

INDEX

Illustrated subjects are marked with an asterisk after the number of the page

A

ABBOT, W., on Drawing and Design, 5. See LETTERS, 167, 230. See also vol. 179

Abelson & Co. (Engineers), Ltd., Trenching Equipment for "Ahlmann" Swing-Shovel, 168

Ablett, C. A., the Late, 136

Abrasives, "Alundum" and "Crystolon," for Grinding Wheels, 607

Accelerators, Circular, for Nuclear Particles in Curved Paths, 530*

— Linear, as Neutron Source (Metropolitan-Vickers Electrical Co., Ltd.), 354*

— Review of Development of, 340*, 374*

— Science Museum Exhibits of, 298

— for Nuclear Energy Purposes, Research on, 653

Acheson Colloids, Ltd., Molybdenum Disulphide (Trade Publication), 107; "Oil-dag" Colloidal Graphite (Trade Publication), 330

Acid-Contaminated Effluents, Continuous-Flow Plant for Neutralisation of (British Thomson-Houston Co., Ltd.), 58*

Accidents:

Accident Compensation. See *Workmen's Compensation* under *Labour*

— in Engineering Work, Report of Chief Inspector of Factories, 1954, 872

— and Inefficiency in Industry, 680

Aircraft, Civil, Accidents to, Serious Negligence Test of, Questions in House of Commons on, 743

Boilers, Oil-Fired, Safety of, 5. See also vol. 179

Chemical Laboratories, Safety Measures in (Book), 786

Colliery Accidents, Annual Report of Chief Inspector of Mines and Quarries 1953, 15

Elderly Workers, Accident-Proneess of, in Agricultural Industry, 744

Electrical Accidents and their Causes, 1953 (Book), 560

— Apparatus, Portable, "Briticent Full-Load Earth Continuity Tester" for (British Central Electrical Co., Ltd.), 175

Employees, Accidents to, Legal Responsibility of Employer Concerning, 777

H.M. Electrical Inspector of Mines, Report of, 1952, 339

Negligence in Manufacture and Use of Tools, 325

Protective Equipment, Use and Abuse of, Conference on, Arrangements for, 253

Railway Accidents in Great Britain, 1954 (Book), 786

Royal Society for Prevention of Accidents, Campaign for Safer Working in Industry, 616, 680

Safety Device for Locomotives (Oerlikon Engineering Co.), 218*. See 195

— Equipment and Designs in Motor Cars, 643*

— Factors in Aircraft Design, 772

— and Health in Industry (Book), 105

— and Health in Nuclear Power Industry, 836

— Measures for Passengers in Motor Cars, 363

— in Works, Employer's Duty in Enforcing, 203

— Relay, Low-Voltage, for Welding in Confined Spaces (Philips Electrical, Ltd.), 452

Accles & Pollock, Ltd., Flexible Seamless Stainless-Steel Tubes, 322, 358*

"Accountant" Civil Propeller-Turbine Aircraft with Pre-Tensioned Fuselage (Aviation Traders (Engineering), Ltd.), 395*

Accumulators, Electric. See *Electric*

— Hydraulic, Use in Heavy Industry, 796*

— Vehicles. See *Motor Truck*

Acetylene Welding. See *Welding*

Acherman, Dr. E. A., on Administration of Tennessee Valley Authority Scheme, 485. See LETTER, 621

Acoustic Treatment Equipment (Burgess Products Co., Ltd.), 309

Activated Sludge. See *Sewage*

Adams & Benson (Dalbukirk), Ltd., "Blundell" Wire-Joining Tool, 833*

Adams, J. B., on Review of Accelerating Machines for Nuclear Particles, 530*

Adamson-Alliance Co., Ltd., Forging Manipulator for Axle Forge, 28*

Addison, H., on *The Foreseeable Future*, 845. See 720

Address, Presidential. See *Presidential Address*

"Adequate" Belt Weigher for Conveyor Belt System for Coal Handling Plant (Naylor Brothers, Ltd.), 514*

Adhesive Cement, Synthetic, "Pliobond" (Goodyear Tyre & Rubber Co. (Great Britain), Ltd.), 190

— for Plywood (Trade Publication), 529

— Resin, "R 18774" (Bakelite, Ltd.), 696

Admiralty Experiment Works, Haslar, Use of Models as Aid to Ship Design at, 334*

— Research Laboratory, New Underwater Hydrodynamics Laboratory for, 766*

— Test House at National Gas Turbine Establishment, 504*

Admiralty. See also *Warships*

Aeration Plants, Small, for Sewage Works (Trade Publication), 41

Aerial Navigation. See *Aeronautics*

— Propellers. See *Propellers* under *Aeronautics*

— Survey of Rock Formations in Midlands, Proposed, 302

— System, Communal, "Pantenna," for Use on Board Ship (Marconi International Marine Communication Co., Ltd.), 734

— Transport. See *Aeronautics*

"Aero Mist Spray" Cooling for Cutting Tools (Orenda Engines, Ltd.), 885*

Aero Research, Ltd., "Aerolite" Adhesives for Plywood (Trade Publication), 529

Aerodynamics. See *Aeronautics*

Aerograph Co., Ltd., Spray Guns (Trade Publication), 881

"Aerolite" Adhesives for Plywood (Trade Publication), 529

Aeronautical and Automobile Engineering, College of, Foundation of Two Wakefield Scholarships by C. C. Wakefield & Co., Ltd., 685; Courses in Gas Turbine Engines for Road Transport and Industrial Use, 695

— Sciences, United States Institute of: Anglo-American Conference on Aeronautics. See *Aeronautics, Anglo-American Conference* (Below); World Demand for Civil Airliners, by P. Masefield, 226

— Society, Royal: Anglo-American Conference on Aeronautics. See *Aeronautics, Anglo-American Conference* (Below); *Birmingham Branch*: Some Applications of a Digital Computer to Gas Turbine Engineering, by G. C. Best, 640*; Principles of the Jet Flap, by I. M. Davidson, 722*; *Discussion on Aircraft Design Philosophy*: Flight Loads, by R. H. Sandifer, 772; Safety Factors, by J. K. Williams, 772; Design Philosophy of Aircraft Fatigue, by H. Giddings, 773; Aircraft Structural Strength Testing, by Dr. P. B. Walker, 773

Aeronautics:

"Accountant" Civil Propeller-Turbine Aircraft with Pre-Tensioned Fuselage (Aviation Traders (Engineering), Ltd.), 395*

Aerodynamics, High-Speed and Jet Propulsion, Vol. I: Thermodynamics and Physics of Matter, by F. D. Rossini (Review), 882

— Research on, 208

— Use of Digital Computers in Solving Problems in, 640*

Aeronautical Research Laboratories, Australian Department of Supply, Annual Report, 208

— Terms, English, for French-Speaking Airline Personnel, by S. Humbert (Review), 298

Aeronautics, Anglo-American Conference on: Reports of Proceedings, 6, 72, 125; Operation of Turbo-Prop Aircraft, by P. G. Masefield, 6; Design of High Speed Aircraft, by E. H. Heinemann, 72; Design of Large Helicopters, by B. Kelley, 72; Fatigue of Aircraft Pressure Cabins, by Dr. P. B. Walker, 73; Low Consumption Turbine Engines, by A. A. Lombard, 125; Jet Noise, by F. B. Greatrex, 125; Power Plants for Supersonic Aircraft, by Dr. E. S. Moulton, 125

Aeroplane. See *Aircraft*

Air Registration Board, Annual Report, 110; Increase for Overhaul Life of "Elizabethan" Propellers, 847

— Traffic Statistics, 130

— Transport Association, British Independent, Annual Report, 779

— British, Recent Progress in, 366

Aircraft, "Area Rule" Principle for Reduction of Drag at Transonic Speeds, 812

— Bomber, Boeing B.52 "Stratofortress," 788*

— Jet, "Canberra Mark 9" (English Electric Co., Ltd.), 438

— Jet, "Valiant" (Vickers-Armstrongs Ltd.), 438

— Twin-Jet, "Vautour SO-4050" (Société Nationale de Constructions Aéronautiques du Sud-Ouest), 11*

— Carriers, Disposal of Outdated, Questions in House of Commons, 807

— Civil, Accidents to, Serious Negligence Test of, Questions in House of Commons, 743

— "Britannia" (Bristol Aeroplane Co., Ltd.), 394

— "Comet 4" Airliner, Progress of, 737

— "Comet" Progress of (de Havilland Aircraft Co., Ltd.), 394

— "Electra" Airliner, Progress of (Lockheed Aircraft Corporation), 683

— "Elizabethan," Increase for Overhaul Life of Propellers of, 847

— Fireproof Materials in, Questions in House of Commons on, 903

— "Herald," for Branch Service (Handley Page, Ltd.), 394*

Aeronautics—continued

— Jet, Airliner, "Douglas DC8," Projected, 787*

— and Military, British, Ministry of Supply Review of, 737

— Passenger, Delay in Production of, by Sir M. Thomas, 226

— Propeller-Turbine, "Accountant" with Pre-Tensioned Fuselage (Aviation Traders (Engineering), Ltd.), 395*

— Propeller-Turbine, United States Developments in, 482

— Propeller-Turbine, "Vanguard," for British European Airways (Vickers-Armstrongs, Ltd.), 555

— Questions in House of Commons on, 807

— Transport (Frye Corporation), 523

— Transport, Effect of Turbine Engines on, 691*

— Transport, "Herald" (Handley Page, Ltd.), 40

— Transport, "Twin Pioneer," with High-Lift Device (Scottish Aviation, Ltd.), 394*

— Turbine Engines for, Development and Future of, 390*

— World Demand for, 226

— Coleopter, Vertical Take-Off, Models of (Bureau Technique Zborowski), 12

— Components, "Big Bruiser" Strength-Testing Equipment for (Lockheed Aircraft Corporation), 821*

— Construction in France, 130

— Control, Survey of (Book), 267

— "Cornwall" Fuelling Vehicle for (British Petroleum Co., Ltd.), 645*

— Delta-Wing, "Pa.49" (Ets. N. R. Payen), 11*

— Design Philosophy of, Discussion on, 772

— and Ejection Seats (Trade Publication), 529

— Experimental, Ram-Jet, "O-21" (R. Leduc et Fils), 10*

— Fatigue-Testing of, Exhibits Demonstrating, 71*

— Fighter, All-Weather, "CF100" (Avro Aircraft, Ltd.), 437*

— "Convair F.102A," 788*

— Delta-Wing "MD550" (Avions Marcel Dassault), 10

— "Javelin," Flight Refuelling System for (Flight Refuelling, Ltd.), 670*

— Jet, "Hunter" (Hawker Aircraft, Ltd.), 436*

— Jet Supersonic Interceptor, "P.1" (English Electric Co., Ltd.), 436*

— Lightweight, "Gnat" (Folland Aircraft, Ltd.), 436*

— Lightweight, Rocket-Driven "Trident" (Société Nationale de Constructions Aéronautiques du Sud-Ouest), 11*

— Lightweight "1001 Taon" (Société Anonyme des Ateliers d'Aviation Louis Breguet), 11

— "Super Sabre F.100C," 787*

— "Swift Mark 5" (Vickers-Armstrongs Ltd.), 437*

— Freight, Review of, by B. P. Leight, 68

— Gas Turbines for, by I. H. Driggs and O. E. Lancaster (Review), 298

— Generators, Test Bench for (A. Lyon & Co. (Engineers), Ltd.), 251*

— High Speed, Design of, 72

— Hot Air Reducing Valves, "PS.60," for (Hymatic Engineering Co., Ltd.), 613*

— Industry Display at Farnborough, 291, 356*, 363, 394*, 436*, 471*. See LETTER, 405

— Flexible Seamless Stainless-Steel Tubes for (Accles & Pollock, Ltd.), 322, 358*

— Redundancy in, 128

— United States, Aspects of, 787*, 819*, 851*, 884*

— United States and Canadian, Aspects of, 196

— Instruments, Air-Cooled Selenium Rectifier for Ground Testing of (General Electric Co., Ltd.), 246*

— Interceptor, "Super-Mystere" (Avions Marcel Dassault), 11*

— Inverters in, Equipment for Testing (A. Lyon & Co. (Engineers), Ltd.), 396*

— Jane's All the World's, 1955-56 (Review), 882

— Jet and Propeller-Turbine, Long Range, Relative Merits of, 366

— Trainer, "Student," Construction of (F. G. Miles, Ltd.), 900

— Transport, "Boeing 707," Prototype, 787*

— Lightweight, Highly Efficient, Problem of, 748

— Man-Powered, Possibilities of, 748

— Military and Civil, British, Ministry of Supply Review of, 737

— Transport, "V.1000," Development of, 737

— Models from Glass Cloth and Phenolic Resins (Avro Aircraft, Ltd.), 853*

— Noise, Government Debate on, 839

Aeronautics—continued

— Power Plant (Book), 267

— Pressure Cabins, Fatigue of, 73

— Propeller-Turbine, Effect of Use of Nimonic Alloys on Life of Flame Tubes of, 328

— Turbine and Jet, Long Range, Relative Merits of, 366

— Turbine, Operation of, by P. G. Masefield, 6

— Turbine, Recent Progress in Development of, 366

— "Proteus-Ambassador," Icing Tests on, Use of Television for Examination of (Bristol Aeroplane Co., Ltd.), 319*

— Prototypes of, Costs, Questions in House of Commons on, 903

— Reconnaissance, Long - Range, "Shackleton" (A. V. Roc & Co., Ltd.), 438

— Research, Delta-Wing, Supersonic, "FD2" (Fairey Aviation Co., Ltd.), 437*

— Sealed Relays for Use in (Measuring Instruments (Pullin), Ltd.), 452

— Search, Supersonic, Rocket-Powered, for Thermal-Barrier Speeds, "X-2" (Bell Aircraft Corporation), 253*

— Supersonic, "Convair F.102A," with Wasp Waist for Lower Drag, 435*

— Experimental, Delta-Wing, "Gerafaut" (Société Nationale de Constructions Aéronautiques du Nord), 10

— Power Plants for, 125

— Trainer, Jet, "Lockheed T2V-1," 788*

— Transport, Long-Range, Turbo-Prop, Collaboration of Bristol Aeroplane Co., Ltd., and General Dynamics Corporation in Production of, 715

— Vertical Take-Off, "Flying Bedstead" (Rolls-Royce, Ltd.), 71*

— Very Lightweight, Highly Efficient, Problem of, 748

Airport Heating and Snow Melting (Trade Publication), 786

— Karachi, Improvement of Engineering Facilities at, 407

— London, Monorail Railway from, Questions in House of Commons on, 743

— Runways, Investigation on Economic Construction of, 500

Airspeed Sensing Unit with Audible Indication (Kelvin & Hughes, Ltd.), 250*

American National Advisory Committee for Aeronautics, Investigations on Transonic Drag Rise in Supersonic Aircraft, 435*

"Area Rule" in Aircraft Construction, Operation of, Questions in House of Commons on, 678; "Area Rule" Principle for Minimising Drag at Transonic Speeds, 812

Aslib Aeronautical Group Classification Conference (Book), 237

"Austria" Sailplane, 126

Aviation English, by S. Humbert (Review), 298

"Boeing 707" Prototype Jet Transport Aircraft, 787*

Brake, Pad, Runway (Dowty Equipment, Ltd.), 834*

— Runway (Dowty Equipment), Ltd., 473

— for Helicopters (Palmer Tyre, Ltd.), 473

"Britannia" Airliner (Bristol Aeroplane Co., Ltd.), 394

British Aircraft Constructors, Society of, Aircraft Display at Farnborough, 291, 356*, 363, 394*, 436*, 471*. See LETTER, 405

British European Airways, Air Traffic Statistics, 130; Annual Report, 291

British Independent Air Transport Association, Annual Report, 779

British Overseas Airways Corporation, Air Traffic Statistics, 130

Cabins, Pressure, Fatigue of, 73

Canadian Aircraft Industry, Aspects of, 196

"Canberra Mark 9" Jet Bomber Aircraft (English Electric Co., Ltd.), 438

"CF100" All-Weather Fighter Aircraft (Avro Aircraft, Ltd.), 437*

Coleopter Aircraft, Vertical Take-Off, Models of (Bureau Technique Zborowski), 12

College of Aeronautical and Automobile Engineering, Foundation of two Wakefield Scholarships by C. C. Wakefield & Co., Ltd., 685

Collins Aero Diary (Book), 881

"Comet 4" Civil Airliner, Progress of, 737

"Comet" Civil Jet Aircraft, Progress of (de Havilland Aircraft Co., Ltd.), 394

Computer for Processing In-Flight Data, 864

"Convair F.102A" Fighter Aircraft, 435*, 788*

"Conway" By-Pass Jet Aeroplane Engine (Rolls-Royce, Ltd.), 356*

"Coupled Turbo" Gas Turbine Drive for Helicopters (Blackburn & General Aircraft, Ltd.), 357

Cranfield College of Aeronautics, Reports of (Books), 529, 690

Aeronautics—continued

- "Dart" Propeller-Turbine Engine, Transport Stand for, 896*
- "Douglas DC8" Jet Airliner, Projected, 787*
- Drag Minimising at Transonic Speeds, "Area Rule" Principle for, 812. See 678
- Transonic, Wasp-Waisted Fuselage for Reduction of, 435*
- Drive, Constant-Speed, Sundstrand (English Electric Co., Ltd.), 473
- Ejection Seats (Trade Publication), 529
- "Eland" Propeller Turbine Aeroplane Engine for Elizabethan Aircraft (D. Napier & Son, Ltd.), 357. See LETTER, 405
- "Electra" Airliner, Progress of (Lockheed Aircraft Corporation), 683
- Engine, Aeroplane, Gas-Turbine, for Civil Aircraft, Development and Future of, 390*
- Gas-Turbine, "Coupled Turmo," for Helicopters (Blackburn & General Aircraft, Ltd.), 357*
- Gas-Turbine, Effect on Civil Transport Aircraft of, 691*
- Gas-Turbine, Gauge for Checking Throat Area of Diffuser Rings of, 869*
- Gas-Turbine and Jet Propulsion (Book), 450
- Gas-Turbine, Low-Consumption, 125
- Gas Turbine, "Oryx," for Helicopters (D. Napier & Son, Ltd.), 357
- Gas-Turbine, Ram-Jet, Tests on, 540*
- Gas-Turbine "Rotodyne Eland" for Helicopters (D. Napier & Son, Ltd.), 357
- Gas-Turbine, Single-Shaft, "Oryx" (D. Napier & Son, Ltd.), 179*
- Jet, Assembly Plant of General Electric Co. at Evendale, Cincinnati, 884*
- Jet, By-Pass, "Conway" (Rolls-Royce Ltd.), 356*
- Jet, Combined Silencer and Thrust Reverser for (Boeing Airplane Co.), 900
- Jet, Export of, Hawker Siddeley Group Statement on, 3
- Jet, "Gyron" (de Havilland Engine Co., Ltd.), 356* See 470*
- Jet, "Orpheus" (Bristol Aeroplane Co., Ltd.), 356*
- Manufacture in United States of, 884*
- Propeller-Turbine, "BE25," Tests on (Bristol Aeroplane Co., Ltd.), 899*
- Propeller-Turbine, Bristol Aeroplane Co., Ltd., Test House for, 314*
- Propeller-Turbine, "Dart," Development of (Rolls-Royce Ltd.), 390*
- Propeller-Turbine, "Dart," Transport Stand for, 896*
- Propeller Turbine, "Eland," for Elizabethan Aircraft (D. Napier & Son, Ltd.), 357. See LETTER, 405
- Propeller-Turbine "RB.109," Development of (Rolls-Royce Ltd.), 390*
- Propeller-Turbine, "Tyne" (Rolls-Royce Ltd.), 672*
- Test Chamber for High-Altitude Testing of (Pratt & Whitney Aircraft), 822*
- Turbo-Compound, Improved Assembly Line at Curtiss-Wright Corporation, 884*
- Turbojet, "Atar," with Thrust Reverser (Société Nationale d'Etudes et de Constructions des Moteurs d'Aéronautiques), 12*
- Turbojet, "Gyron," Test Bed for (de Havilland Engine Co., Ltd.), 470*. See 356*
- Turbojet, "Orpheus," United States Grant for Development of, 221
- Turbojet, Turbomeca "Gabizo," 13*
- Turbojet, "Verdon" (Société d'Exploitation des Matériaux Hispano Suiza), 12*
- See also *Turbines, Gas*
- Farnborough Air Show, 291, 356*, 363, 394*, 436*, 471*. See LETTER, 405
- Fatigue in Aircraft, Design Philosophy of, 773
- "FD2" Supersonic Delta-Wing Research Aircraft (Fairey Aviation Co., Ltd.), 437*
- Flaw Detector, Ultrasonic, "Aerosonic," for Inspection of Metal-to-Metal Bonding (Société Nationale de Constructions Aéronautiques du Sud-Ouest), 12*
- Flight Control System (Boulton Paul Aircraft, Ltd.), 472
- System, Integrated (Elliott Brothers (London), Ltd., and H.M. Hobson, Ltd.), 389*
- System "Smiths Flight System" (Smiths Aircraft Instruments, Ltd.), 472
- Loads in Aircraft Design, Consideration of, 772
- Simulator, Helicopter (Bell Aircraft Corporation), 789*
- Freight Transatlantic Air Service, Discontinuation by Airwork, Ltd., 875
- French Aircraft Developments, Paris Air Show, 10*. See also vol. 179
- "Gabizo," Turbomeca, Turbojet Aeroplane Engine, 13*
- Gliding, Sailplanes designed for Soaring, by A. E. Slater, 126
- "Gnat" Lightweight Fighter Aircraft (Folland Aircraft, Ltd.), 436*
- "Gyron" Jet Aeroplane Engine (de Havilland Engine Co., Ltd.), 356*

Aeronautics—continued

- "Gyron" Jet Aeroplane Engine, Test Bed for (de Havilland Engine Co., Ltd.), 470*
- Hangar, Aircraft, with Reinforced-Concrete Shutterwork Roof, at Orvieto, Italy, 602*
- Flight Test, at Seattle Works of Boeing Airplane Co., 819*
- Heater, Infra-Red, Quartz, for Simulation of Heating Conditions at High Speeds (Philips Electrical, Ltd.), 72
- Helicopter Association of Great Britain, Design, Development, Production and Servicing of Helicopter Rotor Blades, by R. A. Price and F. C. Stulen, 389
- "Coupled Turmo" Gas Turbine Drive for (Blackburn & General Aircraft, Ltd.), 357*
- Development, Expenditure on, Questions in House of Commons on, 839
- Flight-Control System for (Sperry Gyroscope Co.), 709
- Simulator (Bell Aircraft Corporation), 789*
- "Jet Gyrodyne" (Fairey Aviation Co., Ltd.), 396*
- Landing Stations, Prefabricated (Standard Heliports, Inc., and Dravo Corporation), 569
- Large, Design of, 72
- "Oryx" and "Rotodyne Eland" Gas Turbine Drives for (D. Napier & Son, Ltd.), 357
- Recent Progress in Development of, 366
- Research, Construction by Hunting Percival Aircraft, Ltd., Statement by Minister of Supply on, 678
- Rotor Blades, Design, Development, Production and Servicing of, 389
- Runway Brake for (Palmer Tyre, Ltd.), 473
- Service to London Airport from Waterloo, Questions in House of Commons on, 743
- Television Transmission from (Bristol Aeroplane Co., Ltd., and Pye, Ltd.), 324
- Turbine-Powered, "Westminster," Proposed (Westland Aircraft, Ltd.), 350
- "Ultra-Light" (Fairey Aviation Co., Ltd.), 395*
- "Widgeon" (Westland Aircraft, Ltd.), 395
- "Herald" Civil Aircraft for Branch Service (Handley Page, Ltd.), 394*
- "Herald" Civil-Transport Aircraft (Handley Page, Ltd.), 40
- High Altitudes, Cosmic Ray Effects on Matter at, 237
- "HKS-1" Sailplane, 126
- "Hunter" Jet Fighter Aircraft (Hawker Aircraft, Ltd.), 436*
- Icing Research Tunnel (Lockheed Aircraft Corporation), 820*
- Tests on "Proteus-Ambassador" Aircraft, Use of Television for Examination of (Bristol Aeroplane Co., Ltd.), 319*
- Instruments, Aircraft (Sperry Gyroscope Co., Ltd.), 529
- "Javelin" Fighter Aircraft, Flight Refuelling System for (Flight Refuelling, Ltd.), 670*
- Jet Flap for Vertical Take-Off, Principles of, 722*
- Wind-Tunnel Model Tests of (National Gas Turbine Establishment), 471*
- "Jet Gyrodyne" Helicopter (Fairey Aviation Co., Ltd.), 396*
- Noise, Methods of Reduction of, 125
- Propulsion and High-Speed Aerodynamics, Vol. I: Thermodynamics and Physics of Matter, by F. D. Rossini (Review), 882
- Karachi Airport, Improvement of Engineering Facilities at, 407
- Kinetic Heating Effects in Aircraft, Ministry of Supply Exhibit at Farnborough Air Show, 471*
- Landing, Airspeed Sensing Unit with Audible Indication (Kelvin & Hughes, Ltd.), 250*
- Stations, Helicopter, Prefabricated (Standard Heliports, Inc., and Dravo Corporation), 569
- "Lockheed T2V-1" Jet Trainer Aircraft, 788*
- Low Speed Aerodynamic Research Association, Problem of the Very Lightweight Highly Efficient Aeroplane, by B. S. Sheenstone, 748
- Missile, Guided, "Terrier" (General Dynamics Corporation), 734*
- "Mystere II" Aircraft, "Atar" Turbojet Engine with Thrust Reverser for, 12*
- "Mystere IVA" Aircraft, "Verdon" Turbojet Engine for, 12*
- National Advisory Committee for Aeronautics (U.S.), Developments of "Area Rule" Principle for Minimising Drag at Transonic Speeds, 812. See 678
- Aeronautical Establishment, Change of Name to Royal Aircraft Establishment, Bedford, 727
- Gas Turbine Establishment. See *National Gas Turbine Establishment*
- Navigation, Direction-Finder (Marconi's Wireless Telegraph Co., Ltd.), 472
- Radio Compass, Lightweight (Canadian Marconi Co.), 472
- System, Tactical, "Tacan," Development for Ministry of Supply (Standard Telephones and Cables, Ltd.), 284*
- "Olympia IV" Sailplane, 126
- "Orpheus" Jet Aeroplane Engine (Bristol Aeroplane Co., Ltd.), 356*
- "Orpheus" Jet Aeroplane Engine, United States Grant for Development of, 221

Aeronautics—continued

- "Oryx" Gas Turbine Drive for Helicopters (D. Napier & Son, Ltd.), 357
- "Oryx" Single-Shaft Turbo-Gas-Generator (D. Napier & Son, Ltd.), 179*
- "P.1" Jet Supersonic Interceptor Aircraft (English Electric Co., Ltd.), 436*
- Programmed Radar Simulator for Training Observers (Solartron Electronic Group, Ltd.), 126
- Propellers of "Elizabethan" Air Liner, Increased Life Between Overhauls, 847
- Manufacture in United States of, 884*
- Test Cells (United Aircraft Corporation), 823*
- "Proteus-Ambassador" Aircraft, Icing Tests on, Use of Television for Examination of (Bristol Aeroplane Co., Ltd.), 319*
- Radar Equipment for Aviation (Trade Publication), 529
- Simulators, Programmed and Tactical, for Training Observers (Solartron Electronic Group, Ltd.), 126
- Ram-Jet Testing, Supersonic, High-Altitude Test Chamber for (Curtiss-Wright Corporation), 821*
- Refuelling in Flight, Trials with "Javelin" Fighter Aircraft, 670*
- Rescue Saw, High-Speed, Portable Generating Set for (A. C. Morrison (Engineers), Ltd.), 246
- Research and Development in Aeronautics, Questions in House of Commons on, 807
- Rocket Flight, Influence on Engineering and Science of, 371*
- High-Altitude, Research Project, Progress of, Questions in House of Commons on, 839
- Altitude, United Kingdom Plans for Research on, 223
- Optimum Launching into an Orbit About the Earth, 236
- Thrust, Static Test Stand for Determination of (North American Aviation Co.), 821*
- "Viking," for Reaching Upper Atmosphere, 225. See LETTER, 294
- "Rotodyne Eland" Gas-Turbine Drive for Helicopters (D. Napier & Son, Ltd.), 357
- Royal Aircraft Establishment, Open Days to Commemorate Jubilee of, 71*
- Quartz Tubular Infra-Red Heater for Simulating Kinetic Heating Effects (Philips Electrical, Ltd.), 471*
- Research on "Area Rule" Principle for Minimising Drag at Transonic Speeds, 813
- Establishment, Bedford, Change of Name from National Aeronautical Establishment, 727
- Runways, Transverse Distribution of Air Traffic on, Investigations on, 500
- of Varying Thickness, Design of, 500
- Safety Factors in Aircraft Design, 772
- Sailplanes Designed for Soaring, by A. E. Slater, 126
- "Shackleton" Long-Range Reconnaissance Aircraft (A. V. Roe & Co., Ltd.), 438
- Silencer and Thrust-Reverser, Combined, for Jet Engines (Boeing Airplane Co.), 900
- "Sky" Sailplane, 126
- "Skylark" Sailplane, 126
- Space Flight, Influence on Engineering and Science of, 371*
- Physiology of, 237
- Stampings, Aircraft, in Hyduminium (Trade Publication), 786
- Starters, Turbo, Iso-Propyl-Nitrate (British Thomson-Houston Co., Ltd.), 473*
- "Stratofortress," Boeing B.52 Bomber Aircraft, 788*
- Structural Strength Testing of Aircraft, 773
- "Student" Jet Trainer Aircraft, Construction of (F. G. Miles, Ltd.), 900
- "Super Sabre F.100C" Fighter Aircraft, 787*
- "Swift Mark 5" Fighter Aircraft (Vickers-Armstrongs Ltd.), 437*
- Tactical Radar Simulator for Training Observers (Solartron Electronic Group, Ltd.), 126
- Take-Off, Principles of Jet Flap for, 722*
- "Terrier" Guided Missile (General Dynamics Corporation), 734*
- Test Bed for Jet Aeroplane Engine of De Havilland Engine Co., Ltd., 470*
- Bench for Aircraft Generators (A. Lyon & Co. (Engineers) Ltd.), 257*
- Chamber, Engine, for High Altitudes (Pratt & Whitney Aircraft), 822*
- Supersonic, High-Altitude, for Ram-Jet Testing (Curtiss-Wright Corporation), 821*
- House for Testing Propeller-Turbine Aeroplane Engines, Bristol Aeroplane Co., Ltd., 314*
- Model, Wind-Tunnel, of Jet Flap in Aircraft, 471*
- Rig, Structural, Static, for Strength of Naval Flying Boats (General Dynamics Corporation), 821*
- Stand, Static, for Determining Rocket Thrust (North American Aviation Co.), 821*
- Thermal, Sailplanes for Gliding in, 126
- Thrust-Reverser for "Atar" Turbojet Aeroplane Engine (Société Nationale d'Etudes et de Constructions des Moteurs d'Aéronautiques), 12*
- Reverser and Silencer, Combined, for Jet Engines (Boeing Airplane Co.), 900
- "Twin Pioneer" Civil Transport Aircraft with High-Lift Device (Scottish Aviation, Ltd.), 394*
- "Tyne" Propeller-Turbine Aeroplane Engine (Rolls-Royce Ltd.), 672*

Aeronautics—continued

- "Ultra-Light" Helicopter (Fairey Aviation Co., Ltd.), 395*
- United States Aircraft Industry, Aspects of, 196, 787*, 819*, 851*, 884*
- "V.1000" Military Transport Aircraft, Development of, 737
- "Valiant" Jet Bomber Aircraft (Vickers-Armstrongs Ltd.), 438
- "Vanguard" Propeller-Turbine Aircraft for British European Airways (Vickers-Armstrongs, Ltd.), 555
- "Verdon" Turbojet Aeroplane Engine (Société d'Exploitation des Matériaux Hispano Suiza),
- "Westminster" Turbine-Powered Helicopter, Proposed (Westland Aircraft, Ltd.), 324
- "Widgeon" Helicopter (Westland Aircraft, Ltd.), 395
- Wind-Tunnel Control Desk for Ministry of Works (Costain-John Brown Instrumentation Division), 728*
- Supersonic, Continuous, 10,000-h.p., Mach-Number Range 0.3-3.0 (Sir W. G. Armstrong Whitworth Aircraft, Ltd.), 25*. See LETTER, 167. See also vol. 179
- Supersonic, Research on, 208
- Transonic, 8 ft. by 12 ft. (Boeing Airplane Co.), 820
- "X-2" Supersonic Rocket-Powered Search Aircraft for Thermal-Barrier Speeds (Bell Aircraft Corporation), 253*
- "Aerosonic" Ultrasonic Flaw Detector for Inspection of Metal-to-Metal Bonding (Société Nationale de Constructions Aéronautiques du Sud-Ouest), 12*
- Africa, Portuguese East (Mozambique), Economic Survey of (Book), 529
- Africans and Europeans, Inter-Employment in Rhodesia, 224
- Agecroft "B" Power Station, Extensions to, 158
- Aggregate, Lightweight, for Concrete, Use of Fly Ash for Manufacture of, 219
- "Agidip" Cleaning Tank for Metals, Using Two-Phase Solutions (Electro-Chemical Engineering Co., Ltd.), 548
- Agreements, Labour. See *Labour*
- Agricultural Engineers, Possibilities of Exemption from National Service of, Questions in House of Commons on, 775
- Engineering, Report of Rural Industries Bureau, 747
- Industry, Accident-Proneness of Elderly Workers in, 744
- Machinery, (Trade Publication), 202
- Attitude of Farmer to, by J. J. Coady, 812
- Collective Use Increases Productivity, 40
- Exhibition and Smithfield Show, Exhibits at, 778, 832*
- and Old Crafts, Exhibition at Museum of English Rural Life, 876*
- Motors. See *Engines; Motors; Tractors*
- Tractors. See *Tractors*
- Society of England, Royal, Rules for Recommendations for Awards, 645
- Agriculture, Capital for, 555
- Electrical Equipment for (Trade Publication), 529
- See also *Irrigation*
- "Ahlmann" Swing-Shovel, Trenching Equipment for (Abelson & Co. (Engineers), Ltd.), 168
- Ailsa Shipbuilding Co., Ltd., Vehicle and Passenger-Carrying Motor Vessel for British Railways for Service on Clyde, 323
- Air Cleaner, Electrostatic (Trade Publication), 107
- Compressed, Equipment, Increase in Output by Swedish Atlas Diesel Organisation, 810
- Compressor, 9,000-h.p., Axial-Flow, Electrically-Driven, at National Gas Turbine Establishment, 504*
- Blade Tip Clearance in, Instrument for Continuous Measurement of, Research on, 541
- 4,000-h.p., Centrifugal, Four-Stage, Uncooled, at National Gas Turbine Establishment, 505
- 4,000-h.p., Centrifugal, at National Gas Turbine Establishment, 505
- Diaphragm and Rotary, High-Pressure (Trade Publication), 594
- Electronic r.p.m. Calibrator for (Bristol Aeroplane Co., Ltd.), 315
- Four-Stage, Axial-Flow, for "Oryx" Gas-Turbine Aeroplane Engine, 180*
- "LE4" 120-b.h.p. and "LE6" 180-b.h.p. Diesel Engines for (J. and H. McLaren, Ltd.), 248*
- Mobile (Trade Publication), 881
- "Monobloc," Reciprocating, Air-Cooled, 1 to 10 h.p. (Worthington-Simpson, Ltd.), 309*
- Piston Supercharger for Diesel Engines (Wellworthy, Ltd. and Ricardo & Co. Engineers (1927), Ltd.), 424*
- Portable, "Komag," for Airline Equipment (L. Edwards & Co.), 63*
- Positive Displacement Rotary Blower (Trade Publication), 690
- Reciprocating and Rotary (Reavell & Co., Ltd.), 310
- Refrigeration, 16-Cylinder (York Shipley, Ltd.), 427*
- Rotary, High-Speed, Positive-Displacement, Lobe-Type (J. Howden & Co., Ltd.), 351*
- Rotary, Portable (Broom & Wade, Ltd.), 464
- 600-h.p., Rotary-Screw, Motor-Driven, at National Gas Turbine Establishment, 505
- Rotary, and Vacuum Pumps (Trade Publication), 9
- Three-Crank, Two-Stage (Alley and Maclellan (Polmadie), Ltd.), 423*
- and Vacuum Pumps (Trade Publication), 594
- Conditioning, History of, 207

