

against use of this method of treatment for an innocent tumour. I think that most surgeons will prefer to keep to the knife.—I am, etc.,

London, W.1, Aug. 19. R. C. ELMSLIE, M.S., F.R.C.S.

The Vocal Cords in Singers and Speakers

SIR.—One had hoped, in reading the report of the recent discussion on this subject, to have heard something, as Mr. R. R. Woods suggested, of the abnormalities of the larynx as seen by the stroboscope. Those who have witnessed the demonstrations of Stern in Vienna of this method—which is essentially suitable for the investigation of the larynx of the vocalist—will have been surprised to observe in a larynx apparently normal to ordinary indirect laryngoscopy one cord, for example, limping slowly along whilst the other moved normally.

It would be of interest to hear Sir Milsom Rees's experiences with the method in his unique field.—I am, etc.,

Manchester, Aug. 15. W. BRYCE MCKELVIE.

SIR.—All interested in the subject of singing and the care of voices of singers will welcome the further contribution by Sir Milsom Rees in your issue of August 7 (p. 292). The unique experience which Sir Milsom Rees has had through his long association with Covent Garden and the opportunities which he has had of observing the vocal habits of primitive tribes give him the right to speak with an authority which may be claimed by few others. Yet one feels that his statement that there is no such thing as a natural singing voice cannot be accepted unreservedly.

The larynx is primarily a sphincter mechanism guarding the lungs against the invasion of foreign material, and, secondly, it is a mechanism to maintain intrapulmonary pressure, fixing the thorax and helping to stabilize the pectoral girdle during violent movements of the upper extremity. The use of the laryngeal mechanism for the production of purposive sound is a much later adaptation, and has subsequently given rise to both speaking and singing. Anyone who is interested in this subject should read that excellent work by Negus, *The Mechanism of the Larynx*. The act of speaking or singing involves a highly specialized nervous and intellectual mechanism, and one cannot ignore the place which the intellect holds in both these arts. A child learns to speak by hearing the speech of others around it, and it is my belief that people learn to sing for the same reason. The sound pattern in singing is more difficult to imitate than the sound pattern in speech, as singing depends upon the appreciation and imitation of both pitch and tone. That there is a marked difference between the singing of primitive tribes and of cultured races does not cause a great deal of surprise, because the standard of development and the size of vocabulary of the primitive tribe is poor in comparison with the power of speech and the vocabulary of the cultured races. I believe that it is a fact that some of the pigmy races have such a limited vocabulary that they cannot communicate in the dark, as they are then unable to supplement their lack of articulate speech by a language of signs.

If there should be this difference in such an important and necessary function as speech between the savage and the cultured races it is not remarkable that a luxury art, such as singing, should remain undeveloped in primitive people. The increase in the range and quality of the singing voice in the civilized races must, I think, be due to the wider range of instrumental music, which serves

as a pattern for the voice to imitate. Sir Milsom Rees points out that the savage tribes sing to the accompaniment of the tom-tom. I wonder whether this is the only sound pattern which the natives have to copy? I suppose that one can take it for granted that the actual anatomical mechanism is present in the less civilized races just as it is presumably present in the higher apes, and the essence of the problem is whether there is a faculty lying dormant which can readily develop under the influence of a suitable musical environment.

I am prepared to agree that nobody sings instinctively; but nobody speaks instinctively. It would be very unusual for anybody to attain the highest level of artistic attainment in any branch of the arts without some training, and I think the difference between training which is directed towards the acquirement of a specialized technique in any art should be clearly differentiated from the training which is primarily directed to the development of a natural aptitude for that art. It is the natural aptitude, which in singing is probably nothing more than a highly developed gift of mimicry, which makes a natural singer.

Granted that the vocal mechanism is a universal endowment, the most important difference between singers and non-singers lies in the brain and not in the larynx. One must agree with Sir Milsom Rees that probably the best singers are yet to be heard, but it seems to me that progress in this direction must inevitably be slow unless the essential problems of voice production are tackled by the combined efforts of the laryngologist and the teacher of singing—a point which I stressed in my paper at the Annual Meeting in Belfast. It surprises me not that vocal disabilities exist so frequently in professional singers and speakers, but rather that the vocal mechanism survives so well, in view of the many different methods of teaching which exist and the rather chaotic state of the subject at the moment. I wonder, too, how such apparently frail structures as the vocal cords survive the exacting demands made upon them in some of the heavier operatic works.—I am, etc.,

Manchester, Aug. 16.

VICTOR LAMBERT.

Anaesthesia in General Practice

SIR.—Dr. H. Garner-Evans (*Journal*, August 14, p. 355) is to be congratulated on his happy experiences with pernocton, but it must be remembered, as indeed he himself suggests, that the defects of an anaesthetic may not be revealed until a really large number of trials have been made. Large numbers of administrations of pernocton have been carried out, chiefly on the Continent, and the record of them proves that although there is no question of its efficiency there is considerable doubt as to its safety when compared with the other commonly used barbiturates.—I am, etc.,

London, W.1, Aug. 18.

J. BLOMFIELD.

Elongation and Dilatation of the Colon

SIR.—I have read the report of Professor J. R. Learmonth's "last word" on elongation and dilatation of the colon with great interest (*Journal*, July 24, p. 154). With due respect to his position in my alma mater at Aberdeen, I venture to point out that elongation and dilatation are usually only part of a late picture, found so frequently in patients who suffer from disabilities which, judging from the results of treatment, must be ascribed to faulty colonic function. This faultiness is most usually due to developmental abnormalities affecting the colon mechanically, and apparently producing elongation as well as dilata-