

which should equal the flow through the vaporizer $\times 100$.

$$\frac{A}{A + V + D} \times 100 \times 100 = V \quad (2)$$

Solving (1) for V and substituting in (2) yields

$$\frac{A}{A + V + D} \times 100 \times 100 = \frac{A}{P_V} (P_B - P_V).$$

If $A + V$ is negligible compared to the whole denominator, it can be dropped and simplifica-

tion gives

$$\frac{10^4}{D} = \frac{P_B - P_V}{P_V} \quad \text{or} \quad D = \frac{P_V \times 10^4}{P_B - P_V}.$$

The per cent error in the final delivered gas assuming $A + V$ to be negligible is

$$\frac{\frac{A}{A + V + D} - \frac{A}{D}}{\frac{A}{A + V + D}} \times 100$$

which simplifies, using the above relations, to

$$= \frac{V \times P_B}{100 \times P_V}.$$

GADGETS

Clip-Type Syringe Holder

S. N. ALBERT, M.D.*

Two Gibson † gripper clips, No. 225-L, capacity $\frac{3}{4}$ inch, $1\frac{1}{4}$ inches diameter, fastened together at right angles, either riveted or bolted together with a no. 6-32 by $\frac{1}{4}$ inch screw makes a practical syringe holder. The

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horizontal gripper clip snaps on to the infusion pole and the vertical one serves to hold firmly a 20-ml. syringe. One may use the sides of the horizontal gripper clip to snap on an aneroid blood pressure gauge.

The cost of this practical syringe holder for continuous administration of intravenous anesthesia is minimal.

