



FIG. 2. The oxygen device in use.

their single openings direct a stream of oxygen upward and backward into the nasal chambers. By reason of their small diameter, these tubes do not occlude the nasal ostia and therefore do not interfere with normal expiration in those patients who breathe through their noses. This arrangement does not, however, interfere with the proper delivery of oxygen as is evidenced by the analysis of gas from the posterior pharynx.

The device permits the free use of spectacles by the patients, and does not interfere with normal eating and drinking or with the patient's ability to speak.

The light plastic material of which this device is made is unsuited to heat sterilization. This disadvantage could be offset by the manufacture of such a device in quantity in order to reduce the unit cost and make the device a disposable item.

REFERENCE

1. Beckman, H.: *Treatment in General Practice*, ed. 5, Philadelphia and London, W. B. Saunders Company, 1946.

FRANK H. BELFUS, M.D.,
Department of Internal Medicine,
Columbia Hospital,
Milwaukee, Wisconsin

THE "OPERISCOPE" AS AN AID DURING ANESTHESIA

Modern surgery requires intimate coordination of the activities of the anesthetist with those of the other members of the operating team. At frequent intervals the anesthetist should appraise the surgeon's requirements in terms of relaxation, the patient's position, the lighting of the operative field, and other factors which may be partially or completely within his

control. Accurate evaluation of replacement therapy in all operations of major significance, and periodic inflation of the collapsed lung during thoracic surgery are best done if the operative field is clearly visible to the anesthetist.

Although it is desirable to allow the anesthetist full view of the operative site, it is often necessary to obscure his view with

sterile drapes, or to place the patient in such a position that the surgical field is not visible to the anesthetist. This is particularly true in thoracic surgery. A simple device has been inexpensively constructed to allow the anesthetist full view of the operative field, and has been referred to in our hospital as the "operiscope," (figs. 1 and 2). Originally designed for use during thoracic surgery, it has been useful during abdominal and neurosurgery, and during certain orthopedic procedures involving the upper extremities or spine.

The following units have been employed in its construction:

1. One 8 by 11 by $\frac{1}{4}$ inch plate glass mirror, secured to a tin rectangle by means of ten projecting tin lugs. The tin rectangle is brazed to a $\frac{3}{8}$ inch iron rod which projects 12 inches beyond the end of the mirror.

2. One 3 by 6 by $\frac{1}{4}$ inch plate glass mirror, secured to the bracket of a standard rear-view automobile mirror. Bracket is fastened to a $\frac{1}{4}$ inch iron rod 1 foot in length.

3. Two castaloy contort clamp holders (may be purchased from Will Corporation, Rochester, New York, No. 5004).

4. Heavy-base intravenous stand, or

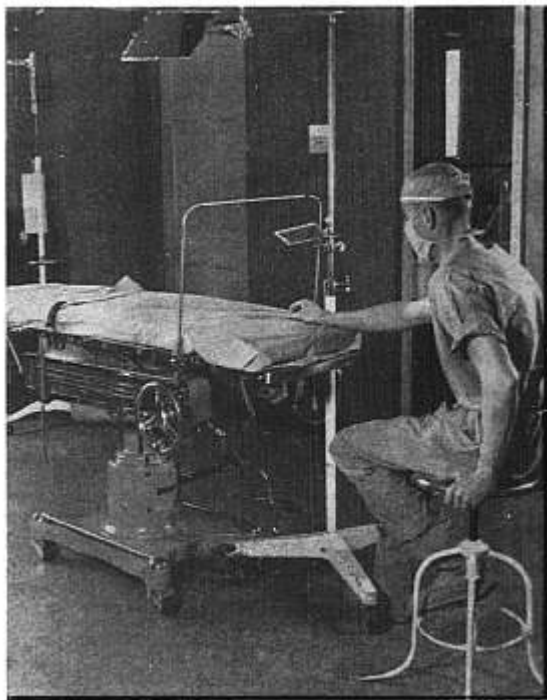


FIG. 1.

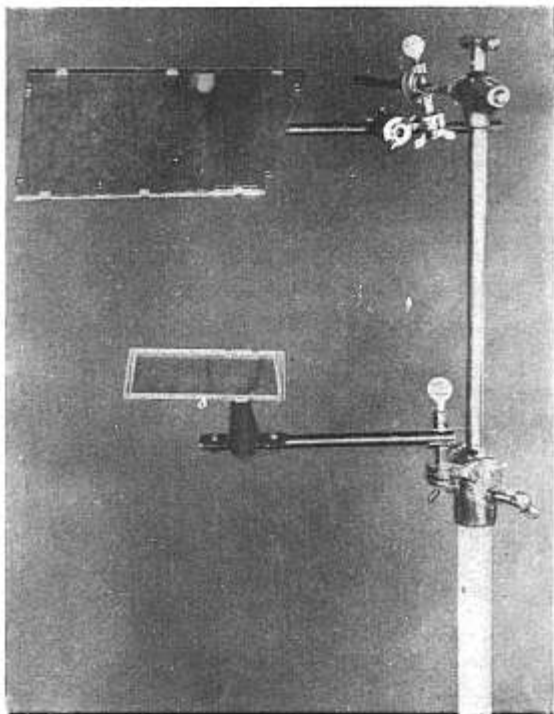


FIG. 2.

similar stand, to accommodate clamps with mirror attachments. Note: the stand (fig. 2) which is pictured has a vertical top bar, which is desirable, but not necessary. Its primary advantage is to allow the top mirror to extend out over the surgical field somewhat farther than a stand which has the top clamp fastened to the vertical shaft.

To employ the "operiscope," the stand is placed in position as shown in figure 1, with the top mirror located as nearly over the surgical field as the lighting will permit. The lower mirror is adjusted until the

anesthetist, in the standing position, sees in it the image of the upper mirror. Then the upper mirror is adjusted in such a way that its reflection of the operative field is seen as an image in the lower mirror. The anesthetist can then change to the sitting position and readjust the lower mirror on its swivel to the position which affords him best vision of the doubly-reflected operative site.

JOHN R. LINCOLN, M.D.,
 Director of Anesthesia,
 Maine General Hospital,
 Portland, Maine