passive hyperinflation of the lungs can decrease venous admixture due to the second cause.

If the oxygen concentration of the inspired mixture is held constant, assuming a constant A-V difference, the degree of venous admixture will vary inversely as the \( P_{A\text{O}_2} \). An increase in \( P_{A\text{O}_2} \) indicates a decrease in shunting. Since the pre- and post-rebreathing \( P_{A\text{O}_2} \)'s reported here were measured breathing room air then an increase in the post-rebreathing period \( P_{A\text{O}_2} \) over the pre-rebreathing period \( P_{A\text{O}_2} \) would indicate a decrease in atelectasis, while no increase would indicate no effect beyond that achieved by the increased oxygen tension.

Rebreathing is a long established method of attempting to decrease atelectasis. With minute volumes two to four times normal, it seemed reasonable to assume that areas of miliary atelectasis would be opened and thus venous admixture decreased. However, our results indicate that this is not so. In only two of the patients was the post-rebreathing \( P_{A\text{O}_2} \) increased and in only one was this increase convincing. This lack of success in decreasing the incidence of atelectasis, in spite of large increases in tidal volume, would indicate that the rebreathing method leaves much to be desired and fails to produce a change lasting longer than the actual time of treatment.

REFERENCES

GADGETS

A Simplified, Trouble-Free Transducer Holder

WILLIAM B. GEBEKE, M.D.

Because of dissatisfaction with attempts to utilize standard laboratory clamps on hospital operating room monitoring equipment a simplified, trouble-free, transducer holder was devised for use on our cardiovascular service.

The clamp (fig. 1) consists of a solid block of stainless steel (Crucible #303), bored with an off-center hole of size to accommodate the transducer base. A threaded side hole allows the introduction of a rod of similar material which is equipped with a locknut and allows pressure to be maintained against the transducer body. The rod serves to mount the

* Department of Anesthesia, Baylor University College of Medicine, Houston, Texas.

Fig. 1. A typical installation of the transducer-holder clamped to a vertical support and demonstrating the threaded side rod and lock-nut that hold the transducer in position.
holder on a side table with other hemodynamic equipment.

This simple apparatus has solved the problem of rusting springs, corrosion, and possible damage to plastic parts of transducer bodies inherent in the use of adjustable laboratory clamps on those expensive, delicate instruments.

**Epiglottic Elevator**

**Martin Livingston, M.D., and Robert Durell, M.D.**

Laryngoscopy and endotracheal intubation can be technically difficult in some patients. In most of these cases it is possible to expose the epiglottis but because of anatomic peculiarities such as an enlarged tongue, recessive jaw, or a fixed cervical spine, elevation of the epiglottis and exposure of the glottic chink is difficult or impossible. Laryngoscopy in this group is troublesome with most commonly available laryngoscopes. In these circumstances successful endotracheal intubation may require a blind approach combined with topical anesthesia. Occasionally, it may be necessary to have the patient regain consciousness and to complete the intubation with his active cooperation. We have designed an instrument, the epiglottic elevator (figs. 1, 2), which facilitates exposure of the glottic chink and simplifies endotracheal intubation.

The instrument consists of a weighted hollow handle affixed to an angulated rod. The rod is eighteen centimeters long, three millimeters in diameter with a rounded distal end and is moderately flexible. The handle weighs 56 g., is angulated at 135 degrees from the rod and is also slightly offset to allow unobstructed visibility along the axis of the rod. Rod and handle are both constructed of chrome plated brass and can be separated from each other by a fifteen millimeter slip joint, into which the proximal end of the rod is permanently fixed, to permit ease of storage and cleaning.

The instrument facilitates intubation in the following manner: After the laryngoscope has been inserted and the epiglottis exposed, the long thin rod of the epiglottic elevator is advanced from the right side of the mouth under the epiglottis which is then elevated with the tip of the instrument, exposing the glottic chink. It should be emphasized that the laryngoscope exposes the epiglottis, but it is the tip of the instrument which raises the epiglottis to expose the glottic opening. The rod is then advanced another two or three centimeters between the cords into the trachea. The instrument handle can then be released.

* Anesthesia Department, New York Eye and Ear Infirmary, New York, New York 10003.