

is threaded on ; then the usual handle connected with the multostate. The current is turned on for ten minutes, then reversed for four. This treatment is done once weekly.

What is required, however, in this work is for the cannulas to be made of a non-conducting metal, for although I have succeeded in insulating the outside of the cannulas with collodion, and, more recently, with silk and rubber dissolved in chloroform and acetone, the inside of the instrument is acted upon and soon narrows in calibre.

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## CLINICAL NOTE.

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### THE MECHANISM OF ONE FORM OF RESPIRATORY STOPPAGE UNDER GENERAL ANÆSTHESIA (ETHYL CHLORIDE).

By J. D. LITHGOW, F.R.C.S.E.

EVERYONE is familiar with the effect which follows the passage backwards of the lower jaw and tongue during general anæsthesia, thus causing either embarrassment or complete stoppage of the respiration. It is equally well known that in most cases of this condition, it is only necessary to draw the jaw forward to allow respiration to go on freely ; while at other times one has to exert, in addition, traction on the tongue itself (*Lister*).

I have recently observed in several cases during general anæsthesia under ethyl chloride for the enucleation of tonsils with the guillotine, that after the patient is fairly well under, the breathing suddenly stops, the countenance becomes livid, and violent inspiratory efforts are made, but no air enters the chest. In these cases, neither drawing forward the jaw nor traction on the tongue have the slightest effect in relieving the embarrassment. On introducing the finger, one finds the epiglottis firmly attached, like a boy's leather sucker, to the posterior pharyngeal wall, from which one is unable to dislodge it, even by forcible traction on the tongue, but on passing the nail and point of the index finger under its edge, it suddenly relaxes its sucker-like grip on the pharyngeal wall, and the chest instantly fills with air. In the last case of this description this valvular action, associated with stoppage of the respiration, was repeated on removing my finger, and eventually I had to hold the epiglottis forward until the patient was quite out of the anæsthetic. I have not as yet been able to determine whether the few cases in which I have observed this mechanism had any special anatomical formation of the upper orifice of the larynx predisposing to this sucker-like action. Should this form of respiratory stoppage occur after the tonsils have been removed, one might be inclined to suspect that a tonsil or accidentally detached tooth had become impacted in the glottis, and thereby be tempted to have recourse to an unnecessary tracheotomy.

The remedy, therefore, in such a case is to force the point of the index finger between the epiglottis and the posterior pharyngeal wall, and maintain them apart until free respiration is established.