AN OXYGEN ANALYZER FOR HOSPITAL USE

The apparatus here described and illustrated is offered as a modification of the St. Luke's model described by Andrews and Roth. The long glass tube is here replaced by the barrel of a 10 cc. syringe. The advantages of this substitution are: (1) the apparatus is more compact and easily carried; (2) there is less danger of breakage; (3) readings are more easily obtained with no appreciable loss of accuracy; and (4) no sliding, hand-made scale is used.

The apparatus is standardized each day by either or both of two methods. In the first method, 10 cc. of helium is injected and the zero level is thus obtained. In the second method, the 21 per cent level is determined by injecting 10 cc. of air. For all subsequent tests, each cubic centimeter represents 10 per cent, since it constitutes one-tenth of the volume injected. The upper level of the meniscus is read throughout. No balloon, as described by Andrews and Roth, is used in this model, as the exposed opening in the piston of the barrel is very small.

The jar pictured is a half-pint fruit jar. The rubber stopper is size 12.

The apparatus is useful in checking the oxygen concentrations in oxygen tents. It has been used here, however, very largely in determining the oxygen concentrations of gaseous mixtures used during anesthesia. Accurate readings have been obtained in one and a half to two minutes.

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REFERENCES