

showing the relative receiver current in the testing apparatus necessary for the threshold of audition at various pitches. It is found that unless the nerve endings of the nerves are destroyed, hearing is normal if the tones are sufficiently intense. The internal ear mechanism lowers the threshold of audition but mechanical resonance of this structure is not responsible for tone perception.—C. Lundsgaard and D. D. Van Slyke: The quantitative influences of certain factors involved in the production of cyanosis. Cyanosis depends on the mean concentration of reduced hæmoglobin in the blood. It is shown mathematically that 40 per cent. of venous blood must be mixed with arterial blood to obtain the necessary concentration of reduced hæmoglobin. Cyanosis usually becomes perceptible when this concentration is 5 gms. per 100 c.c. of blood, but various influences may cause it to vary from 4-6 gms. per 100 c.c. of blood.

Official Publications Received.

- Recueil de l'Institut Botanique Léo Errera. Tome 10, fascicule 2. Pp. 83-456. (Bruxelles: M. Lamertin.)
- Canada. Department of Mines: Geological Survey. Summary Report, 1921, Part A. Pp. 121A. Summary Report, 1921, Part D. Pp. 110D. (Ottawa.)
- Canada. Department of Mines: Geological Survey. Memoir 131, No. 112 Geological Series: Kenogami, Round, and Larder Lake Areas, Timiskaming District, Ontario. By H. C. Cooke. Pp. iv+64. (Ottawa.)
- Sixtieth Annual Report of the Government Cinchona Plantations and Factory in Bengal for the Year 1921-22. Pp. 4+xii. (Calcutta: Bengal Secretariat Book Depot.) 8 annas.
- Memoirs of the Indian Meteorological Department. Vol. 23, Part 5: On Cleaning and Refilling various Types of Barometer, together with a Description of several usual Patterns. By Dr. E. P. Harrison. Pp. 145-156+5 plates. (Calcutta: Government Printing Office.) 1-8 rupees; 2s.
- Memoirs of the Indian Museum. Vol. 5: Fauna of the Chilka Lake. No. 10: The Hydrography and Invertebrate Fauna of Ramba Bay. By R. B. Seymour Sewell and Dr. N. Annandale. Pp. 679-710 + plates 32-43. (Calcutta: Zoological Survey of India.) 5 rupees.
- 1822 G. J. Mendel 1922. Herdenkingsnummer van Genetica. Nederlandsch Tijdschrift voor Erfelijkheid- en Afstammingsleer. Pp. 193-384. ('s Gravenhage: M. Nijhoff.) 8 gld.
- Papers from the Geological Department, Glasgow University. Vol. 5: Octavo papers from 1918 to 1921. (17 papers.) Vol. 6: Quarto papers from 1915 to 1922. (15 papers.) (Glasgow: Maclehose, Jackson and Co.)
- Report of the Danish Biological Station to the Board of Agriculture, xxviii, 1922. By Dr. C. G. Joh. Petersen. Pp. iv+103+5 Tables. (Copenhagen: G. E. C. Gad.)
- Museums of the Brooklyn Institute of Arts and Sciences. Report upon the Condition and Progress of the Museums for the Year ending December 31, 1921. By William Henry Fox. Pp. 56. (Brooklyn, N.Y.)
- University of Bristol. Calendar, 1922-23. Pp. 374. (Bristol.)
- Proceedings of the Aristotelian Society. New Series. Vol. 22: Containing the Papers read before the Society during the Forty-third Session, 1921-1922. Pp. ii+242. (London: Williams and Norgate.) 25s. net.
- Year Book of the Michigan College of Mines, 1921-1922. Houghton, Michigan. Announcement of Courses, 1922-1923. Pp. 127. (Houghton, Mich.)
- Public Works Department, Government of India. Triennial Review of Irrigation in India, 1918-1921. Pp. viii+222. (Calcutta: Government Printing Office.) 5 rupees.
- Records of the Survey of India. Vol. 15 (Supplementary to General Report 1919-20). Annual Reports of Parties and Offices, 1919-20. Prepared under the direction of Col. C. H. D. Ryder. Pp. 134+10 maps. (Calcutta: Survey General of India.) 4 rupees; 8s.
- Cornell University Agricultural Experiment Station. Memoir 54: Horse Raising in Colonial New England. By Deane Phillips. Pp. 883-942. Bulletin 408: Production of new Strains of Corn for New York. By C. H. Myers, H. H. Love, and F. P. Bussell. Pp. 205-268. Bulletin 409: An Economic Study of Dairying on 149 Farms in Broome County, New York. By E. G. Misner. Pp. 269-444. Bulletin 410: Studies on Insects affecting the Fruit of the Apple; with Particular Reference to the Characteristics of the Resulting Scars. By Harry Hazelton Knight. Pp. 445-498+42 plates. (Ithaca, N.Y.)

Diary of Societies.

MONDAY, OCTOBER 23.

- INSTITUTION OF MECHANICAL ENGINEERS (Graduates' Section), at 7.—R. D. Gauld: Some Factors in the Design of Steam Locomotives.
- ROYAL SOCIETY OF MEDICINE (Odontology Section), at 8.—W. R. Ackland: Some Considerations for Preventive Dentistry (Presidential Address).

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TUESDAY, OCTOBER 24.