- Air Conditioning, Plant for Instrument Testing Building (Smeaton & Sons, Ltd.), 868
- and Refrigeration System for "Lincoln" Motor Car, 642*
- Set, "Yorkmatic" (York Shipley, Ltd.), 426
- Filter, Electric, "Electromaze" (Air-Maze, Ltd.), 398*
- Self-Cleaning, Automatic, "Automaze" (Air-Maze, Ltd.), 398*
- Gauging Machine for Turbine Blade Inspection (Sheffield Corporation), 885*
- Heaters for Drakelow Power Station (J. Howden & Co. (Land), Ltd.), 663
- Air-Maze, Ltd., "Electromaze" Electric Air Filter, 398*; "Automaze" Automatic Self-Cleaning Air Filter, 398*
- Pollution, Clean Air Bill, Discussion in House of Commons of, 678
- by Exhaust Gases from Motor Vehicles, Questions in House of Commons on, 775
- Government Clean Air Bill, 168. See 163
- by Power Stations, 447
- Problems and Control of (Book), 881
- See also *Smoke Abatement*
- Registration Board, Annual Report, 110; Increase for Overhaul Life of "Elizabethan" Propellers, 847
- Screws. See *Propellers under Aeronautics*
- Traffic Statistics, 130
- Aircraft. See *Aeronautics*
- Aire and Calder Navigation, Development Plans for, 31
- "Airhydropump Junior" Air-Driven Hydraulic Pump (C. S. Madan & Co., Ltd.), 548*
- Airscrew Co. and Jicwood, Ltd., Chipboard Factory at Annan, Dumfriesshire, 476*
- Airwork, Ltd., Discontinuation of All-Freight Transatlantic Air Service, 875
- Aitken, A., the Late, 294
- Ajax Engineering Corporation, Coreless Induction Furnaces for Melting Scrap, 771*
- "Akulon" Nylon Rod (Trade Publication), 690
- "Alacoil" System for Steam Heating in Oil Tankers, Aluminium-Alloy Pipes for (Steels Engineering Installations, Ltd.), 151
- "Albion" 5-ft. Combine Harvester (D. Brown Tractors (Engineering), Ltd.), 29
- Albright and Wilson, Ltd., Chemical Process for "Kanigen" Nickel Plating (Trade Publication), 529
- Alcohol Content of Wine, Tester for (H. J. Elliott, Ltd.), 117
- "Alcon" Diaphragm Pump for Sludge (A. Lyon & Co. (Engineers), Ltd.), 576*
- "Alcon" 4-in. Diesel-Driven Centrifugal Pump (A. Lyon & Co. (Engineers), Ltd.), 251*
- Alder, Dr. J. F., on Effect of Strain Rate and Temperature on Resistance of Aluminium, Copper and Steel to Compression, 536
- Alfa-Laval Co., Ltd., Self-Opening Oil Separator, 309
- "Alfa Giulietta" Motor Car, Suspension System for, 610*
- Allchin, E. F., & Co., "Kukko" Pullers for Removal of Wheels and Bearings, 88
- Allen, E., & Co., Ltd., Annual Report, 130, 227
- Allen, Sir R. W., the Late, 103*
- Allen, W. H., Sons & Co., Ltd., 350-kW Gas-Turbine Driven Direct-Current Generator for Marine Stand-By Duty, 276*; Vertical Motor-Driven Mixed-Flow Sewage Pump, 276*; 550-kW Bled-Steam Mixed-Pressure Marine Geared Turbo-Alternator, 397*; 1,000-kW Prototype Marine Gas Turbine, 538*; on Free-Piston Gas Generator, 813. See 733*
- Alley and Maclellan (Polmadie), Ltd., Three-Crank Two-Stage Air Compressor, 423*
- Allgemeine Elektrizitäts-Gesellschaft, Electrical Equipment for 247,000 tons per day capacity Bucket-Wheel Excavator and Loader, 605
- Allis-Chalmers Great Britain, Ltd., "Tracto-Shovel" Excavator (Mackay Industrial Equipment, Ltd.), 30*; "Silco-flex" Silicone-Based Insulating Material, 127
- "Allison" Suspension System for "Packard" Motor Cars, 610*
- "Allo" Security Switch for Machinery (Brace Products), 733
- Allowances in Machine Work. See *Gauges*
- Alloys. See *Metallurgy; Microphotographs*
- All-na-Lairige Prestressed Gravity Dam, Model of, 52
- Allweather Paints, Ltd., "Pitan" Chlorinated-Rubber Paint and "Galvalroid" Zinc-Dust Primer Paint (Trade Publication), 137
- Alternating Stress. See *Fatigue under Tests (Materials)*
- Alternators. See *Generators, Electric; Turbo-Generators*
- Altona, Australia, Oil Refinery at, Completion of (Braun Transworld Corporation), 45
- Aluminium Alloys. See *Alloys under Metallurgy*
- and its Alloys, Spot Welding of (Book), 408
- Effect of Water Shortage on Supplies of, 778
- as an Engineering Material, Hundred Years of (Book), 237
- Expanded (Trade Publication), 137
- Extrusion Plant, New, for British Aluminium Co., Ltd. (Sir A. McAlpine & Son, Ltd.), 799*
- Foil for Roofing (Trade Publication), 529
- Grain Storage Silo (F. Braby & Co. Ltd.), 438
- in Motor Transport Vehicles (Trade Publication), 594
- Pre-Strained, Creep of, 536
- Resistance to Compression of, Effect of Strain Rate and Temperature on, 536
- River Tanker, Design for, 684
- Roof Coverings and Flashings, "Noral" (Trade Publication), 721
- in Structural Engineering (Book), 786
- Aluminium Union, Ltd., Use of Aluminium in Road Transport Vehicles (Trade Publication), 594; Aluminium Conductors for Overhead Systems of Electric Railways (Trade Publication), 721; Aluminium Bus-bars (Trade Publication), 755; Magnesium Anodes for Corrosion Protection of Underground Structures, 850
- Aluminium Wire and Cable Co., Ltd., Steel-Cored Aluminium Conductors for Keadby-Monk Fryston Line of 275-kV National Grid, 54. See *Erratum*, 252
- See also *Metallurgy*
- "Alundum" Abrasive for Grinding Wheels, 607
- America. See *North America; United States*
- American Federation of Labour, Merger with Congress of Industrial Organisations, 840
- National Advisory Committee for Aeronautics, Investigations on Transonic Drag Rise in Supersonic Aircraft, 435*
- Navy. See *United States under Warships*
- American Rolling Mills Corp., Agreement with Taylor Brothers & Co., Ltd., to Receive Technical Assistance on Forge Plant, 362
- Society of Mechanical Engineers. See *Mechanical Engineers*
- for Testing Materials, Standards in Building Codes (Book), 369
- See also *United States*
- Ames Crosta Mills & Co., Ltd., Small Aeration Plants for Sewage Works (Trade Publication), 41
- Amplifier, Spectrometer, for Photo-Voltaic and Photo-Conductive Cells (Mervyn Instruments) 115*
- Amsterdam, Hemweg Power Station, 503
- "Analmatic" Automatic Laboratory (Baird and Tatlock (London), Ltd.), 117; "Analmatic" Automatic Laboratory for Analysis of Uranium Liquors (Baird and Tatlock (London), Ltd.), 433*
- Analyser, Exhaust-Gas, for Determining Fuel-Air Weight Ratio and Combustion Loss in Gas Turbines, 541
- Analysis, Chemical, "Analmatic" Automatic Laboratory for Uranium Liquors (Baird and Tatlock (London), Ltd.), 433*. See 117
- Use of Polarograph for, 795
- Andrews, Dr. H. I., on Calculation of Heat Losses of Locomotive Boilers, 209*
- Anemometer, Ionisation, for Low-Speed Air Currents (Isotope Developments, Ltd.), 434*
- Angle, Slotted, Material for Construction of Racks, Benches, etc., "Supaslot Major" (Slotted Angle Co. (G.B.), Ltd.), 254
- Anglo-American Conference on Aeronautics. See *Aeronautics, Anglo-American Conference under Aeronautics*
- Japanese Sterling Payments Agreement, Effect on Engineering Industry, 586
- Angula Engineering Co., Drawing Board with Parallel Motion, 91
- Annan, Dumfriesshire, Chipboard Factory at (Airscrew Co. and Jicwood, Ltd.), 476*
- Annealing. See *Heat Treatment under Metallurgy*
- Anniversary, One Hundred and Fiftieth, of Escher Wyss, Ltd., 36
- Appleby-Frodingham Steel Co., Ltd., Extensions to Scunthorpe Works of, 402, 408; Record Output of Pig Iron, 549; Developments in Ironmaking at, 630; Development of Chemical Treatment of Low-Grade Iron Ores at, 729
- Applied Atomic*, New Weekly Report (Comtel Reuter), 605
- Research Laboratories, Production-Control Quantometer at Rotherham Works of Steel, Peech and Tozer, Ltd., 28
- Apprenticeship. See *Education; Labour*
- Arbitration in Labour Disputes. See *Labour*
- Arc. See *Furnace; Welding*
- Archer, S., on Torsional Vibration in Marine Propellers, 132, 325. See *LETTERS*, 69, 230. See also vol. 179
- Architects, Naval. See *Naval Architects*
- Architectural Design and Building in Poland, 879*
- Arcoletric (Switches), Ltd., Switches and Signal Lamps (Trade Publication), 107
- Ardern, L. L., on Library of Manchester College of Technology, 751. See 586
- "Argonaut" Welding Equipment, Type 21E (British Oxygen Co., Ltd.), 462*
- "Arkon" Gas-Flow Recorder (Walker Crosswell & Co., Ltd.), 733
- "Armourvin" Fuel Hose (Trade Publication), 690
- Armstrong Siddeley Motors, Ltd., Exhibits at Farnborough Air Show, 357; 33-h.p. Air-Cooled Three-Cylinder Diesel Engine, 832*
- Armstrong Whitworth, Sir W. G., Aircraft, Ltd., Continuous Supersonic 10,000-h.p., Mach-Number Range 0.3-3.0 Wind Tunnel, 25*. See also vol. 179. See *LETTER*, 167; Redundancy at Works of, 128
- Armstrong Whitworth (Metal Industries), Ltd., Mill Rolls (Trade Publication), 41
- Army, British, Traditional Role in Nuclear Warfare, 442
- A.R.O. Machinery Co., Ltd., Pneumatic Gun for Spot Welding, 466*
- Arterial Roads. See *Roads*
- Arts, Royal Society of: Role of Research Manager in Industry, by Dr. B. K. Blount, 776
- Asbestos Insulating Materials (Trade Publication), 137
- Lapping, Production of (Cape Asbestos Co., Ltd.), 708*
- Ash, Fly, Possible Use of, 447, 683
- Use for Manufacture of Lightweight Aggregate for Concrete, 219
- Handling Plant for Bold "A" Power Station (B.V.C. Industrial Constructions, Ltd.), 514
- Plant for Drakelow Power Station (International Combustion, Ltd.), 666
- Ash, Pulverised Fuel, from Power Stations, Possible Uses of, 683. See 447
- Ashok-Leyland, Ltd., New Company in India, Formation of, by Leyland Motors, Ltd., 67
- Asia, Development of, Competition between East and West in, 746
- South East, Timbers of (Book), 202
- Aslib: Engineering Group, Translation of Electrical Engineering Terms, *Electrical Translators' Bulletin*, 191; Aeronautical Group Classification Conference (Book), 237; Should a New Public Technical Library Service be Based on the Technical Colleges? by Dr. D. J. Urquhart, 586. See *LETTERS*, 751, 783
- Asphalt Roads Association, Recommendations on Asphalt Surfaces and Concrete Bases for Roads, 179
- Associated Broadcasting Co., Television Transmitting Station of, 404*
- Offices Technical Committee, Inspection of Welds in Pressure Pipelines (Trade Publication), 330
- Associated Portland Cement Manufacturers, Ltd., Lorry Tipper with Aluminium-Alloy Body, 95
- Associated-Rediffusion, Ltd., Television Transmitting Station of, 404*
- Association, British. See *British Engineering. See Institutions*
- Astronautics, Sixth International Congress on: The Satteloid, by K. A. Ehrlicke, 236; Optimum Launching of a Rocket into an Orbit About the Earth, by D. Lawden, 236; Artificial Satellite-Orbit Synchronising System, by Dr. A. Boni, 236; Temperature Problems in Astronautics, by L. Hansen, 236; Visibility of an Earth Satellite, by R. Tousey, 236; Turbulence Above the Ozone Layer, by Dr. A. E. Slater, 236; Some Considerations in Regard to Physiology of Space Flight, by F. A. Hitchcock, 237
- Astronomer Royal, Annual Report of, 858
- Astronomy, Radio, Offer by Mullard, Ltd., to Cambridge University for Research on, 223; Cosmic Ray Effects on Matter at High Altitudes, by Prof. S. F. Singer, 237
- Aswan Dam, Contract Secured by Sir A. Gibb & Partners, 619
- "Atar" Turbojet Aeroplane Engine with Thrust Reverser (Société Nationale d'Etudes et de Constructions des Moteurs d'Aéronautiques), 12*
- Atlantic Liners. See *Ships; Steamers; Motor-ships*
- Atlantic Shipbuilding Co., Ltd., M.V. "Lachinedoc" with Hydroconic Construction and Diesel-Electric Cargo Cranes, 898*
- Atlas Copco (Swedish Atlas Diesel Organisation), Increase in Output of, 810
- Atmospheric Pollution. See *Air Pollution and Smoke Abatement*
- Atoms for Peace Exhibition, 1957, Geneva, Proposal for, 816
- Atomic Energy Authority, United Kingdom, Need for Engineers for Implementing Atomic Energy Programme, 7; Price Reductions for Iodine 131 and Colloidal Gold 198, 318; Announcement of Availability of Uranium Supplies, 259; Annual Report, 651, 652*; Functions of, 804*
- Commission, United States, "Swimming Pool" Nuclear Reactor, 299*; Research on Power from Nuclear Fusion, 599
- European Society for, Establishment of, 3
- and Future of Mining Industry, 618
- International Agency for, Establishment of, 3
- Atomic Energy, Peaceful Uses of, Conference on, Geneva:**
- Arrangements for, 98. See 161
- Glossary of Atomic Energy Terms, 255. See 227
- Statement in House of Commons on United Kingdom Contribution to, 646
- Report of Demand for Report on, 678
- Proceedings:*
- Reports of Proceedings, 198, 228, 232, 233*, 234, 235, 264, 265*, 280*, 282*, 292, 419*, 646, 678
- Nuclear Power in Canada: Forecast of Development and Costs, by J. Davis and W. B. Lewis, 198
- First Atomic Power Station of the U.S.S.R. and Prospects of Atomic Power Development, by D. I. Blokhintsev and N. A. Nikolayev, 228, 233*
- Design and Operating Experience of a Prototype Boiling Water Power Reactor, by Dr. W. H. Zinn, 228
- Economics of Nuclear Power in United States, by J. A. Lane, 232, 282*
- Presidential Address by Dr. H. J. Bhabha, on Atomic Energy for Peaceful Purposes, 234
- Experimental Facilities of E.443 Reactor, by H. J. Groul and F. W. Fenning, 235
- Possible Role of Thorium in Nuclear Energy, by Dr. J. V. Dunworth, 264
- Contribution of Nuclear Power to United Kingdom and World Energy Resources up to 1975, by Sir J. Cockcroft, 265*
- Dounreay Fast Reactor, by J. W. Kendall and F. M. Fry, 280*
- Recent Developments of Radioisotopes Used in Industry, by Dr. H. Seligman, 292
- Developments in Thickness Gauges and Allied Instruments, by J. L. Putman, 292
- Application of Radioisotopes to Leakage and Hydraulic Problems, by J. L. Putman and S. Jefferson, 292
- Direct Conversion of Radiation into Electrical Energy, by E. G. Linder, P. Rappaport and J. J. Loferski, 419*
- Exhibition:*
- Arrangements for, 98. See 161
- Description of Exhibits, 176*, 195, 299*, 354*, 431*
- Atomic Energy—continued**
- Conference in Retrospect:*
- After Geneva, 257
- Survey of the Geneva Conference, by Sir J. Cockcroft, 364
- Power Reactor Projects Throughout the World: Comparative Survey of Schemes Described at Geneva, by G. W. K. Ford, 483, 490*
- Use and Disposal of Radioactive Materials: Review of Papers Presented at Geneva, by J. L. Putman, 597
- Atomic Energy Programme, British, Need for Engineers for Implementation of, 7
- Research Establishment, Harwell, Experimental Facilities of "E.443" Nuclear Reactor, 235; Nuclear Research Reactors at, 266; Research Reactors in Progress at, 653
- Terms, Glossary of, 255. See 227
- See also *Nuclear; Reactor*
- Factory of Future, Model of, 177*
- "Atomic Mariner," Proposed Nuclear Powered Vessel, Model of, 861*
- Neutron, Physical Research on Nature of, 653
- Time Standard, Caesium, at National Physical Laboratory, 303
- Waste, Use of Caesium 137 for Radiotherapy, 37. See also vol. 179
- See also *Nuclear*
- Atomics, Applied*, New Weekly Report (Comtel Reuter), 605
- "Auris," Oil Tanker, 5,500-h.p. Gas-Turbine Propulsion Unit for (British Thomson-Houston Co., Ltd.), 324*
- Austin Gas-Turbine Motor Car, 98
- Austin Motor Co., Ltd., Design of Own Machine Tools, 226
- Australia, Altona, Oil Refinery at, Completion of (Braun Transworld Corporation), 45
- Associated Chambers of Manufacturers, Complaints of Low British Prices, 34
- Commonwealth Scientific and Industrial Research Organisation, 6th Annual Report, 763
- Expansion of Manufacturing Industry in, Report on, 778
- Inflation in, 227
- Reserve in, Report on, 763
- Australian Department of Supply, Aeronautical Research Laboratories, Annual Report, 208
- Import Restrictions, 482, 523
- "Austria" Sailplane, 126
- Trade Mission to, Report of, 874
- Austrian Steelworks, Two-High Reversing Roughing Rolling Mill for (Blaw-Knox Co.), 243
- Telephone System, Coaxial Cables for (Standard Telephones & Cables, Ltd.), 243
- Tyrol, Glockner-Kaprun Hydro-Electric Scheme in, 16*
- Auto Diesels, Ltd., Agreement with Standard Motor Co., Ltd., for Industrial Adaptation of "Stad" Engines, 900*
- "Auto-Grip" Driving Dog for Lathes (F. Pratt & Co., Ltd.), 118*
- Auto-Klean Strainers, Ltd., Multi-Duty Self-Cleaning Strainers, 310.
- Autoclave for Metal-to-Metal Bonding (Foster, Yates & Thom, Ltd.), 582*
- Autogenous Welding. See *Welds and Welding*
- Automatic-Control Development Group, Formation by Costain-John Brown, Ltd., 728*
- in Electrical Industry, 623
- Fundamentals of, 631
- in Process Industries, Joint Conference of Institution of Chemical Engineers and Society of Instrument Technology, Programme, 133; Proceedings, 552, 631
- Factory, Conference on, Report of (Book), 408
- Laboratory, "Analmatic" (Baird & Tatlock (London), Ltd.), 117, 433*
- Machine Tools. See *Machine Tools*
- Signalling. See *Signalling*
- Stokers. See *Stokers*
- Automatic Telephone & Electric Co., Ltd., Telephone Meter (Trade Publication), 489
- Automatic Train Control on British Railways, Arguments for and against, 875
- Automation, Automatic Factory, Conference on (Book), 408
- Consultants and Associates, Ltd., Formation of New Company, 811
- Discussion at Trades Union Congress on, 224
- D.S.I.R., Report on, Questions in House of Commons on, 807
- at Evendale, Cincinnati, Works of General Electric Co., 884*
- Impact on Management Practice of, 808
- on Public, 321
- Introduction to Process Control System Design, by A. J. Young (Review), 238
- in Motor Industry, Shop Stewards' Discussion on, 520
- Not a Danger to Living Standards, 64
- in Patternmaking Trade, 160
- from Point of View of Management, 694
- Private Members' Bill in House of Commons on, 710
- Proposed Government Inquiry into, 96
- Research on, Programme of Production Engineering Research Association, 523
- Social Problems of, 680
- Trade-Union Apprehension Concerning, 808
- "Automaze" Automatic Self-Cleaning Air Filter (Air-Maze, Ltd.) 398*
- Automobile and Aeronautical Engineering, College of, Foundation of Two Wakefield Scholarships by C. C. Wakefield & Co., Ltd., 685
- Employees in United States, Provision of Lay-off Funds for, 256
- See *Motor Cars*
- Automotive Engineers, Society of Golden Jubilee Meeting, Arrangements for, 168

- Automotive Products, Ltd., "Breakaway" Hydraulic Hose Coupling, 833*
- Autostrada, Genoa-Savona, Italy, 757*
- Autumn Lecture, Institute of Metals, by Dr. C. Sykes on Research Techniques, 475
- Auxiliary Machinery, Marine. See *Marine Aviation*. See *Aeronautics*
- Aviation Traders (Engineering), Ltd., "Accountant" Civil Propeller-Turbine Aircraft with Pre-Tensioned Fuselage, 395*
- Avions Marcel Dassault, "MD 550" Delta-Wing Fighter Aircraft, 10; "Super-Mystere" Interceptor Aircraft, 11*
- Avro Aircraft, Ltd., "CF100" All-Weather Fighter Aircraft, 437*; Aircraft Models of Glass Cloth and Phenolic Resins, 853*
- Axle Forge at Rotherham Works of Steel, Peech & Tozer, 27*
- Azienda Nazionale Autonoma delle Strade Statali, Construction of Savona-Genoa Autostrada, 757*
- ## B
- BABCOCK & WILCOX, LTD.**, "Selectable Superheat" Marine Boiler, 213*; "Steamloc" Oil-Fired Packaged Boiler, 272*; Soot-Blowers for Boiler Cleaning, 272; "Broman-Ekstrom" Shot-Cleaning System for Boilers, 273*; Construction Work at Calder Hall Nuclear Power Station, 431*; North Point "B" Power Station for Hong Kong, 547; Boiler Plant for Bromley-by-Bow Gasworks, 669
- Babcock & Wilcox of Africa (Pty.), Ltd., Boiler-Making Works at Duncanville, South Africa, 150*
- Babtie, Shaw & Morton, Model of Allt-na-Lairge Prestressed Gravity Dam, 52
- Bagnall, W. G., Ltd., 240-h.p. Diesel-Mechanical Shunting Locomotives for New Zealand Government Railways, 676*
- Bahamas, New Shipyard for Freeport, 810
- Bailey Meters & Controls, Ltd., Miniature Control Indicators (Trade Publication), 137; Furnace Control Gear for Drakelow Power Station, 666
- Bailey, Sir W. H., & Co., Ltd., Coin Mechanism for Turnstiles, 158*; Reducing Valve (Trade Publication), 409
- Baird & Tatlock (London), Ltd., "Analmatic" Automatic Laboratory, 117; "Analmatic" Automatic Laboratory for Analysis of Uranium Liquors, 433*
- Bakelite, Ltd., "R. 18774" Resin Adhesive, 696
- Balance Section of 10,000-h.p. Continuous Supersonic Wind Tunnel, 25*. See *LETTER*, 167
- Testing, 1,000-lb. for Road Weighbridges, 880
- Balancing Machine, Dynamic, to take Workpieces of 100 lb. (Dawe Instruments, Ltd.), 88*
- Baldwin Instrument Co., Ltd., Transverse-Profile Thickness Gauge, 90*
- Ball Bearings. See *Bearings*
- Ballast, Railway Track, Cleaning Plant for, 247*
- Balls, B. W., on Consideration of Instrumentation in Design, 631
- Bamford, W., on Recruitment of Technical Manpower to Electrical Engineering Industry, 558; on Automatic Control in Electrical Industry, 623
- Band Conveyors. See *Conveyors*
- Saws. See *Saws* under *Machine Tools*
- Barclay, A., Sons & Co., Ltd., Diesel Locomotives (Trade Publication), 626
- Bardon, G., on Nature and Method of Operation of Steam Power Stations used for Equalising Water Power, 537
- Barford, Little, Power Station, Extensions to, 102
- Barlow Committee on Shortage of Scientific Manpower, Recommendations of, 1. See *LETTERS*, 69, 101
- Barr & Stroud, Ltd., Bevel Gears (Trade Publication), 721
- Barrel Finishing Compounds, "Lacron" (Trade Publication), 330
- Barrett, P. G., on Driving Headless Rivets, 37*
- Barrier Creams (Rosalex, Ltd.), 397
- Bartlett, Sir C. J., the Late, 263
- Battauf Dam, River Jordan, Construction of, 46*
- Battelle Memorial Institute, Columbus, Research in Europe and America, 50*; Gamma Radiation Source, 51*; Investigations on Rubbers to Resist Hot Lubricants, 85; Problem in Smelting Varying Grades of Iron Ore in United States, by J. D. Sullivan, 162; Factors in Selecting Processes for Producing Iron and Steel, by H. P. Munger, 162
- Batteries. See *Electric*
- Vehicles. See *Motor Truck*
- "Battle" Test House at National Gas-Turbine Establishment, 506
- Battleships. See *Warships*
- Baxter, B., on Comparison of Welded and Riveted Ship Construction, 108*
- "BE25" Turbo-Propeller Aeroplane Engine, Tests on (Bristol Aeroplane Co., Ltd.) 899*
- "Beagle" Profile Cutting Machine (British Oxygen Co., Ltd.), 461
- Beams, "Castella," for Castellated Construction (Trade Publication), 107
- Laminated, from Two Species of Timber (Book), 202
- Reinforced-Concrete, Loading Tests on, 122*
- Rotating, for Admiralty Hydrodynamics Laboratory (Costain-John Brown, Ltd.), 766*
- Straight, under Transverse Loading, Bending of, by A. W. Gillies, 211*, 244*
- BEAMA, Guide to Arc Welding Electrodes (Book), 408; Annual Dinner, 737; Catalogue (Trade Publication), 755
- Bearings, Ball and Roller (Trade Publication), 409
- Journal, Oil Film Extent in, 5. See *LETTER*, 37. See also vol. 179
- Ring-Oiled, Oil Transfer and Cooling in, by Dr. N. Özdas and Prof. H. Ford, 268*, 570*
- Knife-Edge, Bibliography on (Book), 881
- Large, in Rolling Mills, Reclamation by Welding of (Quasi-Arc, Ltd.), 894
- Pneumatic, Research by Pamertrada, 102
- Porous-Metal, Cinema Film on, 854
- Removal of, "Kukko" Pullers for (E. F. Allchin & Co.), 88
- Roller, Split (Copper Roller Bearings Co., Ltd.), 463*
- Surface, Crankshaft, Flame-Hardening Process for (Peddinghaus), 151*
- Thrust, Parallel-Surface, Tests on, by Dr. C. F. Kettleborough, 174*
- for Turbines, Research on Types to Withstand Oil Failure, 102
- Water-Lubricated, Development of, 569
- Beecham Buildings, Ltd., Extensions to Foundry Building of Sterling Metals, Ltd., at Nuneaton, 574*
- "Beetle" Shunting Device with Retractable Arms (Strachan & Henshaw, Ltd.), 145*
- Belaiew, Col. N. T., the Late, 719
- Beldam Asbestos Co., Ltd., Jointing Exhibits at Engineering Exhibition, 310
- Belgium, Concrete Roads in, Booklet on, 483
- Roads in. Design and Performance of (Book), 594
- Bell Aircraft Corporation, "X-2" Supersonic, Rocket-Powered Search Aircraft for Thermal-Barrier Speeds, 253*; Helicopter Flight Simulator, 789*
- Belmos Co., Ltd., New Switchgear Research Laboratory, 671*
- Belt Conveyors. See *Conveyors*
- B.E.N. Patents, Ltd., Pneumatic Tools (Trade Publication), 489
- Bending Tests. See *Tests (Materials)*
- Machine. See *Machine Tools*
- Benjamin Electric, Ltd., Dustproof Lighting Fitting (Trade Publication), 786
- Bennett, Lt.-Col. G. T., the Late, 782
- Bentall, E. H., & Co., Ltd., Agricultural Machinery (Trade Publication), 202
- Benton & Stone, Ltd., "Enots One-Shot" Centralised Lubricating System, 397*
- Benzene Vapour, Methods for Detection of (Book), 881
- Benzole Recovery at Stanton Ironworks, 512*
- "Bepo" Nuclear Research Reactor at Harwell, 265
- Berkeley, Proposed Nuclear Power Station at, 628
- Berry, R., & Son, Expansion Plans for Motor Car Springs Manufacture, 589
- "Besco" Hand-Operated Box-Folding Machine (F. J. Edwards, Ltd.), 117*
- Best, G. C., on Some Applications of a Digital Computer to Gas-Turbine Engineering, 640*
- Beulah Heights Television Transmitting Station, 404
- "Bevatron" Synchrotron at Berkeley, 534*
- Bevel Gears. See *Gears*
- Bhabha, Dr. H. J., on Atomic Energy for Peaceful Purposes, 234
- Bibliography on Knife-Edge Bearings (Book), 881
- "Bickerstaffe" Attachment for Fork Trucks for Handling Bricks without Using Pallets or Stillages (R. H. Corbett & Co., Ltd.), 435*. See *LETTER*, 557
- Bicycles. See *Cycles* and *Motor Cycles*
- Biddle, R. P., on Southampton Docks, 68
- "Big Bruiser" Strength-Testing Equipment for Aircraft Components (Lockheed Aircraft Corporation), 821*
- Big Six Film Unit, Cinema Film on Building a Modern Steel Foundry, 722
- Bigwood, J., & Son, Ltd., Tube-Straightening Machine, High-Speed for Tubes of 3 in. to 15 in. diameter, 606*; Plate Bending and Levelling Machines, Dual-Purpose, 866*
- Billington, N. S., on Art of Heating and Ventilating, 205
- Binary Alloys. See *Alloys* under *Metallurgy*
- Bingham, G. S., on Railway Breakdown Organisation and Equipment in Use on the London Transport System, 165
- Biplanes. See *Aeronautics*
- Birlec, Ltd., "HRP" Heat-Treatment Furnace, 274*; Coreless Induction Furnaces for Melting Scrap, 771*
- Birmingham-London Railway, the First Trunk Line, Construction of, 622
- Small Companies in, Survey of, 651
- Birmingham Sound Recording, Ltd., New Factories in Northern Ireland, 259
- Bishop, R. E. D., on Steel Chimney Stacks, Request for Design Data on, 133
- "Bison" Profile Cutting Machine (British Oxygen Co., Ltd.), 461
- Bituminous Materials, Road Construction. See *Roads*
- Black, Prof. A. N., on Use of Caesium, 371 for Radiotherapy, 37. See also vol. 179
- Black Automatic Controls, Ltd., Valves for Oil Industry, 115*
- Black & Decker, Ltd., Portable Electric Drill for Commercial Vehicles, 118*; Portable Heavy-Duty Sander-Grinder, 515*
- Blackburn & General Aircraft, Ltd., "Coupled Turmo," Gas-Turbine Drive for Helicopters, 357*
- Blackburn, R., the Late, 368
- Blackman, K., Ltd., "Keno" Washer for Removing Dust Particles from Air, 277; 33-in. Reversible Fan for Ventilating Systems, 278*; Polyvinyl Chloride Fans (Trade Publication), 594; Exhausters for Drakelow Power Station, 663*
- "Blackwood" Class of Anti-Submarine Frigates, Acceptance into Naval Service of First, 869, 899
- "Blackwood," H.M. Anti-Submarine Frigate, Launch of, 550
- Blades, Rotor, Helicopter, Design, Development, Production and Servicing of, 389
- Turbine, High-Temperature, Use of Liquid Metals for Cooling, 566*
- Blakeborough, J., & Sons, Ltd., Hammel-Dahl "Venturiflo" Diaphragm Control Valve, 115*
- Bland, M. G., the Late, 407
- Blaw-Knox Co., Two-High Reversing Roughing Rolling Mill for Austrian Steelworks, 243; Correct Use of Overhead Travelling Bucket Cranes (Trade Publication), 721
- Blaw Knox, Ltd., Road Forms (Trade Publication), 202; Wellpoint System for Pre-Drainage of Site of South Denes Power Station, 730*; Earthmoving Attachment for "Super 12" Motor Grader, 803*
- Blay, W. F., Ltd., Steam-Turbine Shop for Fraser & Chalmers Works of General Electric Co., Ltd., 138*
- "Block" Type Flexible Coupling for Shafts (Crofts (Engineers), Ltd.), 544
- Blokhintsev, D. I., on First Atomic Power Station of U.S.S.R. and Prospects of Atomic Power Development, 228, 233*
- Blount, Dr. B. K., on Role of Research Manager in Industry, 776
- Blowers (Trade Publication), 107
- and Exhausters, Centrifugal (Trade Publication), 41
- Soot, for Drakelow Power Station (Ivor Power Speciality Co., Ltd.), 666
- "Bluebird III" Speedboat, Value of Wind-Tunnel Tests in Developing, 554
- Blundell, A. J., on Germanium and Silicon Power Rectifiers, 761*
- "Blundell" Wire-Joining Tool (Adams & Benson (Dalbukirk), Ltd.), 833*
- Board, Laminated, for Fire-Retarding Divisions in Ships (Trade Publication), 409
- of Trade, Transfer of Responsibility for Metal and Engineering Industries to, 2; Monopolies Commission, Investigation on Collective Discrimination, 34; Figures on Industrial Building, 226
- Boat, Submarine. See *Warships*
- Boeing Airplane Co., "Boeing 707" Prototype Jet Transport Aircraft, 787*; Boeing B.52 "Stratofortress" Bomber Aircraft, 788*; New Flight Test Hangar at Seattle Works of, 819*; Transonic 8 ft. by 12 ft. Wind Tunnel, 820; Impact Rubber-Forming Technique, 852; Hand-Held Air-Driven Carbide-Tipped Saw, 853; Combined Silencer and Thrust-Reverser for Jet Engines, 900
- Bogies for Electric and Diesel-Electric Locomotives, Design of, by E. H. Croft, 791*
- Railway, Relieving, for 75-ton Breakdown Crane, 707*
- See also *Trucks*
- Boiler Availability, Research on, 84
- 515,000 lb. per hour Capacity, for Drakelow Power Station (International Combustion, Ltd.), 663*
- Cleaning, "Broman-Ekstrom" Shot-Cleaning System for (Babcock & Wilcox, Ltd.), 273*
- Control System, Unified, at East Yelland Power Station, by H. Dickin, 546*
- Coverings. See *Heat Insulation*
- Feed Water. See *Water and Feed*
- Water Softening. See *Water Softening*
- Furnaces. See *Stoker*
- for Heating, History of, 206
- House, Chemistry in (Book), 754
- Oxygen and Temperature Recorder for (Trade Publication), 755
- Large, Water-Level Indicator for (Hopkings, Ltd.), 465*
- Locomotive, Calculation of Heat Losses of, by Dr. H. I. Andrews, 209*
- Trailer for Transport of (R. A. Dyson & Co., Ltd.), 189*
- See also *Locomotive*
- Marine, "Selectable Superheat" (Babcock & Wilcox, Ltd.), 213*
- Oil-Fired, 108,000 to 216,000 B.Th.U. per hour (R. de la Rue & Co., Ltd.), 15
- Fired, Forced-Circulation, "Vapor" for Heating Diesel Trains (J. Stone & Co. (Deptford), Ltd.), 900
- Fired, Packaged, "Steamloc" (Babcock & Wilcox, Ltd.), 272*
- Fired, Safety of, 5. See also vol. 179
- Fired, Twin-Furnace, for Steam-Turbine Test Bed (International Combustion, Ltd.), 138
- Packaged, Heavy-Fuel-Oil-Fired (J. Thompson (Wolverhampton), Ltd.), 641
- Oil-Fired, "Minipac" (J. Thompson Water Tube Boilers, Ltd.), 641*
- Plant for Bromley-by-Bow Gasworks (Babcock & Wilcox, Ltd.), 669
- Pulverised-Fuel, Application of Auxiliary Oil Firing to, "Initiator" for (Fuel Firing, Ltd.), 428*
- Scaling of, "Colo D.P." Graphite for Prevention of, Trials of (Centralube, Ltd.), 675
- Shutting Down and Starting Up of, Advantages and Problems of, 537
- Smoke Control in, Smoke Density-Measuring Equipment for (Radiovisor Parent, Ltd.), 222*
- for Steam Raising Plant at Bold "A" Power Station (Yarrow & Co., Ltd.), 514
- Bold "A" 120-MW Power Station, 514*. See *Erratum*, 816
- Bolting Materials for High-Temperature Steam-Plant Service, by M. G. Gemmill and J. D. Murray, 824*
- Bolton, T., & Sons, Ltd., Non-Ferrous Alloy Exhibits at Engineering Exhibition, 461
- Bombing Aeroplane. See *Aeronautics*
- Bonding, Metal-to-Metal, Autoclave for (Foster, Yates & Thom, Ltd.), 582*
- Metal-to-Metal, Inspection of, "Aerosonic," Ultrasonic Flaw Detector for (Société Nationale de Constructions Aéronautiques du Sud-Ouest), 12*
- Bonds for Abrasives, 607
- Bondre, N. G., Method of Determining Expected Strength of Concrete, 684
- Boneham, J., the Late, 878
- Bones, J. A., on Thick-Walled Cylinders under Internal Pressure, 167, 445. See *LETTERS*, 132, 368, 591, 783. See also vol. 179
- Boni, Dr. A., on Artificial Satellite—Orbit Synchronising System, 236
- Bonus System. See *Labour*
- Books Received, 79, 105, 137, 170, 202, 237, 267, 297, 330, 369, 408, 450, 529, 560, 594, 626, 657, 690, 721, 754, 786, 850, 881
- Reviews, 9, 41, 73, 169, 201, 238, 266, 298, 329, 370, 409, 449, 489, 560, 593, 625, 657, 689, 720, 753, 785, 849, 882
- Booth, J., & Sons (Bolton), Ltd., 50th Anniversary of Hulton Works, 735
- Booth, S., the Late, 687
- Borg-Warner, Ltd., Building of New Factory at Letchworth for, 324
- Boring, Earth, Wagon-Mounted Equipment for Use on Railway Electrification Work, 358*
- Machine. See *Machine Tools*
- Borough Polytechnic, Engineering Courses at, 365. See *LETTERS*, 445
- "Boston," U.S.S. Guided-Missile Carrier. Commissioning of, 734*
- Bottle, H. E., on Radio Communication on Locomotives, 142
- Boulton Paul Aircraft, Ltd., Flight Control System, 472
- Bound Brook Bearings, Ltd., Cinema Film on Porous-Metal Bearings, 854
- Boundary Value Problems, Studies of (Book), 267
- Boving & Co., Ltd., Hydraulic Turbines for Los Peares Power Station, Spain, 458*
- Bowden, Dr. B. V., on Electronic Processing of Data for Management, 694
- Box-Folding Machine, "Besco," Hand-Operated (F. J. Edwards, Ltd.), 117*
- "Boxrax" Stacking Storage System (Steel Equipment Co., Ltd.), 427
- "Boyce" Centre Gauge for Inside or Outside of Round Work (Rediwell, Ltd.), 549*
- Boyle, Sir E., on Export Drive to Dollar Account Countries, 685. See 681
- Braby, F., & Co., Ltd., Aluminium-Alloy Unloading Ramp for Tipping Lorries, 191*; Aluminium Silos for Grain Storage, 438; New Steel Fabrication Factory at Crayford, 705*
- Brace Products, "Allo" Security Switch for Machinery, 733
- Bradbury, C. H., on Diesel Engines—Design for Service, 698
- Bradbury, F. J., on Growth and Present Position of Disc Brake as Applied to Motor Vehicles, 874, 892
- Bradwell, Proposed Nuclear Power Station at, 628
- Braithwaite & Co., Structural Ltd., Pressed-Steel Tanks (Trade Publication), 202
- Brake, Air-Controlled, Lightweight, for Medium-Sized Motor Vehicles (Clayton Dewandre Co., Ltd.), 516*
- Disc, for Motor Vehicles, Growth and Present Position of, 874, 892
- Pad, Runway, for Aircraft (Dowty Equipment, Ltd.), 834*
- Runway, for Aircraft (Dowty Equipment, Ltd.), 473
- for Helicopters (Palmer Tyre, Ltd.), 473
- See also *Dynamometer*
- Branczik, E. A. C., the Late, 407
- Brass Strip, Coiled, Electric Furnace for Annealing of (G. W. B. Furnaces, Ltd.), 867*
- Tubes, Annealing, Roller-Hearth Electric Furnace for (G. W. B. Furnaces, Ltd.), 158*
- Braun Transworld Corporation, Completion of Altona Oil Refinery, 45
- Brazil, System of Multilateral Trading with, 291
- Brazing of High-Temperature Sheet Steel, "Microbraz" Process for (Wall Colmonoy Corporation), 885*
- Manual on (Book), 850
- B.R.C. Engineering Co., Ltd., Prestressed-Concrete Bridges (Trade Publication), 137
- "Breakaway" Hydraulic Hose Coupling (Automotive Products, Ltd.), 833*
- Breakdowns. See *Accidents*
- Crane. See *Crane*
- Organisation and Equipment in Use on London Transport Railways, 865
- Breathing Apparatus for Climbers, Improved (Normalair, Ltd. and British Oxygen Co., Ltd.), 844*
- for Use in Ships (Siebe, Gorman & Co., Ltd.), 351
- Breguet, Louis, Société Anonyme des Ateliers d'Aviation, "1001" Lightweight Fighter Aircraft, 11
- Brickwork, Furnace, Instruction Course on, 85
- Bridges, Bailey (Trade Publication), 41
- Deck Systems, Research on, 122
- Highway, Loading of, Lisbon Colloquium on, Programme, 214
- Linlithgow, Start of Work on, Questions in House of Commons, 903
- Bridge, N. C., the Late, 720
- New, at Potters Bar Section of British Railways (Butterley Bridge and Engineering Co., Ltd.), 830*
- Pelham, Scheme for, Questions in House of Commons, 678
- Pipe, for Carrying Natural Gas in Italy, 701*
- Prestressed-Concrete (Trade Publication), 137
- and Structural Engineering, International Association for, Colloquium on Loading of Highway Bridges, Lisbon, Programme, 214
- Varazzo, Italy, Construction of, 758*
- Wind Effects on (Book), 202
- Writings of D.B. Steinman on (Book), 850
- Bridges, K. W., on Engineering, Marine and Welding Exhibition, Request for Information on Long Associations with, 133

