in viscosity and density when used with respirable gases, thus making it easier to use than the pneumotachograph and integrator. Readers will no doubt be interested to compare these results with those published by Nunn and Ezi-Ashi (1962) for the mechanical respirometer. For example, when one is studying the recovery from nitrous oxide anaesthesia the calibration of the integrating pneumotachograph presents problems when flow and volume patterns are being obtained from a patient who may be expiring nitrous oxide but inspiriting air. The electronic respirometer is sensitive to factors which affect the acceleration and deceleration of the vane but, because it is calibrated arbitrarily using a sine wave pump with flow reversal at a frequency of 20/min, the errors introduced by acceleration and deceleration of the vane are minimal. The accuracy of the instrument was found to be such that the respiratory frequency of a ventilator could be determined by dividing the observed minute volume by the observed tidal volume. Measurement of respiratory frequency in this way proved to be more accurate than assessment by counting against a stopwatch. It was shown also that the accuracy and sensitivity of the instrument was such that allowance must be made for flow reversal in the ventilator (table I). High peak flows produced by some ventilators introduce an error, but these effects can be overcome if the respirometer is used to measure expired volumes in such ventilators.

ACKNOWLEDGEMENTS

The authors would like to thank Mr D. Henry and Mr A. W. Wood for their technical assistance with this work. Dr A. P. Almeida is in receipt of a grant from the Calouste Gulbenkian Foundation and the University of Lourenço, Marques.

REFERENCES


CORRESPONDENCE

SIR,—In our review of solubility coefficients for inhaled anaesthetics (Br. J. Anaesth., 1973) we omitted to state that the summary of "preferred" values (table V) was intended to apply to a concentration, for each agent, equal to MAC. In fact, only in one instance is variation of solubility with concentration known to be sufficient to have any appreciable effect; this instance accounts for the preferred solubility of cyclopropane in blood (0.55) being higher than most of the results listed in table I, most of which were determined at much higher concentrations.

We are grateful to Professor T. C. Smith of the University of Pennsylvania for privately drawing our attention to this apparent inconsistency.

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PATIENT AIR INTAKE VALVE

SIR,—It has been brought to our attention that a potential hazard exists with our Patient Air Intake Valve as used with the Cape Ventilator and the Cape-Waine Anaesthetic Ventilator. It has been observed that the expiratory hose connection can be plugged into the air intake side of the valve, the air intake is situated on the underside of the valve body, and to prevent this we advise that a pin is inserted across the mouth of the air intake (see accompanying diagram and method for modifying). These pins are available from Cape Engineering upon application.

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