

III. OXYGEN THERAPY:

A. Method Employed	<i>Flow/min.</i>	<i>Time</i>	
		Begin	End
1. BLB nasal mask.....:		“	“
2. Catheter: nasal.....oral:.....:		“	“
3. Endotracheal.....:		“	“
4. Others.....:		“	“

IV. OTHER GASES:

		<i>Time</i>	
A. Helium.....Method used:.....:		Begin	End
B. Helium and oxygen.....Method used:.....:		“	“
C. Carbon dioxide.....Method used:.....:		“	“

V. SUMMARY:

A. Evaluation of treatment		
1. Recovery.....	2. Partially effective.....	3. No effect.....
B. Reason for failure.....		
C. Recommendations.....		
Anesthetist.....		

ILLUSTRATION 1. Consultation record for inhalation therapy.

ADVANTAGES OF A CURVED LARYNGOSCOPE

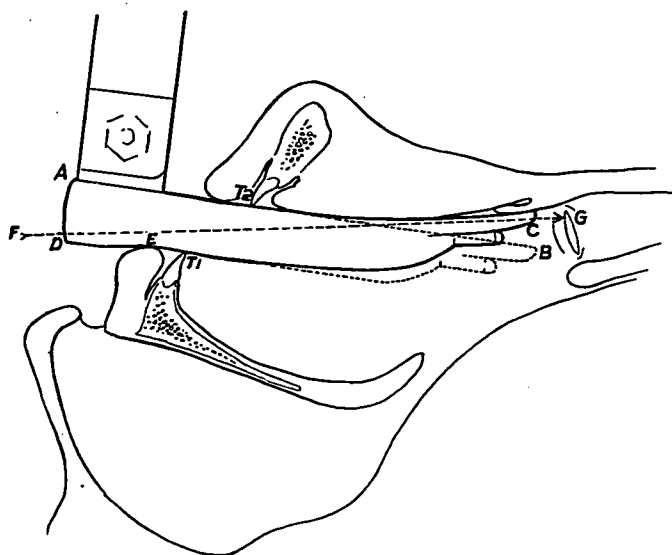
In many things in medicine tradition has obscured the advantages of modifications in technic and design. This is true of certain instruments such as the laryngoscope. Bronchoscopists designed laryngoscopes suitable for their purposes, particularly for the insertion of other long, straight instruments such as the bronchoscope. Anesthetists, finding exposure of the larynx useful for the insertion of endotracheal tubes, designed their laryngoscopes on the model of those used by the bronchoscopist. Gradually modifications have been developed but it is remarkable how we still adhere to traditional features. For example, many of our laryngoscopes are still "C" shaped in cross section rather than having the open edges come out straight. This is probably a carry over from the bronchoscopist's instrument which has a sliding piece to fit the gap and complete the circle.

The procedure of inserting a bronchoscope differs from that of inserting an endotracheal tube. The bronchoscope, being straight and rigid, must be inserted directly in line with the trachea and is therefore introduced straight down the laryngoscope. The bronchoscopist can view the larynx through the bronchoscope. The endotracheal tube, on the other hand, being curved and flexible, can usually be

passed through the mouth at the right side of the laryngoscope, only the tip coming to the mid-line as it approaches the larynx. This affords the anesthetist a view of the larynx through the laryngoscope which he cannot get through the curved tube. These differences in technic indicate differences in design of the two instruments.

We have found that a curved laryngoscope provides a better exposure of the larynx. The curve does not interfere with the anesthetist's view. The design used as compared with a similar straight laryngoscope is illustrated in the figure.

In 1913 Janeway (1) suggested the use of a curved laryngoscope for the introduction of endotracheal tubes. His object was to direct the tube through the laryngoscope and thus get a "slight forward bend of the catheter" to direct it into the larynx. This is not the object we have in using the curved laryngoscope since we depend on the natural curve of the tube or on a curved stilet to produce the forward bend into the larynx, and we try not to pass it through the laryngoscope. Miller, in 1941 (2), described a laryngoscope with a curve 2 inches from the distal end. The other features of the Miller laryngoscope make it considerably different from those in general use, and the value of the curve



in his instrument may have received too little attention.

It is the aim of this paper to demonstrate that a curve in any ordinary anesthetist's laryngoscope would facilitate better exposure of the larynx. The figure illustrates the advantages of the curve. Most intubations which are difficult are made so by the fact that the maximum distance between the upper and lower teeth (T_1 and T_2) is limited. This limits the amount of upward angulation one can give the laryngoscope. Thus with a straight laryngoscope AB , one may be able to expose only the posterior part of the larynx. If the instrument is curved the tip may rise to the position C without any increase in the distance between upper and lower teeth T_1 , T_2 . While one cannot see the anterior part of the larynx from the point A , he can see it from the point D looking along the line FG . In actual practice we have never found that this curve interfered with our vision and we have found the increased

exposure very helpful. In order to add a little more to the view, the proximal end of the laryngoscope might be flared a little along the line ED , thus increasing the distance AD , but we have not found this modification necessary.

Summary.—It is suggested that a curved laryngoscope will provide better exposure of the larynx without interfering with the anesthetist's view.

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REFERENCES

1. Janeway, H. H.: Intratracheal Anesthesia from the Standpoint of the Nose, Throat and Oral Surgeon with a Description of a New Instrument for Catheterizing the Trachea, *Laryngoscope*, 23: 1082-1090 (Nov.) 1913
2. Miller, Robert A.: A New Laryngoscope, *Anesthesiology* 2: 317-320 (May) 1941.