

line. The results correspond to a shift of the first order line of $5''$, so for this wave-length, the effect of refraction is slight. P. W. Bridgman.—The compressibility of metals at high pressures. The pressure range was 12,000 kgm./cm.², and measurements were made at 30° and 75°. The compressibility of every metal decreases with rising pressure and, generally, increases with rising temperature; the order of magnitude of the change is the same for all the metals. Germanium and uranium are possible exceptions. Metals crystallising in a cubic form show the same compressibility in all directions, but the compressibility of, e.g., zinc, measured in three directions perpendicular to each other, varied in the order, roughly, of 1:3:4. Tellurium shows a negative effect in one direction. The results accord with a theory of two interpenetrating lattices as the structural basis of most metals. There appears to be no simple repulsive potential relation between the atoms of metals which will account for the compressibility data.—Raymond Pearl and L. J. Reed: A further note on the mathematical theory of population growth.

Official Publications Received.

Annual Report of the Meteorological Committee to the Air Council, for the Year ended 31st March 1922. (M.O. 257.) Pp. 59. (London: H.M. Stationery Office.) 2s. net.
 Ministry of Finance, Egypt: Coastguards and Fisheries Service. Report on the Fisheries of Egypt for the Year 1921. By G. W. Paget. Pp. vi+78. (Cairo: Government Publications Office.) P.T.5.
 Catalogue of the British Industries Fair, The White City, Shepherds Bush, London, W.12, February 19-March 2, 1923. Pp. xxxii+256+180. (London: Board of Trade.) 1s.
 Air Ministry: Meteorological Office, London. Southport Auxiliary Observatory (The Fernley Observatory of the Corporation of Southport). Annual Report, and Results of Meteorological Observations, for the Year 1921; with an Appendix containing Monthly Averages, for 10 years, of the Amount and Duration of Rainfall under Different Wind Directions. By Joseph Baxendell. Pp. 36. (Southport: Fernley Observatory; London: Meteorological Office.)

Diary of Societies.

MONDAY, FEBRUARY 12.

ROYAL SOCIETY OF MEDICINE (War Section), at 5.—Surg. Comdr. R. J. M'Keown and Surg. Comdr. A. Gaskell: The co-operation between the Members of the profession and the medical services of the armed forces in peace and during war.—Discussion: Air Commodore D. Munro, Major-General C. E. Pollock, and others.
 ROYAL SOCIETY OF ARTS, at 8.—Dr. H. P. Stevens: The Vulcanisation of Rubber (Cantor Lectures) (2).
 SURVEYORS' INSTITUTION, at 8.—C. P. Sanger: The Law of Property Act, 1922.
 ROYAL GEOGRAPHICAL SOCIETY (at Eolian Hall), at 8.30.—H. St. J. B. Philby: The North Arabian Desert.—Major A. L. Holt: The Future of the Desert.
 MEDICAL SOCIETY OF LONDON, at 8.30.—Dr. E. F. Buzzard and others: Discussion on Psycho-Therapeutics.

TUESDAY, FEBRUARY 13.

ROYAL INSTITUTION OF GREAT BRITAIN, at 8.—Prof. A. C. Pearson: Greek Civilisation and To-day (1): The Beginnings of Science.
 ROYAL SOCIETY OF MEDICINE (Therapeutics and Pharmacology Section), at 4.30.—Prof. A. J. Clark: The Scientific Basis of Non-Specific Protein Therapy.—Dr. H. Blumgart: The Treatment of Diabetes Insipidus by Intra-Nasal Spraying of Pituitary Extract.
 INSTITUTION OF PETROLEUM TECHNOLOGISTS (at Royal Society of Arts), at 5.—G. W. E. Gibson: Some Practical Notes on Oil Pumping.
 BRITISH PSYCHOLOGICAL SOCIETY (Education Section) (at London Day Training College), at 6.—Miss Ella Freeman Sharpe: The Super-sensitive Child at School. A Psycho-Analytic Study.
 INSTITUTE OF TRANSPORT (at Institution of Electrical Engineers), at 6.—B. Wagenfieder: Railway Rules and Regulations.
 INSTITUTE OF MARINE ENGINEERS, INC., at 6.30.—T. D. Madsen: Internal Combustion and Economy.
 ROYAL PHOTOGRAPHIC SOCIETY OF GREAT BRITAIN (Scientific and Technical Group), at 7.—A. E. Bawtree: Dangers to Eyesight in Domestic Electric Lighting and the Kinema Picture Display.
 QUEKETT MICROSCOPICAL CLUB, at 7.30.—D. T. Scourfield: Presidential Address.
 INSTITUTE OF INDUSTRIAL ADMINISTRATION (at London School of Economics), at 8.—F. Mott: Practical Hints on Buying and Selling. (To be followed by a Discussion.)
 ROYAL SOCIETY OF MEDICINE (Psychiatry Section), at 8.30.—Dr. K. Wilson: Involuntary Laughing and Crying.

WEDNESDAY, FEBRUARY 14.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, at 4.—Sir John Bland-Sutton: Hunterian Oration.
 ROYAL SOCIETY OF MEDICINE (Surgery: Sub-section of Proctology), at 5.30.—P. Lockhart-Mummery: New Method of treating Ischio-Rectal and other Abscesses.
 INSTITUTION OF AUTOMOBILE ENGINEERS, at 7.30.—J. L. Chaloner: High-speed Oil Engines.
 ASSOCIATION OF ENGINEERS-IN-CHARGE (at St. Bride's Institute), at 7.30.—C. H. J. Day: Hydraulic and Electric Lifts.
 ROYAL SOCIETY OF ARTS, at 8.—W. J. Rees: Progress in the Manufacture of Refractories.

THURSDAY, FEBRUARY 15.

