

## General Notes

their shortness, it was necessary that they should be "loaded" by an amount of fluid which varies as the distance of the fibres along the membrane from the basal end, and that it was therefore necessary for them to be united by an impermeable membrane. As I have already observed in my paper on the resonance theory, it can also be added that if the fibres were free, and each one of them responded to a single note, taking into account the limited number of them, a sound varying continuously in pitch would appear to ascend by steps, and not continuously. But though the various sections of the cloth inside my model are more closely connected with each other than the various sections of the basilar membrane, yet they vibrate separately and to specially determined sounds which are emitted in their vicinity, even when the cloth is immersed in water. It appears to me that this observation of mine is completely vindicated.

Mr Wilkinson's model is much more complicated, very difficult to construct, and very expensive. It only comprises the results which I had obtained with the simplest means. In addition, my model demonstrates the field of resonance for each fibre, which is perhaps not possible, at least not in the same easy and self-evident manner as in the Wilkinson model.

In any case I expressed the opinion, before the description of Mr Wilkinson's apparatus was published, that the result obtained from a model on lines, which conform more closely than mine to the structure of the basilar membrane, would suffice to vindicate definitely the Cotugno-Helmholtz theory and explain all the facts relative to the perception and analysis of sound. A. STEFANINI.

PISA.

[The attention of the reader is directed to the Abstract on p. 634 describing Stefanini's model. Both the Abstract and the above Letter have been translated from the Italian version of the MS. sent to us.—Eds.]

## GENERAL NOTES

ROYAL SOCIETY OF MEDICINE.

1 *Wimpole Street, London, W.1.*

*Section of Otology*—President, Mr Hunter F. Tod, F.R.C.S.; *Hon. Secretaries*, Mr F. J. Cleminson, M.Ch., and Mr Archer Ryland, F.R.C.S. Ed.

The next Meeting of the Section will be held on Friday, 19th January 1923, at 5 P.M.

Members who propose to show patients, specimens, etc., should communicate with the Senior Secretary, Mr F. J. Cleminson, 32 Harley Street, London, W.1, at least twelve days before the Meeting.

## General Notes

*Section of Laryngology*—*President*, Mr Charles A. Parker, F.R.C.S. Ed.; *Hon Secretaries*, Mr T. B. Layton, D.S.O., M.S., and Mr J. F. O'Malley, F.R.C.S.

The next Meeting of the Section will be held on 2nd February 1923, at 4.45 P.M.

Members desirous of showing patients or specimens should communicate with the Senior Secretary, Mr T. B. Layton, M.S., 10 Welbeck Street, London, W.1, at least twelve days before the Meeting.

An informal Meeting of the Section will be held on Friday, 5th January 1923, at 4.45 P.M. This Meeting has been arranged with the object of demonstrating and discussing cases in which a diagnosis has not been made.

\* \* \*

BRITISH ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE, HULL, 1922.

Dr T. Ritchie Rodger has kindly sent us the following notes :—

At the Annual Meeting of the British Association held this year in Hull during September, several papers of interest to otologists and laryngologists were read before the Physiology Section.

Mr G. Wilkinson contributed a paper on "The Mechanism of the Cochlea," with special reference to the inertia of the contained fluids. It was illustrated by a demonstration of his working model showing the resonant vibrations of the immersed strings.

Dr T. Ritchie Rodger read a paper on "The Pathological Effects of Excessive Sounds on the Cochlear Apparatus, considered in Relation to the Theories of Sound Perception."

Professor W. Storm van Leeuwen contributed two papers :—(1) "Experimental Studies in Hypersensitiveness," and (2) "A Contribution to the Cause and Treatment of Bronchial Asthma, Hay Fever, and Allied Conditions." The last-named paper was much on the same lines as the protein reaction work done in this country, but the author relies for treatment largely on tuberculin in small doses and upon regulation of diet.

\* \* \*

At the Annual Dinner of the Medical Staff of the Central London Ear and Throat Hospital, Mr W. Stuart Low was the recipient of a handsome loving cup presented to him by his colleagues. The presentation was made by Dr Andrew Wylie on behalf of the staff. Mr Stuart Low has recently retired from active work at the hospital.

\* \* \*

We congratulate Dr Jean Guisez, Paris, a co-director of the *Bulletin d'Oto-Rhino-Laryngologie*, upon his promotion as Officer of the Legion of Honour.

\* \* \*

THE LATE EMERITUS-PROFESSOR A. CRUM BROWN, F.R.S.

On the 28th October, Emeritus-Professor Crum Brown passed away in his 85th year, fourteen years after his retirement from active professional life. A son of the manse, a half-brother of Dr John Brown, the author of the immortal *Rab and his Friends* and *Pet Marjorie*, and linked by family ties with P. G. Tait and Lord Kelvin, Alexander Crum Brown was a man

## General Notes

gifted with no ordinary mental powers and possessing wide and diverse interests in life. Although he occupied the Chair of Chemistry in the University of Edinburgh for a period of nearly forty years, his keen and active mind found many fields outside the immediate sphere of his professorial work wherein he could exercise his varied intellectual pursuits.

A few of the readers of the *Journal of Laryngology* had the great privilege of being his pupils in their undergraduate days. To the majority, however, his name is more closely associated with a line of investigation far removed from the domain of chemistry, but for the elucidation of which his intimate knowledge of anatomy, physiology, and physics provided a sound foundation. On 19th January 1874, he presented to the Royal Society of Edinburgh, "A Preliminary Note on the Sense of Rotation and the Function of the Semi-circular Canals of the Internal Ear," for which he was awarded the Keith Medal of the Society; and, in the same year, he published in the *Journal of Anatomy and Physiology* a fuller account of his researches on this subject.

