Functional aphonia : a method of curative and preventative treatment / by Cortlandt MacMahon.

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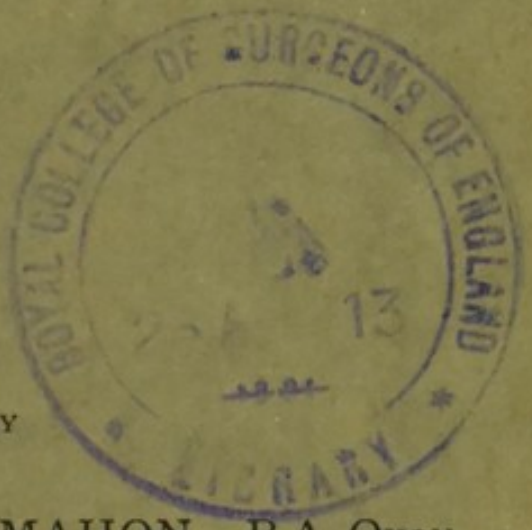
A METHOD OF CURATIVE AND PREVENTATIVE TREATMENT



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A METHOD OF CURATIVE AND PREVENTATIVE TREATMENT.

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THE treatment of aphonia by the method herein described is, as the title suggests, applicable to cases in which, whatever the original cause of the loss of voice, the non-return of the voice is entirely due to functional causes. The treatment is not advanced to take precedence of intralaryngeal faradism in hysterical and neurotic subjects, but it is especially advocated for stubborn and long-standing cases which have hitherto failed to yield to ordinary treatment.

In considering what may be termed the vocal treatment of functional aphonia one may usefully consider what really constitutes the phenomenon, Voice. Voice is air vibrating in the resonating chambers of the body, and these resonating chambers consist of the thorax, the larynx, and the pharynx, the nasal and oral cavities, the ethmoidal and sphenoidal sinuses, the maxillary antra, and the frontal sinuses. In a normal voice these resonating chambers are able successfully to carry out their function of amplifying the minute tone and pitch originating in the larynx caused by the due approximation and requisite tension of the vocal cords. In aphonia there is no adequate approximation of the vocal cords, and consequently no vibration; the resonating chambers are accordingly rendered inoperative, and what speech is audible is produced mainly by friction caused by the ascending air column being passed through a constricted throat and then articulated.

In dealing with cases of aphonia the first thing to be acquired is the ascent of a definite and adequate air column which can be passed at will through the larynx. This is brought about by teaching the patient to acquire a marked inferior lateral costal expansion during inspiration, great care being taken that while this is being attained there is

no protrusion of the abdominal wall; then, when the lungs can be properly filled, the second movement, consisting of the strong and deliberate contraction of the abdominal muscles, must be taught. The action of the abdominal muscles, when in contraction, is to pull downwards and inwards the lower ribs and to bring about the very definite ascent of the diaphragm by pressure on the abdominal viscera; as a result of which movement, as a whole, the internal thoracic capacity is reduced at will and the force and quantity of the ascending air column easily controlled. Having acquired a definite air column the next step is to turn the patient's mind to the lips. The orbicular muscle must be made to move as freely as possible, and the patient must be told that when the voice is to be produced it must, as it were, be lifted into the lips. This free-lip movement, combined with the ascent of an adequate air column, will automatically help to get rid of the constriction of the muscles above the larynx, and will leave the soft palate free to perform its function of properly apportioning the ascending air column into the nasal and oral cavities when phonation again occurs.

A short digression is now necessary so that the science of the resonators may be very briefly explained. When vocalisation is occurring there are six vowel sounds or "resonators" which are brought into use. They are "oo," "oh," "aw," "ah," "a," and "ee." They are used alone in words, as, for example, "oo" in "droop" and "ee" in "deep," or they are used in combination as "ah" and "oo" in "sound," "aw" and "ee" in "boy," "ah" and "ee" in "my," "oh" and "oo" in "road," and so on. Two of them, "ah" and "ee," are also used subordinately. For instance, the word "love" is on the "ah" resonator; "little" is on the "ee" resonator. These six resonators have their own special conformation brought about by the distance between the teeth, the position of the lips and tongue. When the particular position for the particular sound is correctly shaped for, a very important and very interesting phenomenon occurs, in that, in addition to the general resonance always present in the normal voice, overtones and harmonics occur and amplify the original tone to an enormous extent.

Presuming now that the breathing is properly performed and the various resonator positions acquired, an attempt can be made to make the vocal cords vibrate. The "oo"

resonator should first be shaped for. The conformation for this is as follows: the tongue is against the lower teeth, the lips protruded as much as possible, and the teeth apart to the extent of about one-third of an inch. A deep breath should be taken through the mouth and the lower ribs strongly expanded. Then the abdominal muscles must be powerfully contracted and at the same moment the sound "oo" attempted on a deep note. If all the preliminaries are carefully prepared the muscles above the larynx will sooner or later relax and the vocal cords will again appreciate what their function is and approximate when voice is desired. If vibration is detected after a few attempts, words beginning with "oo," such as "why," "when," "water," should be asked for. Possibly these can be properly phonated after only 40 minutes' preliminary work. Should this be so, the other resonators are easily acquired, and in a few weeks a strong and resonant voice is established, and, through a knowledge of the science of the resonators having been acquired, the voice will probably be better than it ever was before.

If there is trouble in getting the back of the tongue to descend a tongue spatula should be used to depress it, and in very long-standing cases the sterno-thyroid, sterno-hyoid, and omo-hyoid muscles must be trained so that they are able to contract strongly when speech is attempted. The muscles should be strengthened by exercises, but must be left to contract involuntarily during vocalisation, when the mere desire for a deeply pitched note will cause them to contract.

A predisposing cause to functional aphonia must surely be the constriction of all the muscles above the larynx so often seen where there is voice trouble or speech defect. To guard against functional aphonia following some organic cause of loss of voice an altered conformation above the vocal cords should be brought about, and this is easily acquired by exercising the muscles attached from below to the thyroid cartilage and the hyoid bone. The vocal cords undoubtedly appreciate the condition of things above them, and if the soft palate is low and the back of the tongue high, as is the case when the high note of the soprano or tenor is being produced, they naturally become very tense and endeavour to produce a high-pitched voice, and the effort must necessarily be accompanied by considerable constriction in the throat; but if the conformation above them

is altered and the back of the tongue is made to lie low in the throat with a resulting ascent of the soft palate, the condition will then be that which exists during the production of a deeply pitched note, the vocal cords will vibrate along their full length, and the throat above will be unconstricted and open. This latter conformation could easily be established while some organic cause of loss of voice was still existing. The correct breathing and six resonator positions could also be learnt without speech being attempted, and everything would be ready for a resonant voice to be present when medical treatment has overcome the organic cause of the loss of voice. Above all, in such cases, the patient must be absolutely forbidden to speak in a whisper. Whispering is simply suggesting functional aphonia, and to allow it is a source of very real danger from a voice point of view.

In overcoming and preventing functional aphonia the great essentials, therefore, to be sought for are resonance and freedom from all constriction. These can be acquired by the possession of a definite air column, free lip movement, a low pitch of voice, and a knowledge of the resonator positions.

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