

## Clinical Workshop

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### A Simple, Inexpensive, Automatic Switch Valve for a Constant-monitor System

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The extensive use of constant monitoring by precordial or esophageal stethoscope during anesthesia has led to the development of several types of auscultatory systems. These usually include a monaural earpiece and a stopcock for switching from the precordial monitor to the blood-pressure acoustical pickup. One very convenient variation incorporates the use of the Ploss Automatic Switch Valve

in lieu of the stopcock, so that when the blood-pressure cuff is inflated, a pressure-activated valve automatically switches sound from the precordial monitor to the blood-pressure acoustical pickup.

We have found that a completely satisfactory, simple, inexpensive device to perform the same function as the Ploss Valve can be fashioned from two tongue blades, a short length of  $\frac{1}{4}$  inch gum-rubber tubing, and an applicator stick (fig. 1).

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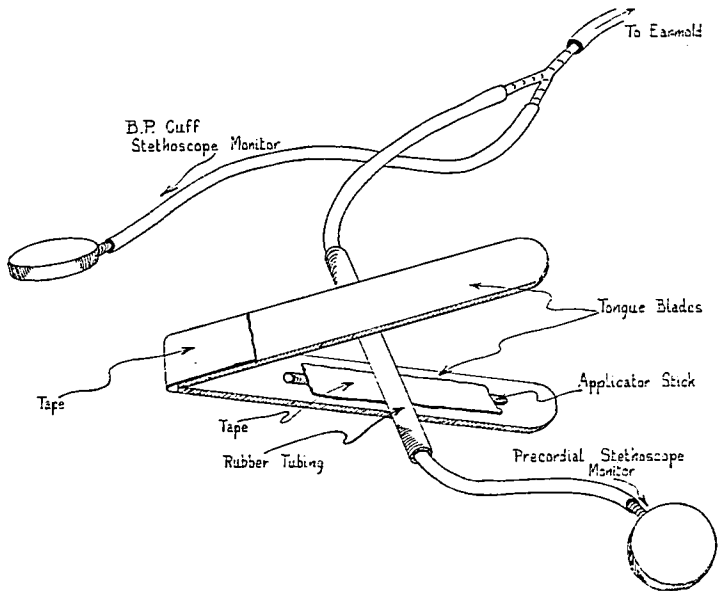


FIG. 1. Construction.

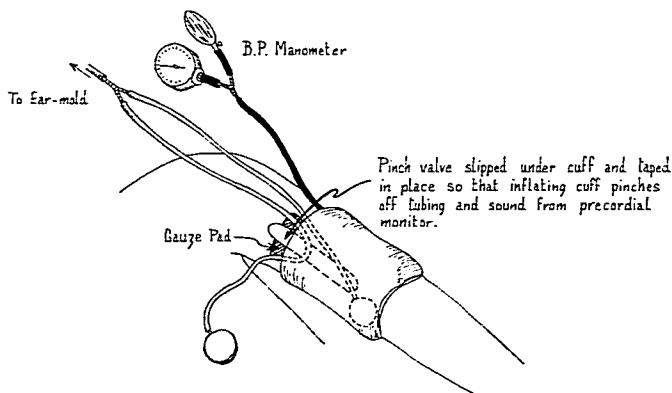


FIG. 2. Valve in place.

The tongue blades are taped together at one end. The applicator stick is taped longitudinally in the center of one of the tongue blades to provide a more discrete compression surface against the rubber tubing. With the tubing placed between the two tongue blades, they are inserted under the blood pressure cuff. The rubber tubing is then connected as shown in figure 2. When the blood pressure cuff is inflated, compressing the tongue blades, the rubber tubing is "pinched

off" so that precordial sounds are no longer heard and Karotkoff sounds from the blood-pressure acoustical pickup are clearly audible. With a few adjustments in relative positions of the tongue blades and tubing, it is possible to "pinch off" the sound from the precordial monitor at a pressure of only 20-30 mm/Hg, thus avoiding any overlap in sounds from the precordial monitor and blood-pressure acoustical pickup.

### Seizures Induced by Pentazocine

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Large doses of morphine (1-3 mg/kg body weight) and other narcotic drugs are being used with increasing frequency for the anesthetic management of patients with severe cardiopulmonary disease. The advantages at-

tributed to this use of narcotic-predominated anesthetic regimens include: 1) minimal myocardial depression<sup>1-4</sup>; 2) reduction or elimination of the requirements for nitrous oxide or other more potent anesthetic drugs; 3) facilitation of early postoperative respiratory care.

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Pentazocine (Talwin, Winthrop) is a potent analgesic that also possesses sedative properties and is not subject to narcotic controls. Twenty to forty mg of pentazocine are