

made as you have detailed them to-day. With reference to the closure of the upper part of the vocal apparatus by diphtheric membrane, and the introduction of a tube into the trachea; I may say that in order that any sound may be produced at all, the tracheal tube must be closed. Now, if the parts above, are almost closed by the diphtheric membrane, no sound is produced. However, I can readily see, from a knowledge of the muscular tissue surrounding the parts, that such sounds could be produced as you have detailed in this individual.

DR. BELL: In the case of this individual I have just mentioned, no air could pass up into the mouth, under any circumstances. The aperture in the windpipe remained open, and, all the time he was speaking, air gushed out of the tube in his throat, forming a whistling accompaniment to his speech.

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MISS YALE: Dr. Bell, I have a number of questions here for you to answer.

DR. BELL: The first question is: "Is it possible to constrict the false vocal cords?" I think that Dr. Hewson will be more competent than I am to answer that question.

DR. HEWSON: I cannot conceive of any muscular fibres constricting the ventricular bands, or false vocal cords.

MR. CROUTER: How was it with the Scotchman, Dr. Bell?

DR. BELL: There were no vocal cords in the case of the Scotchman, the vocal cords were represented by a harmonium reed.

I hardly know how to commence on the stream of questions you have set for me. They appear to be of very great importance, and I should be very glad if I can be of any assistance to teachers here in answering them. I may, perhaps, group them so as to answer two or three at one time.

- (1) "Please illustrate the development of *ng*."
- (2) "Dr. Bell develops non-vocal *r* from *th*; please demonstrate."
- (3) "How would you develop *sh*?"

I will take up these in one group. In difficult cases you will find manipulation of the tongue of great assistance: and I think that this series of questions may be answered by showing you how to manipulate the tongue; and by directing your attention to the nature of the changes, you can produce by manipulation. You can push a position further back, and you can enlarge an aperture by manipulation; but you cannot do the converse. If, then, your pupil cannot pronounce a given sound, let him give a sound of similar