- Brightside Foundry & Engineering Co., Ltd., Bar and Rod Rolling Mill for S. Fox & Co., Ltd., 190. See 163; 34-in. Blooming and Slabbing Mill, 286*
- Brisby, M. D. J., on Locomotive Utilisation and Availability, 141. See *Erratum*, 284
- Brisch, E. G., & Partners, System for Component Classification, 260
- Bristol Aeroplane Co., Ltd., Test House for Propeller-Turbine Aeroplane Engines, 314*; Use of Television for Examination of Icing Tests on "Proteus-Ambassador" Aircraft, 319*; Television Transmission from Helicopter, 350; "Orpheus" Jet Aeroplane Engine, 356*; "Britannia" Airliner, 394; Appointment of Mr. P. Masefield, 552; Collaboration with General Dynamics Corporation in Production of Long-Range Transport Aircraft, 715; Tests on "BE25" Turbo-Propeller Aeroplane Engine, 899*
- "Britannia" Airliner (Bristol Aeroplane Co., Ltd.), 394
- "Britannia," H.M. Yacht, Models as Aid to Design of, 334*
- "Britannia" Steam Tug Converted to Diesel Power (Greenhithe Engineering Works), 887*
- "Briticent Full-Load Earth Continuity Tester," for Portable Electrical Apparatus (British Central Electrical Co., Ltd.), 175
- British Aircraft Constructors, Society of, Aircraft Display at Farnborough, 291, 356*, 363, 394*, 436*, 371*. See *LETTER*, 405
- British Aluminium Co., Ltd., New Extrusion Plant at Latchford Locks, 799*
- British Association:**
- Bristol Meeting:*
- Inaugural Proceedings, 327
- Section F (Economics):*
- Rationalisation of Wages—A Case Study, by I. F. Gibson, 360
- Productivity in the Firm, by Dr. F. A. Wells, 401
- Section G (Engineering):*
- Programme, 223. See 289
- Reports of Discussions, 327, 368, 417, 450, 501. See *LETTER*, 557
- Presidential Address, by Dr. S. F. Dorey, on Influence of Engineer on Sea Transport and Trade, 327, 331
- Model Research and its Application to Ship Design, by Dr. R. W. L. Gawn, 334*
- Linear Acceleration of Charged Particles to High Energies, by C. W. Miller, 340*, 374*
- Motor Vehicles and their Design, by J. N. McHattie, 344*
- Progress in Air Transport, by P. G. Masefield, 366
- Influence of Space Flight on Engineering and Science, by M. W. Rosen, 371*
- Scientific Development of Modern Locomotive Design, by J. S. Tritton and J. J. C. Paterson, 377*. See *Erratum*, 762
- Motorways, by J. A. Proudlove, 403, 410*. See *LETTER*, 525
- Stress Distribution under Foundations, by Dr. J. E. Gibson, 507*
- Review of Accelerating Machines for Nuclear Particles, by J. B. Adams, 530*
- Design and Operation of Power Producing Reactors, by H. H. Gott, 561
- Collapse Behaviour of Vierendeel Trusses, by Dr. S. Henderson, 632*
- Effects of Turbine Engines on Civil Transport Aircraft, by Dr. W. J. Strang, 691*
- Joint Session with Section C (Geology):*
- Fundamentals of Soil Mechanics, by P. L. Capper, 348*
- Soil Mechanics in Railway Civil Engineering, by A. H. Toms, 384*. See *LETTERS*, 655
- Soil Mechanics Aspects of Design of Foundations, by F. D. C. Henry, 413*, 454*
- Section J (Psychology):*
- Presidential Address, by A. Rodger, on Effective Use of Manpower, 360, 586
- Recent Experimental Work in Study of Fatigue, by D. C. Fraser, 360
- Tabular Methods of Recording Labour Losses, by D. C. Duncan, 616
- British Broadcasting Corporation, Annual Report, 204; Experimental Colour Television Equipment, 779, 780*; Opening of Television Station at Pontop Pike, 790
- Cast Iron Research Association. See *Cast Iron Research Association, British*
- British Celanese, Ltd., Use of Local Power Station Steam by, 323
- British Central Electrical Co., Ltd., "Briticent Full-Load Earth Continuity Tester" for Portable Electrical Apparatus, 175; Neutral Loop Impedance Tester, 175
- Chambers of Commerce, Association of, Memorandum to Board of Trade on Trade Unions and Monopoly, 744
- Chemical Plant Manufacturers Association, British Chemical Plant (Trade Publication), 267
- British and Commonwealth Shipping, Ltd., Proposed New Company for Merging of Union-Castle Mail Steamship Co., Ltd., and Clan Line Steamers, Ltd., Controversy on, 715
- Electrical and Allied Manufacturers Association, Guide to Arc Welding Electrodes (Book), 408; Annual Dinner, 737
- Power Convention. See *Electrical Power Convention, British*
- Electricity Authority, Annual Report, 447. See 441. See also *Central Electricity Authority*
- Employers' Confederation Pamphlet on *Britain's Industrial Future*, 402
- British European Airways, Air Traffic Statistics, 130; Annual Report, 291; "Vanguard" Propeller-Turbine Aircraft for, 555
- Gear Manufacturers Association: Recent Developments in Bevel Gear Cutting Machinery—the Gleason Method, by G. W. Nash, 717. See *LETTERS*, 751, 813
- Hydromechanics Research Association. See *Hydromechanics Research Association, British*
- Independent Air Transport Association, Annual Report, 779
- British Indicators, Ltd., Gauge for Checking Throat Area of Diffuser Rings of Aircraft Gas Turbines, 869*
- British Industrial Gases, Ltd., Profile Cutting Machine using Acetylene, Propane or Coal Gas, 310*
- Industries Fair, 1956, Arrangements for, 644
- Federation of. See *Federation*
- Instrument Industries' Exhibition, Exhibits at, 90*, 115*. See also vol. 179
- British Insulated Callender's Cables, Ltd., North Point "B" Power Station for Hong Kong, 547; Combined Supply Cable and Lifting Rope for Underwater Television, 582*
- British Insulated Callender's Construction Co. Ltd., Steel Tube Pole for Overhead Transmission Lines, 285*; Electrification Scheme for Cyprus, 312*; Wagon-mounted Equipment for Earth-Boring, Mast Erection and Concreting for Railway Electrification Work, 358*; "Unit Radio Mast," Lightweight Stayed Mast, 897*
- Internal-Combustion Engine Research Association. See *Internal-Combustion Engine Research Association, British*
- Iron and Steel Federation. See *Iron and Steel Federation, British*
- and Steel Research Association. See *Iron and Steel Research Association, British*
- British Jeffrey-Diamond, Ltd., Mud Hog Crushers (Trade Publication), 267
- British Malayan Petroleum Co., Ltd., Lorry-Mounted Excavators for Oilfield Operation for, 803
- Manufacturers of Petroleum Equipment, Council of, Annual Report, 194
- Motor Corporation, 7-ton, 90-b.h.p. Diesel Lorry with Power-Assisted Steering, 191*
- Navy. See *H.M. under Warships*
- Nuclear Energy Conference. See *Nuclear Energy Conference, British*
- Occupational Hygiene Society: Conference on Use and Abuse of Protective Equipment, Arrangements for, 253
- British Overseas Airways Corporation, Air Traffic Statistics, 130
- British Oxygen Co., Ltd., Use for Oxy-Propane for Prolonging Fluid Conditions in Ingot-Mould Hot-Tops, 184*; Burner for Removing Tar Deposits in Tubes, 222*; "Argonaut" Type 21E Welding Equipment, 462*; "Bison" and "Eagle" Profile Cutting Machines, 461; Scunthorpe Plant for Production of Tonnage Oxygen, 731; Improved Breathing Apparatus for Climbers, 844*
- British Petroleum Co., Ltd., Arrangement with South Eastern Gas Board for Supply of Town Gas from Oil for Kent, 363; "Cornwall" Fuelling Vehicle for Aircraft, 645*
- British Plaster Board (Manufacturing), Ltd., Thermal Insulation (Trade Publication), 721
- Productivity Council, Pamphlet on Review of Productivity in Farming, 40; Report on High-Pressure Die Casting, 746
- Railways, Potentialities of System as Reserved Roadway System, 34; 30-ton Railway Wagon for Carrying Pig-Iron, 149*; Productivity Council, First Meeting of, 160* Calculation of Heat Losses of Locomotive Boilers, 209*; Cleaning Plant for Railway Track Ballast, 247*; 350-b.h.p. Diesel-Electric Shunting Locomotives for, 311*; Vehicle and Passenger-Carrying Motor Vessel for Service on Clyde for (Ailsa Shipbuilding Co., Ltd.), 323; Apprentice School at Crewe Locomotive Works, 443, 444*; Proposed Vehicle-and-Track Testing Installation, 481. See *LETTERS*, 557, 621; Shenfield, Southend and Shenfield Chelmsford Lines, Modifications to Colour Light Signalling (Siemens & General Electric Railway Signal Co., Ltd.), 589; Capital Expenditure on, Questions in House of Commons on, 743; Reconstruction of Potters Bar Station, 830*; Automatic Train Control on, Arguments for and Against, 875; Facts and Figures about (Trade Publication), 881
- British Ropes, Ltd., "Viking" Nylon Tail for Fibre Ropes, 427*
- Shipbuilding. See *Shipbuilding*
- Shipping. See *Shipping*
- Standards Institution. See *Standards*
- British Sugar Corporation, Prestressed-Concrete Silos for Sugar Storage, 895*
- British Thomson-Houston Co., Ltd., Continuous-Flow Plant for Neutralisation of Toxic Effluents from Plating and Pickling Process, 58*; Projection and Photographic Lamps (Trade Publication), 267; Multi-Motor Control Board for Marine Use, 275; "Magnestat" Voltage Regulator, 275*; Electronic Welding Control Equipment, 275; 5,500-h.p. Gas-Turbine Propulsion Unit for Oil Tanker "Auris," 324*; Annular Liner Induction Pump for Liquid Sodium, 354; New Turbine Works at Larne, Northern Ireland, 443; 62.4-MVA Alternator and 20.5-MVA Transformers for Los Peares Power Station, Spain, 459*; Iso-Propyl-Nitrate Turbo-Starters for Aircraft, 473*; Increase of Capacity for Small Plant at Rugby Works, 641; Electronic Relay for Detecting Infra-Red Radiation, 646*; Gas-Pumping Installation for Bromley-by-Bow Gasworks, 669; 1,000-kW Power Germanium Rectifier, 672*; Infra-Red Heater for Agricultural Use, 833*; Transducer for Remote Indication of Field Currents, 893*
- Trade. See *Trade*
- Transport Commission, Waterways Division, Announcement of Development Plans, 31; Railway Strike Not a Victory, 32; Wage Increases for Other Than Enginemen, 32; Annual Report, 33; Employees' Demand for All-Wage Increase, 96; Retention of Road-Haulage Trunk Services, 162; Proposed Vehicle-and-Track Testing Installation, 481. See *LETTERS*, 557, 621; Tests on "Merchant Navy" Class Mixed-Traffic Locomotives, 485; Large Orders for Rail Traction Equipment for Private Builders, 746; Proposals for Modernisation of Canals, 843; Facts and Figures about British Railways (Trade Publications), 881
- British Tyre & Rubber Co., Ltd., "Plastidry" Fire Hose of Reinforced Plastics, 221
- Welding Research Association. See *Welding Research Association, British*
- Brittle Fracture, Research on, 145
- Brix Controller for Sugar Production (Trade Publication), 489
- Brno, Czechoslovakia, Engineering Exhibition at, Arrangements for, 316
- Broaching Machine. See *Machine Tools*
- Broadway Equipment, Ltd., Bottle-Carrying Trolley (Trade Publication), 330
- "Broman-Ekstrom" Shot-Cleaning System for Boilers (Babcock & Wilcox, Ltd.), 273*
- Bromley-by-Bow Gasworks, Extensions to, 669
- Bronowski, Dr. J., on Atomic Energy and Future of Mining Industry, 618
- Bronzes, Aluminium, Isothermal Transformations of Hypo-Eutectoid and Eutectoid below their Ms Temperatures, 488
- Brook Motors, Ltd., Electric Motors (Trade Publication), 267
- Broom & Wade, Ltd., Portable Rotary Air Compressor, 464; Air-Operated Hand Drill, 464
- Brown, Boveri, Ltd., Mercury-Arc and Contact Rectifiers, 20*; Award of United States Contract for Power Circuit-Breakers, 714
- Brown, D., Companies, Booklet Describing Activities of (Trade Publication), 594
- Brown, D., Machine Tools, Ltd., on Spiral-Bevel Gear-Cutting Machines, 813. See 717. See *LETTER*, 751
- Brown, D., Tractors (Engineering), Ltd., "Albion" 5 ft. Combine Harvester, 29; Trailer Attachment for Traction Control Unit, 29*; Low-Cost General-Purpose Agricultural Tractor, 832*
- Brown, E. H., on Castigliano's "Theorem of Compatibility," 877. See 828
- Brown-Firth Research Laboratories, Cinema Film on Drop Forgings in Alloy Steels, 405
- Brown, J., & Co., Ltd., Experimental Peat-Fired 500-h.p. Gas Turbine, 241*; Annual Report, 402
- Brown, J., & Co. (Clydebank), Ltd., 100-kW Wind-Driven Generator at Costa Head, 55*
- Brown, S. G., Ltd., Gyro-Compass Binnacle, 277*; Combined Steering Console, 277
- Brownings' Electric Co., Ltd., Commutator Lathes for Turning and Undercutting, 317*
- Bruce Peebles & Co., Ltd., Booklet giving History of (Trade Publication), 690
- Bruce, Viscount, of Meibourne, on Economic and Financial Situation, 162
- Bruntons (Musselburgh), Ltd., Mobile Furnace for Bright Annealing for (General Electric Co., Ltd.), 249*
- Brunton, R. S., on Methods of Overcoming Specific Difficulties with Locomotive Working, 142*
- Brush Electrical Engineering Co., Ltd., Transformers for Bold "A" Power Station, 515. See *Erratum*, 816; Presentation of Old Brush-Ljungstrom Turbo-Alternator to, by Central Electricity Authority, 740*
- Brush-Ljungstrom Turbo-Alternator, Old, Presentation to Makers by Central Electricity Authority, 740*
- Brussels, Universal and International Exhibition of, 1958, Arrangements for, 261
- Bryce Berger, Ltd., "Handraulic" Starter for Diesel Engines, 307*
- B.S.A. Co., Ltd., New Factory in Northern Ireland, 259
- Bucket Conveyor. See *Conveyor*
- Buckley & Taylor, Ltd., Diesel-Driven Distillation Plant, 274*
- Budget, Autumn, Comments on, 618
- and Effects on Wage Demands, 648
- Government Debates on, 678
- Presentation of, 646
- Trades-Union Congress Views on, 680
- "Buick Dynaflo" Torque Converter, 609*
- Builders' Materials (Book), 657
- Building, Air-Conditioned, Dust-Free, for Assembly and Testing of Fine Instruments (R. B. Pullin & Co., Ltd.), 868*
- Codes, A.S.T.M. Standards in (Book), 369
- Components (Trade Publication), 107
- Construction, "Clay Bottle" Technique of (Centre de Recherches des Structures Naturelles), 36
- Construction, "Intergrid" System of, for Worthing Technical High School (Prestressed Concrete Co., Ltd.), 154*
- Symposium on Methods of Testing of (Book), 408
- See also *Concrete, Reinforced*
- Contractors' Equipment (Trade Publication), 137
- Delegation, United Kingdom, Visit to U.S.S.R. of, 405
- Electrical Equipment of, Regulations for (Book), 369
- Exhibition, 26th, London, Plans for, 51
- House, Machines for Materials Handling in (Book), 170
- Building, Industrial, Increase in, Board of Trade Figures on, 226
- Industry, National Advisory Committee for Training of General Foremen, 3rd Report of, 744
- Strike-Free Record in, 64
- Light-Alloy Cladding for, "Kynalok" (Imperial Chemical Industries, Ltd.), 173
- Linings, Metal-Fixing Systems for (Trade Publication), 755
- Maintenance (Trade Publication), 41
- Methods, Russian Delegation on, Exchange of Information with, 523
- Multi-Storey, Interaction of Floors and Beams in (Book), 626
- Prefabricated (Trade Publication), 41
- and Public Works Exhibition, International, Paris, Exhibits at, 36
- Research in Australia, 764
- Station, Open Days at, 121*; Participation in Building Delegation to U.S.S.R., 405; Strength of Concrete-Encased Steel Stanchions, by Dr. F. G. Thomas, 759*
- Sheets, Aluminium (Trade Publication), 755
- Structural Steel in, Use of, British Standard on, 759*
- Structures, Framed, "Muroglass" Glass Cladding for (Pilkington Brothers, Ltd.), 613. See *Erratum*, 704
- Thermal Insulation of (Book), 818
- and Town Planning in Poland, 879*
- Trades Employers, National Federation of, Strikes in Building Industry, 64
- Operatives, National Federation of, Views on Settling of Inter-Union Disputes, 32
- Workers, Amalgamated Union of, Losses by, 520
- Vibrations in (Book), 594
- Buker, C. B., Non-Destructive Testing Instrument for Drawing Qualities of Sheet Metal, 62*
- "Buma" Engineering Co., Ltd., "Centronic" Portable Boring Machine for Fine Bores, 23*
- Bureau of Analysed Samples, Ltd., Slag Samples Standardised for Sulphur for Slag Control in Steelmaking, 123
- of Mines. See *United States*
- of Standards. See *United States*
- Burgess Products Co., Ltd., Acoustic Treatment Equipment, 309
- "Burlington" Process for Casting Long Lengths (United States Pipe & Foundry Co.), 113*
- Burmah Oil Co., Ltd., Automatic Photo-Electrically Controlled Can-Filling Machine for Kerosene, 216*
- Burmeister & Wain, Ltd., Two-Stroke Internal-Combustion Engine with Turbo-Charging, 42
- Burners, Oil Fuel. See *Oil Fuel*
- for Removing Tar Deposits in Tubes (British Oxygen Co., Ltd.), 222*
- Burness, Kendall & Partners, Ltd., M.V. "Lachinedoc" with Hydroconic Construction and Diesel-Electric Cargo Cranes, 898*
- Burns, C., on Furnace Scanning Periscope, 798. See *Erratum*, 866
- Burstell, Prof. A., on Practice of Management, 655. See 593, 617
- Burstell, F. C., the Late, 816
- Bus-bars. See *Electric*
- Bush, F. C., the Late, 407
- Business Forecasts, Combination of Economic Trends in, 694
- Trends and Prospects "Konjunkturtest" Method for Determining, 810
- Butterley Bridge & Engineering Co., Ltd., New Bridges at Potters Bar Section of British Railways, 830*
- B.V.C. Industrial Constructions, Ltd., Ash Handling Plant for Bold "A" Power Station, 514
- By, Lt.-Col. J., Unveiling of Memorial to, 715
- Byers, A. M., Co., Heating and Snow Melting at Airports (Trade Publication), 786
- Byron Business Machines, New British Typewriter on Display at New Showrooms of, 40

C

- CABLE, Lifting and Supply, Combined, for Underwater Television Camera (British Insulated Callender's Cables, Ltd.), 582*
- Telephone, Transatlantic, Progress of, 31
- Cable & Wireless, Ltd., Opening of New London Headquarters of, 847
- See also *Wire Ropes and Electric*
- CABMA Register of British Products and Canadian Distributors, 1955-56 (Book), 237
- "Cadillac" Motor Cars, "Hydramatic" Gearbox for, 642*
- Caesium Atomic Time Standard at National Physical Laboratory, 303
- Caesium 137, Use for Radiotherapy, 37. See also vol. 179
- Cahen, F., on Problems of Frequency and Power Transfer Regulation between Interconnected Systems, 537
- Calculator, Cylindrical, "Otis King" (Trade Publication), 594
- Calder and Aire Navigation, Development Plans for, 31
- Calder Hall Nuclear Power Station, 265*; Construction Work at, 355*, 431*; Engineering Techniques and Construction of, 740*; Model of, 300*; Reactor Pressure Vessels for (Whessoe, Ltd.), 835
- Calibrator, r.p.m., Electronic, for Compressor and Turbine Speeds (Bristol Aeroplane Co., Ltd.), 315
- "Calimaster" Equipment for Calibrating and Testing Fuel-Injection Pumps of Diesel Engines (Merlin Engineering Co., Ltd.), 274*. See *Erratum*, 399

- Cambridge Instrument Co., Ltd., Humidity Recorder (Trade Publication), 594; Dissolved Oxygen Recorder (Trade Publication), 786; New Polarographic Research Laboratory at Cambridge, 795
- Camera for Recording Cathode-Ray Oscilloscope Images, "Fairchild Oscillo-Record" (Polarizers (U.K.), Ltd.), 128
- Schlieren, for Photographing Shock Waves in Supersonic Wind Tunnel, 26*. See LETTER, 167
- Television, Colour, for B.B.C. Experiments (Marconi's Wireless Telegraph Co., Ltd.), 781*
- Cameron, J., the Late, 166
- Campbell, J. S., Views on Railway Strike, 32
- Cans, Food, "Hydron" Hydrostatic Steriliser for (Mitchell Engineering, Ltd.), 545*
- Production of, 130
- Canada, British Opportunities for Export to, 842
- Coal Mines in (Book), 594
- Financing of Roads in, Canadian Tax Foundation Publication, *Taxes and Traffic*, 163
- North West, Pipes for Natural Gas in, South Durham Steel & Iron Co., Ltd., Contract for, 587
- Nuclear Power in, Forecast of Development and Costs, 198
- Proposed New Pipe Factory of Hoesch Werke A.G. in, 290. See also 131
- Rise in Industrial Production in, 194
- Steel-Tube Mill for, 131. See 290
- Canadian Aircraft Industry, Aspects of, 196
- Association of British Manufacturers and Agencies, CABMA Register of British Products and Canadian Distributors, 1955-56 (Book), 237
- Canadian Car & Foundry Co., All-Welded Aluminium Railway Wagons, 831
- Coals, Directory of (Book), 818
- Industrial Tool and Equipment Show, 31
- Canadian Marconi Co., Lightweight Radio Compass for Aircraft, 472
- Reactor Exhibits at Geneva Exhibition of Peaceful Uses of Atomic Energy, 299*
- Tax Foundation, *Taxes and Traffic*, Publication on Financing of Roads, 163
- Welding Qualification Code, Specification, 9
- Canals, British, Proposals for Modernisation, 843
- Grand Contour, Plans for, 843
- Leeds and Liverpool, Development Plans for, 31
- Main, and Long Lake Dam, Technical Record of Design and Construction (Book), 267
- Rideau, Unveiling of Memorial to Builder of, 715
- and Waterways, British Transport Commission Development Plans for, 31
- "Canberra Mark 9" Jet Bomber Aircraft (English Electric Co., Ltd.), 438
- Candelin, J. W., the Late, 878
- Cane, D., Associates, Twisting Wire (Trade Publication), 169
- Cape Asbestos Co., Ltd., Asbestos Insulating Materials (Trade Publication), 137; Production of Asbestos Lagging, 708*
- Capital Expenditure, Curbing of in Domestic Market, Government Statement on, 163
- in Germany, Possible Plans for Curbing, 522
- and Labour. See *Labour*
- "Caposite" Asbestos Insulating Materials (Trade Publication), 137
- Capper, P. L., on Fundamentals of Soil Mechanics, 348*
- Capstan, Haulage, Electric, "Lo-Bed" (Taylor Stoker Co., Ltd.), 613*
- Lathe. See *Lathe under Machine Tools*
- Cars, Motor. See *Motor Cars*
- Rail. See *Carriages, Railway*
- Carbic, Ltd., "Otis King" Cylindrical Calculator (Trade Publication), 594
- Carbon, Dissolved, in Iron Alloys, Thermodynamics of, 829
- Monoxide, Methods for Detection of (Book), 267
- Careers in Plastics Industry, Plastics Institute Book on, 39*
- Cargo Steamers. See *Steamers*
- Carlsen, K. M., on Plastic Deformation of Aluminium-3.5 per cent. Copper-Alloy Single Crystals, 536
- Carr, R. T., on Conveying Information Quickly, 197. See LETTER, 133. See also vol. 179.
- Carriages, Railway, Fire and Explosion Protection System for Diesel Railcars (Graviner Manufacturing Co., Ltd.), 483
- Railcars and Steam Road Vehicles in Germany (Book), 560
- and Wagon Industry, Narrowing Profit Margins of, 522
- Carrick, G. A., on Germanium and Silicon Power Rectifiers, 761*
- Cartwright, W. F., on Use of Electricity in Steel Industry, 76; on Russian Iron and Steel Plant, 755
- Cash, A. E., Co., Automatic Combustion Control System, 423*
- Register System for Transmitting Information to Central Control Unit (Rentrix, Ltd.), 87*
- Cass Technical College. See *Sir John Cass*
- Cast Iron Research Association, British, Annual Report, 695
- "Castella" Beams for Castellated Construction (Trade Publication), 107
- Castet Hydro-Electric Power Plant of French Railways, Fluid-Cooled Monobloc Turbo-Alternator at, 628*
- Castiglano's Theorem of Compatibility, by Prof. J. A. L. Matheson, 828*. See LETTER, 877
- Castings, Broken, Cold Repair of, "Masterlock" and "Metalace" Processes for (Metallock (Britain), Ltd.), 423*
- Centrifugal, Long-Length and Bi-Metal at Sutton-in-Ashfield Works of Sheppard & Sons, Ltd., 112*
- Castings, Investment Precision (Book), 202
- Iron, Output of, 291, 778
- Machine for Electrically-Smelted Iron (Sheppard & Sons, Ltd.), 183*
- Steel (Trade Publication), 297
- 166-ton (English Steel Corporation, Ltd.), 487
- Centenary of, 625
- Technology of (Book), 818
- Castle Donington Substation, Overhead Line for Engineering of, 87*
- "Castrolite" Automobile Engine Oil (C. C. Wakefield & Co., Ltd.), 95
- Catalagzi Power Station, Turkey, Extension of, 581
- Catalogues. See *Trade Publications*
- Catering Industry, Use of Electricity in, 78
- Caterpillar Tractor. See *Tractor*
- Caterpillar Tractor Co., "Traxcavator" Integral Tractor-Shovel, 477*; "D9" Crawler Tractor, 517*; "PR21" 31-ton Capacity Dumper Truck, 517*; "Traxcavator" Combined Tractor and Excavator (Trade Publication), 626
- Cathodic Protection, Application to Oil Tanker "Regent Springbok" (Metal and Pipeline Endurance, Ltd.), 608*
- of Buried Metal Structures, Metal-Plate Rectifiers for (Hackbridge & Hewitt Electric Co., Ltd.), 900
- "Catto" Tubular Supports for Conveyor Belts (Trade Publication), 41
- Cavendish Laboratory, Offer by Mullard, Ltd., for Research on Radio-Astronomy, 223
- Cavitation in Hydrodynamics, Symposium on Problems Connected with, Arrangements for, 184
- "Ceco-Drop" 8,000-lb. Capacity High-Speed Drop Hammer (Chambersburg Engineering Co. of America), 897*
- Cells. See *Electric*
- "Cem-Matic" Box for Conveying Measured Quantities of Concrete Materials (Trade Publication), 721
- Cement, Adhesive, Synthetic, "Pliobond" (Goodyear Tyre & Rubber Co. (Great Britain), Ltd.), 190
- and Concrete Association, Recommendations on Asphalt Surfaces and Concrete Bases for Roads, 179; Symposium on Strength of Concrete Structures, Arrangements for, 603
- Mortar, Freezing and Thawing Tests on (Book), 881
- See also *Concrete*
- Cementation Co., Ltd., Use of Fly Ash for Manufacture of Lightweight Aggregate for Concrete, 219
- Cementation (Muffelite), Ltd., Silencing Installation for Propeller-Turbine Aeroplane Engine Test House, 314*
- Censuses of Production and Distribution, Questions in House of Commons on, 743
- "Cent-ro-mic" Portable Boring Machine for Fine Bores ("Buma" Engineering Co., Ltd.), 23*
- Centenary of *The Engineer*, 873
- of Steel Castings, 625
- Central After-Care Association, Council of, Report of 872
- Electricity Authority, Thermal Efficiencies of British Power Stations, 39; Proposed Construction of Staythorpe "B" 360-MW Power Station, 53; 275-kV National Grid, Completion of Keadby-Monk Fryston Line, 54*. See *Erratum*, 252; Exhibition on Electricity from Nuclear Power, 72; Extension to Research Laboratory of, 84*; Energisation of Castle Donington Substation, 87*; Extensions to Little Barford Power Station, 102; 240-MW Chadderton "B" Power Station, 111*; Supply Statistics, 135, 310, 475, 668, 758, 878; Proposed 240-MW Power Station, Rugeley "A," 158; Agecroft "B" Power Station, Extensions to, 158; Use of Fly Ash for Manufacture of Lightweight Aggregate for Concrete, 219; Supply of Steam from Power Station for British Celanese, Ltd., 323; East Yelland Power Station, Unified Boiler Control System at, 546*; Commencement of Construction of High Marnham Power Station, 573; Acquisition of Sites for First Two Nuclear Power Stations, 628; Investigation on Possible Uses of Pulverised Fuel Ash, 683; Presentation of Old Brush-Ljungström Turbo-Alternator to Makers, 740*; See also *British Electricity Authority*
- Statistical Office, Index of Industrial Production, 778
- Centralube, Ltd., Trials of "Colo D.P." Graphite for Prevention of Boiler Scale, 675; "Multigreaser" Lubrication System for Rails for Travelling Cranes, 707*
- Centre Marker, "Boyce," for Inside or Outside of Round Work (Rediwell, Ltd.), 549*
- Centrifugal Pumps. See *Pumps*
- Ceramic, Hard Heat-Resisting, "Hylumina," Production and Uses of (K.L.G. Sparking Plugs, Ltd.), 864*
- "Cerenkov" Radiation from "Swimming Pool" Nuclear Reactor, 283*, 299*
- Ceylon, Technical Assistance to, Questions in House of Commons, 839, 871
- "CF100" All-Weather Fighter Aircraft (Avro Aircraft, Ltd.), 437*
- Chadburns (Liverpool), Ltd., "Synchrostep" Remote-Controlled Ship's Telegraph, 276
- Chain Drives (Trade Publication), 881
- Testers' Handbook by C. H. A. McCauly (Review), 238
- Track Tractor. See *Tractor*
- Chambersburg Engineering Co. of America, 8,000-lb. Capacity "Ceco-drop" High-Speed Drop Hammer, 897*
- Champion, Dr. F. A., on Interactions of Static Stress and Corrosion with Aluminium Alloys, 488
- Chandler, Dr. D. B., on Determination of Critical Load for Framed Structures, 658*
- Change-Speed Gear. See *Gear*
- Charlton, H. E. (Engineers), Ltd., Nitrogen Plants (Trade Publication), 9
- Charlton, T. M., on Concepts of Real and Virtual Work, Theory of Structures, 139*
- Charts, Technical, Chemical Engineering (Trade Publication), 297
- Wall (Trade Publication), 137
- Chaseside Engineering Co., Ltd., "Loadmaster" Hydraulic Shovel (Trade Publication), 850
- Chauffe Rationnelle, Office Central de, Process for Gasification of Heavy Fuel Oil, 89*
- Chelmsford/Shenfield Line of British Railways, Modifications to Colour Light Signalling on, 589
- Chemical Analysis. See *Analysis*
- British, and their Manufacture (Book), 105
- Engineers, Future Requirements of Industry from, 631
- Chemical Engineers, Institution of:**
- *Conference on Automatic Control in Process Industries:*
- Programme, 133
- Statement by President of Institution, 552
- Fundamentals of Automatic Control, by R. S. Medlock, 631
- Dynamics of Process Plant, by J. McMillan, 631
- Consideration of Instrumentation in Design, by B. W. Balls and A. H. Isaac, 631
- Economics of Process Control, by S. W. J. Wallis, 631
- Future Requirements of Industry from Chemical and Instrument Engineers, by A. J. Young, 631
- Chemical Engineering, Higher National Certificate in, 5. See also vol. 179
- — Technical Charts (Trade Publication) 297
- Industry in Scotland, Development of, 162
- — Society of: Symposium on Protection of Cable Sheathing Against Corrosion, Programme, 339; 75th Annual Meeting, 1956, Arrangements for, 668
- — Use of Electricity in, 77
- — Milling Technique (North American Aviation Inc.), 853*
- — Plant, British (Trade Publication), 267
- — Research Laboratory, Open Days at, Arrangements for, 246
- — Workers' Union, View on Automation, 64
- Chemidus Plastics, Ltd., Unplasticised Polyvinyl Chloride (Trade Publication), 529
- Chemins de Fer, Société Nationale des, Brochure on Post-War Development of French Railways, 261
- Chemistry for Boiler House and Power Station (Book), 754
- of Corrosion. See *Corrosion*
- "Chesterfield-Unisteel" Joint for Dissimilar Alloys (Tube Investments, Ltd.), 432
- "Chesters" Management Study Centre, Royal Technical College, Glasgow, 584
- "Chevrolet" Motor Car, Suspension System for, 611*
- Chevrolet V-Eight "Motor-Car" Engine, 579*
- Chief Joseph Dam, English Electric Co., Ltd., Tender for Equipment for, Rejection by United States, 323; Questions in House of Commons on, 710
- Chimney Stacks, Steel, Request for Design Data on, 133
- China, Science and Civilisation in, Vol. I: Introductory Orientations, by J. Needham (Review), 370
- Chipboard Factory at Annan, Dumfriesshire (Airscrew Co. & Jicwood, Ltd.), 476*
- Chloride Batteries, Ltd., Water-Activated Batteries for Rescue Flares, 19
- Chloride Electrical Storage Co., Ltd., Output of Accumulators, 619
- Chromium, Newer Uses of, 172. See LETTERS, 230, 262
- "Chrysler V-Eight" Motor-Car Engine, 580*
- Churchward, G. J.: The Man and His Work, by Sir W. Stanier, 556
- Cincinnati Milling Machines, Ltd., Cutter and Tool-Grinding Machine, 61*
- Cinema-Television, Ltd., Telecine Apparatus at Beulah Heights Television Transmitting Station, 404
- "Circle" Line of London Transport Executive, Jubilee of, 518
- Circular Accelerators for Nuclear Particles in Curved Paths, 530*
- Saws. See *Saws under Machine Tools*
- Circulating Pumps. See *Pumps*
- Citrine, Lord, on Siting of Nuclear Power Stations, 487
- "Citroen DS19" Motor Car, Use of Hydraulic Power in Suspension and Braking Systems of, 642*
- City and Guilds of London Institute, Instruction Course on Furnace Brickwork, 85; Engineering Courses at, 365. See LETTERS, 445; Advanced Courses on Concrete Practice, 528. See LETTER, 621
- Civil Aviation. See *Aeronautics*
- Civil Engineers, Institution of:**
- Potentialities of British Railways System as Reserved Roadway System, by Brig. Lloyd, 34
- Conversazione and Exhibition, 52
- Presidential Address, by W. K. Wallace, on Construction of London-Birmingham Railway, the First Trunk Line, 622
- Symposium on Advanced Courses for Engineers, Arrangements for, 687
- Christmas Lectures for Juniors, Arrangements for, 835
- *Airport Engineering Division:*
- Investigations on Transverse Distribution of Air Traffic on Runways and Use of Results in Designing Runways of Varying Thickness, by Prof. J. H. J. Jones, 500
- Civil Engineering Design (Book), 369
- — Manual of, Techniques des Travaux (Book), 297
- — Railway, Soil Mechanics in, 384*. See LETTERS, 655
- — Servants, Clerical, Shortage of, 256
- Civil Service Arbitration Tribunal, Awards of, 32, 224
- Cladding, Glass, "Muroglass," for Framed Building Structures (Pilkington Brothers, Ltd.), 613. See *Erratum*, 704
- Light-Alloy, for Roofs and Walls, "Kynalok" (Imperial Chemical Industries, Ltd.), 173
- Wall, "Dialindre" Two-Skin Method of (Freeman, Morrison, Ltd.), 801*
- Clan Line Steamers, Ltd., Proposed Merger with Union-Castle Mail Steamship Co., Ltd., Controversy on, 715
- Clarke Ellard Engineering Co., Ltd., Hydraulic Lift Trucks (Trade Publication), 690
- Classification, Component, Brisch System for (E. G. Brisch & Partners), 260
- Clausen, H., on Demarcation Line between Engineer and Engineering Technician, 230; on Spiral-Bevel Gear-Cutting Machines, 751. See LETTER, 813
- "Clay Bottle" Technique of Building Construction (Centre de Recherches des Structures Naturelles), 36
- Clayton Dewandre Co., Ltd., Air-Brake Valve for Trailer Vehicles, 318*; Lightweight Air-Controlled Brake for Medium-Sized Motor Vehicles, 516*
- Clayton Fellowships and Grants, Awards of, 1955, 261
- Clayton-Wright, H., Ltd., "Harrisflex" Flexible Couplings (Trade Publication), 850
- Clean Air Bill, Discussion in House of Commons of, 678
- Cleaning Plant for Railway-Track Ballast, British Railways, 247*
- — Ultrasonic, for Components (Mullard, Ltd.), 425
- Tank, "Agidip," for Metals, Using Two-Phase Solutions (Electro-Chemical Engineering Co., Ltd.), 548
- Cleansing Machines for Floors (Trade Publication), 881
- Tank, Pneumatic (Trade Publication), 529
- Clerical Employees, Shortage of, 256
- Climate. See *Meteorology*
- Climax Rock Drill & Engineering Works, Ltd., Rock Drilling Equipment (Trade Publication), 529; Water-Controlled Coal Pick, 690
- Climbing Expedition, Kangchenjunga, Improved Breathing Apparatus for, 844*
- "Climbing" Hydraulic Jack for Concrete Formwork (Tangyes, Ltd.), 422*
- Clock, Atomic, Caesium, at National Physical Laboratory, 303
- and Watch Manufacturers Association, British, Statement of Progress of Clocks and Watches Industry, 526
- Clubley, J., Armstrong Danarm, Ltd., "Fury" Chain Saw and "Falcon" Winch, Petrol-Engine Driven, Interchangeable, 550
- Clutch Control, "Manumatic," 609
- Friction (Trade Publications), 41, 626
- — for Marine Gas Turbine, 567
- Clyde Blowers, Ltd., Soot Blower Equipment (Trade Publication), 330
- Clyde Crane & Engineering Co., Ltd., "Hydral-Luff" Electric Crane with Hydraulic Luffing, 674*
- River, Proposed New Dry Dock for, 525
- — Vehicle and Passenger-Carrying Motor Vessel for Service on, 323
- Coaches, Railway. See *Carriages*
- Coady, J. J., on Farmers' Attitude to Mechanisation, 812
- Coal Board, National. See *National Coal Board*
- Boring Unit, Offshore, Coal Struck in Firth of Forth, 611
- Canadian, Directory of (Book), 818
- Consumption and Demand, Statement by Powell Duffryn, Ltd., 522
- Delivery, Possibilities of Mechanisation of, 587
- Economy. See *Fuel; Pulverised Coal*
- Face, Advancing, Support System for Roof of (C. Ritchie), 738*
- Gas. See *Gas*
- Handling Plant at Bold "A" Power Station (T. W. Ward, Ltd.), 514*
- — Plant at Chadderton "B" Power Station (Simon-Carves, Ltd.), 111
- — Plant at Drakelow Power Station (Mitchell Engineering, Ltd.), 663
- — Plant of Stanton Ironworks Co., Ltd., Modifications to, 512*
- Hydraulic Transport of, Experimental Three-Cylinder Feeder for, 595*
- Increases in Price of, 402
- Industry, Effect of Atomic Energy on, 618
- — Parliamentary Debate on, 160
- — Recruitment of Manpower for, 192
- — Use of Electricity in, 76
- Mine. See *Colliery*
- Mining, Opencast, 247,000 ton per day capacity Bucket-Wheel Excavator for (Orenstein-Koppel und Lübecker Maschinenbau A.G.), 604*
- — Open-Cast, Sites for, Questions in House of Commons on, 903
- and Oil Production, Prospects for, 843
- Pick, Water-Controlled (Trade Publication), 690
- Preparation Plant at Flame Research Station, Ijmuiden, Holland, 727
- Prices, High, Protest at, 160
- — Increase in, Engineering Industries Association Statement on, 258
- — Rise in, Effect on Gas Industry, 587
- Production, Decline in, Proposed Investigation by National Coal Board and National Union of Mineworkers, 400, 440
- Pulverised. See *Pulverised Coal*
- Shortage of, Possible Use of Oil Fuel, 35
- Slurry, Flow in Pipes, Research on, 595
- — "Martin" Stoker for Burning, 110
- and Steel Community, European, 3rd Anniversary Statement by President, 290
- Stocks, United Kingdom, Position of, 522
- Trades Directory and Colliery Year Book, 1955 (Book), 330
- Treatment Plant for Research on Coal-Burning Combustion Chambers, 505

