1943, 555,000; U.S. Pat. 1944, 2,342, 980; Balandin and Marukyan, Compt. rend. acad. sci., U.R.S.S., 1945, 48, 482. 39. Alden (to Philips Petroleum Co.), U.S. Pat., 1948, 2,439, 156; Rendel, Aero Digest, 1946, 53, No. 6, 105, 155. 40. Greensfelder, Voge and Good, Ind. Eng. Chem, 1945, 37, 1163. 41. Slotterbeck and Morell (to Standard Oil Development Co.), U.S. Pat, 1947, 2, 432,802. 42 Schorger, Ind. Eng. Chem., 1918, 10, No. 4, 258. 43. Lacourt, Brussels Univ. Bull. Soc. Chim. Belg., 1929, 33, 1. 44. Barbier, Hel. Chim. Acta, 1932, 15, 592; U.S. Pat., 1932, 1, 892,128. 45. Sachanen, and Tilichev, Ber, 1929, 628, 658, 46. Puranen and Ehrnrooth, Ger. Pat., 1935, 611, 461. 47 Sabatier and Senderens, Compt. rend., 1901, 132, 563, 1254. 48. Kobe and Vittone, Ind.

Eng. Chem., 1940. 32, 775. 49. Palmer and Bibb (to Newport Industries Inc.), U.S. Pat., 1942, 2, 303, 465. 50. Palmer, Bibb and McDuffe Jr. (joint inventors to the same assignee), U.S. Pat., 1942, 2,302,467. 51. Dixon (to American Cyanamid Co.), U.S. Pat., 1945, 2,376,309. 52. Fox (to E.I. du Pont d. Nemours & Co.), U.S. Pats., 1946, 2,407,265 and 2,407,266. 53. McKee and Lewis, Chem. Met. Eng., 1921, 24, 969. 54. Phillips, J. Amer. Chem. Soc., 1924, 46, 688. 55. Fevre, J. Chem. Soc., 1934, 1501. 56. Kuan, J. Chem. Soc. Jupan, 1931, 52, 473. 57. Chem Fab. von. Heyden A.G, (Curt Philip), Ger. Pat., 1924, 466,360. 58. Verghese, This Journal, 1948. 17, 352 59. Bergstrom, Cederquist and Trobeck, Svensk Papperstidn, 1945, 48, 246.

SCIENCE NOTES AND NEWS

Engineering and Marine Exhibition in London

The organisers of the Engineering and Marine Exhibition (incorporating the Welding Exhibition), which takes place at Olympia, London, from August 25 to September 10, have already issued their official bulletin of the exhibits, from which some indication of the scope of this event may be obtained.

With the patronage and active support of the British Engineers' Association, the Society of Motor Manufacturers and Traders (Marine Section), the British Electrical and Allied Manufacturers' Association, the Institute of Welding and the British Acetylene Association, the Exhibition promises to display a representative selection of the products of these important branches of the United Kingdom industry.

Several well-known makes of oil engines for marine propulsion and auxiliary services as well as for industrial and traction purposes, will be available for inspection. One stand will be devoted to the uses and possibilities of aluminium in shipbuilding and marine engineering, whilst another firm, specialising in the manufacture of solid drawn seamless nonferrous tubes, will exhibit copper and brass tubes and fittings for a variety of uses. Other products will include transmission belting of all types, electric motor control equipment, pneumatic tools, lubricating oils and greases, electric duplicating machines as well as modern

drawing office and photo print-room equipment and materials.

Complete ranges of welding equipment, accessories and electrodes will be shown in the Welding Exhibition.

A world-famous Clydeside engineering company will be showing scale models of its products. These include a luxury liner, ships' machinery, and gas turbines for use ashore. The Department of Scientific and Industrial Research and the Board of Trade will show how the Government can assist industry.

Biochemistry at Cambridge

"NATURE" has announced that Professor A. C. Chibnall is to shortly retire from the Sir William Dunn Chair of Biochemistry. He will be succeeded in October next by Professor F. G. Young who is holding the Chair of Biochemistry at the University College of Science in London.