- ROYAL SOCIETY OF MEDICINE (Medicine Section), at 5.30.—Dr. Newton Pitt: Presidential Address.—Major-Gen. Sir John Moore and others: Glanders and Anthrax.
- ZOOLOGICAL SOCIETY OF LONDON, at 5.30.—The Secretary: Report on the Additions made to the Society's Menagerie during the months of June, July, August, and September 1922.—Exhibition of Photographs of Zebras and Oryx from Kenya.—E. T. Newton: Exhibition of a Tanned Skin of a Frog.—R. H. Burne and Prof. J. P. Hill: The Foetal Membranes of Chiromys. R. Kirkpatrick and Dr. J. Metzelaar: An Instance of Commensalism between a Hermit-Crab and a Polyzoon.
- INSTITUTE OF MARINE ENGINEERS, INC., at 6.30.—Views Illustrating Industrial Works: Messrs. Bruce Peebles.
- ROYAL PHOTOGRAPHIC SOCIETY OF GREAT BRITAIN, at 8.—E. W. Mellor: Some Landmarks of Ancient Egypt.

WEDNESDAY, OCTOBER 25.

- NEWCOMEN SOCIETY (at 17 Fleet Street), at 5.—E. A. Forward: Simon Goodrich and his Work as an Engineer. Part I. 1796-1810.
- FELLOWSHIP OF MEDICINE (at 1 Wimpole Street), at 8.30.—Dr. E. Pritchard: The Feeding of Infants from Birth to the End of the Second Year.

THURSDAY, OCTOBER 26.

- CHEMICAL SOCIETY (at Institution of Mechanical Engineers), at 8.—Sir W. H. Bragg and Prof. W. L. Bragg: The Significance of Crystal Structure.
- ROYAL SOCIETY OF MEDICINE (Urology Section), at 8.30.—Sir John Thomson Walker: Relation of Calcified Abdominal Glands to Urinary Surgery (Presidential Address).

FRIDAY, OCTOBER 27.

- ROYAL ASTRONOMICAL SOCIETY, at 5.—Geophysical Discussion on the Maintenance of the Earth's Electric Charge. Chairman: Sir W. H. Bragg. Speakers: Dr. G. C. Simpson, C. T. R. Wilson, and Sir A. Schuster.
- ROYAL SOCIETY OF MEDICINE (Study of Disease in Children Section), at 5.—Dr. E. Pritchard: Rickets (Presidential Address).
- PHYSICAL SOCIETY OF LONDON, at 5.
- INSTITUTION OF MECHANICAL ENGINEERS, at 6.—Adjourned Discussion on paper by Prof. A. Rateau: The Use of the Turbo-Compressor for attaining the greatest Speeds in Aviation.
- JUNIOR INSTITUTION OF ENGINEERS, at 7.30.—Question and General Discussion Evening.
- ROYAL SOCIETY OF MEDICINE (Epidemiology and State Medicine Section), at 8.—Dr. R. J. Ewart: Economics and Tuberculosis.
- ROYAL PHOTOGRAPHIC SOCIETY OF GREAT BRITAIN, at 8.—Dr. G. H. Rodman: Familiar Flowers in Monochrome.
- ROYAL SOCIETY OF MEDICINE (Electro-Therapeutics Section), at 8.30.—Dr. R. Knox: Cardiac Diagnosis: A Survey of the Development of Physical Methods (Presidential Address).

PUBLIC LECTURES.

SATURDAY, OCTOBER 21.

- HORNIMAN MUSEUM (Forest Hill), at 3.30.—Miss M. A. Murray: The Nile in the Life and Religion of the Ancient Egyptians.

MONDAY, OCTOBER 23.

- ROYAL COLLEGE OF SURGEONS OF ENGLAND, at 5.—Prof. Shattock: Specimens illustrating Carcinoma.
- CITY OF LONDON Y.M.C.A. (186 Aldersgate Street), at 6.—Sir Walter Morley Fletcher: Man's Body and the Making of Athletic Records.

TUESDAY, OCTOBER 24.

- SCHOOL OF ORIENTAL STUDIES, at 5.—Prof. Alice Werner: Some Bantu Tribes of the Tanganyika Territory. Succeeding Lectures on November 7, 21, December 5, 19.
- GRESHAM COLLEGE, at 6.—Sir Robert Armstrong-Jones: Physic. Succeeding Lectures on October 25, 26, 27.

WEDNESDAY, OCTOBER 25.

- KING'S COLLEGE, at 4.30.—Dr. C. Da Fano: The Histology of the Nervous System. Succeeding Lectures on November 1, 8, 15, 22, 29, December 6 and 13.
- SCHOOL OF ORIENTAL STUDIES, at 5.—Mrs. Rhys Davids: How to find the Real Founder of Buddhism. II.
- UNIVERSITY COLLEGE, at 5.30.—A. Lloyd-Jones: The Phonetic Structure of the Yoruba Language.—L. S. Jast: The Organisation of a Great Library.

THURSDAY, OCTOBER 26.

- CITY Y.M.C.A. (186 Aldersgate Street), at 6.—Sir C. Hercules Read: The Ancient Briton as Artist and Craftsman.

FRIDAY, OCTOBER 27.

- ROYAL COLLEGE OF SURGEONS OF ENGLAND, at 5.—Sir Arthur Keith: Results following Resection of the Bowel, illustrated by Experimental Work done by Mr. T. Gray on Cats.
- UNIVERSITY COLLEGE (in Botany Department), at 5.—Prof. A. H. R. Buller: Studies in the Morphology and Physiology of Fungi. Succeeding Lecture on November 3.—At 5.15.—Prof. J. Adams: The New Individualism in Education.
- BEDFORD COLLEGE FOR WOMEN, at 5.30.—J. M. M'Gregor: Social Life in Athens, as illustrated by Plato.

SATURDAY, OCTOBER 28.

- HORNIMAN MUSEUM (Forest Hill), at 3.30.—F. Balfour-Browne: The Life and Habits of Mason Wasps.