- Coal, Use of Oil as Substitute for, Government Debate on, 130
 — Utilisation Council, Domestic Solid Fuel Appliances (Trade Publication), 626
 Coalfields, Guide to, 155 (Book), 237
 Coastal Flooding, Waverley Committee on, Recommendations of, Question in House of Commons on, 743
 — Landslides, Problems in Railway Civil Engineering, 384*. See LETTERS, 655
 Coatings, Protective, for Metals (Book), 369
 Cobalt, New Uses for, 172. See LETTERS, 230, 262
 — Source for Isotope Radiography (Gamma-Rays, Ltd.), 398. See LETTER, 445
 Cochran-Carr, W., the Late, 136
 Cockcroft, Sir J., on Contribution of Nuclear Power to United Kingdom and World Energy Resources up to 1975, 265*; on Survey of Geneva Conference on Peaceful Uses of Atomic Energy, 364; on United Kingdom Atomic Energy Authority and Its Functions, 804*
 Cohen, G., Sons & Co., Ltd., Annual Report, 362
 Coils, Heating, for Oil-Tanker Cargoes, Steel Pipes with Cast-Iron Sleeves for (E. Green & Son, Ltd.), 393*
 Coin Mechanism for Turnstiles (Sir W. H. Bailey & Co., Ltd.), 158*
 Coke-Oven Battery, New, for Stanton Iron-works, 512*
 Cole, J. A., on Oil Film Extent in Complete Journal Bearings, 37. See LETTER, 5. See also vol. 179
 Coleman-Wallwork Co., Ltd., Automatic Moulding Machine, 60*
 Collaro, Ltd., Tape Transcriber, 296
 College of Production Technology, Courses on Materials Handling and Work Study, 528
 — of Technology, Portsmouth, Engineering Courses at, 365. See LETTERS, 445
 Collieries, Atomic Energy and Future of Mining Industry, 618
 — in Canada (Book), 594
 — Coal Face, Advancing, Support System for Roof of (C. Ritchie), 738*
 — Effect of Changes of Atmospheric Pressure on Gas Emissions in, 559
 — Flameproof Flash Equipment for (E. Turner Electrical Instruments, Ltd.), 705
 — Gate-End Panel for (General Electric Co., Ltd.), 736*
 — Llay Main, Use of "Martin" Stoker for Burning Coal Slurry at, 110
 — Mines and Quarries, Report of Chief Inspector, 1953, 15
 — Open-Cast Mining, Sites for, Questions in House of Commons on, 903
 — Staple-Pits, Winding in (Book), 754
 — Thoresby, Applications of Photo-Electric Cells at, 580
 — Use of Electricity in, 816
 — Winding. See *Winding*
 — Workshops and Stores, National Coal Board Suggestions for Layout of, 688
 — Year Book and Coal Trades Directory, 1955 (Book), 330
 Collins, W., the Late, 878
 Collis, J., & Sons, Ltd., Pallet Truck (Trade Publication), 107; Platform Trucks (Trade Publication), 690
 Collisions. See *Accidents*
 Colloquium on Loading of Highway Bridges, Programme, 214
 Colne Valley Water Co., Water Reservation Scheme of, 575*
 "Colo D.P." Graphite for Prevention of Boiler Scale, Trials of (Centralube, Ltd.), 675
 Colombo Harbour, Improvement at, Model of, 52
 — Plan, Future Organisation of, 618; Increased Technical Assistance for, 678; Annual Report, 811; Technical Co-operation Scheme and Technical Assistance to Singapore and Malaya, Questions in House of Commons on, 807
 Colour in Human Activities (Book), 529
 — Picture Monitors and Test Equipment for B.B.C. Experiments on Colour Television, 781*
 — Slide and Film Scanner for Colour Television Experiments, 780*
 Columbia-Southern Chemical Corporation, Application for Manufacture of Granular Titanium in United States, 219
 Columbus, Battelle Institute, Research in Europe and America, 50*; Gamma Radiation Source, 51*; Investigations on Rubbers to Resist Hot Lubricants, 85; Smelting Varying Grades of Iron Ore in United States, by J. D. Sullivan; Factors in Selecting Processes for Producing Iron and Steel, by H. P. Munger, 162
 Columns, Concrete-Encased Stanchions, Full-Scale Tests on, 855*
 — Encased Steel Stanchions, Strength of, by Dr. F. G. Thomas, 759*
 — and Pipes, Electric Jackets for (Trade Publication), 755
 — Strength of Timber Struts (Book), 170
 Colvilles, Ltd., Construction of New Iron and Steel Plant at Ravenscraig, 651
 Colwell, Prof. L. V., on Experiments to Determine Effects of High-Frequency Vibration on Grinding, 247
 Combined Stress. See under *Tests (Materials)*
 Combustion Chambers for Burning Solid Fuel in Gas Turbines, 240*
 — Coal-Burning, Research on, 505
 — of Experimental Liquid-Cooled Gas Turbine, Research by Pametrada, 102
 — of Gas Turbine, Test Rig for, 539*
 — Slagging Cyclone, for Coal-Fired Gas Turbine (English Electric Co., Ltd.), 242*
 — Slagging Cyclone, for Coal-Fired Gas Turbine (J. Lucas, Ltd., and Incandescent Heat, Ltd.), 242*
 — Control System, Automatic (Ipscol, Ltd., and A. W. Cash Co.), 423*
 — Detonative, Shock-Tube Investigation of (Book), 105
 Combustion Engineering Association, Conference in Connection with Fuel Efficiency Exhibition, Arrangements for, 408
 — Mechanism of, Trials at International Flame Research Station, 726*
 — Researches and Reviews, 1955 (Book), 450
 — Unit for Fire Extinguisher Using Inert Gas from Oil Combustion (W. C. Holmes & Co., Ltd.), 544*
 — See also *Fuel; Gases*
 "Comet 4" Civil Airliner, Progress of, 737
 "Comet" Civil Jet Aircraft, Progress of (de Havilland Aircraft Co., Ltd.), 394
 "Commander" Range of Instruments (G. Kent, Ltd.), 116*
 Commer Cars, Ltd., "Superpoise" 2 to 5 tons capacity Lorries, 548
 Commerce. See *Trade*
 Commercial Items of News, 8, 38, 70, 104, 134, 166, 200, 231, 263, 295, 326, 367, 406, 446, 486, 527, 558, 592, 624, 654, 686, 719, 752, 784, 846, 878
 — Cars. See *Motor*
 Commonwealth. See *Australia*
 Companies, Small, in Birmingham Area, Survey of, 651
 Compatibility, Castigliano's Theorem of, by Prof. J. A. L. Matheson, 828*. See LETTER, 877
 Compensation, Workmen's. See *Labour*
 Component Classification, Brisch System for (E. G. Brisch & Partners), 260
 — Motor Car, Industry, Expansion and Change in, 524, 588
 Compound Locomotives. See *Locomotives*
 — Stress. See *Tests (Materials)*
 Compressed Air. See *Air, Compressed and Pneumatic*
 — Tools. See *Machine Tools*
 Compression of Aluminium, Copper and Steel, Effect of Strain Rate and Temperature on, 536
 Compressor, Hydraulic, for Jointing Overhead Electric Transmission Lines (Tate Brothers Ltd.), 466
 — See also *Air Compressor*
 Computer, Analogue, Experimental, for Application for Use in Nuclear Power Stations, 653
 — Digital, Applications to Gas-Turbine Engineering, 640*
 — Electronic, in American Industry, Use of, 819
 — Analogue (Short Brothers & Harland, Ltd.), 472
 — Analogue, "Miniputer" (Saunders-Roe, Ltd.), 472*
 — Digital, using Transistors, for U.S. Air Force, 864
 — for Management Data Processing, 694
 Comtel Reuter, New Weekly Report *Applied Atomic*, 605
 Conciliation in Labour Disputes. See *Labour*
 Concrete, Ltd., Visit of Russian Delegation on Building Methods to, 523
 — Base/Asphalt Surface for Roads, Recommendations of Asphalt Roads Association and Cement and Concrete Association, 179
 Concrete Development Co., Ltd., "St. Paul's Cray" Type Floors and Roof Slabs for Paint Research Laboratory, 114
 — Encased Stanchions, Full-Scale Tests on, 855*
 — Formwork, "Climbing" Hydraulic Jack for (Tangyes, Ltd.), 422*
 — Lightweight Aggregate for, Use of Fly Ash for Manufacture of, 219
 — Manual (Book), 657
 — Materials, "CemMatic" Box for Conveying Measured Quantities of (Trade Publication), 721
 — Method of Determining Expected 7-day and 28-day Strength of, 684. See *Erratum*, 717
 — Mixes, Durability of Aggregates in (Book), 626
 — Mixer (Trade Publication), 850
 — Practice, Advanced Course on, City and Guilds of London Institute, 528. See LETTER, 621
 — Precast, by Prof. K. Billig (Review), 9
 — Members for Foundry Building of Sterling Metals, Ltd., 574*
 — Tied-Arch Frames of, for Factory and Workshops of Matthews & Mumby, Ltd., 186*
 — Prestressed, Manual on (Book), 529
 — Matthews & Mumby, Ltd., Factory, 186*
 — Units for "Intergrid" System of Building Construction, 154*
 — Prestressing of, Congress on (Book), 690
 — "One-Wire System" of (P.S.C. Equipment, Ltd.), 190*
 — Refractory (Trade Publication), 721
 — Reinforced, Properties of, Research on, 121
 — Specifications of German Committee for (Book), 202
 — Structures, Form in Design of, 601*
 — Slabs, "Rotorfloat" Power-Operated Rotary Trowel for Dressing (Winget, Ltd.), 254*
 — and Structural Form: Synthesis of Engineer and Architect, 601*
 — Structural, Joint Committee on: Concrete and Structural Form: Synthesis of Engineer and Architect, by Prof. P. L. Nervi, 601*; Symposium on Strength of Concrete Structures, 1956, Arrangements for, 603
 — Structures, Rubber Seals for (Trade Publication), 881
 — Structures, Strength of, Symposium on, 1956, Arrangements for, 603
 Concreting Equipment, Wagon-Mounted, for Use on Railway Electrification Work, 358*
 Condensers, Steam, Dropwise Condensation in, Research on, 4
 — for Steam-Turbine Test Bed (Worthington-Simpson, Ltd.), 138
 Conductivity. See *Electric*
 Conference, Anglo-American, on Aeronautics. See *Aeronautics*
 Conference, Association of Public Lighting Engineers, Programme, 316
 — Automatic Control in Process Industries, Programme, 133; Proceedings, 552, 631
 — on Automatic Factory (Book), 408
 — Classification, Aslib Aeronautical Group (Book), 237
 — Combustion Engineering Association, in Connection with Fuel Efficiency Exhibition, 408
 — Conservative Party, Bournemouth, Programme, 480
 — Co-ordinated Use of Minerals, Institution of Mining and Metallurgy, Programme, 128
 — Education of Young Worker, 1956, Oxford University, Programme, 611
 — and Exhibitions, Forthcoming, 159, 287, 478, 614, 741, 901
 — on Gas Sales and Service, Arrangements for, 232
 — on Hydro-Electric Works and Nature Preservation, 875
 — International Labour Organisation, 38th, Report of, 840
 — Labour Party, Margate Discussions on Pensions and National Insurance Fund, 584
 — on Metals at Low Temperatures, Paris, Proposed Meeting for Report of, 760
 — Nuclear Energy, British. See *Nuclear Energy Conference, British*
 — on Peaceful Uses of Atomic Energy. See *Atomic Energy, Peaceful Uses of, Conference on*
 — on Properties of Materials at High Rates of Strain, 1957, Arrangements for, 407
 — on Regional Planning and Development, 485. See 523
 — Stress Analysis, Arrangements for, 245
 — on Technical Education, 221
 — on Training Courses for Electrical Technicians, 810
 — Transport and General Workers' Union, 98
 — Unified Screw Threads, Assessment of Progress of Adoption of, British Standards Institution, 131
 — on Use and Abuse of Protective Equipment, Arrangements for, 253
 — on Weights and Measures, U.S. National Bureau of Standards, 40th, Report of, 880
 — on Works Transport, 141*. See *Erratum*, 284
 "Confiance," H.M. Twin-Screw Tug, Launch of, 867
 Congress, Astronautics, 6th International, 236
 — on High-speed Photography, Third International, 1956, Arrangements for, 671; Proceedings, 453*, 863
 — International Foundry, Banquet, 5
 — Internal-Combustion Engine. See *Engine, Internal-Combustion, International Congress on*
 — on Prestressing (Book), 690
 Conlan, J. J., the Late, 70
 Conservation of Coal. See *Coal; Fuel; Pulverised Coal*
 Conservative Party Conference, Bournemouth, Programme, 480
 Construction, Materials of (Book), 105
 — Modular (Trade Publication), 850
 Constructional Engineers, Manual for (Book), 594
 Consultative Committee for Co-operative Economic Development in South and South-East Asia, Annual Report, 811
 Containers, Probe Illuminator for Interiors of (Engineering Developments, Ltd.), 41
 Contracts, 8, 38, 71, 104, 134, 166, 200, 231, 263, 295, 326, 367, 406, 446, 486, 527, 558, 592, 654, 686, 719, 752, 784, 846
 — Engineering, Honouring Delivery Dates in, 649
 — of North Atlantic Treaty Organisation, Difficulties of British Firms in Tendering for, Questions in House of Commons on, 807
 — United States, for Electrical Distribution Plant, Award to Foreign Firms, 714
 Control Board, Multi-Motor, Marine (British Thomson-Houston Co., Ltd.), 275
 — for Unified Boiler Control System at East Yelland Power Station, 547*
 — Desk at Post Office Radio Station at Rugby, 164*
 — for Propeller-Turbine Aeroplane Engine Test House, 316*
 — Remote, for Mechanical Handling Installation (A. West & Co., Ltd.), 424*
 — Wind-Tunnel, for Ministry of Works (Costain-John Brown Instrumentation Division), 728*
 — Engineering, Laboratory for Research on, 373
 — Gear for Diesel-Electric Shunting Locomotives for British Railways (A. West & Co., Ltd.), 311
 — Furnace, for Drakelow Power Station (Bailey Meters & Controls, Ltd.), 666
 — with "Meccano" Assembly (Electric Construction Co., Ltd.), 739*
 — for Travelling Jib Breakdown Crane for Underground Railway Service (Howell & Co., Ltd.), 835*
 — Winch, for Research Trawler, "Sir William Hardy," 220*
 — for Wind-Driven Generator at Costa Head, 56*
 — Indicators, Miniature (Trade Publication), 137
 — Panel for Automatic Moulding Machine, 60*
 — Contactor, for "Hydral-Luff" Electric Crane with Hydraulic Luffing, 675*
 — for Sugar Refinery (Costain-John Brown Instrumentation Division), 728*
 — Room of 10,000-h.p. Continuous Supersonic Wind Tunnel, 25*. See LETTER, 167
 — System Design, Process, Introduction to, by A. J. Young (Review), 238
 — for "E.443" Nuclear Reactor (H. M. Hobson, Ltd.), 177*
 — Feedback, Analysis of (Book), 137
 Control System Feed-Water, "Hagan" (Trade Publication), 202
 — Flying, Integrated (Elliott Brothers (London), Ltd., and H. M. Hobson, Ltd.), 389*
 — Infinitely Variable Speed, for Direct-Current Motors (Trade Publication), 881
 — "Tranet" (Short & Mason, Ltd.), 91*
 — Technique of (Book), 850
 Controllers, Electric Motor. See *Motors, Electric*
 — Indicators and Recorders (Trade Publication), 169
 "Convair F.102A" Supersonic Aircraft with Wasp Waist for Lower Drag, 435*, 788*
 Convention, Power, British Electrical, 1956, Arrangements for, 672
 Conversazione and Exhibition of Institution of Civil Engineers, 52
 Converter, Rotary, for Standardising Dial Readings of "Flex-Tester" Instrument for Measuring Drawing Qualities of Sheet Metal, 62*
 Conveyancer Fork Trucks, Ltd., "Overlander" Fork Truck for Lifting and Towing on Rough Ground, 316*
 Conveyor Belts, "Catto" Tubular Supports for (Trade Publication), 41
 — Friction-Grip (Goodyear Tyre & Rubber Co., Ltd.), 733
 — System with "Adequate" Belt Weigher for Coal Handling Plant (Naylor Brothers, Ltd.), 514*
 — Development Centre for Fisher & Ludlow, Ltd., 119
 — Tensioner for (Trade Publication), 409
 — Vibrator (Trade Publication), 881
 "Conway" By-Pass Jet Aeroplane Engine (Rolls-Royce, Ltd.), 356*
 Cook, Dr. M., on Improvements in Quality and Availability of Titanium, 230. See LETTERS, 262. See 172
 Cooke, I. B., on An Alternative to Piecework, 440
 Cooke, Rear-Adm. J. E., on Changing Pattern of Maintenance and Repair of Machinery of the Fleet, 68
 Cooke, W. H., the Late, 166
 Cooler, Oil and Water, "W" Type, for Internal Combustion Engines (Serck Radiators, Ltd.), 352*
 Cooling, "Aero Mist Spray," for Cutting Tools (Orenda Engines, Ltd.), 885*
 — and Oil-Transfer in Ring-Oiled Bearings by Dr. N. Özdas and Prof. H. Ford, 268*, 570*
 — Towers for Bold "A" Power Station (Film Cooling Towers (1925), Ltd.), 515
 — Ferro-Concrete, for Drakelow Power Station (Mitchell Construction Co., Ltd.), 667
 — Water Conduits for South Denes Power Station, Excavations for, 730*
 — System for Chadderton "B" Power Station (F. Mitchell & Sons, Ltd., and Davenport Engineering Co., Ltd.), 111
 Co-operation. See *Labour*
 Cooper Roller Bearings Co., Ltd., Split Roller Bearings, 463*
 Co-partnership. See *Labour*
 Copenhagen, British Exhibition at, 482
 — Sixth International Congress on Astronautics, 236
 Copper Alloys. See *Brass; Bronze; and Alloys under Metallurgy*
 — Price Fluctuations, 746
 — Resistance to Compression of, Effect of Strain Rate and Temperature on, 536
 — Supplies, 98
 — Tube-Factory, Kirkby, of Imperial Chemical Industries, Ltd., 467*
 — Wrought, and Copper Alloys, Monopolies Commission Report on Supply and Export of, 362
 — See also *Metallurgy*
 Corbett, R. H., & Co., Ltd., "Bickerstaffe" Attachment for Fork Trucks for Handling Bricks without Using Pallets or Stillages, 435*. See LETTER, 557
 Core Hill Television Transmitting Station of B.B.C., 631
 Corin, P. G., the Late, 623
 Corlett, Dr. E. C. B., on Design of Economic Tramp Ships, 660; on An Aluminium River Tanker Design, 684
 Corney, Dr. N. S., on Solubility of Nitrogen in Alpha-Iron, 829
 Cornish Engines in Mine Drainage, End of an Era of, 748*. See 747
 — Preservation Society, Presentation of Robinson's Engine to, 747
 "Cornwall" Fuelling Vehicle for Aircraft (British Petroleum Co., Ltd.), 645*
 Corrosion of Cable Sheathing, Protection Against, Symposium on, Programme, 339
 — Cathodic Protection Applied to Oil Tanker "Regent Springbok" (Metal & Pipeline Endurance, Ltd.), 608*
 — Protection of Buried Metal Structures, Metal-Plate Rectifiers for (Hackbridge & Hewitt Electric Co., Ltd.), 900
 — Protection, "M.C." Process for (Walterisation Co., Ltd.), 465
 — by Phosphating Process (Trade Publication), 594
 — of Underground Structures, Magnesium Anodes for (Trade Publication), 850
 — Research Council, United States, Formation of, 245
 Corrosive Liquids, "Metica" Carbon-Lined Pipes for (Talbot Stead Tube Co., Ltd.), 278
 Cosmic-Ray Effects on Matter at High Altitudes, 237
 "Cosmotron" Synchrotron at Brookhaven, 533*
 Cost and Works Accountants, Institute of: An Alternative to Piecework, by I. B. Cooke, 440
 Costa Head, 100-kW Wind-Driven Generator at (J. Brown & Co. (Clydebank), Ltd.), 55*

- Costain-John Brown, Ltd., Formation of Automatic-Control Development Group, 728*; Instrumentation Division, Control Panel for Sugar Refinery, 728*; Wind-Tunnel Control Desk, 728*; Work of Instrumentation Division, 728*; Water Tunnel and Rotating Beam for Admiralty Hydrodynamics Laboratory, 766*
- Costain, R., & Sons (Liverpool), Ltd., Copper Tube Factory of Imperial Chemical Industries, Ltd., 467*
- Costain, R., Ltd., Underwater Hydrodynamics Laboratory for Admiralty, 766*
- Cotton Industry, Contraction in Capacity of, 586
- Lancashire, Moves Towards Triple-Shift Working in, 440
- Manpower Drift in, 224
- Proposals for Night Shifts in, 320
- County Commercial Cars (Sales), Ltd., Track-Laying Tractor (Trade Publication), 297; Side-Mounting Crane Jib and Winch for Caterpillar Tractor, 599; Opening of New Assembly Shops and Exhibition of Vehicles, 827
- "Coupled Turmo" Gas Turbine Drive for Helicopters (Blackburn & General Aircraft, Ltd.), 357*
- Couplings, Flexible (Trade Publications), 107, 850
- Couplings, Flexible, "Block," "Uniflex" and "NT" Types for Shafts (Crofts (Engineers), Ltd.), 544
- "Multicross," with Easily Replaceable Members (Owl Engineering Supplies, Ltd.), 24*
- Fluid, Dual Unit for Winch Drive (Fluidrive Engineering Co., Ltd.), 461*
- Hose, Hydraulic, "Breakaway" (Automotive Products, Ltd.), 833*
- See also *Clutch*
- Courtaulds, Ltd., Annual Report, 99
- Coventry Gauge & Tool Co., Ltd., Screw Pitch Measuring Machine (Trade Publication), 202
- Coverings, Non-Conducting. See *Heat Insulation*
- Cowans, Sheldon & Co., Ltd., 75-ton Breakdown Crane for Indian Railways, 706*
- Cox, H. J., the Late, 655
- Crabtree, J. A. & Co., Ltd., Flush Electric Switches for Alternating-Current Circuits (Trade Publication), 755
- Craig, R. K., on Passenger Liner with Engines Aft, 673
- Crane, Breakdown, 75-ton, for Indian Railways (Cowans, Sheldon & Co., Ltd.), 706*
- Bucket, Overhead Travelling, Correct Use of (Trade Publication), 721
- Diesel-Electric, for Cargo Handling on M.V. "Lachinedoc," 898*
- Electric, "Hydral-Luff," with Hydraulic Luffing (Clyde Crane & Engineering Co., Ltd.), 674*
- and Electric Trucks (Trade Publication), 169
- Mobile (Trade Publication), 850
- 3-ton, "Jones" (K. & L. Steelfounders & Engineers, Ltd.), 896*
- Overhead, Travelling, Heavy-Duty, Specification for (Book), 657
- Rigid-Mast, for Moving Coiled Copper Tube, 469*
- Side-Mounting, for Caterpillar Tractor (County Commercial Cars (Sales), Ltd.), 599
- Travelling Jib Breakdown, Diesel-Electric, for London Transport Underground Railway Service (Taylor & Hubbard, Ltd.), 835*
- Lubrication System for Rails of (Centralube, Ltd.), 707*
- See also *Gantry; Derricks*
- Cranes (Dereham), Ltd., Trailer for Oil Well Drilling Rig, 687
- Cranfield College of Aeronautics, Reports of (Books), 529, 690
- Crankshaft Bearing Surfaces, Flame-Hardening Process for (Peddinghaus), 151*
- Diesel Engine, Full-Scale Fatigue Tests of, 891
- Crates, Metal, for Milk Bottles, Specification, 238
- Crayford Works of F. Braby & Co., Ltd., New Steel Fabrication Factory at, 705*
- Creams, Barrier, for Dermatitis Treatment (Rozalex, Ltd.), 397
- Creasing and Stiffness Tester for Fabrics (Shirley Developments, Ltd.), 91*
- Creators, Ltd., "Armourvin" Fuel Hose (Trade Publication), 690
- Credit Insurance Association, Ltd., Pamphlet on Selling to Western Europe, 156
- Creep of Aluminium-Copper Alloys, Metallographic Observations of, 536
- of Aluminium-Copper, Aluminium-Magnesium and Aluminium-Zinc Alloys, Grain Boundary Movement, Slip, and Fragmentation during, 536
- of Pre-Strained Aluminium, 536
- Tests. See under *Tests (Materials)*
- Crewe Locomotive Works of British Railways, Apprentice School at, 443, 444*
- Croft, E. H., on Design of Bogies for Electric and Diesel-Electric Locomotives, 791*
- Crofts (Engineers), Ltd., "Block," "Uniflex" and "NT" Type Flexible Couplings for Shafts, 544
- Crompton Parkinson, Ltd., 350-b.h.p. Diesel-Electric Shunting Locomotives for British Railways, 311*
- Crop-Drying Equipment, "Transverco" (General Electric Co., Ltd.), 833
- Crosby Valve & Engineering Co., Ltd., Air-Operated, Displacement-Type Liquid-Level Controller, 62*; Reduced Trim for Control Valves Operating at Reduced Flow, 146*; "Protecto-seal" Pressure-Balanced Relief Valve, 217*
- Cross Method for Calculating Bending Strength of Supporting Structures (Book), 850
- Crossland, B., on Thick-Walled Cylinders under Internal Pressure, 167, 445. See *LETTERS*, 132, 368, 591, 783. See also vol. 179
- Crossley Brothers, Ltd., Diesel Engines for Shunting Locomotives for British Railways, 311*; Annual Report, 618
- Crossley, Dr. H. E., on Atmospheric Pollution by Power Stations, 447
- Crowbars with Wheels (R. C. Gibbins & Co., Ltd.), 770
- Cruciani, Eusebio, Dott. Ing., Centring System for Varazze Bridge, 758*
- Crude-Oil Engines. See *Engines, Oil Cruisers*. See *Warships*
- Cruse, H., the Late, 407
- Crushers, Mud Hog (Trade Publication), 267
- Crushing Machinery, Sizes and Outputs of, Specification, 41
- Crystalline Solids, Defects in (Book), 237
- Structure of Metals. See *Metallography; Microphotographs*
- "Crystolon" Abrasive for Grinding Wheels, 607
- Curtiss-Wright Corporation, High-Temperature Plastics for Aircraft Use, 789; Supersonic High-Altitude Test Chamber for Ram-Jet Testing, 821*; 12,000-ton Extrusion Press, 853*; Improved Assembly Line for Aircraft Engines, 884*
- Cutters, Milling. See *Milling under Machine Tools*
- Cyanide-Contaminated Effluents, Continuous-Flow Plant for Neutralisation of (British Thomson-Houston Co., Ltd.), 58*
- Cycle and Motor Cycle Show, Exhibits of Motor Scooters at, 682
- Motor. See *Motor Cycle*
- Cyclotrons for Acceleration of Nuclear Particles in Curved Paths, 530*
- Cylinder, Bladed, High-Pressure, for 60-MW Steam Turbine (C. A. Parsons & Co., Ltd.), 275*
- Thick-Walled, Under Internal Pressure, 132. See *LETTERS*, 167, 368, 445, 591, 783. See also vol. 179
- Cyprus, Electrification Scheme for, 312*
- Czechoslovak Engineering Exhibition, Arrangements for, 316

D

- "D9" CRAWLER Tractor (Caterpillar Tractor Co.), 517*
- Dairies, Electrical Equipment for (Trade Publication), 529
- Dallow Lambert & Co., Ltd., Dust Control Equipment (Trade Publication), 850
- Dam, Aswan, Contract Secured by Sir A. Gibb & Partners, 619
- Batauf, River Jordan, Construction of, 46*
- Chief Joseph, English Electric Co., Ltd., Tender for Equipment for, Rejection by United States, 323; Questions in House of Commons on, 710
- Construction and Hydraulic Equipment (Book), 408
- Earth, for Hillfield Park Reservoir, 575*
- Limberg, Glockner-Kaprun Hydro-Electric Scheme, 16*
- Long Lake, and Main Canal, Technical Record of Design and Construction (Book), 267
- Los Peares, Spain, 458*
- Mauvoisin, Switzerland, 36
- Medicine Creek, Record of Design and Construction (Book), 560
- Prestressed Gravity, All-na-Lairige, Model of, 52
- Damper Gear for Wind-Driven Generator at Costa Head, 56*
- Daniels, Dr. G. H., on Fuel Prospects and Efficiency, 843
- Danish-Norwegian Telephone Cable, Laying of, 739
- See also *Denmark*
- D'Arcy Exploration Co., Exploration for Natural Gas in Britain, 703
- Darley, J. H., on Causes of Failure in Internal-Combustion Engine Valve Springs, 797
- "Dart" Propeller-Turbine Aeroplane Engine, Development of (Rolls-Royce Ltd.), 390*; Transport Stand for (Morfax, Ltd.), 896*
- Dartford Tunnel, Proposed, Questions in House of Commons on, 678
- Davenport Engineering Co., Ltd., Cooling Water System for Chadderton "B" Power Station, 111
- Davey, Paxman & Co., Ltd., 750 to 2,000 b.h.p. Diesel Engines for Rail Traction, 148*; "8YLX" Eight-Cylinder, Pressure-Charged Diesel Engine, 148*
- Davidson & Co., Ltd., Forced-Draught Fans for Drakelow Power Station, 663; Centrifugal Fans (Trade Publication), 786; Contra-Rotating Fans (Trade Publication), 786; Dust Collectors (Trade Publication), 850
- Davidson, C. P. D., on Combination of Economic Trends in the Preparation of Business Forecasts, 694
- Davidson, I. M., on Principles of Jet Flap, 722*
- Davies & Metcalfe, Ltd., Safety Device for Locomotives, 218*. See 195
- Davis, J., on Nuclear Power in Canada: Forecast of Development and Costs, 198
- Dawe Instruments, Ltd., Dynamic Balancing Machines to take Workpieces of 100 lb., 88*
- de Havilland Aircraft Co., Ltd., Progress of "Comet" Civil Jet Aircraft, 394
- de Havilland Engine Co., Ltd., "Gyron" Jet Aeroplane Engine, 356*; Testbed for "Gyron" Turbojet Aeroplane Engine, 470*
- de Havilland Holdings, Ltd., Proposed Creation of Holding Company for de Havilland Enterprises, 683
- de la Rue, T., & Co., Ltd., Range of Oil-Fired Boilers, 15
- "De Soto" Motor Car, 644*

- Dead Sea Hydro-Electric Power Scheme, 47*
- Decca Radar, Ltd., "MR75" Ground Radar, 472; Radar Equipment for Aviation (Trade Publication), 529
- Deflections of Drilling Machines, Experiments on, 823
- Dehydration, Industrial (Book), 202
- Delivery Dates, Honouring, 649
- Dell, R., Apparatus for Instantaneous Measurement of Underground Train Speeds, 156*
- Deloro Stellite Ltd., Non-Ferrous Alloy Exhibits at Engineering Exhibition, 461
- Delta-Ferrite, Metallography of, 894
- "Deltic" Diesel Engine, Production of (D. Napier & Son, Ltd.), 868
- Demag, Annual Report, 258
- Denmark, Opportunities for Exports to, 482
- See also *Danish*
- Denton Works of Matthews & Mumby, Ltd., Factory and Workshops with Tied-Arch Frames of Pre-Cast Concrete, 186*
- Depth Recorder for Shallow Waters (Submarine Signal Co. (London), Ltd.), 277
- Derrick, Jack-knife, for Exploratory Drilling for Natural Gas in Britain, 703
- See also *Cranes*
- Design Centre, Plans for Opening of, 405. See 178
- and Drawing, 5. See *LETTERS*, 167, 230. See also vol. 179
- of Equipment for High Pressures, 789*
- Industrial, Council of, Design Centre for British Industries, Permanent Exhibition, 178, 405
- Instrumentation in, 631
- Designer, Soviet, Problems of, by L. A. Shubenko, 877
- Destroyers. See *Warships*
- Detergents, Synthetic, Public-Health, Significance of (Book), 170
- River Water Pollution by, Research on, 14*
- Detuners, Ltd., Exhaust Installation for Jet Aeroplane Engine Testbed, 470*
- Development and Planning, Regional, Conference on, 485. See 523
- Dewaterer, Centrifugal, "Humboldt," for Mines and Chemical Works (Klöckner-Humboldt-Deutz A.G.), 735*
- Dewatering Fluids (Trade Publication), 137
- System at South Denes Power Station, 730*
- Dhekelia, Cyprus, 28-MW Power Station at, 312*
- "Dialindre" Two-Skin Method of Wall Cladding (Freeman, Morrison, Ltd.), 801*
- Dickin, H., on Unified Boiler Control System at East Yelland Power Station, 546*
- "Dido" Nuclear Research Reactor at Harwell, 266; "Dido" High-Flux Heavy-Water Research Nuclear Reactor, 804*, 836*. See also "E.433" Nuclear Reactor
- Die Casting, High Pressure, Report on, 746
- Zinc-Alloy Pressure, for Engineering, Specification, 105
- Zinc and Zinc Alloys for, Specification, 238
- Dies, Phenolic-Resin-Faced, for Stretch-Forming (Lockheed Aircraft Corporation), 852
- Diebold, J., on Automation, 694
- Diesel Engines. See *Engines, Oil, Diesel; Marine Propulsion*
- Users Association: Diesel Engines—Design for Service, by C. H. Bradbury, 698. See also *Diesel Engineers and Users Association*
- Engineers and Users Association: Causes of Failure in Internal-Combustion Engine Valve Springs, by J. H. Darley, 797. See also *Diesel Engine Users Association*
- Diffuser Rings of Aircraft Gas Turbines, Gauge for Checking Throat Area of (British Indicators, Ltd.), 869*
- Digging Machine. See *Excavator*
- "Dimple" Nuclear Research Reactor at Harwell, 266
- Direction Indicator, Animated, for Motor Vehicles (Simms Motor Units, Ltd.), 893
- Directory, Coal Trades, and Colliery Year Book, 1955 (Book), 330
- Disc Design, Application of Digital Computers to, 640*
- Diseases, Industrial, Compensation for, 320
- Display Stand, Wire (Trade Publication), 529
- Displaywork, Ltd., Wire Display Stand (Trade Publication), 529
- Disputes, Trade. See *Labour*
- Distillation Apparatus at Frankfurt Laboratory of Battelle Memorial Institute, 51*
- Plant, Diesel-Driven (Buckley & Taylor, Ltd.), 274*
- Distrene, Ltd., "Styron" Plastics Moulding Materials, 676
- Distributive Trades, Manpower Problems of, 288
- Ditch-Clearing Attachment for Tractor Fore-End Loader (Whitlock Bros., Ltd.), 30*
- Dixon-Lesley, Ltd., Trepanning Tool, 187*
- "D.K.W." German Motor Car, 644*
- Dobson, M. O., on Manchester Public Libraries, 751. See 586
- Dock, Dry, on River Clyde, Proposed, 525
- Industry, Appointment of Committee to Inquire into Working of, 192
- Labour Scheme, Committee of Inquiry into Working of, 584. See 480
- London, Report on Working of, 712
- Docking, F. F., the Late, 407
- Dockyards, H.M., Diesel-Electric Paddle Tugs for, 252
- Southampton, by R. P. Biddle, 68
- Dodds, N., on Idleness in Industry, 616
- Dollar Exports Council, Renewed Drive for Exports to Dollar Account Countries, 685. See 681
- Domestic Applications of Electricity, Development of, 442
- Dominion Engineering Co., Ltd., Spherical Valves (Trade Publication), 137
- Donald, M. B., on Higher National Certificate in Chemical Engineering, 5. See also vol. 179
- Donaldson, T., the Late, 487*

- "Donut" Glass, and Resonator for Electron Synchrotron (General Electric Co., Ltd.), 176*
- Dorey, Dr. S. F., on Influence of Engineer on Sea Transport and Trade, 327, 331; on New Gas Turbine for Oil Tanker "Auris," 557. See 452; on Ferrous Materials in Marine Engineering, 659
- Dorman, Long & Co., Ltd., Steam-Turbine Shop for Fraser & Chalmers Works of General Electric Co., Ltd., 138*; Expansion of Steel Production Capacity in North-East, 259
- Dorman & Smith, Ltd., "Loadmaster" Miniature Circuit-Breaker, 247
- Dorman, W. H., & Co., Ltd., "6LA" 110-b.h.p. Six-Cylinder Diesel Engine, 305*
- "Dormer" Down-Grip Machine Vice (Sheffield Twist Drill & Steel Co., Ltd.), 96*
- Doron, P. H., on Irrigation and Power Potential of Jordan Basin, 46*
- Dosimeter Charging Unit (Ericsson Telephones, Ltd.), 434*
- Douglas Aircraft Co., Projected "Douglas DC8" Jet Airliner, 787*
- Douglas Aircraft Corporation, New Design Offices of El Segundo Division of, 819*
- Douglas, R. M. (Contractors), Ltd., Copper Tube Factory of Imperial Chemical Industries, Ltd., 467*
- Douglass, H., Views on Agitators, 128
- Doulton & Co., Ltd. Porcelain Insulators (Trade Publication), 409; Industrial Stoneware (Trade Publication), 594
- Dounreay, Scotland, Fast Nuclear Reactor at, 280*; Fast Breeder Nuclear Reactor, Progress in Construction of, 652*
- Dowling, D., Ltd., Engraving Machines (Trade Publication), 786
- "Downham," H.M. Inshore Minesweeper, Launch of, 396
- Dowty Equipment, Ltd., Runway Brake for Aircraft, 473; Runway Pad Brake for Aircraft, 834*
- Dowty Group, Ltd., Annual Report, 618
- Doxford, W., & Sons, Ltd., Annual Report, 650
- Drainage, Pre-, of South Denes Power Station Site, Wellpoint System for, 730*
- Drakelow Power Station, 240-MW, 663*
- Dravo Corporation, Prefabricated Helicopter Landing Stations, 569
- Dravo-Doyle Co., "Cem-Matic" Box for Conveying Measured Quantities of Concrete Materials (Trade Publication), 721
- Draw Benches for Copper Tube Factory (Head, Wrightson & Co., Ltd.), 467*
- Drawblocks, Marshall Richards, for Copper Tube Factory, 468*
- Drawing Board with Parallel Motion (Angula Engineering Co.), 91
- and Design, 5. See *LETTERS*, 167, 230. See also vol. 179
- Mechanical, General, by W. Jervis (Review), 785
- Office Equipment (Trade Publication), 330
- Saving Time in Preparation of Layouts in, by F. E. Guest, 106*
- Wire, and Rolling, Inhomogeneous Deformation in, 536
- Drills and Drilling Machines. See *Machine Tools*
- Drive, Constant-Speed, Sundstrand, for Aircraft (English Electric Co., Ltd.), 473
- Electrical, Mechanical and Hydraulic, for Locomotives, 144
- Torque-Converter, "Hystamatic" (Trade Publication), 137
- Two-Speed, for Textile Spinning Frames (English Electric Co., Ltd.), 865*
- Driving Chains. See *Chains*
- Drop Forgings in Alloy Steels, Cinema Film on (Brown-Firth Research Laboratories), 405
- Hammers. See *Hammers under Machine Tools*
- Drucker, P., on Impact of Automation on Management Practice, 808
- Drucquer, L., on Improvements in Generating, Transforming and Controlling Equipment for the Electrical Industry, 623
- Drum, De-Coiler, for Slitting Machine for Stainless Steel, 542*
- Steam, for Drakelow Power Station (English Steel Corporation, Ltd.), 663
- Drummond-Asquith (Sales), Ltd., New House Journal, *Production News*, 215
- Drummond Patents, Ltd., Spray Painting (Trade Publication), 107
- Dry Dock. See *Dock*
- "Drybox" for Handling Liquid Metals for Cooling High-Temperature Turbine Blades 566*
- Drying Equipment for Crops, "Transverco" (General Electric Co., Ltd.), 833
- High-Vacuum (Trade Publication), 881
- Du Pont de Nemours, E. I., & Co., Inc., Synthetic Rubbers (Trade Publication), 529
- Dubied, E., et Cie., S.A., Copying Lathe with Hydraulically-Actuated Tool and Constant Cutting-Speed, 157*
- Duckham, A., & Co., Ltd., Guide to Industrial Lubrication (Trade Publication), 41
- Duckworth, J. C., on Place of Nuclear Energy in United Kingdom Power Development, 804*, 836*
- "Dufton," H.M. Coastal Minesweeper, Trial Trip of, 217
- Dugdill, J., & Co., Ltd., Movable Lighting Fittings (Trade Publication), 690
- Dumper Truck, 31-ton Capacity, "PR21" (Caterpillar Tractor Co.), 517*
- Duncan, D. C., on Tabular Methods of Recording Labour Losses, 616
- Duncan, J. P., on Torsional Vibration in Marine Propellers, 69, 230. See *LETTERS*, 132, 325. See also vol. 179
- Duncanville, South Africa, Boiler-Making Works of Babcock & Wilcox of Africa (Pty.), Ltd., 150*
- Dundee Jute Industry, Rationalisation of Wages in, 360

Dunlop Research Centre, Research on Rubber (Trade Publication), 850
 Dunlop Rubber Co., Ltd., Non-Slip Rubber Matting, 118; Resin-impregnated Fibreglass Pressure Vessels for Use in Aircraft Pneumatic Systems, 474*; New Methods of Tyre Manufacture for Motor and Aircraft Industries, 588; Project for United Kingdom Manufacture of Synthetic Rubber, 747; Properties and Applications of Polytetrafluorethylene (Trade Publication), 881
 Dunton, C. E., Machine for Measuring Slipperiness, 53
 Dunworth, Dr. J. V., on Possible Role of Thorium in Nuclear Energy, 264
 "Durehete 950" Steel for High-Temperature Steam-Plant Bolting Material, 824*
 Dust, Coal. See *Pulverised Coal*
 — Collectors (Trade Publication), 850
 — Control Equipment (Trade Publication), 850
 — — Water Infusion for (Book), 297
 — Dry, Suppression of, and Percussive Drilling (Review), 785
 — Extraction from Gases, Multi-Wash System for (Trade Publication), 690
 — Extractor and Collector, "Microclone" (Trade Publication), 297
 — Limitation, Layout of Plant for, 469
 — Removal from Air, "Keno" Washer for (K. Blackman, Ltd.), 277
 Dutch. See *Holland*
 Dynamics of Machinery, by A. R. Holowenko (Review), 720
 Dynamos. See *Generators, Electric; Turbo-Generators*
 Dynamometer, 25,000-h.p., for Gas Turbine Tests, 505*
 — See also *Brake*
 "Dynex" 300/400-amp. Brush-Shift Generator for Electric Welding (Murex Welding Processes, Ltd.), 273*
 Dyson, R. A., & Co., Ltd., Trailer for Transport of Locomotive Boilers, 189*

E

"E.443" Nuclear Reactor, Control System for (H. M. Hobson, Ltd.), 177*; Experimental Facilities of, 235; Model of, 299*. See also "Dido" Nuclear Reactor
 Earl's Court. See *Exhibition*
 Earth-Boring Equipment, Wagon-Mounted, for Use on Railway Electrification Work, 358*
 Earthmoving Attachment for "Super 12" Motor Grader (Blaw Knox, Ltd.), 803*
 — Equipment (Caterpillar Tractor Co.), 517*
 — and Crawler Tractors, Components of, Specification, 238
 — "LE4" 120-b.h.p. and "LE6" 180-b.h.p. Diesel Engines for (J. & H. McLaren, Ltd.), 248*
 "Easigo" Metal-Clad Plugs and Sockets (Trade Publication), 755
 East Midlands Gas Board, Survey of Gas and Electricity Tariffs, 35
 — Yelland Power Station, Unified Boiler Control System at, 546*
 "Easy-flo" Silver Brazing Alloy (Trade Publication), 267
 "E.B." Weld Insert Process (Rockwell, Ltd.), 465*
 Eborall, R., on Hot Impact Tensile Test and its Relation to Hot-Working Properties, 536
 Eccles, J., on Shortage of Scientific Manpower, 4. See *LETTER*, 69; on Generation of Electricity in Britain, 43
 "Eclipse" Toolholder (Trade Publication), 626
 Economic Commission for Europe, Report on European Steel Market in 1954, 99; Report on European Steel Pipe and Tube Industry, 226; Statement on European Timber Market, 402; United Kingdom Representatives of, Participation in Steel Delegation to U.S.S.R., 405; "Konjunkturtest" for Determining Business Trends and Prospects, 810
 — Conditions in Germany, Report on, 810
 — Situation, Current Review of, 66
 — Statistics as Guide to Management Decisions, 694
 — Trends, Combination of, in Preparation of Business Forecasts, 694
 Economics, Industrial. See *Labour*
 — Machine Tool Industry as Guide to Market Trends, 874
 — Railway. See *Railway*
 Economy, Fuel. See *Fuel*
 "E.D.-Hol" System for Extinction of Fires in Ships using Inert Gas from Oil Combustion, 544*
 Edleston, Sir T., & Partners, Ltd., Grease Gun (Trade Publication), 850
 Edison Swan Electric Co., Ltd., Fluorocarbons (Trade Publication), 489

Education:

Aeronautical and Automobile Engineering, College of, Foundation of Two Wakefield Scholarships by C. C. Wakefield & Co., Ltd., 685; Courses in Gas Turbine Engines for Road Transport and Industrial Use, 695
 Apprentices, Engineering, Call-up Deferments of, Questions in House of Commons on, 710
 — School at Crewe Locomotive Works of British Railways, 443, 444*
 — Training Scheme of Engineering Industries Association, 563
 — Schemes of Metropolitan-Vickers Electrical Co., Ltd., at Trafford Park, 100*. See *Erratum*, 168
 — School of Vickers-Armstrongs (Aircraft), Ltd., Opening of, 861

