

A Device for Eliminating Overflow Anesthetic Gases from Anesthetizing Locations

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Recent publications^{1,2} have implied that overflow anesthetic gases and vapors may constitute a health hazard for anesthesiologists. The unpleasant odors created by these substances are also a nuisance. A simple gas evacuation manifold (G.E.M.) minimizes the concentration of these offending materials in the operating room (figs. 1, 2).

The G.E.M. is easily and quickly installed by removing the pop-off valve assembly* of the Ohio Heidbrink anesthesia machine, positioning the flange upward around the exhaust

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* Commonly used with Ohio Models #18-21. The G.E.M. described here will not fit other types of pressure relief valves, but the same principle of design can easily be adapted for constructing manifolds to fit other standard pressure-relief valves.

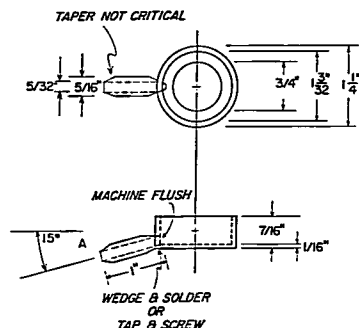


FIG. 1. Fabrication specifications for gas evacuation manifold (brass or chrome-plated brass suggested).

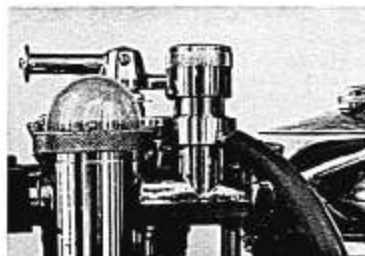


FIG. 2. Gas evacuation manifold installed on Ohio Pressure Relief Valve (Model 20) with suction connected.

ports. Screwing the pop-off valve assembly back into place holds the G.E.M. in position. Wall suction of 15-20 liters per minute capacity attached to the side arm of the G.E.M. by standard suction tubing will effectively evacuate most, if not all, overflow gas and vapor.

This device does not alter the mechanics of ventilation in any way, be it spontaneous, controlled, or assisted. There are no moving parts, and there is no interference with normal adjustment of the pop-off valve. While this particular type of evacuator will fit only Ohio machines, similar safety devices for machines of other manufacturers could easily be designed using the same principle.

REFERENCES

1. Linde, H. W., and Bruce, D. L.: Occupational exposure of anesthetists to halothane, nitrous oxide and radiation, *ANESTHESIOLOGY* 30: 363, 1969.
2. Klatskin, G., and Kimberg, D. V.: Recurrent hepatitis in anesthetists due to halothane, *New Eng. J. Med.* 280: 515, 1969.