International Mining Congress at Oxford

The technical progress and problems of the mining industry of the British Commonwealth were discussed at the Fourth Empire Mining and Metallurgical Congress held at Oxford recently. In the course of the discussions, Sir John Cockroft, Director of Britain's Atomic Energy Establishment, pointed out that the development of atomic energy hinges upon an adequate supply of uranium and thorium, without which all the efforts of the atomic scientists would be useless.

The search for uranium has brought into general use among prospectors the Geiger-Muller counter. One speaker told how in Canada its use had led to the discovery of uranium deposits in Ontario, Sasketchewan, the North-West territoires and British Columbia. Also, measurements of the force of gravity, of electrical conductivity and magnetic forces have been pressed into service in modern aerial surveys. Aerial photography has proved invaluable for quickly covering large areas not easily prospected on the ground; detecting devices slung beneath aircraft have been useful, especially in dealing with snow-covered territory.

Several speakers dealt with working conditions in mines and refineries. A mass of information has been collected on the effects on the human body of high temperatures, humidity, poor ventilation and other factors which affect both health and output. In consequence, it has been possible to define a limit as to what may be tolerated, and often to suggest how working conditions may be improved. Such surveys have extended even to the psychological effects of working under extreme conditions.

The Congress has made it clear that the British Commonwealth has immense mineral resources, many of which are already being worked, while thorough surveys are being made to locate the rest in regions never fully prospected. Special attention is also being given to the problem of working ores poorer than those normally accepted, which is the problem facing miners everywhere, and one in which a powerful lead is of great importance.

London Conference of E.N.T. Specialists

More than 1,300 delegates, including about 900 specialists in ear, nose and throat diseases from 39 countries, are now in London attending the Fourth International Conference of Otolaryngology. India is represented by four delegates Dr. C. A. Amesur of Bombay, Dr. (Miss) C. M. Leelavathi of Madras, Lt.-Col. P. Papatla of Cuttack and Dr. D. Rom of Patna.

The Congress programme is packed with readings of scientific papers, with technical discussions and with visits to hospitals and clinics.

The patron of the Congress is the King, and it was opened on his behalf by the Duchess of Kent. The President is the celebrated surgeon, Mr. V. E. Negus.

By the time the Congress ends the delegates will have heard the results of clinical and research work in otolaryngology throughout the world.

New Director of the National Physical Laboratory, England

The Lord President of the Council has appointed Professor E. C. Bullard, M.A., Ph.D., F. R. S., Professor of Physics in the University of Toronto, to be Director of the National Physical Laboratory. It is expected that Professor Bullard will take up the appointment in January, 1950.

Professor Bullard will succeed Sir Charles Darwin, K.B.E., M.C., Sc.D., F.R.S.

Foodstuffs for Animal Establishments

The Government of India have agreed to the proposal by the Council of Scientific and Industrial Research for the issue of rations for rats and other animals maintained by various laboratories for biological and biochemical experiments, and accordingly arrangements are being made by the Provincial and State Governments for the issue of rations at the rate of half an ounce of cereals per rat per day, to bonafide research workers on applications duly forwarded by the Heads of Departments concerned.

Andhra University Award of Research Degrees in Physics

On the recommendation of the Board of Examiners consisting of:—

1. Prof Max Born (Chairman), University of Edinburgh, Edinburgh (Scotland), 2. Prof. P. P. Ewald, Queen's University, Belfast, Northern Ireland, 3. Prof. J. J. Weigle, Institute of Physics, University of Geneva, Geneva, appointed to adjudicate on the thesis entitled "Studies in Some Aspects of Crystal Physics," the Snydiate of the Andhra University has resolved that Mr. D Suryanarayana, M.Sc., be declared qualified for the degree of Doctor of Science (D.Sc.).

On the recommendation of the Board of Examiners consisting of:—

Prof. J. J. Weigle (Chairman), Institute of Physics, University of Geneva, Geneva, Switzerland 2. Prof. P. P. Ewald, Department of Mathematical Physics, The Queen's University, Belfast, Northern Ireland, 3. Prof. Jean Cabannes, M.Sc., Dean of the Faculty of Sciences, Sorbonne, Rue Victor Cousin, Paris 5, appointed to adjudicate on the thesis entitled "Diffraction of Light by Ultrasonic Waves." the Syndiate has resolved that Mr. B. Ramachandra Rao, M.Sc., be declared qualified for the degree of Doctor of Science (D.Sc.).