Education—continued

Apprenticeships, Numbers of Juveniles Available for, 192
 — in Patternmaking Trade, 160
 Automobile and Aeronautical Engineering, College of, Foundation of two Wakefield Scholarships, 685; Courses in Gas-Turbine Engines for Road Transport and Industrial Use, 695
 Birkbeck College, Haldane Memorial Lecture, by Sir H. Tizard, 246
 Birmingham University, Summer School in Highway Engineering, 157
 Borough Polytechnic, Engineering Courses at, 365. See *LETTERS*, 445
 California University, Investigation on Economic Construction of Airport Runways, 500
 Cambridge University, Offer by Mullard, Ltd., for Research on Radio-Astronomy, 223; Engineering Department, Activities of, 525
 Careers, Effect of National Service on, Report of Inquiry on, 648
 Chemical Engineering, Higher National Certificate in, 5. See also vol. 179
 "Chesters" Management Study Centre, Royal Technical College, Glasgow, 584; City and Guilds of London Institute, Instruction Course on Furnace Brickwork, 85; Engineering Courses at, 365. See *LETTERS*, 445; Advanced Courses on Concrete Practice, 528. See *LETTER*, 621
 College of Production Technology, Courses on Materials Handling and Work Study, 528
 — of Technology, Portsmouth, Engineering Courses at, 365. See *LETTERS*, 445
 Courses in Gas-Turbine Engines for Road Transport and Industrial Use at College of Aeronautical and Automobile Engineering, 695
 Diplomas in Technology, Proposed, 127 See 97, 129. See *LETTERS*, 167
 Education, Ministry of, "Intergrid" System of Building Construction for Worthing Technical High School, 154*; Proposed Diplomas in Technology, 127. See 97, 129. See *LETTERS*, 167
 Electrical Engineering Industry, Technical and Educational Needs of, 526, 528
 — Industry as a Career, 75
 Engineering Training Courses of Colleges and Polytechnics, 365. See *LETTERS*, 445
 Gas-Turbine Technology, School of, New Test House for, 548*
 Imperial College of Science and Technology, Public Health Engineering Courses, 261; Expansion Problems of, 622; Inaugural Address by Prof. A. Tustin, on Next Ten Years of Electrical Engineering, 848
 Incorporated Plant Engineers, Advanced Courses on Installation and Operation of Plant, 528
 Industrial Appreciation Course for Retired Officers, Federation of British Industries Scheme for, 840
 — Supervisors, Institute of, Courses on Supervisory Development, 528
 Liverpool University, Department of Social Studies, Industrial Democracy, by W. H. Scott, 361; Advanced Lectures on Specialised Subjects, 528
 London School of Hygiene and Tropical Medicine, Public Health Engineering Courses, 261
 — University, Birkbeck College, Haldane Memorial Lecture, by Sir H. Tizard, 246
 — — University College, Lectures on Photoelasticity, 528
 Management Training, Residential College at Sundridge Park for, 616
 Manchester College of Technology, Royal Charter for, 168; Facilities of Library of, 751. See 586
 — and District Advisory Council for Further Education, Advanced Lectures on Specialised Engineering Subjects, 528
 Metropolitan-Vickers Electrical Co., Ltd., Student and Apprentice Training Schemes at Trafford Park, 100*. See *Erratum*, 168
 Mid-Essex Technical College and School of Art, Engineering Courses at, 365. See *LETTERS*, 445
 National College for Heating, Ventilating, Refrigeration and Fan Engineering, Advanced Lectures on Process Heating, 528
 — of Horology and Instrument Technology, Engineering Courses at, 365. See *LETTERS*, 445
 Native Peoples, Education to Industrial Life, by F. Rodseth, 34
 Northampton Polytechnic, Engineering Courses at, 365. See *LETTERS*, 445; Courses on Fatigue of Metals, 405; Advanced Lectures on Specialised Subjects, 528
 Oxford University, Conference on Education of Young Worker, 1956, Programme, 611; Institute of Statistics, Survey of Private Limited Companies in Birmingham, 651
 Part-Time Courses in Technology, Statistics of, 715
 Plastics Industry Education Fund, 39*
 Polytechnic, The, Engineering Courses at, 365. See *LETTERS*, 445
 Portland Training College for the Disabled, Training in Engineering Work, 620*
 Public Health Engineering Courses, Attendance at, 261
 Reading University, Museum of English Rural Life, 876*

Education—continued

Regional Advisory Council for Higher Technological Education, Courses for Foremen and Supervisors, 528
 Rensselaer Polytechnic Institute, Opening of Hartford Graduate Centre for Employees of United Aircraft Corporation, 555
 Research, Industrial, Education and Training of Graduate Staff for (Book), 560
 Road Design, Modern, Courses on, Arrangements for, 262
 Royal Technical College, Glasgow, Opening of "Chesters" New Management Study Centre, 584
 "Sandwich" Courses in Engineering and Applied Science, Questions in House of Commons on, 710
 — in Technology, Statistics of, 715
 Scholarships, Overseas, Federation of British Industries Scheme for, Annual Report, 258
 — Wakefield, Foundation of, by C. C. Wakefield & Co., Ltd., at College of Aeronautical and Automobile Engineering, 685
 Schools, Fuel Consumption in (Book), 626
 Science Facilities in Schools, Costs of Building, Questions in House of Commons on, 710
 — Graduates in United Kingdom, Statistics of, 678
 Scientific Education in Schools, Industrial Fund for the Advancement of, Formation of, 650, 656
 — Manpower, Government Debate on, 129. See 97, 127
 Sheffield University, Hatfield Memorial Lecture on Trends in Metallurgical Research in United States, Arrangements for, 406
 Sir John Cass College, Engineering Courses at, 365. See *LETTERS*, 445
 South East London Technical College, Engineering Courses at, 365. See *LETTERS*, 445
 Students, Degree, Engineering, in Scotland, Numbers of, Questions in House of Commons on, 743
 — Training Schemes of Metropolitan-Vickers Electrical Co., Ltd., at Trafford Park, 100*. See *Erratum*, 168
 Teachers, National Union of, Dispute over Superannuation Scheme, 872
 Technical Colleges, Public Technical Library Service Based on, 586
 — — West Hartlepool, Engineering Courses at, 365. See *LETTERS*, 445
 — — York, Engineering Courses at, 365. See *LETTERS*, 445
 — Education: Aims, Organisation and Future Development of, by P. F. R. Venables (Review), 882
 — Assistance of Industry to, Questions in House of Commons on, 775
 — Capital Spent on, Questions in House of Commons on, 646
 — Conference on, 221
 — of Recently Qualified Engineers, Criticism of, 586, 684
 — Urge for Greater Development of, Questions in House of Commons on, 903
 Technology, Proposed Diplomas in, 127. See 97, 129. See *LETTERS*, 167
 Television Training Centre of Marconi's Wireless Telegraph Co., Ltd., 5
 Training Courses, Advanced, for Engineers, Symposium on, Arrangements for, 687
 — for Electrical Technicians, Conference on, 810
 — Technical, for Apprentices, Arrangement of by Hackbridge & Hewittic Electric Co., Ltd., 528
 — Technical, for Apprentices, Arrangement by Quasi-Arc Co., Ltd., 528
 — Vacation, for Schoolboys, Organised by South Wales Switchgear, Ltd., 293
 — of Disabled Workers in Engineering at Portland Training College for the Disabled, 620*
 — for Industrial Management, by A. Silberston (Review), 689
 — for Management in Iron and Steel Industry, Report on, 239
 — Schemes of Babcock & Wilcox of Africa (Pty.), Ltd., 150
 University Graduates, Survey on Recruitment of, 648
 Welding Research Association, British, Advanced Courses on Welding and Productivity, 528
 Whitworth Fellowships, Introduction of, and Abandonment of Scholarships, 167
 Work-Factor Co., Courses for Industrial Executives, 528
 Worthing Technical High School, "Intergrid" System of Building Construction for, 154*
 Edwards, Dr. C. A., on Relative Merits of Low and High-Sulphur Oil for Open-Hearth Steelmaking, 829
 Edwards, F. J., Ltd., "Besco" Hand-Operated Box-Folding Machine, 117*
 Edwards High Vacuum, Ltd., Manufacture of High-Vacuum Plant, 2; Plant for Metallisation by Vacuum Technique (Trade Publication), 626; Elastomer Sealing Material (Trade Publication), 690; Flanged Joints and Screwed Unions for High Vacuum Work (Trade Publication), 690; Magnetically-Operated Valves for High-Vacuum Systems (Trade Publication), 721; Vacuum Gauges (Trade Publication), 721
 Edwards, L., & Co., "Komag" Portable Air Compressor for Airline Equipment, 63*

Edwards, R., Views on Automation, 64
 Efco Engineering Co., Ltd., "Efco" Electric Furnace for Melting and Casting Copper, 468*
 "Efco-Lindberg" Self-Contained Carbonitriding and Heat-Treating Furnace (Electric Resistance Furnace Co., Ltd.), 285*
 "Efco-Udylite" Perspex Cluster-Barrel Apparatus for Electroplating (Electro-Chemical Engineering Co., Ltd.), 317*
 Efficiency of Boiler Plants. See *Boiler*
 — of Engines. See *Engines; Trials*
 Effluent, Cyanide-Contaminated, from Metal-Finishing Processes, Research on Treatment of, 14
 — Toxic, from Plating and Pickling Process, Continuous-Flow Plant for Neutralisation of (British Thomson-Houston Co., Ltd.), 58*
 — from Power Stations, 447
 Egypt, the Sudan and Ethiopia, Report of United Kingdom Trade Mission to, 165. See *LETTER*, 230
 Ehrlicke, K. A., on The Satelloid, 236
 Eire Railways, 550-h.p. Bo-Bo and 1,200-h.p. Co-Co Diesel Electric Locomotives for (Metropolitan-Vickers Electrical Co., Ltd.), 185*
 El Segundo Division of Douglas Aircraft Corporation, New Design Offices of, 819*
 El-Tronics, Inc., Geiger and Scintillation Counters (Trade Publication), 881
 "Eland" Propeller Turbine Aeroplane Engine for Elizabethan Aircraft (D. Napier & Son, Ltd.), 357. See *LETTER*, 405
 Elastic Moduli, Use of Vibration Techniques for Determination of, 637*
 Elasticity and Anelasticity of Metals (Book), 202
 Elcontrol, Ltd., Single-Stage Electronic Liquid-Level Control Unit, 90; Ignition-Programming and Flame-Failure Unit, 90*
 "Electra" Airliner, Progress of (Lockheed Aircraft Corporation), 683

Electric:

Accumulator Manufacturers, Investigation by Monopolies Commission, 619
 — Water-Activated Batteries for Rescue Flares (Chloride Batteries, Ltd.), 219
 Alternator. See *Generator and Turbo*
 Amplifiers, Audio, Transistor (Book), 105
 — Magnetic (Book), 105
 — Servo, and Power Rectifier Equipment for Kinetic Heating Rig (English Electric Co., Ltd.), 474*
 Arc Furnaces. See *Furnace, Electric*
 — Welding. See *Welding*
 Battery Vehicles. See *Motor Truck*
 — See *Accumulator (above)*
 British Electrical and Allied Manufacturer's Association, Guide to Arc-Welding Electrodes (Book), 408; Annual Dinner, 737; "BEAMA" Catalogue (Trade Publication), 755
 Busbars, Aluminium (Trade Publication), 755
 Cables (Trade Publication), 137
 — Coaxial, for Austrian Telephone System (Standard Telephones & Cables, Ltd.), 243
 — Fatigue Bending-Test Machine for (Pirelli-General Cable Works, Ltd.), 184*
 — and Machines, Electric, Cooling of (Book) 754
 — Sheathing of, Protection Against Corrosion, Symposium on, Programme, 339
 — Supply, and Lifting Rope Combined, for Underwater Television Camera (British Insulated Callender's Cables, Ltd.), 582*
 — Telephone, Danish-Norwegian, Laying of, 739
 — — Deep-Sea, Repeaters for, Precautions in Manufacture of, 228
 — — Transatlantic, Progress of, 31
 — — Transatlantic, Special Loading Equipment for (Submarine Cables, Ltd.), 677*
 Central Electricity Authority. See *Central Electricity Authority*
 Conductors, Aluminium, Steel-Cored, for Keadby-Monk Fryston Line of 275-kV National Grid (Aluminium Wire & Cable Co., Ltd.), 54. See *Erratum*, 252
 Cranes. See *Cranes*
 Domestic Applications of Electricity, Development of, 442
 Dynamo. See *Generator: Turbo-Generator*
 Electric Jackets for Pipes and Columns (Trade Publication), 755
 — Machines and Cables, Cooling of (Book), 754
 — Railway Engineering, by T. Ferguson (Review), 753
 — Traction Engineering, by E. A. Binney (Review), 753
 — Utility Engineering, Theory of (Book), 786
 Electrical Accessories (Trade Publication), 626
 — Apparatus, Equipment for Testing of (Trade Publication), 690
 — Portable, "Briticent Full-Load Earth Continuity Tester" for (British Central Electrical Co., Ltd.), 175
 — Energy, Direct Conversion of Radiation into, 419*
 — Equipment for Agricultural, Horticultural and Dairy Use (Trade Publication), 529
 — for 247,000 ton per day capacity Bucket-Wheel Excavator and Loader (Allgemeine Elektrizitäts-Gesellschaft), 605
 — of Buildings, Regulations for (Book), 369
 — for Oil Industry (Trade Publication), 9

Electric—continued

- Electrical Inspector of Mines, H.M., Report of, 1952, 339
 — Installation Contracting Industry as a Career, 75
 — Machinery, Rotating, Electrical Performance of, Specification, 105
 — Manufacturing Industry as a Career, 75
 — Measurements, Precision (Book), 137
 — Measuring Instruments (Book), 330
 — Plant, Commissioning of, and Associated Problems (Book), 137
 — Standards and Metering, Science Museum Exhibition on, 152
 Electricity, Applied (Book), 881
 — and the Future, Presidential Address to British Electrical Power Convention, 6
 — and Gas Tariffs, East Midlands Gas Board Survey on, 35
 — from Nuclear Power, Exhibition on, 72
 — Technical Applications of (Book), 786
 — Undertakings of World (Book), 786
 — Use of in Steel, Coal, Chemical and Catering Industries, 76
 Electrometer, "Vibron" for Currents of 10⁻¹³ amps. and Resistances of 10⁹ megohms (Electronic Instruments, Ltd.), 581
 Electroplating. See *Electro*
 Frequency Control, Automatic, Research on, 85
 — and Power Transfer Regulation between Interconnected Systems, Problems of, 537
 Furnaces. See *Furnaces*
 Generating Stations. See *Power Stations*
 Generator. See *Generator* and *Turbo*
 Hydro-Electric Power Plants. See *Power Plants*
 Impedance Tester, Neutral Loop (British Central Electrical Co., Ltd.), 175
 Induction Furnace. See *Furnace*
 — Machines (Book), 369
 Insulating Material, Silicone-Based, "Silco-flex" (Allis-Chalmers, Great Britain, Ltd.), 127
 Insulation Materials (Trade Publications), 107, 489
 Insulators, Porcelain (Trade Publication), 409
 — Strings for Keadby-Monk Fryston Line of 275-kV National Grid (Pikington Brothers, Ltd.), 54*
 See *Erratum*, 252
 Lamps. See *Lamps*
 Lighting. See *Lighting*
 Locomotives. See *Locomotives*, *Electric*
 Machines. See *Generators*; *Motors*; *Turbo*
 Mains. See *Cables (above)*
 Midlands Electricity Board, Motor Lorry with Aluminium Body, 24
 Mining, Use of Electricity in, 816
 Motors. See *Motors*, *Electric*
 National Electrical Code Handbook (Book), 818
 Networks, Protective Systems for (Trade Publication), 267
 Oil Switch. See *Switchgear*
 Plugs and Sockets, Metal-Clad, "Easigo" (Trade Publication), 755
 Power. See *Power*
 — Stations. See *Power Stations*
 Quartz-Crystal Units (Trade Publication), 41
 Railways. See *Railways*
 Rays. See *X-Rays*
 Rectifier, Contact, 5-MW (Brown, Boveri & Co., Ltd.), 20*
 — Equipment for Welding (Murex Welding Processes, Ltd.), 273
 — Germanium, Power, 1,000-kW (British Thomson-Houston Co., Ltd.), 672*
 — Improvements in, 623
 — Mercury-Arc (Trade Publication), 297
 — Arc, Single and Multi-Anode Types (Brown, Boveri & Co., Ltd.), 20*
 — Metal-Plate, for Cathodic Protection of Buried Metal Structures (Hackbridge and Hewittic Electric Co., Ltd.), 900
 — "Nevitron" (Trade Publication), 267
 — Power, Germanium and Silicon, Techniques and Performance of, 761*
 — and Servo Amplifier Equipment for Kinetic Heating Rig (English Electric Co., Ltd.), 474*
 — Selenium (Trade Publication), 41
 — Air-Cooled, for Ground-Testing of Aircraft Instruments (General Electric Co., Ltd.), 246*
 — for Unified Boiler Control System at East Yelland Power Station, 546*
 Relay, Electronic, for Detecting Infra-Red Radiation (British Thomson-Houston Co., Ltd.), 646*
 — Manual (Trade Publication), 297
 — Radio, Use in Television and Multi-Channel Telephony, 739
 — Safety, Low-Voltage, for Welding in Confined Spaces (Philips Electrical Ltd.), 452
 — Sealed, for Use in Aircraft (Measuring Instruments (Pullin), Ltd.), 452
 Resistances, Expanded Metal (Trade Publication), 297
 — Welding. See *Welding*
 Rolling Mills, Electric Driving of. See *Rolling Mills*
 Röntgen Rays. See *X-Rays*
 Sequence Timers (Trade Publication), 881
 Ship Propulsion. See *Marine Propulsion*
 Short-Circuit Testing Facilities at Research Laboratory of Belmos Co., Ltd., 671*
 Steel Manufacture. See *Furnace*, *Electric*
 Storage Battery. See *Accumulator (above)*
 Substation. See *Substation*
 Switchgear. See *Switchgear*; *Motors*, *Electric*
 Telegraphy. See *Telegraphy*
 Telephony. See *Telephony*

Electric—continued

- Test Set, Multi-Range (Trade Publication), 107
 Thermometer. See *Thermometer*
 Traction. See *Locomotives*, *Electric*; *Railways*
 Transformers. See *Transformers*
 Transistors. See *Transistors*
 Translation of Electrical Engineering Terms, *Electrical Translators' Bulletin*, 191
 Turbo-Generators. See *Turbo-Generators*
 Valve, Cold-Cathode, Trigger, "Z803U" (Mullard, Ltd.), 190
 — Rectifier, and Line Output Pentode (Trade Publication), 881
 — Thermionic, 1904-1954 (Book), 237
 Voltage Regulators (Trade Publication), 626
 — "Magnestat" (British Thomson-Houston Co., Ltd.), 275*
 Welding. See *Welding*
 Winding Gear. See *Winding*
 Wireless Telegraphy. See *Telegraphy*; *Radar*; *Radio*; *Television*
 — Telephony. See *Telephony*; *Radar*; *Radio*; *Television*
 Electric Construction Co., Ltd., 18.75-kVA Self-Exciting Self-Regulating Alternator, 463*; Control Gear with "Meccano" Assembly, 739*
 Electric and Musical Industries, Ltd., Telecine Equipment for Wembley Studios, 404; Resonance Free Heavy-Duty Electro-Magnetic Vibrator, 474*; Profile Milling Machine with Electronic Programme Control, 769*
 Electric Resistance Furnace Co., Ltd., "Efco-Lindberg" Self-Contained Carbonitriding and Heat-Treating Furnace, 285*
 Electrical and Allied Industries Research Association, British, Reports of (Books), 105, 293, 594, 626
 — Manufacturers' Association, British, Annual Dinner, 737; BEAMA Catalogue, 1955-56 (Trade Publication), 755
 — Equipment of Ships, Regulations for, Preparation of Fourth Edition of, 486
 — Engineers in Industries other than Electrical, Opportunities, Responsibilities and Recruitment of, 558
Electrical Engineers, Institution of:
 Preparation of Fourth Edition of Regulations for Electrical Equipment of Ships, 486
 Presidential Address by Sir G. Nelson, on Prospects and Responsibilities of Electrical Engineers in Contributing to Future Prosperity of Mankind, 526, 528
 Symposium on Advanced Courses for Engineers, Arrangements for, 687
 Germanium and Silicon Power Rectifiers, by T. H. Kinman, G. A. Carrick, R. G. Hibberd and A. J. Blundell, 761*
 Conference on Training Courses for Electrical Technicians, 810
 Faraday Lecture, by B. L. Metcalf, on How Electricity Assists the Coal Miner, 816
 Christmas Lecture on Electric Traction, for Juniors, Arrangements for, 835
 Regulations for Electrical Equipment of Buildings, Cross Reference Index between 12th and 13th editions of (Book), 881
Measurement and Control Section:
 Recruitment of Technical Manpower to Electrical Engineering Industry, by W. Bamford, 558
 Automatic Control, by W. Bamford, 623
Radio and Telecommunication Section:
 Use of Radio Relay Systems in Television and Multi-Channel Telephony, by H. Stanesby, 739
Supply Section:
 Visit to Holland, 502*
 Improvements in Generating, Transforming and Controlling Equipment for the Electrical Industry, by L. Druquer, 623
Utilisation Section:
 Opportunities, Responsibilities and Recruitment of Professional Electrical Engineers in Industries other than Electrical, by D. B. Hogg, 558
 Electrical Engineers' Reference Book (Book), 786
 — Supervising, Association of. See *Supervising Electrical Engineers, Association of*
 — Engineering, Books on, Readers Guide to (Book), 690
 — Careers in, Cinema Film on, 4. See *LETTER*, 69
 — Industry, Developments in, 526
 — Industry, Recruitment of Technical Manpower to, 558
 — and Mechanical Engineering, Classified List of Historical Events, by G. F. Westcott (Review), 370
 — Next Ten Years of, by Prof. A. Tustin, 848
 — Principles and Practice of (Book), 408
 — Terms, Translation of, *Electrical Translators' Bulletin*, 191
 — Vacation Training Courses for Schoolboys in, South Wales Switchgear, Ltd., 293
 — Industry, Booklet on (Trade Publication), 626
 — Magnetic Materials in, by P. R. Bardell (Review), 625
 — Rt. Hon. A. R. W. Low on, 737
Electrical Power Convention, British:
 Reports of Proceedings, 6, 43, 66, 75
 Presidential Address on Electricity and the Future, by Sir H. Railing, 6
 Generation of Electricity in Britain—British Electricity Authority (Ten-Year Forecast), by J. Eccles, 43

Electrical Power Convention, British—

- continued*
 Electrical Industry as a Career: Electricity Supply Industry, by Sir H. Self, 75; Manufacturing Industry, by S. E. Goodall, 75; Installation Contracting Industry, by R. A. Marryat, 75
 Use of Electricity in Steel Industry, by W. F. Cartwright, 76
 Use of Electricity in Coal Industry, by B. L. Metcalf, 76
 Use of Electricity in Chemical Industry, by G. Nonhebel, 77
 Use of Electricity in Catering Industry, by F. A. Rogers, 78
 Annual Dinner, 78
 Electrical Forum, 78
 Arrangements for 1956 Convention, 672
 Electrical Remote Control Co., Ltd., Sequence Timers (Trade Publication), 881
 — Technicians, Training Courses for, Conference on, 810
 — Trades Union, Demands for Shorter Working Hours and Less Overtime, 128, 256; Strikes Involving, 288, 320; Wage Disputes in Printing Industry, 360
 Electricity Industry, Advertising in, Reduction of Expenditure on, 646
 — Supply Industry, Organisation of, Proposed Report on, 678
 "Electricon" Smoke Density Indicator (R. Trist & Co., Ltd.), 353*
 Electro-Chemical Engineering Co., Ltd., "Efco-Udylite" Perspex Cluster-Barrel Apparatus for Electroplating, 317*; "Agidip" Cleaning Tank for Metals, Using Two-Phase Solutions, 548
 Electro-Hydraulics, Ltd., Electrically-Operated Hydraulic Valves (Trade Publication), 267
 Electrodes, Arc Welding, BEAMA Guide to (Book), 408
 — Welding, Electric Oven for Drying (Schuckert (Great Britain), Ltd.), 549*
 — for Spot Welding, Specification, 238
 Electrolysis for Purification of Salt Water, Research on, 285
 Electrolytic Corrosion. See *Corrosion*
 Electromagnetism, Principles of (Book), 137
 "Electromaze" Electric Air Filter (Air-Maze, Ltd.), 398*
 Electron Gun of Electron Synchrotron (General Electric Co., Ltd.), 176*
 — Microscope, Siemens, at Battelle Memorial Institute, Frankfurt, 50*
 — Synchrotron, Components for (General Electric Co., Ltd.), 176*
 Electronic Computers for Management Data Processing, 694
 — Production and Use in United States, 841
 Electronic Instruments, Ltd., New Richmond Factory for, 581*; "Vibron" Electrometer for Currents of 10⁻¹³ amps. and Resistances of 10⁹ megohms, 581
 Electronics, Elements of (Book), 754
 Electroplating Machine, Zinc, Automatic, 887
 — Perspex, Cluster-Barrel Apparatus for, "Efco-Udylite" (Electro-Chemical Engineering Co., Ltd.), 317*
 — Process, Toxic Effluents from, Continuous-Flow Plant for Neutralisation of (British Thomson-Houston Co., Ltd.), 58*
 Electropower Gears, Ltd., Fractional Geared Motors (Trade Publication), 107; Reduction Gearboxes (Trade Publication), 330
 "Electrotap" Regulator for Electrical Heating Apparatus (Stabilab Co., Ltd.), 469*
 Electrotechnology (Book), 369
 Eleven Club, Debate on Future Co-operation of Industry, 552
 Eliminator, Static, Radioactive, "Isotron" (Isotope Developments, Ltd.), 157
 "Elizabethan" Airliner, Increase for Overhaul Life of Propellers of, 847
 Elliot, G. D., on Developments in Ironmaking at Appleby-Frodingham, 630
 Elliott Brothers (London), Ltd., Integrated Flying Control System, 389*; General-Purpose Analogue Computer, 472
 Elliott, H. J., Ltd., Tester for Alcohol Content of Wine, 117
 Ellison, G., The Late, 136
 Ellison, G., Ltd., 250-MVA 11-kV Circuit Breaker, 277; 45-MVA 660-volt Switchboard, 277*
 Elstree, Strike of Electricians at, 288, 320
 Emery Wheels. See *Grinding under Machine Tools*
 Employees. See *Labour*
 Employers' Confederation, British, Session on Future of Industrial Relations, 648
 — Liability. See *Labour*
 Employment. See *Labour*
 Encyclopaedia Britannica Book of the Year, 1955 (Book), 786
 "Endia" Radius Fixture for Grinding Wheels, with Interchangeable Mandrels (Engineering Diamonds, Ltd.), 119*
 Endurance Tests. See *Fatigue under Tests (Materials)*
 Energy, Commission for, O.E.E.C., Announcement of Members of, 318
 Enfield Town to Liverpool Street Railway, Electrification of, Questions in House of Commons on, 710
 Engelhard Industries, Ltd., "Hersch" Oxygen Meter for Small Concentrations, 91*
 Engines, Aero. See *Aeronautics*
 — Diesel. See *Engines, Oil*, *Diesel*; *Marine Propulsion*; *Motorships*
 — Dividing, Exhibition to Illustrate Evolution of, 558
 — Fire. See *Fire*
 — Indicators. See *Indicators*
 — Internal-Combustion, Cathode-Ray Indicating Equipment for (Southern Instruments, Ltd.), 738
 — Combustion, Causes of Failure of Valve Springs of, 797
 — Combustion, Control of Gas Change in (Book), 786
 — Combustion, Free-Piston Generator with Gas Turbine of More than 10,000 h.p., Marine and Stationary Applications of, 42

Engine, Internal-Combustion, International Congress:

- Group C, Marine and Stationary Engines:*
 Application of Supercharging by Turbo-Blowers to Two-Stroke Marine Diesel Engines of More than 10,000 b.h.p., by G. Wieberdink and A. Hootsen, 42
 New Two-Stroke Engine with Turbo-Charging of Burmeister and Wain, Ltd., by S. Hansen, 42
 Development and Service Results of High-Powered Turbo-Charged Two-Stroke Marine Diesel Engine, by F. G. van Asperen, 42
 "UEC" Type of Single-Acting Two-Stroke Engine of Mitsubishi Shipbuilding and Engineering Co., by H. Fujita, 42
 Development of Opposed-Piston Engine to 10,000 h.p. and Over, by P. Jackson, 42
 Prospects of Building Marine Engines of More than 10,000 b.h.p., by M. Zwicky, 42
 Marine and Stationary Applications of Free-Piston Generator with Gas Turbine of More than 10,000 h.p., by R. Huber, 42
 Comparison of Claims of Direct-Drive Diesel Engine and Geared Engine for High Outputs, by Fr. Schmidt, 42
 Comparative Analysis of Single-Screw Diesel and Steam-Turbine Propelling Plants Developing 10,000 s.h.p. and Over, by H. Sinobad and P. Rouet, 42
 25 Years of Actual Operation at Sea of Two Large Passenger Motorships, by A. Fontana, 43
 Invitation for Written Contributions for, 753
 See also vol. 179
 Engine, Internal-Combustion, Oil and Water Cooler for (Serck Radiators, Ltd.), 352
 — Combustion, Opposed-Piston, Development to 10,000 h.p. and Over, 42
 — Combustion, Research Association, British, Annual Report, 541
 — Combustion, Trolley-Mounted Pressure Indicator for (Southern Instruments, Ltd.), 462*
 — Combustion, Two-Stroke, Single-Acting, "UEC" (Mitsubishi Shipbuilding and Engineering Co.), 42
 — Combustion, Two-Stroke, with Turbo-Charging (Burmeister and Wain, Ltd.), 42
 — Combustion, Wear in, Cinema Film on, 178*
 — Combustion. See also *Turbines*, *Gas*
 — Locomotive. See *Locomotive*
 — Motor Car. See *Engines, Petrol*
 — Oil Diesel, Air-Cooled, "PD4," with Clutch Reduction Unit (J. and H. McLaren, Ltd.), 463*
 — Diesel, 33-h.p., Air-Cooled Three-Cylinder (Armstrong-Siddeley Motors, Ltd.), 832*
 — Diesel, "Calimaster" Equipment for Calibrating and Testing Fuel-Injection Pumps of (Merlin Engineering Co., Ltd.), 274*
 See *Erratum*, 399
 — Diesel, Case Study Data on (Book),
 — Diesel, Comparison of Claims of Direct-Drive and Geared for High Outputs, 42
 — Diesel, Costs and Competition, 66
 — Diesel, 20-b.h.p. per Cylinder Output, Compressed-Air Starting System for (Hymatic Engineering Co., Ltd.), 86
 — Diesel, 110-b.h.p., Six-Cylinder, "6LA" (W. H. Dorman & Co., Ltd.), 305*
 — Diesel, 8-Cylinder, Turbo-Supercharged (Harland and Wolff, Ltd.), 466*
 — Diesel, 2,000-h.p., 16-Cylinder, for Electric Locomotive for Spanish National Railways (English Electric Co., Ltd.), 120*
 — Diesel, "Deltic," Production of (D. Napier & Son, Ltd.), 868
 — Diesel, Design for Long Service, 698
 — Diesel, "8YLY" Eight-Cylinder, Pressure-Charged (Davey, Paxman & Co., Ltd.), 148*
 — Diesel-Electric, for 350-b.h.p. Shunting Locomotives for British Railways (Crossley Brothers, Ltd.), 311*
 — Diesel, 120-b.h.p., Four-Cylinder "LE4," for Earthmoving Equipment and Air Compressors (J. and H. McLaren, Ltd.), 248*
 — Diesel, Full-Scale Fatigue Tests of Elements of, 891
 — Diesel, "Handraulic" Starter for (Bryce Berger, Ltd.), 307*
 — Diesel, High-Speed (Book), 137
 — Diesel, "JD 2," for Distillation Plant (J. I. Thornycroft & Co., Ltd.), 274*
 — Diesel, Maintenance of (Book), 330
 — Diesel, Marine, High-Powered, Turbo-Charged, Development and Service Results of, 42
 — Diesel, Marine, Prospects of Building to more than 10,000 b.h.p., 42
 — Diesel, Marine, Single-Screw, Comparative Analysis with Steam-Turbine Propelling Plants, of 10,000 s.h.p. and Over, 42
 — Diesel, Marine, Two-Cylinder, 16-s.h.p., "RJD 2," with Closed-Circuit Cooling (J. I. Thornycroft & Co., Ltd.), 188*
 — Diesel, Marine, Two-Stroke, of over 10,000 b.h.p., Application of Supercharging by Turbo-Blowers to, 42
 — Diesel, Output of, 618
 — Diesel, Piston Supercharger for (Wellworthy, Ltd., and Ricardo & Co. Engineers (1927), Ltd.), 424*
 — Diesel, Principles and Practice (Book), 137
 — Diesel, Principles and Practice of, by C. C. Pounder (Review), 266
 — Diesel, 750 to 2,000 b.h.p., for Railway Traction (Davey, Paxman & Co., Ltd.), 148*
 — Diesel for Research Trawler "Sir William Hardy" (H. Meadows, Ltd.), 220*

- Engine, Oil Diesel, 180-b.h.p., Six-Cylinder "LE6" for Earthmoving Equipment and Air Compressors (J. and H. McLaren, Ltd.), 248*
- Diesel, and Slush-Pump Unit for Oil Drilling Rigs (English Electric Co., Ltd. and Oil Well Engineering Co., Ltd.), 581*
- Diesel, "Stad," Agreement between Auto Diesels, Ltd., and Standard Motor Co., Ltd., for Industrial Adaptation of, 900*
- Diesel, for Thames Tug "Britannia" (National Gas and Oil Engine Co., Ltd.), 887*
- Diesel. See also *Motorships; Marine Propulsion; Diesel Engine Users Association*
- See also *Tractors*
- Petrol, Aeroplane. See *Aeronautics*
- Motor-Car, "Chevrolet V-Eight," 579*
- Motor-Car, "Chrysler V-Eight," 580*
- Motor-Car, "Fiat 600," 578*
- Motor-Car, 1½-litre o.h.v. "Ford Taurus," 579*
- Motor-Car, 1,390 cc. "Hillman Minx," Adaptation for Sunbeam Rapier Car, 577*
- Motor-Car, 2.4-litre, for Jaguar Car, 577*
- Motor-Car, "Mercedes 300S," Fuel Injection for, 578*
- Motor-Car, "M.G.," with Twin-Chain-Driven Overhead Camshafts, 578*
- Motor-Car, Rolls-Royce, Cylinder Head with Six Inlet Ports for, 578*
- Motor-Car, two-Stroke 900 c.c. "Goliath," 578*
- Motor-Car, Vertical Twin 4-Stroke "Lloyd," 578*
- See also *Aeronautics; Motor Cars*
- Steam, Builders of Lincolnshire (Book), 137
- Cornish, Robinson's, Movements of, 748*. See 747
- Formation of West of England Steam Engine Society, 591
- Ploughing. See *Tractors*
- Wear in, Use of Radioactive Materials for Determination of, 597
- Winding. See *Winding*
- Engineer, The, Centenary of, 873
- Controversy on Definition of, 230
- Education. See *Education*
- and Engineering, Prospects for 1956, 873
- in Industry, Relations with Employers, 699. See LETTER, 751
- Production, Institution of. See *Production*
- Recently Qualified, Criticism of Technical Education of, 586, 684
- and Shipbuilders in Scotland, Institution of: James Watt Dinner, 525; An Aluminium River-Tanker Design, by Dr. E. C. B. Corlett and K. J. Fryer, 684
- Engineering and Allied Employers' National Federation, Pension Proposals for Engineering Employees, 32; Consideration of Engineering Wage Claims, 320
- Apprentices. See *Education; Labour*
- Capacity in North of England (Trade Publication), 489
- ENGINEERING, Completion of 90 Years of Publication, 873
- Contracts. See *Contracts*
- Department of Cambridge University, Activities of, 525
- Designers in U.S.S.R., Problems of, 877
- Engineering Developments, Ltd., Probe Illuminator for Interiors of Containers, 41
- Engineering Diamonds, Ltd., "Endia," Radius Fixture for Grinding Wheels, with Interchangeable Mandrels, 119*
- Distributors, Association of, Annual General Meeting, 656; Distribution of Engineers' Tools in Germany, by Dr. Greifelt, 656
- Education. See *Education*
- Employees, Pension Proposals for, 32
- Equipment Users' Association, Committees on Standardisation, 260
- Geology in (Book), 657
- Industrial, and Management, Handbook of (Book), 690
- Industries Association, Statement on Increase in Coal Prices, 258; Apprentice Training Scheme of, 563
- Blue Book on National Income and Expenditure, 362
- and Engineers, Prospects for 1956, 873
- Prosperity of, 525
- Recruitment of Scientists and Engineers by, Report on, 745
- Statistics of Employment in, 363
- Transfer of Responsibility to Board of Trade, 2
- Influence of Space Flight on, 371*
- Inspection (Book), 105
- Institutions. See *Institutions*
- Laboratories. See *Laboratories; National Physical*
- Marine and Welding and Foundry Trades Exhibition, 272*, 304*, 322, 324*, 351*, 422*, 397*, 422*, 461*. See LETTER, 445; Request for Information on Long Associations with, 133
- Materials, Testing and Inspection of (Book), 105
- and Metal Industries, Dependence of Economy on, 66
- Metallurgy, by L. F. Mondolfo and O. Zmeskal (Review), 883
- Societies. See *Institutions*
- Standards. See *Standards Institution*
- Technician, Controversy on Definition, 230
- Union, Amalgamated, Demand for Shorter Hours, 128; Demand for Increased Wages, 256; Wage Disputes in Printing Industry, 360; Nomination of Candidates for Presidency of, 776
- Vibration Problems in, by S. Timoshenko (Review), 329
- Works. See *Works*
- English Electric Co., Ltd., Narrow-Gauge Diesel-Electric Locomotive for Rhodesia Railways, 120*; 3,600-h.p., 3,000-volt, Direct-Current Electric Locomotive for Spanish National Railways, 120*; Equipment for Extensions to Post Office Radio Station at Rugby, 165; Slagging Cyclone Combustion Chamber for Coal-Fired Gas Turbine, 242*; 60-kW Radio Frequency Induction Heater, 273*; Relay Manual (Trade Publication), 297; Tender for Equipment for Chief Joseph Dam, Rejection by United States, 323; Electric and Diesel-Electric Locomotives (Trade Publication), 330; "P.I." Jet Supersonic Interceptor Aircraft, 436*; Flat Linear Induction Pump for Liquid Metals, 431*; "Canberra Mark 9" Jet Bomber Aircraft, 438; Sundstrand Constant-Speed Drive for Aircraft, 473; Servo Amplifier and Power Rectifier Equipment for Kinetic Heating Rig, 474*; North Point "B" Power Station for Hong Kong, 547; Diesel Engine for Driving Slush Pump for Oil Drilling Rigs, 581*; 60-MW Turbo Generating Sets for Drakelow Power Station, 666*; Award of United States Contract for Distribution Transformers, 714; Electrical Plant for Admiralty Hydrodynamics Laboratory, 766*; Two-Speed Drive for Textile Spinning Frames, 865*
- English Steel Corporation, Ltd., Pouring of 166-ton Steel Casting, 487; Centenary of First Steel Casting, 625; Steel Steam-Drums for Drakelow Power Station, 663
- "Enots One-Shot" Centralised Lubricating System (Benton & Stone, Ltd.), 397*
- Enterprise for Vision, Book on Development of Spectacles and Ophthalmic Instruments Industry, 52
- E.N.V. Engineering Co., Ltd., Expansion of Activities of, 524
- "Equiserve" Furnace System for High-Speed Scale-Free Heating of Steel (Incandescent Heat Co., Ltd.), 639*
- Ercegovic, S., on Recent Development of the Shipyard at Split, 660
- Ergonomics Research Society, Work of, 403. See LETTER, 621
- Ericsson Telephones, Ltd., Dosimeter Charging Unit, 434*; Field Ratemeter for Tracing Radioactive Materials, 434*
- Erskine, Heap & Co., Ltd., Low-Tension Oil Circuit-Breakers, 308*; Direct-Blast Arc-Control Circuit-Breakers, 308*
- Escher Wyss, Ltd., One Hundred and Fiftieth Anniversary of, 36
- Esso Development Co., Ltd., Test Reports on Residual Fuels for Gas Turbines, 49*; Annual Review for 1954, 194; Plans for Building Oil Tankers, 442
- Ethiopia, Egypt and the Sudan, Report of United Kingdom Trade Mission to, 165. See LETTER, 230
- Europe, Economic Commission for. See *Economic Commission for Europe*
- Organisation of Applied Research in, Proceedings of O.E.E.C. Conference (Review), 409
- Western, Sales of Plastics in, Statistics of 682
- Selling to, Pamphlet on, 156
- Europeans and Africans, Inter-Employment in Rhodesia, 224
- Coal and Steel Community, 3rd Anniversary Statement by President, 290
- Countries, Exchanges of Electrical Energy between Interconnected, 442
- Economic Co-operation, Organisation for. See *Organisation for European Economic Co-operation*
- Organisation for Nuclear Research, Establishment of, 3
- Productivity Agency, Work of, 444
- Society for Atomic Energy, Establishment of, 3
- Steel Market in 1954, Report on, 99
- Pipe and Tube Industry, Report on, 226
- Timber Market, 402
- Euston to Manchester Railway, Proposed Electrification of, Questions in House of Commons on, 775
- Evans, Dr. J. C., on Testing Photographic Plates for Flatness or Straightness, 510*
- Evans, H., the Late, 407
- Evendale, Cincinnati, Works of General Electric Co., Steps Towards Automation at, 884*
- Excavator, Bucket, Export of 100th by T. Smith & Sons (Rodley), Ltd.) to Canada, 517
- Wheel, 247,000 ton per day capacity (Orenstein-Koppel und Lübecker Maschinenbau A.G.), 604*
- Dragline, Export of 100th by T. Smith & Sons (Rodley), Ltd., to New Zealand, 517
- "Fiat 55L" fitted with Mackay Hydraulic Angledozer (Mackay Industrial Equipment, Ltd.), 30*
- Lorry-Mounted, for Oilfield Operation, 803
- Shovel, Hydraulic, "Loadmaster" (Trade Publication), 850
- Swing-Shovel, Hydraulically-Operated, "Ahlmann," Trenching Equipment for (Abelson & Co. (Engineers), Ltd.), 168
- "Tracto-Shovel," Allis-Chalmers (Mackay Industrial Equipment, Ltd.), 30*
- and Tractor, Combined, "Traxcavator" (Trade Publication), 626
- Tractor-Shovel, Integral "Traxcavator" (Caterpillar Traction Co., Ltd.), 477*
- Exhaust Gas from Motor Vehicles, Pollution of Air by, Questions in House of Commons on, 775
- from Motor Vehicles, Summonses Issued in Respect of, Questions in House of Commons on, 871
- Installation for Jet Aeroplane Engine Testbed (Detuners, Ltd.), 490*
- Ventilation (Trade Publication), 297
- Exhausters and Blowers, Centrifugal (Trade Publication), 41
- for Drakelow Power Station (K. Blackman, Ltd.), 663*
- Exhibition, American Society of Tool Engineers, 11th Exposition of, 31
- Exhibition, Atoms for Peace, Geneva, 1957, Proposal for, 816
- British Instrument Industries', Exhibits at, 90*, 115*. See also vol. 179
- British, at Copenhagen, 482
- Brussels, Universal and International, Arrangements for, 261
- Building, 26th, Plans for, 51
- and Public Works, International, Paris, Exhibits at, 36
- Canadian Industrial Tool and Equipment Show, 31
- to Commemorate Golden Jubilee of Royal Aircraft Establishment, 71*
- and Conferences, Forthcoming, 159, 287, 478, 614, 741, 901
- and Conversazione of Institution of Civil Engineers, 52
- Czechoslovak Engineering, Brno, Arrangements for, 316
- Design Centre for British Industries, Council of Industrial Design, 178
- Earl's Court, Strike of Electricians at, 288, 320
- Electrical Standards and Metering, Science Museum, 152
- Electricity from Nuclear Power, Central Electricity Authority, 72
- Engineering, Marine and Welding. See *Engineering, Marine and Welding Exhibition*
- Five Centuries of British Timekeeping, 526
- Foundry Trades. See *Engineering, Marine and Welding Exhibition*
- Trades Fair, International, Düsseldorf, 1956, Arrangements for, 565
- Fuel Efficiency, Arrangements for, 408
- Geneva, on Peaceful Uses of Atomic Energy, 98, 176*, 195, 299*, 354*, 431*
- of Lorries and Tractors by County Commercial Cars, Ltd., 827
- Mental Health, Opening of, 712
- Model Engineer, Arrangements for, 136
- Motor Show, Earl's Court, 553, 577*, 609*, 642*. See 317
- at Museum of English Rural Life, 876*
- National Radio and Television, Exhibits at, 296
- Royal Show, Nottingham, Exhibits at, 29*, 92*
- Science Museum, Evolution of Dividing Engine, 558
- Smithfield Show and Agricultural Machinery, Exhibits at, 778, 832*
- "Exmouth," H.M. Anti-Submarine Frigate, Launch of, 737
- Expanded Metal Co., Ltd., Expanded Aluminium (Trade Publication), 137; Load Testing Equipment and Electric Air Heaters (Trade Publication), 297; Industrial Space Heater (Trade Publication), 297; Expanded Metal Resistances (Trade Publication), 297
- Expenditure and Income, National, Blue Book on, 362
- "Explorer," Fishery-Research Ship, Statement in House of Commons on, 646
- Explosions, Colliery. See *Accidents and Colliery*
- and Fire Protection System for Diesel Railcars (Graviner Manufacturing Co., Ltd.), 463
- Suppression Systems for Aircraft (Graviner Manufacturing Co., Ltd.), 474
- Export Packing Services, Ltd., Research and Development on Packaging (Trade Publication), 786
- Trade. See *Trade*
- Extrusion Press for Aluminium (Schloemann A.G.), 799*

