arrived at that in most cases deaf-mutism is the result of an abnormality of the labyrinth, usually the residuum of an inflammatory process, whether primary or propagated either from the middle ear or meninges, and of fetal or post-fœtal origin, any evidence of congenital malformation being but seldom met with. The discussion of the facts upon which this conclusion is based is a most instructive lesson in the morbid anatomy of the organs of hearing. The symptoms and sequelæ are treated of in another chapter, and explanations are offered of many of the less obvious. Thus the fact that deafness is more nearly absolute in cases of acquired than of congenital deaf-mutism is attributed to the more destructive nature of post-nasal diseases of the ear as compared with those occurring *in utero*. We would suggest that a further explanation is offered by the probability that a greater degree of deafness is necessary to produce deaf-mutism in those who have at some time possessed hearing power than in those who have never done so. The singular association of retinitis pigmentosa with deaf-mutism, especially in Hebrews, is found to exist in acquired as well as in the congenital cases. The trifling element of hope in even congenital cases is illustrated in the section on prognosis, and among important points in diagnosis is the need for distinguishing certain cases of mutism without deafness from deaf-mutism, for which it may be mistaken. Many valuable and practical directions for the diagnosis of congenital from acquired cases, chiefly by means of the history, are given. To them might be added the question as to whether the child had ever been roused from sleep by noises (not concussions) or had always slept through them. Careful otiatric examination is insisted on in every instance, followed by removal of all possible causes of impairment of hearing. Urbantschitsch's acoustic exercises are mentioned with favour.

Without hesitating as to the superiority of the "oral" over the "sign" mode of instruction for deaf-mutes, Dr. Mygind hints that there are some pupils to whom it presents such difficulties that too much time would be occupied in it to the disadvantage of other useful acquirements.

We venture to say that few students can realize the amount of interest with which this subject can be invested until they have perused this charming treatise. The author's apology for defect of literary rendering on the score of his not being a native of these realms is either quite uncalled for, or else his indebtedness to Dr. Wolfenden for his revision of the language is a very large one. It would be difficult, indeed, to find a more readable piece of English.

Dundas Grant.

Joal—Wolfenden.—*On Respiration in Singing.* By Dr. JOAL, of Mont Dore. Translated and edited by R. NORRIS WOLFENDEN, M.D., Cantab. F. J. Rebman, London. 1895.

THE translator of this excellent work states in his preface that he believes this book ought to be in the hands of everyone who aspires to sing, and it is precisely because he thinks it to be a valuable work, by a man who is both an accomplished musical amateur, the intimate friend of celebrated artists, and also an accomplished physician, that he presents it to English readers. This sentence admirably states the justification of

the translation, and the compliment paid to the author of the original treatise will be endorsed by all who study the work carefully. There are many works upon this subject at the disposal of the student, but we know of none calculated to give a better idea of the various theories at present taught.

Dr. Joal has written a work containing thirteen chapters in which he has treated the anatomy, physiology, respiratory types, ordinary and artistic respiration, history, education, hygiene of respiration, phonation, conditions causing lowering of the vital capacity, and each of these departments has been discussed in a clear, forcible and thoroughly scientific manner. Anyone reading the work cannot fail to see that it has been written by a master of his subject, whether from the medical or artistic standpoint. Considering the controversial nature of many of the questions submitted for consideration, nothing could be in better taste than the attitude which Dr. Joal takes up with reference to the opinions of others. All through the work one can see that the results arrived at have been the outcome of careful personal inquiry and impartial judgment. This is well shown in his remarks upon the different types of breathing; while he clearly admits that some good singers have been found to use a particular type of breathing, and that not the one which would lead him as the result of his experiments to recommend as the best, yet he does not say there is only one way of breathing for singers, and that way his own. It must not for a moment be thought, however, that Dr. Joal has not pronounced views on the best method; a consideration of his argument in favour of costal as opposed to clavicular or abdominal breathing will convince any fair reader of the strong reasons he has for the position taken up in the matter. We are pleased to note in passing that the views of one well-known authority on the subject in this country are stated to be less at variance with those of this work than was at one time believed.

The translation has fallen into good hands, and we must compliment Dr. Wolfenden upon his part of the work. The original text is excellently reproduced in our language, and Dr. Wolfenden has added some valuable points both in his preface and by way of notes. He makes one excellent suggestion with regard to voice training—viz., that it is highly desirable that an official scheme of instruction should be adopted, and one such could easily be formulated by a committee of laryngologists and singers. This scheme should be the basis of instruction in every board, public, and private school in the United Kingdom. The book, which has been neatly and efficiently published, will be found to be a most valuable work, not only for the pupil or teacher of singing, but also for any member of our profession desirous of obtaining a thorough knowledge of this important subject.

J. Macintyre.