INTERNATIONAL SCIENTIFIC AND TECHNICAL CONGRESSES

Date	1949	Subject of Conference	Organising Body	Location
Aug. Sept.	17- 6	United Nations Scientific Conference on Conservation and Utilisation of 'Resources	U. N. Information Centre, Russel Square House, W.C. 1	Lake Success, U.S.A.
Sept.	1–3	2nd International Congress on Elec- tro-Encephalography	M. Baudoin, Fauculte de Medicine, University de Paris	Paris
Sept.	3-10	26th Session of International Statisti- cal Institute	H. Campion, Esq., Central Statistical Office, Great George Street. S. W. 1.	Berne
Sept.	5-10	4th International Nourology Confer-	Dr. Raymond Garcin, 19 Rue de Bourgogne, Paris 7.	Paris
Sept.	5-7	International Association for Hy- draulics Structure: Research	Dougogno, rans 1.	Gronoble
Sept.	5-9	Colloquium on Nuclear Physics	International Union of Pure and Applied Physics	Bale
Sept.	5-11	15th General Conference, International Union of Chemistry	Organising Committee, P. O. Box 71, Leyden, Netherlands	Amsterdam
Sept.	6–10	Conference on Low Temperature Physics		Cambridge, Mass. U.S.A.
S∈pt.	9-12	Summer Meeting of British Society of Soil Science	Dr. E. W. Russell, Department of Agriculture, Oxtord University	Leeds
Sept.	11-16	Colloquium on Cosmic Rays	International Union of Pure and Applied Physics	Como
Sept.	12-17	The Laurentian Hormone Conference	Chairman, 222, Maple Avenue, Shrews- bury, Mass.	Franconia, U.S.A.
Sept.	12-17	International Congress of Mechanical Engineering	Secretary of Congress, Centre de docu- mentation de la Mecanique, 11 Avenue Hoche, Paris 8	Paris
Sept.	12-17	International Colloquium on the Absorption of Heterogeneous Kinetics	Centre National de la Recherche Scientifique, 13 Quaf Anatole France, Paris 7	University of Lyon
Sept.	14-16	General Assembly, International Council of Scientific Unions	Prof. F. J. M. Stratton, Conville and Caius College, Cambridge	Copenhagen
Sept.	18-23	American Chemical Society, 116th National Meeting	American Chemical Society	Atlantic City
Sept.	19–30	4th Session of U.N.E.S.C.O. General Conference	U.N.E.S.C.O.	Paris
Sept.	19-23	Symposium on Engineering Structures	Prof. A. G. Pugsley, Merchant Venturers Technical College, Bristol I	Colston Research Society, Bristo
Sept 2 Oct.	9— 1 & 4	Summer Meeting of Groupement pour l'Advancement des Methods d'Ana- lyse spectrographique des Produits Metallurgiques	G. A. M. S., I Place, St. Thomas d'Acquin, Paris 7e	Paris
Sept.	ecided)	F.A.O. Conference on Locust Control	Food and Agriculture Organization	Central America
Oct.	1-9	International Congress of Scientists concerned with Colonial Develop-	Ingenieurs pour la France D'Outre-Mer et les pays Exterieurs, 11 Rue Tronchet, Paris 8e	Paris
Oct.	3-10	ment Autumn Meeting of Institute of	Secretary, Institute of Metals, 4, Grosvenor Gardens, S. W. I.	Paris
	17-	Metals African Regional Scientific Con-	C. S. I. R., P.O. Box 395, Pretoria	Johannesburg
Nov. Oct.	23-30	ference 22nd International Congress of Indus-	Societe de Chimie Industrielle, 28, Rue St. Dominique, Paris 7	Barcelona
Oct.	الدرو ندر	F.A.O. Meeting on Control of Infesta-	Food and Agriculture Organization	Palmira, Colombia
Noy.	ecided) 1~5	tion in Stored Grain Pacific Chemical Exposition	James O. Clenyton, Research Association of California Research Corporation	