F

- FABER, O., on Savings to be Effected by the More Rational Design of Cased Stanchions as a Result of Recent Full-Sized Tests, 855*
- Fabrics, Creasing and Stiffness Tester for (Shirley Developments, Ltd.), 91*
- Factory Accidents. See *Accidents*
- Building, Increase in, Board of Trade Figures on, 226
- Health in, Proposed Survey of Halifax District, 400
- Inspectorate, Employment in, Questions in House of Commons on, 807
- Management. See *Works Management*
- Report of Chief Inspector of, 1954, 872
- Steel Fabrication, of F. Braby & Co., Ltd., at Crayford, 705*
- Storage Equipment (Steel Equipment Co., Ltd.), 427
- and Workshops with Tied-Arch Frames of Pre-Cast Concrete, Matthews & Mumby, Ltd., 186*
- Fair, Trade. See *Exhibition*
- "Fairchild Oscillo-Record" Camera for Recording Cathode-Ray Oscilloscope Images (Polarizers (U.K.), Ltd.), 128
- Fairey Aviation Co., Ltd., "Ultra-Light" Helicopter, 395*; "Jet Gyrodyne" Helicopter, 396*; "FD2" Supersonic Delta-Wing Research Aircraft, 437*
- "Falcon" Winch and "Fury" Chain Saw, Petrol-Engine Driven, Interchangeable (J. Clubley Armstrong Danarm, Ltd.), 550
- "Falling-Drop" Automatic Lubricating Pump (Tecalmit, Ltd.), 422
- Fans, Centrifugal (Trade Publication), 786
- Contra-Rotating (Trade Publication), 786
- Forced-Draught, for Drakelow Power Station (Davidson & Co., Ltd.), 663
- History of, 207
- Polyvinyl Chloride (Trade Publication), 594
- Propeller (Trade Publication), 489
- Reversible, 33-in., for Ventilating Systems (K. Blackman, Ltd.), 278*
- Fancey, M., on Measurements on the M.V. "Rijeka" with their Attempted Practical Application, 563
- Faraday Lecture, by B. L. Metcalf, on How Electricity Assists the Coal Miner, 816
- Farmer's Attitude to Mechanisation, by J. J. Coady, 812
- Farmer, M. H., on Grain Boundary Movement, Slip, and Fragmentation during Creep of Aluminium-Copper, Aluminium-Magnesium, and Aluminium-Zinc Alloys, 536
- Provision of Capital for, 555
- Farming. See *Agriculture; Tractors*
- Farnborough, Aircraft Industry Display at, 291, 356*, 363, 394*, 436*, 471.* See LETTER, 405
- School of Gas-Turbine Technology, New Test House for, 548*
- Fast, J. D., on Solubility of Nitrogen in Alpha-Iron, 829
- Fatigue in Aircraft, Design Philosophy of, 773
- of Aircraft Pressure Cabins, 73
- Industrial. See under *Labour*
- of Metals, Courses at Northampton Polytechnic on, 405
- Tests of Metals. See *Fatigue under Tests (Materials)*
- Fault, H. G., the Late, 294
- "FD2" Supersonic Delta-Wing Research Aircraft (Fairey Aviation Co., Ltd.), 437*
- Federation of British Industries, Pamphlet on Restrictive Business Practices and the Public Interest, 2; Protest at High Coal Prices, 160; North Midlands Regional Council, Conference on Technical Education, 221; Annual Report on Overseas Scholarships, 258; Statement on Wage Costs in the Light of the Budget, 682; Scheme for Employment of Retired Officers, 840; Report of Visit to Nigeria and Gold Coast, Criticism of, 842; Report of Trade Mission to Austria, 874
- "Fedrex" X-Ray Equipment for Industrial Radiography (Trade Publication), 594
- Feed-Water Control System, "Hagan" (Trade Publication), 202
- Softener. See *Water*
- See also *Water*
- Fencer, Electric, All-Mains (Wolseley Engineering, Ltd.), 30
- Fenner, J. H., & Co., Ltd., Torque-Arm Speed Reducers (Trade Publication), 881
- Fenning, F. W., on Experimental Facilities of E.443 Reactor, 235
- Ferguson, H., Ltd., Vehicle Project, Rumours Concerning, 747
- Ferguson Pailin, Ltd., Switchgear for Chadderton "B" Power Station, 112
- Ferodo, Ltd., Expansion Plans for Motor-Car Components Manufacture, 589
- Ferranti, Ltd., "Pegasus" Digital Computer, 472
- Ferrite, Delta-, Metallography of, 894
- Ferro-Concrete. See *Concrete, Reinforced*
- "Ferrocube," Mullard (Book), 408
- Fett, R. J., on Diesel Locomotive Drives—Electrical, Mechanical and Hydraulic, 144
- "Fiat 55L" Excavator fitted with Mackay Hydraulic Angledozer (Mackay Industries Equipment, Ltd.), 30*
- "Fiat 600" Motor-Car, Engine, 578*; Suspension System for, 610*
- Fibreglass, Ltd., Glass-Reinforced Plastics (Trade Publication), 202
- Fink, P. T., on Value of Wind-Tunnel Tests in Developing Speedboat "Bluebird III," 554
- Film, Cinema, on Building Modern Steel Foundry (F. H. Lloyd & Co., Ltd.), 722
- on Drop Forgings in Alloy Steels (Brown-Firth Research Laboratories), 405
- on Engine Wear, 178*
- on Extinguishing Oil Fires with Air (Mobil Oil Co., Ltd.), 847
- "Inquiring Mind," on Careers in Electrical Engineering, 4. See LETTER, 69
- on Lubrication (Vacuum Oil Co., Ltd.), 636
- "Mechanical Handling on Show," 608
- on Porous-Metal Bearings, 854
- on Productivity and Sales, American, 695
- Film Cooling Towers (1925), Ltd., Cooling Towers for Bold "A" Power Station, 515
- Oil, Extent in Complete Journal Bearings, 5. See LETTER, 27. See also vol. 179
- Pressure, of Parallel-Surface Thrust Bearings, Determination of, 174*
- Thickness, of Parallel-Surface Thrust Bearings, Determination of, 174*
- Scanner and Colour Slide for Colour Television Experiments, 780*
- Filter, Air Electric, "Electromaze" (Air-Maze, Ltd.), 398*
- Self-Cleaning, Automatic, "Automaze" (Air-Maze, Ltd.), 398*
- Percolating, for Testing Efficiency of Removal of Synthetic Detergents from River Water, 14*
- Slow Sand, Laboratory-Scale, for Removal of Radioactive Waste from Water, 14*
- and Strainers (Trade Publication), 107
- Suction, Rotary, "Humboldt," for Mines and Chemical Works (Klöckner-Humboldt-Deutz A.G.), 735*
- Finance Bill, Government Debate on, 775
- Corporation for Industry, Annual Report, 162
- Finner, W. G., & Co., Drawing Office Equipment (Trade Publication), 330
- Fionnay, Switzerland, Underground Power Station 36
- Fire, Convactor, "Hurdapta" (Trade Publication), 169
- and Explosion Protection System for Diesel Railcars (Graviner Manufacturing Co., Ltd.), 463
- Oil, Use of Air for Extinguishing, Cinema Film on, 847
- Research Station, Tests on Flame-Resistant Materials, Questions in House of Commons on, 871
- in Ships, Extinction of, "E.D.-Hol" System using Inert Gas from Oil Combustion for, 544*
- Firearms, History of, by W. Y. Carman (Book), 450; (Review), 849
- Firedamp Explosions. See *Accidents*

- Firestone Tyre & Rubber, Ltd., Project for United Kingdom Manufacture of Synthetic Rubber, 747
- Firm, Productivity in, 401
- Firth Brown Tools, Ltd., Completion of New Research Laboratory, 130; "Zeelock" Milling Cutters (Trade Publication), 489. See *Erratum*, 594
- of Forth, Crossing Projects for, Statement in House of Commons on, 646
- Fisher & Ludlow, Ltd., Conveyor Development Centre, 119
- Fishery Research, Electrically-Driven Trawler "Sir William Hardy" for (Hall, Russell & Co., Ltd.), 220*
- Ship "Explorer," Statement in House of Commons on, 646
- Fishwick, Prof. W., on Vibrations of Radial Drilling Machines under Test and Working Conditions, 823
- Fittings, Joint, Polythene (Trade Publication), 529
- of Shafts in Holes. See *Gauge*
- Fitton, Dr. A., on Potentialities of Solid-Fuel-Fired Gas Turbine in Great Britain, 239*
- "Five per cent." Mr., the Late Calouste Gulbenkian, 131
- Flame-Failure and Ignition-Programming Unit, "FS9M" (Elcontrol Ltd.), 90*
- Hardening Process for Crankshaft Bearing Surfaces (Peddinghaus), 151*
- Research Committee, International, New Pulverised-Fuel-Fired Furnace and Associated Plant at Experimental Station, Ijmuiden, Holland, 726*
- Resistant Materials, Tests on, Questions in House of Commons on, 871
- Tubes of Gas Turbines, Effect of Use of Nimonic Alloys on Life of, 328
- Refractory, for High-Temperature Gas Turbines, 566*
- Flash Equipment, Flameproof, for Photography in Collieries (E. Turner Electrical Instruments, Ltd.), 705
- Flatness of Photographic Plates, Air Gauge for Measuring, 151
- of Photographic Plates, Apparatus for Testing, 510*
- Flaw Detector, Ultrasonic, "Aerosonic," for Inspection of Metal-to-Metal Bonding (Société Nationale de Constructions Aéronautiques du Sud-Ouest), 12*
- Fleet. See *Warships*
- Assembly Shops of County Commercial Cars, Ltd., Opening of, 827
- Fletcher Miller, Ltd., Lubrication of Machine Tools (Trade Publication), 594
- "Flex-Tester" Instrument for Measuring Drawing Qualities of Sheet Metal (Jones & Laughlin Steel Corporation), 62*
- Flexibox, Ltd., Lapping Machine, 425*; Mechanical Seals for Rotary Shafts, 425
- Flight Refuelling, Ltd., Trials of Flight Refuelling with "Javelin" Fighter Aircraft, 670*
- See *Aeronautics*
- Flood Control and Irrigation in Southern Israel, Yarkon-Negev Water Pipeline for, 124*
- Flooding, Coastal, Recommendations of Waverley Committee on, Questions in House of Commons on, 743
- Floor Cleansing Machines (Trade Publication), 881
- and Roof Slabs, "St. Paul's Cray," for Paint Research Laboratory (Concrete Development Co., Ltd.), 114
- Scrubber, Self-Propelled, "Saturn II" (Matling, Ltd.), 251*
- Flour-Milling Machinery (Trade Publication), 267
- Flow, Helical, in Rivers, Model of, 53
- Non-Steady, in Ducts, Wave Diagrams for (Book), 754
- Recorder, Gas, "Arkon" (Walker Crossweller & Co., Ltd.), 733
- Flowmeter, Electronic (Simmonds Aerocessories, Ltd.), 310
- Fluid Coupling, Dual Unit for Winch Drive (Fluidrive Engineering Co., Ltd.), 461*
- Dewatering (Trade Publication), 137
- Mixtures, Inducement of Laminar Flow for Separation of, 595*
- Seal, "Hallprene" (Hall & Hall, Ltd.), 306
- Thermodynamic Properties of (Book), 594
- Viscous, Paddle Displacement Pumps for (Varley Pumps & Engineering, Ltd.), 352*
- Fluidrive Engineering Co., Ltd., Dual Unit Coupling for Winch Drive, 461*
- "Fluon" Plant of Imperial Chemical Industries, Ltd., at Hillhouse, Lancashire, Progress on, 103
- Fluorocarbons (Trade Publication), 489
- Fly Ash, Possible Uses of, 447, 683
- "Flying Bedstead" Vertical Take-Off Aircraft (Rolls-Royce Ltd.), 71*
- Flyover Junctions in Road Modernisation Plans, 94*
- Fogarty, L. F., the Late, 136
- Folland Aircraft, Ltd., "Gnat" Lightweight Fighter Aircraft, 436*
- Fontana, A., on 25 Years of Actual Operation at Sea of Two Large Passenger Motor ships, 43
- Food and Agricultural Organisation, Statement on European Timber Market, 402
- Canned, "Hydron" Hydrostatic Steriliser for (Mitchell Engineering, Ltd.), 545*
- Investigation, 1954 (Book), 79
- Land and Water, by H. Addison (Review), 560
- Supplies, Irrigation and Land Reclamation, Past, Present and Future of (Book), 626
- Use of Ionising Radiation for Preservation of, Problems of (Book), 79
- "Ford Continental" Motor Car, 644*
- Ford, E. H., the Late, 719
- Ford, G. W. K., on Power Reactor Projects Throughout the World: Comparative Survey of Schemes Described at Geneva Conference on Peaceful Uses of Atomic Energy, 483, 490*
- Ford, Prof. H., on Oil Transfer and Cooling in Ring-Oiled Bearings, 268*, 570*
- Ford, H., on Prospects for British Motor Cars in United States, 714
- Ford Motor Co., Provision of Lay-Off Funds for Employees in United States, 256; Introduction of Safety Measures for Motor Car Passengers, 363
- Ford Motor Co., Ltd., Production of "Popular" Moved to Doncaster, 283; Radio-Controlled Version of "Fordson-Major" Diesel Tractor, 677*
- "Ford Taunus" 1½-litre o.h.v. Motor-Car Engine, 579*
- "Fordson-Major" Diesel Tractor, Radio-Controlled Version of (Ford Motor Co., Ltd.), 677*
- Foreign Manpower, Recruitment for Coalmining, 224
- Foreseeable Future, by Sir G. Thomson (Review), 720. See *LETTER*, 845
- Forest Products Research, 1954 (Book), 369
- Forge, Axle, at Rotherham Works of Steel, Peech & Tozer, Ltd., 28*
- Plant of Taylor Brothers & Co., Ltd., Agreement with American Rolling Mills Corp. to Supply Technical Assistance Concerning, 362
- Forging, Drop. See *Drop Forging and Hammers under Machine Tools*
- Hammers. See *Hammer under Machine Tools*
- Press. See *Press under Machine Tools*
- and Stampings, Quality Control of, Laboratory for, 612*
- Form Design (Book), 560
- Forth, Firth of, Crossing Projects for, Statement in House of Commons on, 646
- Foster & Dicksea, Ltd., Extensions to Post-Office Radio Station at Rugby, 164*
- Foster, E. F., the Late, 878
- Foster Transformers, Ltd., Constant Voltage Transformer (Trade Publication), 626; Voltage Regulators (Trade Publication), 626; Equipment for Testing Electrical Apparatus (Trade Publication), 690; Off-Circuit Tapping Switches (Trade Publication), 755; Air-Cooled Transformers (Trade Publication), 755
- Foster, Yates & Thom, Ltd., Autoclave for Metal-to-Metal Bonding, 582*
- Foundations, Design of, Research on, 123
- of, Soil Mechanics Aspects of, 413*, 454*
- Engineering, by R. Hammond (Review), 449
- Investigations of Stress Distribution under, 507*
- Manual on, Grundbau-Taschenbuch, Vol. I (Book), 170
- for South Denes Power Station, 730*
- Foundry, Automatic Moulding Machine for (Coleman-Wallwork Co., Ltd.), 60*
- Congress, International, Banquet, 5
- Steel, Building a Modern, Cinema Film on (F. H. Lloyd & Co., Ltd.), 722
- Trades Exhibition. See *Engineering, Marine and Welding Exhibition*
- Fair, International, Düsseldorf, 1956, Arrangements for, 565
- Workers, Amalgamated Union of, Statement by Secretary Attacking Relation of Wage Increases to Productivity, 904
- See also *Castings; Moulding*
- Fowler, J., & Co. (Leeds), Ltd., Steel Castings (Trade Publication), 297
- Fox, S., & Co., Ltd., Bar and Rod Rolling Mill for Stocksbridge Works of, 190. See 163; Modernisation at Stocksbridge Works of, 651, 656
- Frames, Steel, Concrete-Encased, Loading Tests on, 122*
- Structural, Complex, Analysis by Use of Models, 53
- Tied-Arch, of Pre-Cast Concrete for Factory and Workshops of Matthews & Mumby, Ltd., 186*
- Framed Structures, Determination of Critical Load for, by Dr. D. B. Chandler, 658*
- France, Aircraft Construction in, 130
- Attitude of Government to Wage Demands in, 400
- Economic Conditions in, O.E.E.C. Report on, 779
- Strikes in, 480
- See also *French*
- Frankfurt-am-Main, Laboratories of Battelle Memorial Institute at, 50*
- Frankfurt Motor Show, 483
- Fraser and Chalmers Works of General Electric Co., Ltd., New Steam-Turbine Shop at, 138*; "Humphreys Spiral Concentrator" for Concentration of Low-Grade Ores, 153*
- Fraser, D. C., on Recent Experimental Work in Study of Fatigue, 360
- Free-Piston Generator with Gas Turbine of More than 10,000 h.p., Marine and Stationary Applications of, 42
- Freeman, Morrison, Ltd., "Dialindre" Two-Skin Method of Wall Cladding, 801*
- Freeport, Bahamas, New Shipyard for, 810
- Freight Charges, Railway, Questions in House of Commons on, 839
- French Aircraft Developments, Paris Air Show, 10*. See also vol. 179
- Iron and Steel Industry, Plans of, 362
- French Railways, Ltd., Brochure on Post-War Development, 261
- Shipbuilding Industry, Unrest in, 288
- French, Lt.-Col. W., 448
- French, W. and C., Ltd., Hillfield Park Reservoir of Colne Valley Water Co., 575*
- See also *France*
- Friction Clutch. See *Clutch*
- Coefficient of, of Parallel-Surface Thrust Bearings, Determination of, 174*
- Tests in Ring-Oiled Bearings, 572*
- Frith, J. G., on Hydraulic Accumulators in Heavy Industry, 796*
- Frodingham Ironstone Bed, Underground Mining of, 729
- "Frömag" Keyseating and Profile-Cutting Machine (Fröndenberg Maschinen-und Apparatebau, G.m.b.H.), 117*
- Frost, H. G., on Strikes in Building Industry, 64
- Fruit and Vegetable Canning and Quick Freezing Research Association, "Hydron" Hydrostatic Steriliser for Canned Foods, 545*
- Fry, T. M., on Dounreay Fast Reactor, 280*
- Frye Corporation, Plans for New Transport Aircraft, 523
- Fryer, K. J., on An Aluminium River Tanker Design, 684
- "FS9M" Flame-Failure and Ignition-Programming Unit (Elcontrol Ltd.), 90*
- Fuels, Classification in Terms of Production of Carbon Particles in Flames of, 727
- Consumption in Schools (Book), 626
- Efficiency Exhibition, Arrangements for, 408
- Fuel Firing, Ltd., "Initiator" for Auxiliary Oil Firing of Pulverised-Fuel Boilers, 428*
- Liquid. See also *Oil Fuel*
- Motor. See *Benzol; Motor; Petrol*
- Oil. See *Oil Fuel*
- and Power Industries, Nationalised, Progress of, Questions in House of Commons on, 807
- Ministry of, Research on Solid-Fuel-Fired Gas Turbines, 239*
- Prospects and Efficiency, 843
- Pump. See *Pump*
- Research in Australia, 764
- Station, Apparatus for Particle Sampling, 116*
- Residual, for Gas Turbines, Test Reports on (Ruston and Hornsby, Ltd.), 49*
- Solid, Domestic Appliances Using (Trade Publication), 626
- Liquid and Gaseous (Book), 657
- Sulphur Content of, Use of X-Rays for Determination of, 598
- See also *Coal; Oil; Gas; Pulverised Coal*
- Fuelling Vehicle, "Cornwall," for Aircraft (British Petroleum Co., Ltd.), 645*
- Fuerzas Electricas del Noroeste, S.A., Hydro-Electric Power Scheme in Galicia, Spain, 458*
- Fujita, H., on "UEC" Type of Single-Acting Two-Stroke Engine of Mitsubishi Shipbuilding and Engineering Co., 42
- Functions, Higher Transcendental, Vol. III (Review), 41
- Furnace, Boiler. See *Stoker*
- Brickwork, Instruction Course on, 85
- Continuous, for Axle Forge (G. P. Wincott, Ltd.), 28*
- Electric, for Annealing of Coiled Brass Strip (G.W.B. Furnaces, Ltd.), 867*
- Carbonitriding and Heat-Treating, Self-Contained, "EFCO-Lindberg" (Electric Resistance Furnace Co., Ltd.), 285*
- "Efcoc" for Melting and Casting Copper, 468*
- Heat-Treatment, "HRP" (Birlec, Ltd.), 274*
- High-Temperature, High-Vacuum, for Measuring Creep Behaviour of Graphite Specimens (General Electric Co., Ltd.), 176*
- Induction, Coreless, for Melting Scrap (Birlec, Ltd.), 771*
- Mobile, for Bright Annealing (General Electric Co., Ltd.), 249*
- Roller-Hearth, for Annealing Brass Tubes (G.W.B. Furnaces, Ltd.), 158*
- for Stocksbridge Works of S. Fox & Co., Ltd., 656
- for Experimental Heat Treatment, at Garringtons, Ltd., 612*
- Gas and Oil Fired, at Flame Research Station, Ijmuiden, Holland, 726*
- Open-Hearth, Behaviour in, Water-Cooled Periscope for Study of, 298
- Hearth, for Scunthorpe Works of Appleby-Frodingham Steel Co., Ltd. (Wellman Smith Owen Engineering Corporation, Ltd.), 402, 408
- Pulverised-Fuel Fired, at Experimental Station of International Flame Research Committee, 726*
- Research on, 695
- Rotary-Hearth, Coke-Oven-Gas Fired, for Ring-Rolling Plant of Steel, Peech and Tozer, Ltd. (International Furnace Equipment Co., Ltd.), 27*
- Melting, Oil-Fired, Mechanised, for Metals (Monometer Manufacturing Co., Ltd.), 308*
- Scanning Periscope for, 798. See *Erratum*, 866
- Solar, for Investigation of Materials at High Temperatures (General Dynamics Corporation), 820*
- System, "Equivise," for High-Speed Scale-Free Heating of Steel (Incandescent Heat Co., Ltd.), 639*
- See also *Coke Ovens*
- Furniture Development Council, Opening of New Research and Information Department Premises, 670
- "Fury" Chain Saw and "Falcon" Winch, Petrol-Engine Driven, Interchangeable (J. Clubley Armstrong Danarm, Ltd.), 50
- Fusarc Co., Ltd., Co-operation with Quasi-Arc Co., Ltd., in Production of Electric Welding Equipment, 291
- Future, Foreseeable, by Sir G. Thomson (Review), 720. See *LETTER*, 845

G

- "GABIZO," Turbomeca, Turbojet Aeroplane Engine, 13*
- Galicia, Spain, Los Peares Power Station, 458*
- Galloway, Dr. D. F., on Some Experiments on Deflections and Vibrations of Drilling Machines, 823
- "Galvafrid" Zinc-Dust Primer Paint (Trade Publication), 137
- Gamma-Radiation Source at Columbus Laboratories of Battelle Memorial Institute, 51*
- Gamma-Radiography, Units for, "Pantatron" (Teleflex Products, Ltd.), 427*
- Gamma-Rays, Ltd., Instruments for Examination of Pipe Welds by Isotope Radiography, 398*. See *LETTER*, 445
- Use for Examination of Fusion-Welded Joints, Specification, 105
- Gantry, Stocking, Handling and Loading, for Steel Ingots, at Scunthorpe Works of Appleby-Frodingham Steel Co., Ltd., 402, 408
- See also *Crane*
- Gardner, J., the Late, 136
- Gariel, M., on Developments in Low-Head Hydro-Electric Power Stations, 627*
- Garcke's Manual, 1954-55 (Book), 297
- Garringtons, Ltd., New Laboratory for Newton Works, 612*
- Garwood, R. D., on Bainitic Transformation of Beta Phase in Copper-Zinc Alloys, 488
- Gas Board, East Midlands, Survey of Gas and Electricity Tariffs, 35
- Council, Annual Report, 587; London Research Station, Extension of Laboratories at, 770*
- Disposal Plant at Stanton Ironworks, 512*
- Fired Furnaces. See *Furnaces*
- Flow Recorder, "Arkon" (Walker Crossweller & Co., Ltd.), 733
- Generator, Free-Piston, Patent Applied for (F. C. Perrott), 733*. See *LETTER*, 813
- Industry, Employment and Wage Increases in, 616; Advertising in, Reduction of Expenditure on, 646
- Liquefied-Petroleum, Proving Meters for, 880
- Natural, Exploration in Britain for, 703
- Industry in Italy, Organisation of, 700*
- and Methane, Report on (Book), 818
- Pressure Controller for (Trade Publication), 786
- Production from Oils and Tar, "Segas" Process for Installation in Kent, 363; (Trade Publication), 594
- Sales and Service, Conference on, Arrangements for, 232
- Town, from Oil, British Petroleum Co., Ltd. and South Eastern Gas Board Arrangements for Kent, 363; (Trade Publication), 594
- Toxic, Ventilator for Removal from Oil Tanker Cargoes of (Götaverken A.B.), 801*
- Turbine. See *Turbine*
- Welding. See *Welding*
- See also *Carbon Monoxide; Nitrogen; Oxygen; etc.*
- Gaseous Explosions. See *Accidents*
- Gasification of Heavy Fuel Oil, Process for (Office Central de Chauffage Rationnelle), 89*
- Underground, Experiments on, Questions in House of Commons on, 871
- Gaskell, J. L., on Organisation for Maintenance, 696
- Gasoline. See *Petrol; Engine, Petrol; Aeronautics*
- Gasworks, Bromley-by-Bow, Extensions to, 669
- Electric Motor for Use in (Newman Industries, Ltd.), 463*
- Lodi, Italy, Conversion to Natural Gas, 702
- G.A.T.T. See *General Agreement on Tariffs and Trade*
- Gauge, Air, for Measuring Flatness of Photographic Plates, 151
- Block, Optical Control of (Trade Publication), 786
- Centre, "Boyce," for Inside or Outside of Round Work (Rediwell, Ltd.), 549*
- for Checking Throat Area of Diffuser Rings of Aircraft Gas Turbines (British Indicators, Ltd.), 869*
- "McLeod," for Testing Vacuum Pumps (Pulsometer Engineering Co., Ltd.), 516
- Pneumatic, for Measuring Width of Razor Blades, 4
- Thickness, Transverse-Profile (Baldwin Instrument Co., Ltd.), 90*
- Using Radioactive Materials, Developments in, 292
- Vacuum (Trade Publication), 721
- Gawn, Dr. R. W. L., on Model Research and its Application to Ship Design, 334*
- G.B. Film Equipments, Ltd., Cinema Films on Sales and Productivity, 695
- Gear, L. J. Co., Ltd., "Johnson" Variable-Speed Pulley with Reduced Belt Wear, 318*
- Gears, Bevel (Trade Publication), 721
- Gleason Cutting Machines for, Recent Developments in, 717; See *LETTERS*, 751, 813
- Change-Speed, for Motor Vehicles, Gestaltung von Fahrzeuggetrieben (Book), 330
- Cutting Machine. See *Machine Tools*
- Design, Practical, by D. W. Dudley (Review), 73
- Epicyclic Reduction, and Live Power Take-Off Unit for Tractors (Massey-Harris-Ferguson (Manufacturing), Ltd.), 92*
- for Machine Tools, Calculation of (Book), 881
- Steering. See *Steering*
- Worm, Lubrication of, by R. Tourret, 888*
- Gearbox, "Hydromatic," for Cadillac Motor Cars, 642*
- Master Control, for "E.443" Nuclear Reactor (H.M. Hobson, Ltd.), 177*
- Reduction (Trade Publication), 330
- Air-Operated, for 240-h.p. Diesel-Mechanical Shunting Locomotives (Self-Changing Gear Co., Ltd.), 676
- for Wind-Driven Generator at Costa Head, 55*
- Geared Turbines, Marine. See *Marine Propulsion*
- Geddes, C., Views on Settling of Inter-Union Disputes, 32
- Geiger and Scintillation Counters (Trade Publication), 881
- Gemmill, M. G., on Bolting Materials for High-Temperature Steam-Plant Service, 824*

- General Agreement on Tariffs and Trade, Election of Japan into, 258
- General Dynamics Corporation, Convair Division, "Convair F.102A" Supersonic Aircraft with Wasp Waist for Lower Drag, 435*; "E.B." Weld Insert Process, 465*; "Terrier" Guided Missile, 734*; Collaboration with Bristol Aeroplane Co., Ltd., in Production of Long-Range Transport Aircraft, 715; "Convair F.102A" Fighter Aircraft, 788*; Solar Furnace for Investigation of Materials at High Temperatures, 820*; Static Structural Test Rig for Strength of Naval Flying Boats, 821*; 200-ton Electronically-Controlled 18-Axis Milling Machine, 854
- General Electric Co., Ltd., Moulded Plastics (Trade Publication), 107; Photometer for Measurement of Luminance of Fluorescent Powders, 118*; New Steam-Turbine Shop at Fraser and Chalmers Works, 138*; "p-n-p" Type Germanium-Alloy Junction Transistors, 152; Fraser and Chalmers Engineering Works, "Humphreys Spiral Concentrator" for Concentration of Low-Grade Ores, 153*; Kemano-Kitimat Carrier-Current Telephone System, 158; Annual Report, 163, 483; High-Temperature High-Vacuum Electric Furnace for Measuring Creep Behaviour of Graphite Specimens, 176*; Components for Electron Synchrotron, 176*; Containers of Heavy Alloy for Gamma Radiation Shields, 176; Air-Cooled Selenium Rectifier for Ground Testing of Aircraft Instruments, 246*; Mobile Furnace for Bright Annealing, 249*; Tape Recorders for Stereophonic Sound System, 296; 325-kW Turbo-Generator for Marine Use, 304*; Group Motor Starter Board for Marine Use, 304; Electrical Equipment for Agricultural, Horticultural and Dairy Use (Trade Publication), 529; Applications of Photo-Electric Cells at Thoresby Colliery, 580; Booklet on Electrical Industry (Trade Publication), 626; Poke Welding Device for Spot Welding in Inaccessible Areas, 733; Flameproof Gate-End Panel for Mines, 736*; "Transverco" Crop-Drying Equipment, 833; Fluorescent Lighting for Potato Houses, 833; 250-watt Colour-Corrected Fluorescent Lamp, 859
- General Electric Co., America, Steps Towards Automation at Evendale, Cincinnati, Works of, 884
- General Motors, Provision of Lay-off Funds for Employees in United States, 256
- General Radiological, Ltd., Flameproof and Fast-Neutron Scintillation Monitors, 178
- Generating Set, Portable, for High-Speed Aircraft Rescue Saw (A. C. Morrison (Engineers), Ltd.), 246
- Station. See *Power Station*
- Generator, Electric, Alternating-Current, 625-kVA, Diesel-Driven (Harland and Wolff, Ltd.), 466*
- Alternating-Current, 62.4-MVA, for Los Peares Power Station, Spain (British Thomson-Houston Co., Ltd.), 458*
- Alternating-Current, 550-kW, Marine, Bled-Steam, Turbine-Driven (W. H. Allen Sons & Co., Ltd.), 397*
- Alternating-Current, 10,000-kW, at National Gas Turbine Establishment, 504*
- Alternating-Current, 18.75-kVA, Self-Exciting, Self-Regulating (Electric Construction Co., Ltd.), 463*
- Alternating-Current, Self-Exciting, Self-Regulating (Tuscan Engineering Co., Ltd.), 399*
- Alternating-Current, for Short-Circuit Testing, 502*
- Alternating-Current, 625-kVA, for Short-Circuit Testing, 671*
- Alternating-Current, Shutting Down and Starting Up of, Advantages and Problems of, 537
- Alternating-Current, Turbine-Driven, 15-kVA, for Aircraft (Sir G. Godfrey and Partners, Ltd.), 473
- Alternating-Current, 30-MW, Turbine-Driven, for Bold "A" Power Station (Metropolitan-Vickers Electrical Co., Ltd.) 514*
- Alternating-Current, Turbine-Driven, for Castet Hydro-Electric Power Plant of French Railways, 628*
- Alternating-Current, 60-MW, Turbine-driven, for Chadderton "B" Power Station (Metropolitan-Vickers Electrical Co., Ltd.), 111*
- Alternating-Current, Turbine-Driven, Comparison of Vertical Shaft and Horizontal Shaft Sets for Low-Head Hydro-Electric Power Stations, 627*
- Alternating-Current, 60-MW, Turbine Driven, Hydrogen-Cooled, for Drakelow Power Station (English Electric Co., Ltd.), 666*
- Brush-Shift, "Dynex," 300/400-amp., for Electric Welding (Murex Welding Processes, Ltd.), 273*
- 214-kW, for Diesel-Electric Shunting Locomotives for British Railways, 311*
- Dynamo, Electromagnetic Principles of, by E. B. Moullin (Review), 689
- Engine-Driven, Aircraft, Test Bench for (A. Lyon & Co. (Engineers), Ltd.), 251*
- Gas-Turbine Driven, for Marine Stand-By Duty (W. H. Allen Sons & Co., Ltd.), 276*
- Improvements in, 623
- Impulse, 1.4 million volt, for Research, 84*
- 325-kW, Turbine-Driven, Marine (General Electric Co., Ltd.), 304*
- Ultrasonic, 2-kW (Mullard, Ltd.), 243
- 100-kW, Wind-Driven, at Costa Head (J. Brown & Co. (Clydebank), Ltd.), (Metropolitan-Vickers Electrical Co., Ltd.), 55*
- Generator. See also *Turbo-Generators*
- Free-Piston, with Gas Turbine of More than 10,000 h.p., Marine and Stationary Applications of, 42
- Gas, Free-Piston, Patent Applied for (F. C. Perrott), 733*. See *LETTER*, 813
- Impulse, for Testing, E.H.V. Transformers (C. A. Parsons & Co., Ltd.), 430
- Geneva Conference on Peaceful Uses of Atomic Energy. See *Atomic Energy, Peaceful Uses of, Conference on*
- Exhibition on Peaceful Uses of Atomic Energy, 98, 176*, 195, 299*, 354*, 431*
- Laboratories of Battelle Memorial Institute 51
- Genoa-Savona Autostrada Motorway, 757*
- Geology in Engineering (Book), 657
- Geophysical Survey of Rock Formations in Midlands, Proposed, 302
- Year, International, Programme for, 296
- Preparations for, 858
- "Gerfaut" Supersonic, Experimental, Delta-Wing Aircraft (Société Nationale de Constructions Aéronautiques du Nord), 10
- German Industry, Boom in, 587
- Dr. Reuter of Demag on, 258
- Wages and Conditions in, 256
- Standards Committee, Catalogue of Translations of German Standards, 39
- Germany, Distribution of Engineers' Tools in, 656
- Economic Conditions in, O.E.E.C. Report on, 810
- Inflation in, Possible Measure for Prevention, 522
- Steam Road Vehicles and Rail Cars in (Book), 560
- Trade Union Leaders in, Workers Move Away from, 776
- Western, Concrete Roads in, Booklet on, 483
- Concrete Roads in, Design and Performance of (Book), 594
- Review of Science and Technology in (Review), 817. See also 810
- "GH4" High-Head Pump for Mines (Megator Pumps and Compressors, Ltd.), 24*
- Gibb, Sir A., & Partners, Contract for Aswan Dam, 619
- Gibb, A. M., the Late, 196
- Gibbins, R. C., & Co., Ltd., Crowbars with Wheels, 770
- Gibson, I. F., on Rationalisation of Wages—A Case Study, 360
- Gibson, Dr. J. E., on Stress Distribution under Foundations, 507*
- Giddings, H., on Design Philosophy of Aircraft Fatigue, 773
- Giddings and Lewis, Ltd., Skin-Milling Machine, 854*
- Gilbert-Ash, Ltd., "Intergrid" System of Building Construction, 154*
- Gillies, A. W., on Bending of a Straight Beam under Transverse Loading, 211*, 244*
- Girders. See *Beams; Bridges*
- Girdler Co., "Votator" Continuous Heat Exchanger, 803*
- Girling, Ltd., Expansion Plans for Motor-Car Components Manufacture, 589
- Glacier Metal Co., Ltd., Comment on Position in Motor Components Industry, 524
- Gland Packing, Metallic, for Reciprocating Shafts (Wellworthy, Ltd.), 424
- Glasgow Railways, Suburban, Electrification of, Questions in House of Commons on, 807
- Royal Technical College. Opening of "Chesters" Management Study Centre, 584
- Glass, Etching and Ruling Precise Scales in, Technique for (Book), 721
- Silk and Fibre (Trade Publication), 786
- Sink Traps for Laboratory Use (Q.V.F., Ltd.), 187*
- "Gleep" Nuclear Research Reactor at Harwell, 266
- Gleeson, M. J. (Contractors), Ltd., Civil Engineering Work at Potters Bar Railway Station, 830*
- Glockner-Kaprun Hydro-Electric Scheme in Austrian Tyrol, 16*
- Glossary of Atomic Energy Terms, 255. See 227
- of English Aeronautical Terms for French-Speaking Airline Personnel, Aviation English, by S. Humbert (Review), 298
- of Terms Used in Radiology, Specification, 9
- for Valves and Valve Parts, Specification, 41
- Gloucester Railway Carriage and Wagon Co., Ltd., Annual Report, 522
- "Gnat" Lightweight Fighter Aircraft (Folland Aircraft, Ltd.), 436*
- Godfrey, Sir G., & Partners, Ltd., 15-kVA Turbo-Alternator for Aircraft, 473
- "Gogomobil" Motor-Car, Transmission and Suspension Unit of, 610*
- Gold Coast and Nigeria. Federation of British Industries Report on Visit to, Criticism of, 842
- Colloidal, 198; Price Reduction for, 318
- "Goliath" Two-Stroke 900-c.c. Motor-Car Engine with Water Cooling, 578
- Goodall, S. E., on Electrical Manufacturing Industry as a Career, 75
- Goodeve, Sir C., on Operational Research—The Front-Line Scientist in the Management Team, 694
- Goodmans Industries, Ltd., Vibration Generators (Trade Publication), 137
- Goodyear Tyre and Rubber Co. (Great Britain), Ltd., "Pliobond" Synthetic Adhesive Cement, 190; Expansion and Modernisations Schemes of, 589; Friction-Grip Conveyor Belt, 733; Project for United Kingdom Manufacture of Synthetic Rubber, 747
- Gordon, J., & Co., Ltd., "Hagan" Feed-Water Control System (Trade Publication), 202
- Gordon, Maj. K., the Late, 782
- Götaverken, A.B., Ventilator for Removal of Toxic Gases from Oil-Tanker Cargoes, 801*
- Gott, H. H., on Design and Operation of Power Producing Reactors, 561
- Government, Clean Air Bill, 168. See 163
- Debate on Coal Situation, 130
- on National Service Policy, 680
- on Scientific Manpower, 129. See 97, 127
- Railways. See *Railways*
- Statement on Curbing of Expenditure in Domestic Market, 163
- See also *Parliament*
- Grader, Motor, "Super 12," Earthmoving Attachment for (Blaw Knox, Ltd.), 803*
- Grain, Storage of, Aluminium Silos for (F. Braby & Co., Ltd.), 438
- Gramophone Co., Tape Recorders with Twin Tracks, 296
- Grand Contour Canal, Plans for, 843
- Grant, Sir A., the Late, 135*
- Graphite, Colloidal, "Oildag" (Trade Publication), 330
- "Colo D.P." for Prevention of Boiler Scale, Trials of (Centralube, Ltd.), 676
- Grates. See *Furnaces; Stoker*
- Graves, A., on Applications of Vibratory Energy, 637*
- Graviner Manufacturing Co., Ltd., Fire and Explosion Protection System for Diesel Railcars, 463; Explosion-Suppression Systems for Aircraft, 474
- Graving Dock. See *Dock*
- Gravity Conveyors. See *Conveyors*
- Grease Gun (Trade Publication), 850
- and Oils (Trade Publication), 41
- Greatrex, F. B., on Jet Noise, 125
- Green, E., & Son, Ltd., Steel Pipes with Cast-Iron Sleeves for Heating Coils for Oil Tanker Cargoes, 393*
- Greenhithe Engineering Works, Conversion of Steam Tug "Britannia" to Diesel Power, 887*
- Gregory, P., on Hot Impact Tensile Test and its Relation to Hot-Working Properties, 536
- Greifelt, Dr., on Distribution of Engineers' Tools in Germany, 656
- Grinding Machines. See *Machine Tools*
- Grout, H. J., on Experimental Facilities of E.443 Reactor, 235; on Use of Research Reactors in Nuclear Power Development, 837*
- Guest, F. E., on Saving Time in Drawing Office on Plant Layouts, 106*
- Gulbenkian, C., the Late, 131
- Gun, Grease (Trade Publication), 850
- Pneumatic, for Spot Welding (A.R.O. Machinery Co., Ltd.), 466*
- G.W.B. Furnaces, Ltd., Roller-Hearth Electric Furnace for Annealing Brass Tubes, 158*; Proposed Control-Gear Equipment Factory at Bangor, Northern Ireland, 259; Electrical Furnace for Annealing of Coiled Brass Strip, 867*
- Gwyther, R. D., Model of Improvements at Colombo Harbour, 52
- Gypsum Building Products Association, Gypsum Plasterboard for Thermal Insulation (Trade Publication), 297
- "Gyrofin" Fold-Back Stabiliser Fins for Ships (Sperry Gyroscopic Co.), 253*
- "Gyron" Jet Aeroplane Engine (de Havilland Engine Co., Ltd.), 356*; Testbed for, 470*

