CORRESPONDENCE

"COPPER KETTLE"

[Dr. Morris was given the liberty of reviewing, prior to publication, the description of the modification of the "copper kettle" by Dr. Frank Pfaff appearing on page 508 of this issue.—Editor.]

To the Editor.—Dr. Pfaff's description of his trichloroethylene cup for insertion in the "copper kettle" has been read by me with both interest and concern. The provision of only minimal concentrations by the modification described is to be expected since it must be realized that important principles of fundamental design have been sacrificed, which in turn interfere with the effectiveness of the vaporizer, and hamper the versatility with which the entire apparatus can be used.

By passing the gas only over the liquid trichloroethylene instead of bubbling it through a porex disc, the gas-liquid interface is reduced in area, the time of contact is shortened, and heat is not as easily conducted directly to the vaporizing surface. The effect of these changes, as can be shown by either calculation or measurement, reduces vaporization to about one-fourth the saturation pressure. The latter is closely approximated in the more effective design of the "copper kettle."

Since concentrations of trichloroethylene generally used clinically are in the range up to 0.5–1.0 per cent (and sometimes slightly more), and since in some systems a total flow of 6.5 liters per minute would be adequate to eliminate appreciable rebreathing only in small children (Inkster, J. S.: Brit. J. Anaesth. 28: 519, 1956), it appears evident that a considerable "price" has been paid for this "simple and inexpensive" modification.

Is such emasculation of design principles warranted? In use of the "copper kettle," high concentrations of vapor can be introduced into any system if needed; lower concentrations, as need is determined by clinical judgment, are readily obtained by reducing the flow of gas through the vaporizer.

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PROTECTION FOR ANESTHETIC RECORDS

To the Editor.—I have found the packages my laundry uses for clean shirts very handy for protecting records in infectious disease cases (for example, tuberculosis). The record is prepared by putting a sheet of carbon paper over the record sheet (or as many copies as desired), and an extra blank record sheet placed on top. These are put on a clip board and the shirt bag slipped up over the clip-board and sealed at the top with adhesive tape. A ball-point pen will write on the polyethylene front sheet of the shirt bag, and the carbon sheets record inside the package. At the conclusion of the operation the shirt bag with data inscribed on the plastic sheet is thrown away leaving a clean blank record sheet and clean carbon copies.

My laundry informs me the bags used are known as "combination polyethylene bags." The bags are obtainable in all sizes with one or both sides polyethylene. The advantage of this bag over the old style cellophane shirt bag is that the polyethylene can be written on with a ball point pen (although, obviously if the cellophane front bag is used an extra record sheet can be put outside the protective cover and discarded at the end of the case).

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