A SIMPLE INSUFFLATOR

While inhalation agents are being given to produce analgesia for dental or other similar short oral procedures, the problem occasionally arises of prolonging the agent’s effect while keeping the mouth accessible. A simple device, shown in figure 1, can be used effectively with vinyl ether, trichloroethylene, or chloroform. Either oxygen or compressed air serves as a good insufflation vehicle. Air with trichloroethylene is preferable when conditions conducive to explosions exist. The gaseous mixture can be

![Diagram](http://anesthesiology.pubs.asahq.org/pdfaccess.ashx?url=/data/journals/jasa/931694/)  
**Fig. 1.** A: A cylinder 1 inch or larger in diameter containing a roll of felt or other absorbent material soaked with the agent. One end of the cylinder unscrews to permit changing and/or soaking the felt. B: The nipples for gas lines—one to the source, one to the patient.

delivered to the nasopharynx through either an ether hook or nasal catheter. In my experience the catheter is more reliable and permits the use of a gauze pack in the mouth.

The use of a “pop-off” valve has been suggested to avoid the building up of excessive pressure in the system, but I have found that if a tube is kinked for long, it slips off the nipple. Figure 2 demonstrates a quickly assembled insufflator of the same design which can be made from parts of the common Heidbrink anesthesia apparatus.

With this arrangement the concentration of the vapor in the gas delivered to the oropharynx is not readily predictable. The amount of agent delivered is determined by the rate of flow of the gas and the saturation of the felt. The effective amount delivered to the alveoli depends on the adjustment of the rate of flow of the gas. As the vapor is further diluted by the inspired air, it is more efficient with slow, deep respirations than with rapid, shallow respirations.

However, a useful level of analgesia can be maintained for ten to twenty minutes by adjusting the flow of gases according to the needs of the patient. For longer procedures an anesthetic machine with a larger vaporizer, or endotracheal apparatus, or both, should be employed.

**Fig. 2.** A: Any type Heidbrink “Y” face piece casting containing rolls of felt soaked with the agent. The third hole is closed off, using a cork in this type. B: The nipples for the gas lines. C: Ohio Chemicals tubing reducer No. 219-5502 or their adapter No. 204-0120MCR.

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PREVENTION OF BRACHIAL PLEXUS PARESIS

Reports continue to appear of paralysis or paresis of the brachial plexus as a complication of surgical procedures performed with the patient in the Trendelenburg position. Inasmuch as this paralysis is a preventable mishap, it is important to take steps to avoid it. Prevention consists of not using shoulder braces to secure the patient. Shoulder braces are traumatic instruments which often cause trapezius myalgia and stiff neck during the postoperative period. Unfortunately and unfairly, many of these cases are thought due to meningismus when spinal anesthesia has been used. It is also important not to abduct either arm more than 90 degrees if an arm board is used and to avoid pressure of ether screens or other apparatus or furniture on the arm or shoulder.

If shoulder braces are not used, the patient can be kept from sliding by (1) suspending the patient by the legs and by