H

- HACKSAWING Machine. See *Machine Tools*
- Hackbridge & Hewitt Electric Co., Ltd., Mercury-Arc Rectifiers (Trade Publication), 297; Arrangement of Technical Training Courses for Apprentices, 528
- Haddon, J. D., on Aluminium-Alloy Concave-Pointed Rivets, 79*. See *Erratum*, 127
- "Hagan" Feed-Water Control System (Trade Publication), 202
- Hains, J. S., on Railway Track Formations, 655. See 384*
- Haiti, Wind Power in, Survey of Possible Uses of, 264
- Halcrow, Sir W., & Partners, New Road for Moriston Hydro-Electric Project, 211; Loading Equipment for Transatlantic Telephone Cable, 677*
- Haldane Memorial Lecture, by Sir H. Tizard, 246
- Hale, C. E. B., the Late, 70
- Halifax, Survey of Health in Factories in, Proposed, 400
- Hall, C. L., the Late, 136
- Exhibition, Turin, with Roof of Pre-Cast Ferro-Cement Corrugations, 601*
- Hall & Hall, Ltd., "Hallprene" Fluid Seal, 294, 306. See *LETTERS*, 268, 557; Rubber Seals for Concrete Structures (Trade Publication), 881
- Hall, Russell & Co., Ltd., Electrically-Driven Research Trawler "Sir William Hardy," 220*
- "Hallprene" Fluid Seal for Reciprocating Shafts, 294. See *LETTERS* 268, 557. See also vol. 179; "Hallprene" Fluid Seal (Hall & Hall, Ltd.), 306; Rubber Seals for Concrete Structures (Trade Publication), 881
- Hamilton, R. L., the Late, 782
- Hamilton Standard Division of United Aircraft Corporation, New Plant of, 886
- Hammel-Dahl Co., "Venturiflo" Diaphragm Control Valve, 115*
- Hammers. See *Machine Tools*
- Hamworthy Engineering, Ltd., Vertical Centrifugal Pump with Constant Running Primer, 426*
- Hancock & Co. (Engineers), Ltd., "Hancomatic" Profiling and Cutting Machines (Trade Publication), 721
- Hancock, R. A., on Thermodynamics of Carbon Dissolved in Iron Alloys, 829
- "Hancomatic" Profiling and Cutting Machines (Trade Publication), 721
- Handbooks, Maintenance, for Presentation of Technical Information, 197
- "Handipump" Hand Pump (Trade Publication), 786
- Handley Page, Ltd., "Herald" Civil-Transport Aircraft, 40; "Herald" Civil Aircraft for Branch Service, 394*
- Handling Equipment, Mechanical, Mobile Exhibition of, Special Train for (Lansing-Bagnall, Ltd.), 685
- Mechanical, Cinema Film on, 608*
- Plant, Ash, for Bold "A" Power Station (B.V.C. Industrial Constructions, Ltd.), 514
- Ash, for Drakelow Power Station (International Combustion, Ltd.), 666
- Coal, at Bold "A" Power Station (T. W. Ward, Ltd.), 514*
- Coal, at Chadderton "B" Power Station (Simon-Carves, Ltd.), 111
- Coal, at Drakelow Power Station (Mitchell Engineering, Ltd.), 663
- Coal, Modifications to, 512*
- "Handraulic" Starter for Diesel Engines (Bryce Berger, Ltd.), 307*
- Hands-England Oilfields Equipment, Ltd., Lorry-Mounted Power-Arm Drill for Oil and Mineral Prospecting, 430*
- Hanovia, Ltd., Short-Wave Ultra-Violet Meter for Measuring Radiation from Mercury Discharge Lamps, 91
- Hansen, L., on Temperature Problems in Astronautics, 236
- Hansen, S., on New Two-Stroke Engine with Turbo-Charging of Burmeister & Wain, Ltd., 42
- Harbour, Colombo, Improvements at, Mode of, 52
- Lagos, Model of, 863
- Willemstad, Curaçao, Model of, 863
- Hardness Tests. See *Tests (Materials)*
- Hardy, Dr. H. K., on Some Metallographic Observations of the Creep of Aluminium-Copper Alloys, 536
- "Hardy," H.M. Anti-Submarine Frigate, Acceptance into Naval Service of, 869, 899
- Hardy's Theory of Boundary Lubrication, 685
- Haringvliet Channel, Model of, 863
- Harland & Wolff, Ltd., 625-kVA Diesel-Driven Alternator, 466*
- Harmonic Distortion Meter (Trade Publication), 267
- Harris, T. E., the Late, 135
- "Harrisflex" Flexible Couplings (Trade Publication), 850
- Harrow, Spring-Tine, Mounted Model of (Massey-Harris-Ferguson (Manufacturing), Ltd.), 92*
- Harvester, Combine, 5-ft., "Albion" (D. Brown Tractors (Engineering), Ltd.), 29
- Numbers in Use, Questions in House of Commons on, 743
- Harvey, G. A., & Co., Ltd., Pressure Vessel Exhibits at Engineering Exhibition, 277
- Haslar, Admiralty Experiment Works, Use of Models as Aid to Ship Design at, 334*
- Hastie, J., & Co., Ltd., Combined Steering Console, 277
- Hatfield Memorial Lecture on Trends in Metallurgical Research in United States, Arrangements for, 406
- Hawker Aircraft, Ltd., "Hunter" Jet Fighter Aircraft, 436*; Strikes at Blackpool Factory of, 744
- Hawker Siddeley Group, Statement on Export of Jet Aeroplanes, 3
- Hawkesley, Thomas, Lecture, by Prof. D. M. Newitt, on Some Recent Work on Physical Properties of Matter under High Pressure, 789*
- Hawthorn, R. & W., Leslie & Co., Ltd., Tests on Double-Casing High-Pressure Steam Turbine, 568*
- Haynes, Dr. R., on Isothermal Transformations of Hypo-Eutectoid Aluminium Bronzes, 488; of Eutectoid Aluminium Bronzes below their Ms Temperatures, 488
- Hayward Tyler & Co., Ltd., Vertical Centrifugal Cargo Pump, 305*; Glandless Circulating Pump for Atomic Energy Applications, 433*
- Head, Wrightson & Co., Ltd., Annual Report, 3; Draw Benches for Copper Tube Factory, 467*
- Headland Engineering Developments, Ltd., "Polyp" Machine Vice for Holding Irregular Shapes, 770*
- Health in Factories, Proposed Survey of Halifax District, 400
- in Industry, Incidence of Coronary Thrombosis, Questions in House of Commons on, 839
- Mental, Exhibition, Opening of, 712
- and Safety in Industry (Book), 105
- in Nuclear Power Industry, 836
- Hearing and Sound, Research on Relation Between, 816. See 809
- Heat Calculations, Slide Rules for (Potter's Insulations, Ltd.), 430
- Engines. See *Engines; Turbines; Aeronautics*
- Exchanger, Continuous, "Votator," Laboratory for Research on Applications of (A. Johnson & Co. (London), Ltd.), 803*
- Immersion, for Chemical Laboratories (Trade Publication), 107
- "Integron" Finned Tubes for, Manufacture of, 468
- Tubular, "Weldex" (Trade Publication), 107
- Insulation Materials (Trade Publications), 721, 850
- Materials, Asbestos, Production of, 708*
- Materials, Asbestos (Trade Publication), 137
- Materials for Building (Book), 818
- Materials, Gypsum Plasterboard (Trade Publication), 297

- Heat Losses of Locomotive Boilers, Calculation of, by Dr. H. I. Andrews, 209*
- Processing of Small Articles in Batch Production, Infra-Red Oven for (Metropolitan-Vickers Electrical Co., Ltd.), 156
- Transfer in Ring-Oiled Bearings, Tests of, 570*
- Treatment of Metals. See *Metallurgy*
- Heaters, Air, for Drakelow Power Station (J. Howden & Co. (Land), Ltd.), 663
- Electric (Trade Publication), 297
- Steam for Use on Board Ship (Serck Radiators, Ltd.), 550*
- Feed-Water. See *Feed-Water*
- Immersion, Acid-Resistant, "Vitrosil" (Trade Publication), 850
- Induction, Bench-Type, "Radyne" (Radio Heaters, Ltd.), 426*
- Radio Frequency, 60-kW (English Electric Co., Ltd.), 273*
- Infra-Red, Quartz, for Simulation of Heating Conditions of Aircraft at High Speeds (Philips Electrical Ltd.), 72
- Red, Quartz Tubular, for Simulating Kinetic Heating Effects in Aircraft (Philips Electrical, Ltd.), 471*
- Space, Coal-Burning (Book), 170
- Industrial (Trade Publication), 297
- Unit (Trade Publication), 489
- "Spiraluxe Mark II" for Offices (Spiral Tube and Components Co., Ltd.), 424
- Heating Apparatus, Electrical, "Electrotap" Regulator for (Stabilig Co., Ltd.), 469*
- Domestic (Trade Publication), 169
- Oil Burner for (C. Kieft & Co., Ltd.), 897*
- Solid-Fuel Appliances (Trade Publication), 626
- Kinetic, Effects in Aircraft, Ministry of Supply Exhibits at Farnborough Air Show, 571*
- Rig, Servo Amplifier and Power Rectifier Equipment for (English Electric Co., Ltd.), 474*
- of Oil-Tanker Cargoes, Steel Pipes with Cast-Iron Sleeves for (E. Green & Son, Ltd.), 393*
- Process, Advanced Lectures on, National College for Heating, Ventilating, Refrigeration and Fan Engineering, 528
- Room, Thermostat for Control of (C. Kieft & Co., Ltd.), 613*
- and Snow Melting at Airports (Trade Publication), 786
- Steam, in Oil Tankers, Aluminium-Alloy Pipes for, "Alacoil" System (Steels Engineering Installations, Ltd.), 151
- Systems, Central, Hot-Water Accelerating Pump for (Sealed Motor Construction Co., Ltd.), 352*
- Unit, Infra-Red, for Agricultural Use (British Thomson-Houston Co., Ltd.), 833*
- and Ventilating Engineers, Institution of: *Summer Meeting*: Art of Heating and Ventilating, by N. S. Billington, 205
- Manual, 1955 (Book), 626
- Heenan & Froude, Ltd., "S.207" Four-Slide Strip-Forming Machine, 85*
- Hefford, Eng. Rr.-Adml. E. O., the Late, 263
- Heinemann, E. H., on Design of High Speed Aircraft, 72
- Helicopters. See *Aeronautics*
- Hemweg Power Station, Amsterdam, 503
- Henderson, Dr. S., on Collapse Behaviour of Vierendeel Trusses, 632*
- Henley's, W. T., Telegraph Works Co., Ltd., Electric Cables (Trade Publication), 137
- Hennig, J., on Conveying Information Quickly, 197. See *LETTER*, 133. See also vol. 179
- "Herald" Civil Aircraft for Branch Service (Handley Page, Ltd.), 40, 394*
- Herbert, A., Ltd., "Ceco-drop" 8,000-lb. Capacity High-Speed Drop Hammer, 897*
- Hercules Powder Co., Ltd., "Akulon" Nylon Rod (Trade Publication), 690
- "Hersch" Oxygen Meter for Small Concentrations (Engelhard Industries, Ltd.), 91*
- Herstmonceux, Installation of Royal Observatory Equipment at, 858
- Hibberd, R. G., on Germanium and Silicon Power Rectifiers, 761*
- Hickson's Timber Impregnation Co. (G.B.), Ltd., "Tanalith C" Preservative for Protection of Timber, 732
- High Authority, Loans by, 322
- High Duty Alloys, Ltd., Aluminium Alloys in Textile Industry (Trade Publication), 267; Aircraft Stampings in Aluminium (Trade Publication), 786
- Marnham Power Station, Commencement of Construction of, 573
- Pressure, Physical Properties of Matter under, 789*
- Speed Steel. See *Steel*
- Temperature Tests. See *Tests (Materials)*
- Vacuum Plant, Manufacture by Edwards High Vacuum, Ltd., 2
- High Wycombe Laboratory of Timber Development Association, 457
- Highways. See *Roads*
- Hilger & Watts, Ltd., Hollow-Cathode Lamps (Trade Publication), 107; Optical Control of Block Gauges (Trade Publication), 786; X-ray Diffraction Equipment (Trade Publication), 786
- Hillfield Park Reservoir of Colne Valley Water Co., 575*
- Hillhouse, Lancashire, Plant for Polytetrafluorethylene of Imperial Chemical Industries, Ltd., Progress on, 103
- Hillier, H., the Late, 328*
- "Hillman Minx" 1,390 c.c. Motor-Car Engine, Adaptation for Sunbeam Rapier Car, 577
- Hinton, Sir C., on Export of Nuclear Reactors, 259
- Hirst, E., the Late, 655
- Hispano Suiza, Société d'Exploitation des Matériels, "Verdon" Turbojet Aeroplane Engine, 12*
- Historical Events in Mechanical and Electrical Engineering, Classified List of, by G. F. Westcott (Review), 370
- History of Science, Illustrated, by F. Sherwood Taylor (Review), 785
- of Technology, Vol. I: From Early Times to Fall of Ancient Empires, by C. Singer, E. J. Holmyard and A. R. Hall (Review), 74
- Hitchcock, F. A., on Some Considerations in Regard to Physiology of Space Flight, 237
- "HKS-1" Sailplane, 126
- H.M.S.S. See under *Warships*
- Hoadley, E. E., the Late, 69
- Hobson, H. M., Ltd., Control System for "E.443" Nuclear Reactor, 177*; Integrated Flying Control System, 389*
- Hoesch Werke A. G., Proposed New Pipe Factory in Canada, 290. See also 131
- Hoffmann Manufacturing Co., Ltd., Expansion Plans for Motor-Car Components Manufacture, 589
- Hogg, D. B., on Opportunities, Responsibilities and Recruitment of Professional Electrical Engineers in Industries other than Electrical, 558
- Hoists. See *Cranes; Gantries; Derricks*
- Holden & Hunt, Ltd., Pedal-Operated and Air-Operated Spot Welding Machines, 304; 16-kV Two-Headed Electric-Resistance Rivet Oven, 304*
- Holes, Fitting of Shafts in. See *Gauge*
- Holland, Electricity Supply in, 502*
- Ijmuiden, New Pulverised-Fuel Fired Furnace and Associated Plant at Experimental Station of International Flame Research Committee, 726*
- The Hague, 6th International Congress on Hydraulics Research at, 453*, 863
- Holmes, W. C., & Co., Ltd., Blowers (Trade Publication), 107; Combustion Unit for Fire Extinguisher Using Inert Gas from Oil Combustion, 544*; Multi-Wash System for Dust Extraction from Gases (Trade Publication), 690; Positive Displacement Rotary Blower (Trade Publication), 690
- Holophane, Ltd., Commercial Lighting Fittings (Trade Publication), 41
- Holset Engineering Co., Ltd., "Holset" Torsional Vibration Damper (Trade Publication), 330
- Honeycombe, Prof. R. W. K., on Plastic Deformation of Aluminium-3.5 per cent. Copper Alloy Single Crystals, 536
- Hong Kong, North Point "B" Power Station for, 547
- Hood, E. M., the Late, 720
- Hootsen, A., on Application of Supercharging by Turbo-Blowers to Two-Stroke Marine Diesel Engines of More than 10,000 b.h.p., 42
- Hordern-Richmond, Ltd., Manufacture of "Hydulignum" Densified Wood, 619
- Horological Institute, British, Statement of Progress in Clocks and Watches Industry, 526
- Horticulture, Electrical Equipment for (Trade Publication), 529
- Hose Coupling, Hydraulic, "Breakaway" (Automotive Products, Ltd.), 833*
- Fire, of Reinforced Plastics "Plastidry" (British Tyre & Rubber Co., Ltd.), 221
- Fuel, "Armourvin" (Trade Publication), 690
- Hydraulic Friction of, Tests on, 596
- and Tubes, Flexible, Choice of, by J. V. Klein, 48*
- Houldsworth, Sir H., on Price of Coal, 160
- Hours of Labour. See *Labour*
- Housing and Local Government, Ministry of, Participation in Building Delegation to U.S.S.R., 405
- Howden, J., & Co., Ltd., Lobe-Type Positive Displacement, High-Speed Rotary Air Compressor, 351*; *Hundred Years of Howden Engineering*, by C. W. Hume, 750
- Howden, J., & Co. (Land), Ltd., Air Heaters for Drakelow Power Station, 663
- "Howden" Steel Office Equipment (Trade Publication), 107
- Howell & Co., Ltd., Control Gear for Traveling Jib Breakdown Crane for Underground Railway Service, 835*
- "HRP" Heat-Treatment Furnace (Birlec Ltd.), 274*
- Hubbard Brothers, Ltd., Automatic Photo-Electrically Controlled Can-Filling Machine for Kerosene, 216*
- Huber, R., on Marine and Stationary Applications of Free-Piston Generator with Gas Turbine of More than 10,000 h.p., 42
- Hudswell, Clarke & Co., Ltd., 450-b.h.p. Diesel Locomotive with Three-Speed Gearbox for Johannesburg, 762*
- Hufford Machine Works, Forming Machine for Complex Contours, 851*; Stretch-Wrap Forming Machine, 851*
- Hughes, C. J., on Oil-Film Extent in Complete Journal Bearings, 37. See *LETTER*, 5. See also vol. 179
- Huleh Valley, River Jordan, Drainage of, 46*
- Hulton Works of J. Booth & Sons (Bolton), Ltd., 50th Anniversary of, 735
- Human Element, 360, 400, 440, 480, 520, 552, 584, 616, 648, 680, 712, 744, 776, 808, 872, 904. See also *Labour Notes* under *Labour*
- Relations in Industry, Sir W. Monckton on, 648
- "Humboldt" Centrifugal De-Waterer for Mines and Chemical Works (Klöckner-Humboldt-Deutz A.G.), 735*; "Humboldt" Rotary Suction Filter for Mines and Chemical Works (Klöckner-Humboldt-Deutz A.G.), 735*
- Humidity Recorder (Trade Publication), 594
- "Humphreys Spiral Concentrator" for Concentration of Low-Grade Ores (Fraser & Chalmers Engineering Works of General Electric Co., Ltd.), 153*
- Hundy, Dr. B. B., on Inhomogeneous Deformation in Rolling and Wire-Drawing, 536
- "Hunter" Jet Fighter Aircraft (Hawker Aircraft, Ltd.), 436*
- Hunting Percival Aircraft, Ltd., Construction of Research Helicopter, Statement by Minister of Supply on, 678
- "Hurdapta" Convactor Fire (Trade Publication), 169
- Hurseal, Ltd., Domestic Heating (Trade Publication), 169
- Hutton, G., on Objectives of Good Management, 680
- "Hydral-Luff" Electric Crane with Hydraulic Luffing (Clyde Crane & Engineering Co., Ltd.), 674*
- "Hydramatic" Gearbox for Cadillac Motor Cars, 642*
- Hydraulic Accumulators, Use in Heavy Industry, 796*
- Crane. See *Crane*
- Hose Coupling, "Breakaway" (Automotive Products, Ltd.), 833*
- Power Plant. See *Power Plant*
- Press. See *Press* under *Machine Tools*
- Problems, Application of Radioisotopes to, 292
- Pumps. See *Pump*
- Systems, Oil, Research on, 4
- Turbines. See *Turbines; Power Plant*
- Hydraulics Research, 6th International Congress on, 453*, 863
- in United States, 1955 (Book), 594
- See also *Hydrodynamics; Irrigation; Water*
- Hydrochloric Acid Plant (Trade Publication), 881
- Hydrodynamics, Cavitation in, Symposium on Problems Connected with, Arrangements for, 184
- Theoretical (Book), 721
- Underwater, Laboratory, for Admiralty Research Laboratory, 766*
- Hydro-Electric Power Plant. See *Power Plant*
- Hydromechanics Research Association, British, Open Days at, 595*
- "Hydron" Hydrostatic Steriliser for Canned Foods (Mitchell Engineering, Ltd.), 545*
- "Hydulignum" Densified Wood, Manufacture by Hordern-Richmond, Ltd., 619
- "Hylumina" Hard Heat-Resisting Ceramic, Production and Uses of (K.L.G. Sparking Plugs, Ltd.), 864*
- Hymatic Engineering Co., Ltd., Compressed-Air Starting System for Diesel Engines of up to 20-b.h.p. per Cylinder Output, 86; High-Pressure Diaphragm and Rotary Air Compressors (Trade Publication), 594; "PS.60" Hot Air Reducing Valves for Aircraft, 613*; Mobile Compressors (Trade Publication), 881
- "Hystamatic" Torque-Converter Drives (Trade Publication), 137
- Hyster Co., "Hystamatic" Torque-Converter Drives (Trade Publication), 137; Materials Handling (Trade Publication), 202; Selection of Fork-Lift Trucks (Trade Publication), 267

I

ICE. See *Refrigeration*

Ignatowicz, S., on Solubility of Nitrogen in Alpha-Iron, 829

Ignition-Programming and Flame-Failure Unit, "FS9M" (Elcontrol, Ltd.), 90*

Ijmuiden, Holland, New Pulverised-Fuel Fired Furnace and Associated Plant at Experimental Station of International Flame Research Committee, 726*

Illuminating Engineering Society: Factors Affecting Efficiency of Fluorescent Lamps—Quest for Higher Luminous Output, by F. Jackson, R. Molloy and K. Scott, 759

Illumination. See also *Light; Lighting; and Lamps*

Illuminator, Probe, for Interiors of Containers (Engineering Developments, Ltd.), 41

Imperial Chemical Industries, Ltd., Progress on Polytetrafluorethylene Plant at Hillhouse, Lancashire, 103; Non-Ferrous Metal Products (Trade Publication), 107; Paints Division, New Laboratories at Slough, 114*; Expansion of Chemical Industry in Scotland, 162; "Kynalok" Aluminium-Alloy Cladding for Roofs and Walls, 173; Profit-Sharing Scheme, 192; Application for Manufacture of Granular Titanium in United States, 219; *Titanium Abstract Bulletin*, First Issue of, 230; Non-Ferrous Alloy Exhibits at Engineering Exhibition, 461; Kirkby Copper Tube Factory of, 467*; Polythene Joint Fittings (Trade Publication), 529; Proposed New Factory at Waunarlwydd, Swansea, for Fabrication of Titanium, 718

— College of Science and Technology, Public Health Engineering Courses, 261; Expansion Problems of, 622; Inaugural Address by Prof. A. Tustin, on Next Ten Years of Electrical Engineering, 848.

— Standards, Reliability of, by L. C. Porter, 718

Import Trade. See *Trade*

"Impulse" Lubricating Pump for Heavy-Duty Machinery (Tecalmit, Ltd.), 422*

— Turbines. See *Turbines*

Incandescent Heat Co., Ltd., Slagging Cyclone Combustion Chamber for Coal-Fired Gas Turbine, 242*; "Equivise" Furnace System for High-Speed Scale-Free Heating of Steel, 639*

— Lamps. See *Lamps*Incidence Gear for 10,000-h.p. Continuous Supersonic Wind Tunnel, 25*. See *LETTER*, 167

Income and Expenditure, Blue Book on National, 362

Incorporated Plant Engineers, Advanced Courses on Installation and Operation of Plant, 528

Indenters for Rockwell Hardness Testing, Performance Tests on, by R. S. Marriner, 17*

Independent Television Authority, London Transmitting Stations of, 404*

Index of Retail Prices, 160

India, British Steel Mission to, Report of, Acceptance by Indian Government, 290

— Central Board of Irrigation of, Annual Report (Book), 330

— Co-operation with Pakistan on Irrigation by Waters of River Indus, 35

— Formation of New Company in, by Leyland Motors, Ltd., 67

— Invitation for Tenders for Locomotives and Rolling Stock, 522

— Irrigation in, History of (Book), 202

— Locomotives for, Foreign Tenders Accepted for, 258

— Rubber. See *Rubber*

Indian Community Project, Administration of, by T. Swaminathan, 485

— Railways, 75-ton Breakdown Crane for (Cowans, Sheldon & Co., Ltd.), 706*

— Indicating Equipment, Cathode-Ray, for Internal-Combustion Engines (Southern Instruments, Ltd.), 738

Indicators, Control, Miniature (Trade Publication), 137

— Direction, Animated, for Motor Vehicles (Simms Motor Units, Ltd.), 893*

— Recorders and Controllers (Trade Publication), 169

Induction Furnaces. See *Furnace, Electric*

Indus, River, Co-operation between India and Pakistan on Irrigation by Waters of, 35

Industrial Accidents. See *Accidents*— Agreements and Disputes. See *Labour*

Industrial Chain Supply Co., Ltd., Three-Speed Hand Drill, 214

— Chemistry. See *Chemistry*— Co-Partnership Conference, Oxford, Conference of, 192. See also *Labour*

— Democracy (Book), 560

— Design, Council of, Design Centre for British Industries, Permanent Exhibition, 178

— Diseases, Compensation for, 320

— Economics. See *Labour*— Fatigue. See *Labour*

— Fund for the Advancement of Scientific Education in Schools, Formation of, 650, 656

— Furnaces. See *Furnaces*

— Law, by J. L. Gayler (Review), 849

— Management. See *Works Management*

— Organisations, Congress of, Merger with American Federation of Labour, 840

— Production, Index of, 778

— Statistics of, 650

— Trends in, 874

— Relations, Future of, British Employers Confederation Session on, 648

— Research. See *Research*

— Supervisors, Institute of, Courses on Supervisory Development, 528

Industrie-Diamanten, G.m.b.H., Wire-Cutting Shears (Trade Publication), 330

Industrie Elettriche di Legnano, Award of United States Contract for Auto-transformers, 714

Industries, British, Federation of. See *Federation*

— Future of, British Employers' Federation Pamphlet on, 402

— Co-operation in Future of, Debate on, 552

— Co-partnership in. See *Labour*

— Cotton, Manpower Drift in, 224: Proposals for Night Shifts in, 320

— Engineer in, Relations with Employers, 699. See *LETTER*, 751

— Human Relations in, Sir W. Monckton on, 648

— Profit-Sharing Schemes. See *Labour*

— Recruitment of Juveniles for, 192

— Safer Working in, Royal Society for Prevention of Accidents Campaign for, 616, 680

— See also *Trade; Labour*

Inflation in Germany, Possible Measures for Prevention of, 522

— Possible Measures for Prevention of, 522

Information, Rapid Conveying of, 133. See *LETTERS*, 197. See also vol. 179

— Technical, Equipment for Processing of (Book), 626

— Maintenance Handbooks for Conveyance of, 197

Infra-Red Radiation, Electronic Relay for Detecting, 646*

Inglis, Dr. N. P., on Corrosion-Fatigue Properties of an Aluminium-Magnesium-Silicon Alloy in Unprotected, Anodised and Painted Conditions, 488

Ingot-Mould Hot-Tops, Use of Oxy-Propane for Prolonging Fluid Conditions in (British Oxygen Co., Ltd.), 184*

"Initiator" for Auxiliary Oil Firing of Pulverised-Fuel Boilers (Fuel Firing, Ltd.), 428*

Injector, Exhaust-Steam, Effect on Heat Losses of Locomotive Boilers, 209*

Inland Navigation. See *Canals; Rivers*, etc.

— Waterways Association, Proposals for Modernisation of Canals, 843

Inspection, Engineering (Book), 105

— Equipment, "Fedrex" X-Ray Equipment for Industrial Radiography (Trade Publication), 594

— and Testing of Engineering Materials (Book), 105

Institute. See *Institutions*Institution, British Standards. See *Standards*— Royal. See *Royal Institution*— of Production Engineers. See *Production*— Technical and Scientific. See *Aeronautical Sciences, United States Institute of; Aeronautical Society, Royal; Agricultural Society of England, Royal; Arts, Royal Society of; Aslib; Automotive Engineers*,

