask and, in emergency cases with vomiting, free access for aspiration were excellent.

The neurosurgeon and aural surgeon expressed the opinion that preparing and draping the patient were made easier.

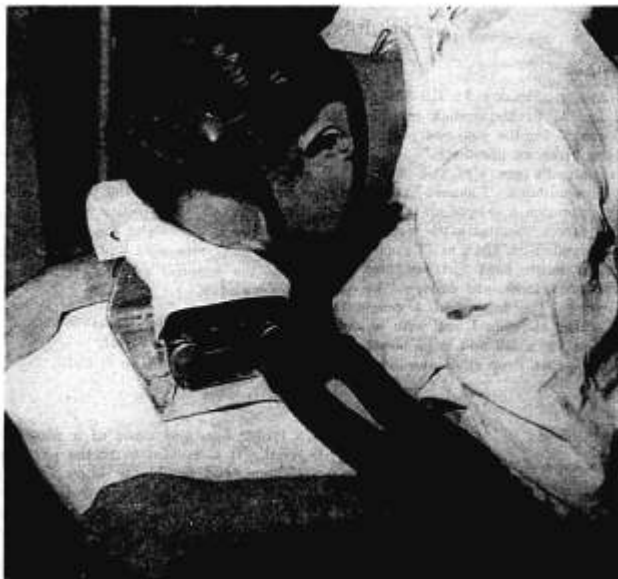


FIG. 8.

Because of the force needed to drill and cut bone I used the metal support under the sponge rubber in these cases.

In operations with the table in the chair position, such as for a deviated septum, I strapped the headrest to the top of the operating table with adhesive tape and found that this absolutely maintained the position of the headrest and caused enough flexion of the neck so that the surgeon worked straight back along the floor of the nose and did not tend to work up toward the cribriform plate.

When the kidney position was employed the patients did not complain of shoulder and neck discomfort after operation as much as they did when the old pillow technic was used.

In summary: The Eaton headrest is an appliance designed (1) to facilitate the application of the facepiece of the anes-

thesia apparatus; (2) to ensure an adequate airway; (3) to control the position of the patient's head and so make the work of the surgeon easier; and (4) to give increased comfort to the patient.

Because of its compactness it eliminates the cumbersomeness of headrests in present-day use.

The Eaton headrest has been described in detail and suggestions have been presented for modification of positions according to the different types of operative procedures. The headrest has been favorably accepted by various anesthetists and surgeons. The purpose of this article is to acquaint other members of the profession with a new and helpful piece of apparatus.

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## CORRESPONDENCE

*To the Editor:*

In ANESTHESIOLOGY 9: 319-320 (May) 1948, Dr. A. S. McCormick reported "A world record for the youngest patient who has been given an anesthetic."

His patient's age was two hours and thirty-nine minutes. I should like to bring to your attention a case of an infant anesthetized fifteen minutes after birth.

On November 24, 1948, at 12 noon a one month premature baby girl, weighing five pounds, two ounces, was delivered by outlet forceps. The baby had a congenital defect of the abdominal wall with an evisceration of the small and large bowel. At 12:15 p.m. open drop ether anesthesia was

begun. Closure of the abdominal wall was commenced at 12:22 p.m. and completed at 1:00 p.m. After the eviscerated bowel was returned to the peritoneal cavity, there followed an intermittent escape of gastric contents into the posterior pharynx, requiring aspiration of the pharynx during the operation. Aspiration of the trachea was done at the end of the anesthesia.

The baby recovered and was discharged from the hospital on the thirtieth post-operative day.

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*To the Editor:*

A new type of airway has been used by the undersigned for the last year which has many advantages over other airways presently in use.

The airway\* is essentially a pharyngeal molded type, with both sides open, having

\* Available through Medical Plastics, Inc., 90-04 161st St., Jamaica 2, N. Y.

a center bar, and made of a plastic material. It is molded to fit the pharyngeal contour, and flexible to allow for variations. Tissue trauma is reduced to a barest minimum, there are no hard surfaces, and it slips in as though greased. It is very light.

The airway is actually non-obstructable. The possibilities of becoming obstructed by plugs of mucous or foreign bodies are