

operate without an input frequency. Should the input frequency fail, the output drops to zero, and thus off-frequency operation does not occur. In addition, the output current of the generator is a relatively pure sine wave, and additional 'clean-up' filters are not required as they are with the multi-vibrator when a sine wave is desired. A pentagrid-mixer tube is used for the modulator and a pentode for the harmonic generator. With a modulator tube having two shielded input grids, it is possible to eliminate the balanced modulators and transformers required for earlier regenerative frequency dividers. With the increased modulator gain obtained, not only is it possible to eliminate the starting circuit, but also frequency division as great as 10 to 1 is obtainable in one stage.

## FORTHCOMING EVENTS

(Meeting marked with an asterisk \* is open to the public)

### Saturday, May 29

FREE GERMAN INSTITUTE OF SCIENCE AND LEARNING (at 16 Buck and Crescent, London, N.W.3), at 5 p.m.—Capt. Helmer Dahl: "Norwegian Universities and Schools—Past, Present and Future".

### Monday, May 31

FARMERS' CLUB (at the Royal Empire Society, Craven Street, Strand, London, W.C.2), at 2.30 p.m.—Mr. F. A. Secrett: "Horticulture in Peace and War".

### Friday, June 4

PHYSICAL SOCIETY (in the Lecture Theatre of the Science Museum, Exhibition Road, South Kensington, London, S.W.7), at 5 p.m.—Prof. F. C. Bartlett, F.R.S.: "Some Current Problems in Visual Functions and Visual Perception" (13th Thomas Young Oration).

ROYAL INSTITUTION (at 21 Albemarle Street, London, W.1), at 5 p.m.—Mr. Arthur Bryant: "Our Sea Tradition".

### Saturday, June 5

ASSOCIATION FOR SCIENTIFIC PHOTOGRAPHY (at the Royal Institution, 21 Albemarle Street, London, W.1), at 4 p.m.—Prof. J. Yule Bogue: "Applied Photography"; Miss K. C. Clark: "Indirect Radiography as applied to Medical Work"; Dr. L. Mullins: "Miscellaneous Applications of Industrial Radiography"; Mr. C. D. Reyersbach: "Sub-Standard Kine-Photomicrography"; Mr. H. M. Ross: "The Photography of Photo-Elastic Stress Patterns".\*

## APPOINTMENTS VACANT

APPLICATIONS are invited for the following appointments on or before the dates mentioned:

LECTURER IN ENGINEERING SUBJECTS in the Durham Road Senior Technical and Commercial Institute—The Director of Education, Education Office, Prince Consort Road South, Gateshead (June 3)

RESIDENT LECTURER IN SCIENCE, able to take Gardening—The Principal, Diocesan Training College, Fishponds, Bristol (June 5)

LECTURER TO TEACH ELECTRICAL ENGINEERING SUBJECTS in the Municipal Technical College—The Director of Education, Education Offices, Nelson Square, Bolton (June 5)

PHARMACIST at the County Hospital, Pembury, Tunbridge Wells—The County Medical Officer, County Hall, Maidstone (June 7)

PRINCIPAL of the South-East Essex Technical College, Dagenham—The Chief Education Officer, County Offices, Chelmsford (June 12)

PSYCHIATRIC SOCIAL WORKER to work with the Psychiatrist and Educational Psychologist in the Child Guidance Clinic—The Chief Education Officer, Education Office, Warrior Square, Southend-on-Sea (June 21)

CITY BACTERIOLOGIST—The Town Clerk, Municipal Buildings, Dale Street, Liverpool 2 (June 30)

CHIEF TECHNICAL ASSISTANT, SENIOR TECHNICAL ASSISTANT, and TECHNICAL ASSISTANT 1, FOR ENGINEERS experienced in the use of Woodworking Machine Tools or Production Managers experienced in Planning the Production of Machined Woodwork—The Ministry of Labour and National Service, Central (Technical and Scientific) Register (Ref. C.1068), Alexandra House, Kingsway, London, W.C.2

BIOLOGY TEACHER (part-time) to assist in Botany and Zoology—The Director of Education, The Polytechnic, 309 Regent Street, London, W.1

## REPORTS and other PUBLICATIONS

(not included in the monthly Books Supplement)

### Great Britain and Ireland

Scientific Proceedings of the Royal Dublin Society. Vol. 23 (N.S.), No. 9: Salmon and Sea Trout of the Waterville (Currane) River. By Arthur E. J. Went and T. Sankey Barker. Pp. 83-102. (Dublin: Hodges, Figgis and Co., Ltd.; London: Williams and Norgate, Ltd.) 2s. 6d. [124]

Report of the Rugby School Natural History Society for the Year 1942. (Seventy-sixth Issue.) Pp. 22. (Rugby: George Over, Ltd.) [124]

University of London: University College. Annual Report, February 1942—February 1943. Pp. 64. (London: Taylor and Francis, Ltd.) [124]

British Records Association. Memorandum No. 7: Modern Records, What may we Destroy? Pp. 6. (London: British Records Association, c/o Public Record Office.) [134]

Report of the Committee on Post-War Agricultural Education in England and Wales. (Cmd. 6433.) Pp. 92. (London: H.M. Stationery Office.) 1s. 6d. net. [134]