Crum Brown put forward the view that the Sense of Rotation was a special sense quite distinct from all the other senses, and, being so, there was necessarily required a peripheral organ, a sensory nerve and a central organ. The structure of the semi-circular canals was such as to fit them to act as the peripheral organ in this connection. An identical explanation of the function of the canals had been given by Mach and Breuer shortly before Crum Brown's communication had been read. It was not, however, sufficient to meet the case, because, as the latter pointed out, a nerve current can vary only in intensity and not in kind, consequently, if irritated, it would convey the same message to the central organ, whether it was stimulated by right-handed or by left-handed rotation. For the solution of the difficulty, Crum Brown demonstrated that while one canal is affected by, and transmits the sense of rotation about one axis in one direction only, for complete perception of rotation in any direction about any axis, six semi-circular canals are required, arranged in three pairs, each pair having its two canals parallel (or in the same plane) and with their ampullæ turned opposite ways. Each pair would thus be sensitive to any rotation about a line at right angles to its plane or planes, the one canal being influenced by rotation in the one direction, the other by rotation in the opposite direction. Such was the arrangement in man; and in all the animals which he had examined, the external canal of one ear was very nearly in the same plane as the external canal of the other, while the superior canal of one was nearly parallel to the posterior canal of the other. In this way alone was it possible to harmonise the bilateral symmetry of the two ears with the condition, viz., that each of the three axes shall have two oppositely turned canals in planes at right angles to it.

\* \* \*

The Editors of the *Journal* desire again to express their indebtedness to, and their cordial appreciation of the work of Dr Douglas Guthrie and his staff of collaborators, in the voluntary assistance which they have given throughout the year, in abstracting the current medical literature bearing upon the speciality.

# General Notes

## LIST OF ABSTRACTORS.

Brady, A. J., Sydney.	Martin, G. Ewart, Edinburgh.
Campbell, Andrew, Johannesburg.	Rodger, T. Ritchie, Hull.
Cleminson, F. J., London.	Sewell, Lindley, Manchester.
Dickie, J. K. Milne, Ottawa.	Tweedie, Alexander, Nottingham.
Dickson, E. D. Dalziel, Edinburgh.	Vlasto, Michael, London.
Dundas-Grant, Sir James, London.	Watson-Williams, E., Bristol.
Goldsmith, Perry, Toronto.	Wilkinson, G., Sheffield.
Guthrie, Thomas, Liverpool.	Woodman, Musgrave, Birmingham.
Horgan, James B., Cork,	Wright, A. J., Bristol.
Layton, T. B., London.	Yearsley, Macleod, London.
Lodge, W. Oliver, Halifax.	Young, Gavin, Glasgow.
M'Kenzie, Dan, London.	

\* \* \*

The *Journal of Laryngology and Otology* exchanges with the following periodicals :—

The Lancet.	La Presse Médicale.
Medical Press and Circular.	L'Oto-Laryngologie Internationale.
Proceedings of Royal Society of Medicine.	Revue de Laryngologie, d'Otologie et de Rhinologie.
The British Medical Journal.	Archives Internationales de Laryng- ologie, etc.
The Bristol Medico - Chirurgical Journal.	Annales des Maladies de l'Oreille, etc.
St Bartholomew's Hospital Journal.	Münchener Med. Wochenschrift.
The Glasgow Medical Journal.	Archiv. f. Ohrenheilkunde.
Archives of Radiology.	Monatsschrift f. Ohrenheilkunde.
The Medical Journal of Australia.	Finder's Internationales Central- blatt für Laryngologie.
The New York Medical Journal.	Zeitschrift für Hals-, Nasen-, und Ohrenheilkunde.
Journal of the American Medical Association.	Centralb. f. Ohrenheilkunde und Rhino-Laryngologie.
Journal of Ophthalmology, Otology, and Laryngology.	Archivii Italiani di Laryngologia.
The Laryngoscope.	Archivio Italiano di Otologia.
Department of Literary Research, American College of Surgeons.	Acta Oto-Laryngologica..
Bulletin d'Oto-Rhino-Laryngologie.	

\* \* \*

The Editors will be glad to receive from writers of papers published in Journals other than the above, a short "Author's Abstract" containing the main points in their communication.

\* \* \*

At the recent General Election, Sir William Milligan, Liberal candidate for Salford West, failed to obtain the seat, and Mr Somerville Hastings was defeated as Labour candidate for Epsom.

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The Journal of  
Laryngology and Otology



# The Journal of Laryngology and Otology

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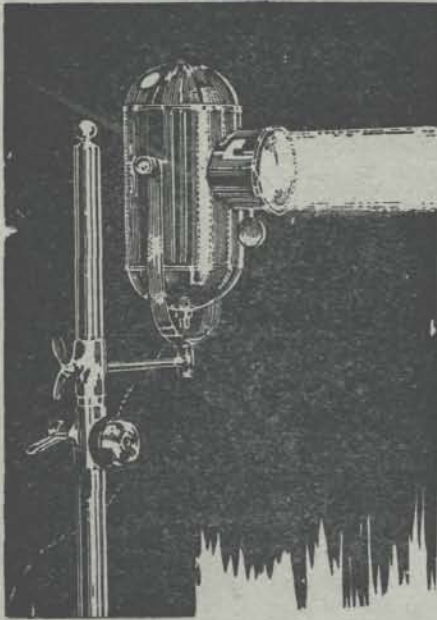
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