ROYAL INSTITUTION OF GREAT BRITAIN, at 8.—Prof. B. Melville Jones: Recent Experiments in Aerial Surveying (1).
 ROYAL SOCIETY, at 4.30.—E. R. Speyer: Researches upon the Larch Chermes (*Cynaphalodes strobilobius*, Kalt) and their bearing upon the Evolution of the Chermesinae in general.—G. V. Anrep: The Irradiation of conditioned Reflexes.—M. Dixon and H. E. Tunnicliffe: The Oxidation of reduced Glutathione and other Sulphydryl Compounds.—J. C. Bramwell, R. J. S. M'Dowall, and B. A. M'Swinye: The Variation of Arterial Elasticity with Blood Pressure in Man.—L. J. Harris: The Existence of an undiscovered Sulphur Grouping in the Protein Molecule. Part I. The Denaturation of Proteins. Part II. The Estimation of Cystine in certain Proteins.—N. B. Laughton: Reflex Contractions of the Cruralis Muscle in the Decerebrate and Spinal Frog.
 LINNEAN SOCIETY OF LONDON, at 5.—A. M. Alton: On the Method of Oviposition and the Egg of the Beetle *Lycus brunneus*, Steph.—R. Paulson: Arctic Lichens from Spitsbergen.—F. H. Lancum: Strange Behaviour of a Female Butterfly, *Colias edusa*.—Canon Bullock-Webster: Exhibition of Thirty Varieties of *Chara hispida*.
 ROYAL SOCIETY OF MEDICINE (Dermatology Section), at 5.
 ROYAL AERONAUTICAL SOCIETY (at Royal Society of Arts), at 5.30.—Wing-Comdr. T. R. Cave-Brown-Cave: The Practical Aspects of the Seaplane.
 INSTITUTION OF MINING AND METALLURGY (at Geological Society), at 5.30.
 CHILD-STUDY SOCIETY (at Royal Sanitary Institute), at 6.—Miss Richardson: M. Coué and his Work.
 INSTITUTION OF ELECTRICAL ENGINEERS, at 6.—J. Rosen: Some Problems in High-speed Alternators and their Solution.
 CHEMICAL SOCIETY, at 8.—A. Chaston Chapman: Spinacene, its Oxidation and Decomposition.—R. H. Pickard and H. Hunter: Investigations on the Dependence of Rotatory Power on Chemical Constitution. Part XIX. The Rotatory and Refractive Dispersion of *d*- γ -nonyl nitrite.—H. Hunter: Investigations on the Dependence of Rotatory Power on Chemical Constitution. Part XX. The Rotatory Dispersive Powers of Oxygen Compounds containing the Secondary Octyl Radicle.
 CAMERA CLUB, at 8.15.—Major F. C. B. Laws: Progress in Aerial Photography.

FRIDAY, FEBRUARY 16.

GEOLOGICAL SOCIETY OF LONDON, at 3.—Annual General Meeting.
 ROYAL SOCIETY OF ARTS (Indian Section), at 4.30.—J. T. Marten: The Indian Census, 1921.
 ROYAL SOCIETY OF MEDICINE (Otology Section), at 5.—G. J. Jenkins: Preliminary communication on Ostitis Deformans and Otosclerosis.
 INSTITUTION OF MECHANICAL ENGINEERS (Annual General Meeting), at 6.—H. C. Young: Some Mechanical Problems in the Rubber Industry.
 INSTITUTION OF ENGINEERING INSPECTION (at Royal Society of Arts), at 7.30.—H. T. F. Rhodes: Chemical Inspection as it is and as it should be.
 JUNIOR INSTITUTION OF ENGINEERS, at 7.30.—T. L. Allison: Notes on some Insulating Materials.
 EUGENICS EDUCATION SOCIETY (at Prince's Restaurant), at 7.30.—Prof. Pigou: The Economic Importance of Eugenics.
 ROYAL SOCIETY OF MEDICINE (Electro-Therapeutics Section), at 8.30.—Prof. Philippon: High-frequency Currents applied to the Study of Cellular Physiology.
 ROYAL INSTITUTION OF GREAT BRITAIN, at 9.—Prof. A. V. Hill: Muscular Exercise.

SATURDAY, FEBRUARY 17.

ROYAL INSTITUTION OF GREAT BRITAIN, at 3.—Sir Ernest Rutherford: Atomic Projectiles and their Properties (1).

PUBLIC LECTURES.

SATURDAY, FEBRUARY 10.

HORNIMAN MUSEUM (Forest Hill), at 3.30.—E. Lovett: Household Appliances of a Hundred Years Ago.

TUESDAY, FEBRUARY 13.

GRESHAM COLLEGE, at 6.—Sir Frederick Bridge: Music. (Succeeding Lectures on February 14, 15, and 16.)

WEDNESDAY, FEBRUARY 14.

UNIVERSITY COLLEGE, at 5.—P. Leon: The Theory of Beauty. (Succeeding Lectures on February 21, 28, March 7, 14, and 21.)
 KING'S COLLEGE, at 5.30.—Dr. D. H. Scott: The Succession of Floras in the Past.

FRIDAY, FEBRUARY 16.

LONDON SCHOOL OF ECONOMICS, at 5.—Prof. Graham Wallas: The Competition of the Sexes for Employment (Stansfeld Lecture).
 UNIVERSITY COLLEGE, at 5.15.—P. A. Scholes: The Place of Music in the Education of the Future.
 KING'S COLLEGE, at 5.30.—Dr. E. W. Scripture: Shakespeare's Verse in the Light of Experimental Phonetics.

SATURDAY, FEBRUARY 17.

HORNIMAN MUSEUM (Forest Hill), at 3.30.—Dr. F. A. Bather: A Limestone Cliff and the Animals that built it.