The Pre-Nursing Course: Synopsis of Regulations, Suggestions for Syllabuses, Equipment and Books: together with further Recommendations of the Association of Women Science Teachers. Pp. 20. (London: John Murray.) 9d. [154]

National Institute of Economic and Social Research. Annual Report, 1942. Pp. 12. (London: National Institute of Economic and Social Research.) [194]

### Other Countries

Records of the Geological Survey of India. Vol. 77, Professional Paper No. 1: Report on Sodium Salts in *Reh* Soils in the United Provinces, with Notes on Occurrences in other parts of India. By J. E. Auden, B. C. Gupta, P. C. Roy and Mehdi Hussain. Pp. ii+45. (Calcutta: Geological Survey of India.) 14 annas; 1s. 3d. [124]

Indian Forest Records (New Series). Utilisation, Vol. 2, No. 8: The Testing and Suitability of Indian Timbers for Plywood Tea Chests. By V. D. Limaye and Sultan Mohammed. Pp. v+179-190+4 plates. 9 annas; 10d. Entomology, Vol. 7, No. 2: On Some Indian Cerambycidae. By J. C. M. Gardner. Pp. ii+66-72. 6 annas; 7d. (Delhi: Manager of Publications.) [124]

Smithsonian Institution. War Background Studies, No. 9: The Native Peoples of New Guinea. By M. W. Stirling. (Publication 3726.) Pp. vi+25+28 plates. (Washington, D.C.: Smithsonian Institution.) [134]

Ministry of Finance, Egypt: Survey of Egypt. Egypt in the Classical Geographers. By the late Dr. John Ball. Pp. vi+185+8 plates. (Cairo: Government Press.) 750 mills. [144]

Proceedings of the Academy of Natural Sciences of Philadelphia. Vol. 94, 1942. Pp. iii+408+27 plates. (Philadelphia: Academy of Natural Sciences of Philadelphia.) 7.50 dollars. [154]

Indian Forest Bulletin No. 108: Manufacture of Newsprint, Cheap Papers and Boards. (Interim Report on the Investigations carried out at the Forest Research Institute, Dehra Dun.) By M. P. Bhargava and S. Kartar Singh. Pp. iii+15. (Delhi: Manager of Publications.) 9 annas; 10d. [164]

Imperial Council of Agricultural Research. Studies on Fruit and Vegetable Products. 1: Canning of Apricots in Baluchistan. By Dr. G. S. Siddappa. Pp. ii+18+1 plate. 1.4 rupees; 2s. 2: Drying of Grapes in Baluchistan. By Dr. G. S. Siddappa. Pp. ii+14+1 plate. 12 annas; 1s. (Delhi: Manager of Publications.) [154]

Bulletin of the American Museum of Natural History. Vol. 80, Art. 12: A Revision of the Rotatorian Genus *Keratella* with Descriptions of Three New Species and Five New Varieties. By Elbert H. Ahlstrom. Pp. 411-457+plates 35-42. (New York: American Museum of Natural History.) [164]

Proceedings of the United States National Museum. Vol. 93, No. 3160: Skeletal Remains with Cultural Associations from the Chicama, Moche and Viru Valleys, Peru. By T. D. Stewart. Pp. 153-186+plates 11-18. Vol. 93, No. 3161: New Marine Mollusks from the Antillean Region. By Harald A. Rehder. Pp. 187-204+plates 19-20. Vol. 93, No. 3163: Osteology of Upper Cretaceous Lizards from Utah, with a Description of a New Species. By Charles W. Gilmore. Pp. 209-214. (Washington, D.C.: Government Printing Office.) [164]

South African Journal of Science. Vol. 39: Being the Report of the Fortieth Annual Meeting of the South African Association for the Advancement of Science, Johannesburg, 1942, 29th June to 1st July. Pp. xviii+387. (Johannesburg: South African Association for the Advancement of Science.) 30s. net. [164]

University of Cape Town. Communications from the School of African Studies, New Series, No. 7: The Bored Stones of Southern Africa, Part 3: South Eastern, Thirstland, Karoo, and Southern Forests Regions. By A. J. H. Godwin. Pp. iii+27. (Cape Town: The University.) 2s. [164]

The National Academy of Peiping during the Period of Years 1937-42. Pp. 14. (Kunming: National Academy of Peiping.) [164]

Dominion Observatory. Bulletin No. R27: Report for the Year ended 31st December 1941. Pp. 2. (Wellington: Government Printer.) [194]

U.S. National Museum. Bulletin 180: Fishes of the Phoenix and Samoan Islands collected in 1939 during the Expedition of the U.S.S. *Bushnell*. By Leonard P. Schultz. Pp. x+316+9 plates. (Washington, D.C.: Government Printing Office.) 85 cents. [194]

Smithsonian Miscellaneous Collections. Vol. 103, No. 9: *Mystacocarida*, a New Order of Crustacea from Intertidal Beaches in Massachusetts and Connecticut. By Robert W. Pennak and Donald J. Zimm. (Publication 3704.) Pp. ii+11+2 plates. (Washington, D.C.: Smithsonian Institution.) [194]