- Society of; Battelle Memorial Institute; British Aircraft Constructors, Society of; British Occupational Hygiene Society; Chemical Engineers, Institution of; Chemical Industry, Society of; Civil Engineers, Institution of; Electrical Engineers, Institution of; Engineers and Shipbuilders in Scotland, Institution of; Heating and Ventilating Engineers, Institution of; Horological Institute, British; Illuminating Engineering Society; Industrial Supervisors, Institute of; Instrument Technology, Society of; Iron and Steel Institute; Management, British Institute of; Marine Engineers, Institute of; Materials Handling Institute of; Mechanical Engineers, American Society of; Mechanical Engineers, Institution of; Metals, Institute of; Mining Electrical and Mechanical Engineers, Association of; Mining and Metallurgy, Institution of; North-East Coast Institution of Engineers and Shipbuilders; Physics, Institute of; Production Engineers, Institution of; Public Health Engineers, Association of; Royal Lighting Engineers, Association of; Royal Institution; Royal Society; Sanitary Engineers, Institution of; Sanitary Institute, Royal; Standards Institution, British; Supervising Electrical Engineers, Association of; and Welding, Institute of*
- Instruments, Aircraft (Trade Publication), 529
— Air-Cooled Selenium Rectifier for Ground Testing of (General Electric Co., Ltd.), 246*
— for Determining Drawing Qualities of Sheet Metal (Jones & Laughlin Steel Corporation), 62*
— Electrical Measuring (Book), 330
— Engineers, Future Requirements of Industry from, 631
— Exhibits at Geneva Exhibition of Atomic Energy for Peaceful Purposes, 301
— Fine, Air-Conditioned Dust-Free Building for Assembly and Testing of (R. B. Pullin & Co., Ltd.), 868*
— Industries' Exhibition, British, Exhibits at, 90*, 115*. See also vol. 179
— Measuring, Testing and Controlling, Directory of (Book), 818
— Miniature Panel-Mounting (Trade Publication), 721
— Ophthalmic, and Spectacles Industry, Book on Development of, 52
— Pneumatic, for Testing Flatness or Straightness of Photographic Plates, 510*
— Scientific, Concern at Foreign Competition in Manufacture of, 714
— International Scheme for Safe Transit of, 487
— Technology, Society of: Conference on Automatic Control in Process Industries. See *Chemical Engineers, Institution of*
— Temperature-Measuring, Calibration of (Book), 202
— Testing, Multi-Range (Trade Publication), 107
— See also *Aeronautics; Electric Instrumentation in Design, 631*
— Division of Costain-John Brown, Ltd., Work of, 728*
- Insulation. See *Heat; Electric Insurance, Workmen's*. See *Labour "Integron" Finned Tubes for Heat Exchangers, Manufacture of, 468*
- Inter-Governmental Maritime Consultative Organisation, Aims of, Questions in House of Commons on, 807
- Inter-Union Disputes, Settling of, 32
- "Intergrid" System of Building Construction (Pre-Stressed Concrete Co., Ltd.), 154*
- Intermit, Ltd., Filters and Strainers (Trade Publication), 107
- Internal Combustion Engines. See *Aeronautics; Engines; Motor Cars; Tractors; Turbine, Gas*
- Grinder. See *Grinder under Machine Tools*
- International Agency for Atomic Energy, Establishment of, 3
- International Combustion, Ltd., Twin-Furnace Oil-Fired Boiler for Steam-Turbine Test Bed, 138; "Raymond" Roller Mills (Trade Publication), 409; 515,000 lb. per hour capacity Boilers for Drakelow Power Station, 663*; Ash-Handling Plant for Drakelow Power Station, 666; "Ty-Rock" Screen for Crushed Rock (Trade Publication), 755
— Congress on Hydraulics Research, 6th, 453*, 863
- International Construction Co., Ltd., 34-in. Blooming and Slabbing Mill for Karabuk Iron and Steel Works, Turkey, 286*
- International Development Co. (Nottingham), Ltd., New Road for Moriston Hydro-Electric Project, 211
— Flame Research Committee, New Pulverised-Fuel Fired Furnace and Associated Plant at Experimental Station, Ijmuiden, Holland, 726*
— Foundry Congress, Banquet, 5
- International Furnace Equipment Co., Ltd., Coke-Oven-Gas Fired, Rotary-Hearth Furnace for King-Rolling Plant of Steel, Peech & Tozer, 27*
— Geophysical Year, Programme for, 296
— Internal-Combustion Engine Congress. See *Engine, Internal-Combustion, International Congress on*
— Labour Organisation, Report of 38th Conference, 840
- International Meehanite Metal Co., Ltd., "Meehanite" Metal (Trade Publication), 297
— Organisation for Standardisation, Recommendations on Standardisation, 260
- International Synthetic Rubber Co., Formation of, for Manufacture of Synthetic Rubber in United Kingdom, 747
— Trade. See *Trade*
- Inverters in Aircraft, Equipment for Testing (A. Lyon & Co. (Engineers), Ltd.), 396*
- Investment in Germany, Methods of Controlling, 587
— and Trade Balance, 442
- Iodine 131, Price Reduction for, 318
- Ionosphere, Physics of (Book), 754
- Ipscol, Ltd., Automatic Combustion Control System, 423*
- Ireland, Northern, Development Council, Functions of, 714
- "Irene" Yacht with Ferro-Cement Hull and Cabin, 603*
- Iridium Source for Examining Pipe Welds (Gamma-Rays, Ltd.), 398*. See *LETTER, 445*
- Irish Railways, 550-h.p. Bo-Bo and 1,200-h.p. Co-Co Diesel-Electric Locomotives for (Metropolitan-Vickers Electrical Co., Ltd.), 185*
- Iron Alloys. See *Metallurgy and Steel*
— Alpha-, Solubility of Nitrogen in, 829
— Strain-Ageing of, 862
— Castings, Output of, 778
— Record Output of, 291
— Containing Siliceous Inclusions, Microscopical Examination of, 862
— Titanium-Bearing Inclusions, Microscopical Examination of, 862
— Corrosion. See *Corrosion*
— Council, Joint, Annual Banquet, 656
— Ductile, New Method of Magnesium Addition in Manufacture of (Lloyds (Burton), Ltd.), 88*
— Electrically-Smelted, Casting Machine for (Sheppard & Sons, Ltd.), 183*
— Foundry. See *Foundry*
— Furnaces. See *Furnaces*
— Heat Treatment. See *Metallurgy*
— Manufacture. See *Furnaces, Blast*
— Ore. See *Ore*
— Pure, Strain-Ageing of, 862
— Rolling Mills. See *Rolling Mills*
— and Steel Board, Investment by, 442; Output Statistics, 682; Statement on Price Increases, 130; Supply Statistics, 555
— Factors in Selecting Processes for Producing, 162
— Federation, British: Report on Training of Managers, 239; Outline of Major Steel Projects in North-East, 259; Employment and Productivity in Steel Industry, 584
— Industry, French, Plans of, 362
- Iron and Steel Institute:**
Scunthorpe Meeting:
Programme, 170
Opening Proceedings, 559
Presentation of Sir Robert Hadfield Medal, 559
Reports of Proceedings, 630, 696, 729
Developments in Ironmaking at Appleby-Frodingham, by G. D. Elliot, 630
Expansion Scheme of John Lysaght's Scunthorpe Works, Ltd., by W. L. James, 630
Steelmaking at Redbourn, by S. R. Isaac, 696
Organisation for Maintenance, by J. L. Gaskell, 696
Underground Mining of the Frodingham Ironstone Bed, by C. Smith, 729
Development of Chemical Treatment of Low-Grade Iron Ores at Appleby-Frodingham, by Dr. L. Reeve, 729
- Autumn General Meeting:*
Opening Proceedings, 756
Changes in Council, 757
Reports of Proceedings, 716, 755, 756, 798, 829, 862, 894
Economic Conditions in Russian Steel Industry, by Sir R. Shone, 716
Russian Iron and Steel Plant, by W. F. Cartwright, 755
Furnace Scanning Periscope, by C. Burns, 798. See *Erratum, 866*
Relative Merits of Low and High-Sulphur Oil for Open-Hearth Steelmaking, by Dr. C. A. Edwards, 829
Thermodynamics of Carbon Dissolved in Iron Alloys, by Dr. E. T. Turkdogan, L. E. Leake, and R. A. Hancock, 829
Solubility of Nitrogen in Alpha-Iron, by J. D. Fast, M. B. Verrijp, Dr. N. S. Corney, Dr. E. T. Turkdogan, S. Ignatowicz and Dr. J. Pearson, 829
Strain-Ageing of Alpha-Iron, by Dr. W. R. Thomas and Dr. G. M. Leak, 862
Strain-Ageing of Pure Iron, by Dr. B. Jones and R. A. Owen-Barnett, 862
Microscopical Examination of Samples of Iron Containing Siliceous Inclusions, by R. E. Lismar and F. B. Pickering, 862
Microscopical Examination of Samples of Iron Containing Titanium-Bearing Inclusions, by F. B. Pickering, 862
Metallography of Delta-Ferrite, by K. Kuo, 894
- Iron and Steel Plant, Russian, 755
- Iron and Steel Research Association, British.**
Applications of Research Carried Out by, 298
Report on Painting of Structural Steelwork, 522
Conference on Works Transport. See Erratum, 284
Locomotive Utilisation and Availability, by M. D. J. Brisby, and J. H. Turnbull, 141. See *Erratum, 284*
Radio Communication of Locomotives, by H. E. Bottle, 142
Methods of Overcoming Specific Difficulties with Locomotive Working, by G. K. Tattersall, and R. S. Brunton, 142*
Best Sizes and Numbers of Locomotives Required in Works, by E. R. S. Watkins, 143
- Iron and Steel Research Association, British—continued**
Determination of Locomotive Sizes, by R. T. Ribbons, 144
Diesel Locomotive Drives—Electrical, Mechanical and Hydraulic, by R. J. Fett, 144
Shunting Devices other than Locomotives, by Dr. H. R. Mills, 144*
- Iron and Steel, Suspension of Import Duty on, Questions in House of Commons on, 807
— Trades Confederation, Views on Agitators, 128
— Works. See *Works*
— Tests. See *Tests (Materials)*
— Welding. See *Welding*
— See also *Cast Iron; Steel; Pig Iron; Metallurgy*
- Ironmaking at Appleby-Frodingham Steel Co., Developments in, 630
- Ironstone Bed, Frodingham, Underground Mining of, 729
- Ironwork, Structural. See *Bridges; Columns; Roofs; Steelwork; Structures*
- Irradiated Materials, Laboratory for Research on, 373
- Irrigation, Central Board of, India, Annual Report, 1950 (Book), 330
— and Flood Control in Southern Israel, Yarkon-Negev Water Pipeline for, 124*
— in India, History of (Book), 202
— Land Reclamation and Food Supplies, Past, Present and Future of (Book), 626
— and Power Potential of Jordan Basin, by P. H. Doron, 46*
— by Waters of River Indus, Co-operation between India and Pakistan on, 35
- Isaac, A. H., on Consideration of Instrumentation in Design, 631
- Isaac, S. R., on Steelmaking at Redbourn, 696
- "Isomaker" Isolator and Making Switch (A. Reyrolle & Co., Ltd.), 658
- Isopad, Ltd., Electric Jackets for Pipes and Columns (Trade Publication), 755
- Isotope Developments, Ltd., "Isotron" Radioactive Static Eliminator, 157; Exhibits at Geneva Exhibition on Atomic Energy for Peaceful Purposes, 433*
— Iodine 131 and Colloidal Gold 198. Price Reductions for, 318
— Radio-, Application to Leakage Detection and Hydraulic Problems, 292
— as Auxiliary Source of Electrical Power, 419*
— in Industry, Recent Developments in, 292
— Radioactive, Use and Disposal of, Review of Papers Presented at Geneva Conference on Peaceful Uses of Atomic Energy, 597
— Radiography, Instruments for (Gamma-Rays, Ltd.), 398*. See *LETTER, 445*
"Isotron" Radioactive Static Eliminator (Isotope Developments, Ltd.), 157
- Israel, Irrigation and Power Potential of Jordan Basin, 46*
— Southern, Irrigation and Flood Control in, Yarkon-Negev Water Pipeline for, 124*
- Italy, Award of Steel-Mill Contract to, by Government of Venezuela, 443
— Natural Gas Industry in, Organisation of, 700*
— Post-War Road Construction in, 757*
— Southern, Ten-Year Development Plan for, 2, 811
- Ivor Power Speciality Co., Ltd., Soot Blowers for Drakelow Power Station, 666
- J**
- "JABROC" Densified Wood, Manufacture by Moulded Components, Ltd., 619
- Jack, Hydraulic, "Climbing," for Concrete Formwork (Tangyes, Ltd.), 422*
- Jackson, F., on Factors Affecting Efficiency of Fluorescent Lamps, 758
- Jackson, P., on Development of Opposed-Piston Engine to 10,000 h.p. and Over, 42
- "Jaguar" 2.4-litre Motor-Car Engine, 577*
- James, W. L., on Expansion Scheme of John Lysaght's Scunthorpe Works, Ltd., 630
- Jane's All the World's Aircraft, 1955-56 (Review), 882
- Japan, Anglo-Japanese Sterling Payments Agreement, Effect on Engineering Industry, 586
— Election into General Agreement on Tariffs and Trade, 258
- Jarvis, J. S., on Fluid Seal for Reciprocating Shafts, 368. See *LETTERS, 294, 557*. See also vol. 179
- "Javelin" Fighter Aircraft, Flight Refuelling System for (Flight Refuelling, Ltd.), 670*
- J.C. Rotary Magnetic Seal Co., Ltd., Rotary Magnetic Oil Seal, 462*
- "JD 2" Diesel Engine for Distillation Plant (J. I. Thornycroft & Co., Ltd.), 274*
- Jefferson, S., on Application of Radioisotopes to Leakage and Hydraulic Problems, 292
- Jenkins, D. E., Models for Analysis of Complex Structural Frames, 53
- "Jericho" Power Megaphone (Marconi International Marine Communication Co., Ltd.), 734
- Jessop, W., & Sons, Ltd., Melting Plant for Titanium, 293
- Jet Condensers. See *Condensers*
- Gyrodyne Helicopter (Fairey Aviation Co., Ltd.), 396*
- Johansen, F. C., on Extensions to Railway Research, 557. See 481. See *LETTER, 621*
- Johnson, A., & Co. (London), Ltd., Laboratory for Research on Applications of "Votator" Continuous Heat Exchanger, 803*
- Johnson, Matthey & Co., Ltd., "Easy-flo" Silver Brazing Alloy (Trade Publication), 267
- Johnson, R. N., on Fluid Seal for Reciprocating Shafts, 294, 557. See *LETTER, 368*. See also vol. 179
- "Johnson" Variable-Speed Pulley with Reduced Belt Wear (L. J. Gear Co., Ltd.), 318*
- Johnston, K. F. A., on Conditions for Supply of Electrical Plant and Equipment, 230. See 165
- Joint Advisory Council for Industry, Discussions on Methods of Avoiding Strikes, 520
— "Chesterfield-Unisteel," for Dissimilar Alloys (Tube Investments, Ltd.), 432
— Fittings, Polythene (Trade Publication), 529
— Flanged and Screwed Unions for High Vacuum Work (Trade Publication), 690
— Fusion-Welded, Radiographic Examination of, Specification, 105
— Iron Council. See *Iron Council, Joint*
Jointing Exhibits at Engineering Exhibition (Beldam Asbestos Co., Ltd.), 310
— Overhead Electric Transmission Lines, Hydraulic Compressor for (Tate Brothers, Ltd.), 466
— Valves and Level Indicators (Trade Publication), 594
- Joists, Rolled Steel, Plastic Moduli of British Standard (Book), 408
- Jones, A. A., & Shipman, Ltd., Automatic Down-Feed and Power Traverse for Wheelhead for Surface Grinding Machine, 728
- Jones & Attwood, Ltd., "Worcester" 3-ton Bench Power Press, 189*
- Jones, Dr. B., on Strain-Ageing of Pure Iron, 862
- Jones, Prof. J. H. J., on Investigations on Transverse Distribution of Air Traffic on Runways and Use of Results in Designing Runways of Varying Thickness, 500
- Jones & Laughlin Steel Corporation, Non-Destructive Testing Instrument for Drawing Qualities of Sheet Metal, 62*
- "Jones" 3-ton Mobile Crane (K. & L. Steel-founders & Engineers, Ltd.), 896*
- Jones, P. L., on Review of Shipbuilding Industry, 590
- Jordan River, Irrigation and Power Potential of, by P. H. Doron, 46*
- Jorgensen, S. M., on Thnick-Walled Cylinders under Internal Pressure, 368, 591. See *LETTERS, 132, 167, 445, 783*. See also vol. 179
- Journals. See *Bearings*
- Jubilee of "Circle" Line of London Transport Executive, 518
— Golden, of Royal Aircraft Establishment, Open Days to Commemorate, 71*
- Jugoslavia. See *Yugoslavia*
- Julian, C. R., the Late, 407
- Junctions, Flyover, in Road Modernisation Plans, 94*
- Junker, O., G.m.b.H., Coreless Induction Furnaces for Melting Scrap, 771*
- Jute Industry, Dundee, Rationalisation of Wages in, 360
- Juveniles, Employment in Industry, 192
- K**
- "KALE CUTRAKE" (Massey-Harris-Ferguson (Manufacturing), Ltd.), 92*
- Kangchenjunga Climbing Expedition, Improved Breathing Apparatus for, 844*
- "Kanigen" Nickel Plating, Chemical Process for (Trade Publication), 529
- Kaprun Power Station in Austrian Tyrol, 16*
- Karabuk Iron and Steel Works, Turkey, 34-in. Blooming and Slabbing Mill for, 286*
- Karachi Airport, Improvement of Engineering Facilities at, 407
- K.C. Productions, Apparatus for Measurement of Elastic Moduli by Vibration Techniques, 637*
- Keadby-Monk Fryston Line for 275-kV National Grid, Completion of, 54*. See *Erratum, 252*
- Keelavite Rotary Pumps & Motors, Ltd., Hydraulic Control Valves, 464*
- Kelley, B., on Design of Large Helicopters, 72
- Kelvin & Hughes, Ltd., Airspeed Sensing Unit with Audible Indication, 250*
- Kemano-Kitimat Carrier-Current Telephone System (General Electric Co., Ltd.), 158
- Kendall, J. W., on Dounreay Fast Recorder 280*
- Kennedy & Donkin, 240-MW Chadderton "B" Power Station, 111*; Bold "A" Power Station, 514*
- "Keno" Washer for Removing Dust Particles from Air (K. Blackman, Ltd.), 277
- Kent, G., Ltd., "Commander" Range of Instruments including Pressure Recorder for Three Pressures Simultaneously, 116*; Indicators, Recorders and Controllers (Trade Publication), 169; Brix Controller for Sugar Production (Trade Publication), 489; Oxygen and Temperature Recorder for Boiler Houses (Trade Publication), 755; Gas-Pressure Controller (Trade Publication), 786
— Supply of Town Gas from Oil in, Arrangements of British Petroleum Co., Ltd., and South Eastern Gas Board, 363
- Kenyon, W., & Sons, Ltd., Thermal Insulation (Trade Publication), 850
- Kerosene, Automatic Can-Filling Machine for, 216*
- Kettleborough, Dr. C. F., on Tests on Parallel-Surface Thrust Bearings, 174*
- Keuring van Electrotechnische Materialen (Kema), N.V. tot, Laboratories of, 502*
- Key-Seating Machine. See *Machine Tools*
- Kidde, W., & Co., Ltd., Resin-Impregnated Fibreglass Pressure Vessels for Use in Aircraft Pneumatic Systems, 474*
- Kieft, C., & Co., Ltd., Thermostat for Control of Room Heating, 613*; Oil-Fuel Burner for Domestic Heating, 897*
- Kift, A. A., the Late, 816
- Kinematics, Introduction to (Book), 560
— Teaching of, Swiss System of Models for, 501
- Kinematograph. See *Cinematograph*
- King, E. G., the Late, 655

- King, Prof. J. W. H., Analysis of Complex Structural Frames by Models, 53; Method of Determining Expected Strength of Concrete, 684. See *Erratum*, 717
- Kingsbourne Products, Ltd., Pneumatic Cleansing Tank (Trade Publication), 529
- Kingsland Engineering Co., Ltd., Transportable Rod Cropper, 580*
- Kingston Engineering Co., Ltd., Transmission Screw Threads (Trade Publication), 721
- Kinman, T. H., on Germanium and Silicon Power Rectifiers, 761*
- Kipping, Sir N., on Price of Coal, 150
- Kirk & Kirk, Ltd., New Railway Station Buildings at Potters Bar, 830*
- Kirkby Copper Tube Factory of Imperial Chemical Industries, Ltd., 467*
- Kirke, H. L., the Late, 294
- Kitchen & Wade, Ltd., Horizontal Drilling, Boring and Tapping Machine Adaptable for any Angle, 217*
- Kitimat-Kemano Carrier-Current Telephone System (General Electric Co., Ltd.), 158
- Klein, J. V., on Choice of Flexible Tubes and Hoses, 48*
- K.L.G. Sparking Plugs, Ltd., "Hylumina" Hard Heat-Resisting Ceramic, Production and Uses of, 864*
- Klinger, R., Ltd., Jointing, Valves and Level Indicators (Trade Publication), 594
- Klößner-Humboldt-Deutz A.G., Centrifugal De-waterer and Rotary Suction Filter for Mines and Chemical Works, 735*
- K. & L. Steelfounders & Engineers, Ltd., "Jones" 3-ton Mobile Crane, 896*
- Knitted Mesh Manufacturing Co., Knitted Wire and Plastics Mesh (Trade Publication), 755
- Knott, D., on Cinema Film "The Inquiring Mind," 69. See 4
- "Komag" Portable Air Compressor for Airline Equipment (L. Edwards & Co.), 63*
- "Konjunkturtest" Method for Determining Business Trends and Prospects, 810
- Kornwerderzand, Holland, Sluice at, Model of, 863
- "Kukko" Pullers for Removal of Wheels and Bearings (E. F. Allchin & Co.), 88
- Kuo, K., on Metallography of Delta-Ferrite, 894
- "Kynalok" Aluminium-Alloy Cladding for Roofs and Walls (Imperial Chemical Industries, Ltd.), 173

L

- "6LA" 110 b.h.p. Six-Cylinder Diesel Engine (W. H. Dorman & Co., Ltd.), 305*
- Laboratory, Automatic, "Analmatic" (Baird & Tatlock (London), Ltd.), 117
- of Battelle Memorial Institute at Frankfurt-on-Main, Geneva, and Columbus, 50*
- Cavendish, Offer by Mullard, Ltd., for Research on Radio-Astronomy, 223
- Chemical Research. See *Chemical Research Laboratory*
- Safety Measures in (Book), 786
- Columbus, of Battelle Memorial Institute, Gamma-Radiation Source at, 51*
- Fishery Research, Aboard Trawler "Sir William Hardy," 220*
- Frankfurt-on-Main, of Battelle Institute, 50*
- Gas Council, London Research Station, 770*
- Geneva, of Battelle Memorial Institute, 51
- Hydrodynamics, Underwater, for Admiralty Research Laboratory, 766*
- Mechanical Engineering Research. See *Mechanical Engineering Research Laboratory*
- of Newton Works of Garringtons, Ltd., 612*
- of N.V. tot Keuring van Electrotechnische Materialen (Kema), 502*
- Polarographic Research, New, of Cambridge Instrument Co., Ltd., Opening of, 795
- Research, Aeronautical, Australian Department of Supply, Annual Report, 208
- Applied, Production-Control Quantometer at Steel, Peech and Tozer, 28
- of Central Electricity Authority, Extensions to, 84*
- of Paints Division of Imperial Chemical Industries at Slough, 114*
- Patent Law in (Book), 137
- Road. See *Road Research Laboratory*
- Walsall, Proposed, of Tube Investment Group, 373
- Switchgear Research, of Belmos Co., Ltd., 671*
- Timber Research, of Timber Development Association at High Wycombe, 457
- Water Pollution Research. See *Water Pollution Research Laboratory*
- See also *National Physical*

Labour:

- Africans and Europeans, Inter-Employment in Rhodesia, 224
- Agitators, Trade-Union, Condemnation of, 128
- American Federation of Labour, Merger with Congress of Industrial Organizations, 840
- Apprenticeships, Numbers of Juveniles Available for, 192
- in Patternmaking Trade, 160
- Armstrong, Sir W. G., Whitworth (Aircraft), Ltd., Redundancy at Works of, 128
- Automation, Apprehension Concerning, 808
- Discussion at Trades Union Congress on, 224
- Impact on Public of, 321
- in Motor Industry, Shop Stewards' Discussion on, 520
- Not a Danger to Living Standards, 64

Labour—continued

- Automation in Patternmaking Trade, 160
- Proposed Government Inquiry into, 96
- Automobile Employees in United States, Provision of Lay-Off Funds for, 256
- British Employers' Confederation, Pamphlet on *Britain's Industrial Future*, 402
- British Railways Productivity Council, First Meeting of, 160
- Transport Commission, Railway Strike Not a Victory, 32; Wage Increases for Other than Enginemen, 32; Employees' Demand for All-Round Wage Increase, 96
- Building Industry, Strike-Free Record in, 64
- Trades Employers, National Federation of, Strikes in Building Industry, 64
- Operatives, National Federation of, Views on Settling of Inter-Union Disputes, 32
- Workers, Amalgamated Union of, Losses by, 520
- Campbell, J. S., Views on Railway Strike, 32
- Central After-Care Association, Council of, Report of, 872
- Chemical Workers' Union, Views on Automation, 64
- Civil Servants, Clerical, Shortage of, 256
- Service Arbitration Tribunal, Awards of, 32, 224
- Salaries of Technical Officers in, Controversy on, 744
- Statistics of Employment in, 808
- Clerical Employees, Shortage of, 256
- Co-ownership in Industry, Liberal Party Report on, 840
- Co-operation in Future of Industry, Debate, 552
- Co-partnership. See *Profit Sharing* (below)
- Cotton Industry, Manpower Drift in, 224
- Proposals for Night Shifts in, 320
- Workers, Lancashire, Wage Claims by, 872
- Disabled Workers, Engineering Employment for, 620*
- Financial Statement of Remploi, Ltd., 744
- Diseases, Industrial, Compensation for, 320
- Disputes, Inter-Union, Settling of, 32
- Distributive Trades, Manpower Problems of, 288
- Dock Industry, Appointment of Committee to Inquire into Working of, 192
- Labour Scheme, Committee of Inquiry into Working of, 584. See 480
- Douglass, H., Views on Agitators, 128
- Earl's Court, Strike of Electricians at, 288, 320
- Edwards, R., Views on Automation, 64
- Elderly Workers, Nuffield Foundation Report on, 744
- Electrical Engineers in Industries other than Electrical, Opportunities, Responsibilities and Recruitment of, 558
- Trades Union, Demand for Shorter Hours, 128; Demands for Shorter Working Hours and Less Overtime, 256; Strikes Involving, 288, 320; Wage Disputes in Printing Industry, 360
- Elstree, Strike of Electricians at, 288, 320
- Employers Confederation, British, Session on Future of Industrial Relations, 648
- Duty in Enforcing Safety Measures, 203
- and Employee, Legal Responsibilities in Case of Accident to Employee, 777
- Relationships with Professional Engineers in Industry, Discussion of, 699. See *LETTER*, 751
- Employment in Engineering for Disabled Workers, 620*
- in Factory Inspectorate, Questions in House of Commons on, 807
- Full, Effect of Rumours Concerning, 712
- Effects on Shortage of Workers of, 712
- Statistics of, 616
- in Gas Industry, 616
- of Juveniles in Industry, 192
- in Production and Distribution Industries, Statistics of, Questions in House of Commons on, 775
- for Retired Officers, Federation of British Industries Scheme for, 840
- Statistics of, 135, 256, 363, 552, 872
- of Basic Industries, 646
- Motor Car and Motor-Car Components Industry, 524
- in Steel Industry and Productivity, 584
- Engineer, Professional, and Relation with Employer, 699. See *LETTER*, 751
- Engineering and Allied Employers' National Federation, Pension Proposals for Engineering Employees, 32; Consideration of Engineering Wage Claims, 320
- Employees, Pension Proposals for, 32
- Union, Amalgamated, Demand for Shorter Hours, 128; Demand for Increased Wages, 256; Wage Disputes in Printing Industry, 360; Nomination of Candidates for Presidency of, 776
- Factory Inspectorate, Employment in, Questions in House of Commons on, 807
- Fatigue, Industrial, Experimental Work in Study of, 360
- Five-day Week in Distributive Trades, Proposal for, 288
- Ford Motor Company, Provision of Lay-off Funds for Employees in United States, 256
- Foreign Manpower, Recruitment for Coalmining, 224
- Foremen, General, National Advisory Committee for Training of, in Building Industry, 3rd Report of, 744

Labour—continued

- Foundry Workers, Amalgamated Union of, Statement by Secretary Attacking Relation of Wages Increases to Productivity, 904
- French Shipbuilding Industry, Unrest in, 288
- Frost, H. G., on Strikes in Building Industry, 64
- Geddes, C., Views on Settling of Inter-Union Disputes, 32
- General Motors, Provision of Lay-off Funds for Employees in United States, 256
- German Industry, Wages and Conditions in, 256
- Workers, Wage Demands by, 360
- Houldsworth, Sir H., on Price of Coal, 160
- Hours, Shorter, Demands for, 128, 256
- of Working of Wage Earners, Statistics of, Questions in Parliament on, 743
- Human Relations in Industry, Sir W. Monckton on, 648
- Idleness in Industry, N. Dodds on, 616
- Imperial Chemical Industries, Ltd., Profit-Sharing Scheme, 192
- Index of Production, 64
- of Retail Prices, 160
- Industrial Accidents. See *Accidents*
- Cooperation in Future, Debate on, 552
- Co-Partnership Association, Oxford, Conference of, 192
- Organisations, Congress of, Merger with American Federation of Labour, 840
- Industry, Future of, British Employers' Federation Pamphlet, 402
- Human Relations in, Sir W. Monckton on, 648
- Profit-Sharing Schemes in, 192
- Recruitment of Juveniles for, 192
- Safer Working in, Royal Society for Prevention of Accidents Campaign, 680
- Insurance, Unemployment. See *Unemployment* (below)
- Inter-Union Disputes, Settling of, 32
- International Labour Organisation, Report of 38th Conference, 840
- Iron and Steel Trades Confederation, Views on Agitators, 128
- Juveniles, Employment in Industry, 192
- Kipping, Sir N., on Price of Coal, 160
- Labour Costs, Treasury Analysis of, 288
- Losses, Tabular Methods of Recording of, 616
- and National Service, Ministry of, Strike Statistics, 64; Wage Statistics, 64, 320; Annual Reports, 135, 160; Proposed Survey on Health in Factories in Halifax, 400; Report of Inquiry into Effect of National Service on Careers, 648; Employment Statistics, 872; End of Term of Sir W. Monckton as Labour Minister, 904
- Notes, 32, 64, 96, 128, 160, 192, 224, 256, 288, 320. See also *Human Element*
- Party Conference, Margate, on Pensions and National Insurance Fund, 584
- Relations and Productivity in the Firm, 401
- Shortage in Shipbuilding Industry, 650
- Lay-off Funds for Employees in United States, Provision of, 256
- Leadership, Consultative, in Industry, W. H. Scott on, 361
- Local Government Officers, Salary Increases for, 904
- Locomotive Engineers and Firemen, Associated Society of, Railway Strike Not a Victory, 32; Wage Increases for Other than Enginemen, 32; Demand for Improved Wages and Conditions for Railway Employees, 288, 320; Wage Claims by, 808; Rejection of Wage Claims by, 840
- Man and Metal*, Views on Agitators, 128
- Manpower in Cotton Industry, Drift of, 224
- Effective Use of, 360, 586
- Foreign, Recruitment for Coal mining, 224
- Scientific, Report of Committee on, 745
- Statistics of, Ministry of Labour and National Service, 135
- Technical, Recruitment to Electrical Engineering Industry, 558
- United States, Provision of Lay-off Funds for, 256
- Mineworkers, National Union of, Wage Claims by, 66; Demands for Wage Increases, 96; Wage Structure in Coal-Mining Industry, 96; Restrictive Practices in Coal-Mining Industry, 96; Parliamentary Debate on Coal-Mining Industry, 160; Recruitment of Foreign Manpower, 224; Human Problems in Coal-Mining Industry, 224; Mechanisation in Coal Mining Industry, 224; Unrest in Yorkshire Pits, 288; Agreement with National Coal Board for Investigation into Decline in Coal Production, 400, 440; Presentation of "Charter" to National Coal Board, 480
- Union, Northern Rhodesia European, Agreement with Rhodesian Selection Trust on Training of Africans, 440
- Mining Industry, German, Wages and Conditions in, 256
- Protest by Federation of British Industries at High Price of Coal, 160; Debate on Impersonal Monopoly of National Coal Board, 160; Recruitment of Manpower for, 192
- Monckton, Sir W., on Damage of Strikes to Export Trade, 35; on Work of Youth Employment Service, 192; End of Term as Labour Minister, 904
- Morale in War and Work*, Book by Dr. T. T. Paterson, 776

Labour—continued

- Motion Study, Cinema Film on, 695
- Motor Industry, Shop Stewards' Discussion on Automation, 520
- National Coal Board, Protest at High Coal Prices to, 160; Parliamentary Debate on Monopolistic Aspects of, 160; Recruitment of Foreign Manpower, 224; Human Problems in Coal-Mining Industry, 224; Mechanisation in Coal-Mining Industry, 224
- Insurance Advisory Committee, Report of, 712; Considerations on Adjustments in Earning Limit for Pensioners, 808
- and Pensions, Discussions at Labour Party Conference, Margate, 584
- Joint Advisory Council of Ministry of Labour, Views on Right to Strike, 224
- Service for Agricultural Engineers, Refusal of Exemption from, 775
- and Effect on Careers, Report of Inquiry on, 648
- Government Debate on, 680
- Men, Reduction in Numbers of, 521. See *LETTER*, 783
- Modifications in, 584
- and Utilisation of Intelligent Men, 193
- Night Shifts in Cotton Industry, Proposals for, 320
- Noel-Baker, P., on Recruitment for Coal-Mining Industry, 192
- Overtime, Reduction in, Demands for, 256
- Patternmakers, United Association of, Automation and Working Conditions in Patternmaking Trade, 160
- Pensioners for Engineering Employees, 32
- and National Insurance Fund, Discussions at Labour Party Conference, Margate, 584
- Pensioners, Adjustments in Earning Limit for, National Insurance Advisory Committee Considerations on, 808
- Piecework, Alternative to, by I. B. Cooke, 440
- Police Officers, Salary Increases for, 904
- Post Office Employees, Wage Awards, 32, 224
- Productivity Statistics, 64
- Profit-Sharing and Co-Partnership in Industry, Conservative Party Debate on, 480. See 552
- Scheme, Abandonment by Triplex Safety Glass Co., Ltd., 584
- Schemes, Introduction of, 192
- Schemes, Prof. Robbins on, 584
- Schemes, Views of Transport and General Workers' Union, 128
- Psychology of Machine Operators, 403. See *LETTER*, 621
- Radio Show, Earl's Court, Strike of Electricians at, 288, 320
- Railway Review*, View that Railway Strike was Not a Victory, 32; Demand for Improved Wages and Conditions for Railway Engineering Staffs, 288
- Railwaymen, National Union of, Railway Strike Not a Victory, 32; Wage Increases for Other than Enginemen, 32; Wage Claims by, 66, 510, 808; Annual Conference, 96; Demand for Improved Wages and Conditions for Railway Employees, 288, 320; Rejection of Wage Claims by British Transport Commission, 840
- Redundancy in Aircraft Industry, 128
- in Cotton Industry, 586
- in West Midlands Motor Industry, 552
- Restrictive Practices, Trade-Union, in Coal-Mining Industry, 96
- Retired Officers, Employment for, Federation of British Industries Scheme for, 840
- Rhodesia, Inter-Employment of Africans and Europeans in, 224
- Rhodesian Selection Trust, Agreement with Northern Rhodesia European Mineworkers Union on Training of Africans, 440
- Salary Increases for Local Government Officers and Police Officers, 904
- of Technical Officers in Civil Service, Controversy on, 744
- Scientific Manpower, Shortage of, J. Eccles on, 4. See *LETTER*, 69
- Shortage of, Recommendations of Barlow Committee on, 1. See *LETTERS*, 69, 101
- Shifts, Triple, in Lancashire Cotton Industry, Moves Towards, 440
- Shipbuilding and Engineering Unions, Confederation of, Pension Proposals for Engineering Employees, 32; Demands for Shorter Working Hours and Less Overtime, 256; Demand for Improved Wages and Conditions for Railway Employees, 288, 320; Wage Negotiations by, 680
- Industry, French, Unrest in, 288
- Shops, Retail, Manpower Problems of, 288
- Sickness Benefit and Short-Term Unemployment, Report of National Insurance Advisory Committee, 712
- Stevedores and Dockers, National Amalgamated, Dock Strike, 32, 64; One-Day Strike of, 480
- Strikes, Building Industry's Freedom from, 64
- Comparative World Survey of, 440
- Damage to Export Trade, by Sir W. Monckton, 35
- Discussions on Methods of Avoiding, 520
- at Trades Union Congress on, 224
- Dock, 32, 64
- of Electricians at Earl's Court and Elstree, 288, 320
- in France, 480
- One-Day, of National Amalgamated Stevedores and Dockers, Liverpool, 480
- Railway, No Victory for Anyone, 32

Labour—continued

- Strikes at Rolls-Royce Factory in Scotland, Questions in House of Commons on, 710
- at Rolls-Royce Ltd., and Hawker Aircraft, Ltd., 744
- at Scottish Factories of Rolls-Royce, Ltd., End of, 904
- Statistics, Ministry of Labour and National Service, 64
- Teachers, National Union of, Dispute over Superannuation Scheme, 872
- Technical Appointments Service of Ministry of Labour and National Service, 160
- Tiffin, A. E., Statement on Preparing for Future, 500
- Trade Unions, American, Merging of American Federation of Labour and Congress of Industrial Organisations, 840
- Attitude to Automation, 680
- Congress, Intervention in Inter-Union Disputes, 32; Assistance in Dock Strike, 64; Agenda for Southport Meeting, 224; Powers of Intervention in Industrial Disputes, 400; On Wage Restraint, 400; Dinner for Council, Debate on Future Co-operation of Industry, 552; Views on Budget, 680; Second Thoughts on Budget, 776; New Year Greeting from Secretary of, 872; Congress, Scottish, Proposed Conference on Highland Development and Unemployment, 440
- Disputes, Rights of Individual in, 776
- Finances of, 520
- Individual Rights of Members to Sue Union, 712
- Leaders in Germany, Workers Move Away from, 776
- Levies, Court Ruling on, 808
- and Monopoly, Association of British Chambers of Commerce Memorandum to Board of Trade on, 744
- Trends in Amalgamation of, 648
- Type Engineering Bodies in United Kingdom and United States, Discussion of, 699
- Transport and General Workers' Union, Dock Strike, 32, 64; Pensions for Engineering Employees, 32; 16th Biennial Conference, 98; Blackpool Biennial Conference, 128; Demand for Shorter Hours of Work, 128; Views on Wages and Profit Sharing, 128; Demands for Increased Wages, 256; Statement on Future by Mr. A. E. Tiffin, 400; Wage Demands by London Busmen, 480; Signs of Change of Attitude to Wage Claims, 904
- Salaried Staffs' Association, Demand for Improved Wages and Conditions for Railway Employees, 288, 320; Wage Claims by, 520, 808; Rejection of Wage Claims by, 840
- Unemployment, Short-Term, and Sickness Benefit, Report of National Insurance Advisory Committee, 712
- United Automobile Workers, Provision of Lay-off Funds for Employees in United States Automobile Industry, 256
- States Manpower, Provision of Lay-off Funds for, 256
- University Graduates, Survey on Recruitment of, 648
- Vehicle Builders, National Union of, Redundancy in West Midlands, 552
- Wages, Agricultural Employees, 320
- British Employers' Confederation Pamphlet on *Britain's Industrial Future*, 402
- Civil Servants, 32, 224
- Servants, Clerical, 256
- Claims in Building and Engineering Industries, 520
- Effect on Balance of Payments of, 520
- in France, Non-Restriction of, 400
- by German Workers, 360
- by Lancashire Cotton Workers, 872
- by London Busmen, 480
- by Railwaymen, 520, 808
- Railwaymen's, Rejection by British Transport Commission, 840
- as Result of Budget, 648
- Signs of Changed Attitude of Transport and General Workers' Union to, 904
- Coal Miners, 96
- Costs in the Light of the Budget, Statement by Federation of British Industries, 682
- and Earnings, Effect of Standard of Living of, 840
- Electricians, 256, 288, 320
- Engineering Employees, 256, 320
- Increases in Gas Industry, 616
- and Productivity, Relation between, Attack by Secretary of Amalgamated Union of Foundry Workers on, 904
- and Work Study in Printing Industry, 552
- Minimum, Statutory, Proposals for Increases in, Questions in House of Commons on, 807
- Negotiations by Confederation of Shipbuilding and Engineering Unions, 680
- Policy, National, by J. Driscoll (Review), 489
- Post Office Employees, 32
- in Printing Industry, Settlement of Dispute on, 360
- and Profit Sharing, Trade-Union Views on, 128
- Railway Employees, 32, 96, 288, 320
- Engineering Staffs, 288, 320
- Rationalisation of, Case Study on, 360

Labour—continued

- Wages, Restraint, Views of Trades Union Congress on, 400
- Retail Shop Employees, 288, 320
- and Salaries, Treasury Analysis of, 288
- Shipbuilding Employees, 256
- Statistics, Ministry of Labour and National Service, 64, 320
- Western German Mineworkers' Union, 256
- Work Study, Courses on, College of Production Technology, 528
- Department of National Coal Board, 35
- Workers and Management, Co-operation Between, 480
- Relation between, Speech by H. Gaitskell on, 904
- Young, Education of, Conference on, Oxford University, 1956, Programme, 611
- Workmen's Compensation for Industrial Diseases, 320
- for Industrial Injuries (Supplement) Bill, 710
- Youth Employment Service, Work of, 192
- Lacey, T., on the "Eland Elizabethan" Air Liner, 405. See 291. See also 357
- "Lachinedoc," M.V., with Hydroconic Construction and Diesel-Electric Cargo Cranes 898*
- Lacrinoid Products, Ltd., "Lacron" Barrel Finishing Compounds (Trade Publication), 330
- "Lacron" Barrel Finishing Compounds (Trade Publication), 330
- Ladle, "S.K.B.," for Addition of Magnesium to Molten Iron (Lloyds (Burton), Ltd.), 88*
- Lafarge Aluminous Cement Co., Ltd., Refractory Concretes (Trade Publication), 721
- Lagos Harbour, Model of, 863
- Laing, J., & Sons, Ltd., 120-MW Bold "A" Power Station, 514*; Prestressed-Concrete Silos for Sugar Storage, 895*
- Lagging Materials. See *Heat Insulation*
- Lamps, Electric (Trade Publication), 690
- Fluorescent, Colour-Corrected, 250-watt (General Electric Co., Ltd.), 859
- Factors Affecting Efficiency of, 758
- Hollow-Cathode (Trade Publication), 107
- Infra-Red, 1,000 Watt, for Industrial Purposes (Philips Electrical, Ltd.), 738
- Mercury Discharge, Short-Wave Ultra-Violet Meter for Measuring Radiation from (Hanovia, Ltd.), 91
- Projection and Photographic (Trade Publication), 267
- Signal (Trade Publication), 107
- Lancashire Boiler. See *Boiler*
- Cotton Industry, Moves Towards Triple-Shift Working in, 440
- Lancashire Dynamo and Crypto, Ltd., Motors for Power Stations (Trade Publication), 297
- Lancashire Dynamo Switchgear, Ltd., Distribution Switchgear (Trade Publication), 409
- Land Reclamation, Irrigation and Food Supplies, Past, Present and Future (Book), 626
- Water and Food, by H. Addison (Review), 560
- Landslides, Problems in Railway Civil Engineering, 384*. See LETTERS, 655
- Lane, J. A., on Economics of Nuclear Power in United States, 232, 282*
- Lang's Lay Construction for Flexible Wire Ropes, 44*
- Lansing, Bagnall, Ltd., Hand-Operated Fork-Truck Convertible to Trailer, 149*; Mobile Demonstration of Mechanical Handling Equipment, 685
- Lap, A. J. W., on Frictional Drag of Smooth and Rough Ship Forms, 600
- Lapointe Machine and Tool Co., 30-ft. Horizontal Broaching Machine, 885*
- Lapointe Picker, Electronic Concentration of Low-Grade Ores with (Book), 79
- Larke, E. C., on Corrosion-Fatigue Properties of an Aluminium-Magnesium-Silicon Alloy in Unprotected, Anodised and Painted Conditions, 488
- Larne, Northern Ireland, New Turbine Works of British Thomson-Houston Co., Ltd., at, 443
- Lassally, A., on Science Fiction, 294. See 225.
- Latchford Locks Works of British Aluminium Co., Ltd., New Extrusion Plant for, 799*
- Lathes. See *Machine Tools*
- Launches and Trial Trips of Ships, 13, 63, 93, 119, 140, 182, 217, 249, 286, 318, 396, 439, 448, 550, 593, 673, 688, 737, 802, 867, 899
- Laurence, Scott and Electromotors, Ltd., Electric Motors for Drakelow Power Station, 663
- Laurent Giles and Partners, All-Welded, Aluminium-Alloy Yacht "Morag Mohr," 23*
- Law. See *Legal; Labour; Patents*
- Lawden, D., on Optimum Launching of a Rocket into an Orbit About the Earth, 236
- Lawrence, E. W., the Late, 655
- Lawrie, T., the Late, 229
- Lay-off Funds for Employees in United States, Provision of, 256
- Layouts, Plant, Preparation of, Saving Time in Drawing Office on, by F. E. Guest, 106*
- "LE4" and "LE6" 120-b.h.p. and 180-b.h.p. Diesel Engines for Earthmoving Equipment and Air Compressors (J. and H. McLaren, Ltd.), 248*
- Leak, Dr. G. M., on Strain-Ageing of Alpha-Iron, 862
- Leakage, Application of Radioisotopes to Detection of, 292
- Underground, Use of Radioactive Materials for Tracing of, 597
- Leake, L. E., on Thermodynamics of Carbon Dissolved in Iron Alloys, 829
- Leather Research and Technology, Review and Bibliography of (Book), 79
- Leduc, R., et Fils, Experimental Ram-Jet "0-21" Aircraft, 10*

- Leech, E. A., on Hot Impact Tensile Test and its Relation to Hot-Working Properties, 536
- Leeds and Liverpool Canal, Development Plans for, 31
- Lees, H., & Co., Ltd., Wagon Tipplers (Trade Publication), 850

Legal:

- Industrial Law, by J. L. Gayler (Review), 849
- Labour Legislation. See *Labour*
- Legal Aid and Advice Act, Practical Examples of Interpretation of, 777
- Negligence in Manufacture and Use of Tools, 325
- Workmen's Compensation. See *Labour*
- Patent Law in Research Laboratory (Book), 137
- Safety Measures in Works, Employer's Duty in Enforcing, 203
- Trade Unions, Individual Rights of Members to Sue Union, 712
- Legge, Brig.-Gen. R. F., the Late, 294
- Legislation. See *Legal; Labour; Patents*
- Leight, B. P., on Review of Freight Aircraft, 68
- Leinss, H., on Thick-Walled Cylinders Under Internal Pressure, 132. See LETTERS, 167, 368, 445, 591, 783. See also vol. 179
- Leo Computers, Ltd., Production and Use of Electronic Computers, 841
- "Leo" Experimental Light-Water Nuclear Reactor, 653
- Letchworth Factory of Borg-Warner, Ltd., Building of, 324
- Letters to the Editor, 5, 37*, 69, 101, 132*, 167, 197, 230, 262, 294, 325, 368, 405, 445, 525, 557, 591, 621, 655, 685, 751, 783, 845, 877
- Levant & Co., Ltd., "Universal Rindis" Versatile Machine Tool for Small Workshops, 222*
- Level Indicator, Remote, for Water in Large Boilers (Hopkinsons, Ltd.), 465*
- Valves and Jointing (Trade Publication), 594
- Lewicki, W., on Hardy's Theory of Boundary Lubrication, 685
- Lewis, W. B., on Nuclear Power in Canada: Forecast of Development and Costs, 198
- Leyland Motors, Ltd., Formation of Ashok-Leyland, Ltd., in India, 67
- Liberal Party Report on Co-ownership in Industry, 840
- Library Association: Should a New Public Technical Library Service be Based on the Technical Colleges, by Dr. D. J. Urquhart, 586. See LETTERS, 751, 783
- Commercial and Technical, by J. P. Lamb (Review), 169
- Service, Technical, Public, Based on Technical Colleges, 586. See LETTERS, 751, 783
- Special, and Information Bureaux, Association of. See *Aslib*
- Lichfield Television Transmitting Station of I.T.A., 631
- Life-Saving Appliances, Survey of (Book), 105
- Light Alloys. See *Alloys under Metallurgy*
- Polarised, Stress Determination by. See *Photo-Elastic*
- Lighting, Conference of Association of Public Lighting Engineers, Programme, 316
- at El Segundo Design Offices of Douglas Aircraft Co., 819*
- Fittings, Commercial (Trade Publication), 41
- Dustproof (Trade Publication), 786
- Movable (Trade Publication), 690
- Fluorescent (Trade Publication), 786
- for Potato Houses (General Electric Co., Ltd.), 833
- Sets, Emergency, Cabinet for Control of, 644*
- See also *Lamps*
- Lignum Vitae, Early Use in Stern-Tube Bearings, 37. See also vol. 179
- Limberg Dam, Glockner-Kaprun Hydro-Electric Scheme, 16*
- Limit Gauges. See *Gauge*
- Lincoln Electric Co., Ltd., Diesel-Driven Welder with Dual Control, 464*
- "Lincoln" Motor Car, Air-Conditioning and Refrigeration System for, 642*
- Lincolnshire, Steam Engine Builders of (Book), 137
- Lind, P., & Co., Ltd., Pre-Drainage of Site of South Denes Power Station, 730*
- Linder, E. G., on Direct Conversion of Radiation into Electrical Energy, 419*
- Linear Accelerators, Review of Development of, 340*, 374*
- Liners. See *Ships; Steamers; Motorships*
- Link Belt Co., Tensioner for Conveyors (Trade Publication), 409; Friction Clutch (Trade Publication), 626
- Linlithgow Bridge, Start of Work on, Questions in House of Commons on, 903
- Liquefied-Petroleum Gas, Proving Meters for, 880
- Liquid Fuel. See *Oil Fuel*. See also *Benzol; Motor*
- Level Control Unit, Electronic, Single-Stage (Elcontrol Ltd.), 90
- Controller, Displacement-Type, for Air Operation (Crosby Valve and Engineering Co., Ltd.), 62*
- Lisbon, Colloquium on Loading of Highway Bridges, Programme, 214
- Lisner, R. E., on Microscopical Examination of Samples of Iron Containing Siliceous Inclusions, 862
- Liston, D. J., on Economic Statistics—A Guide to Management Decisions, 694
- Literature, 9, 41, 73, 169, 201, 238, 266, 298, 329, 370, 409, 449, 489, 560, 593, 625, 657, 689, 720, 753, 785, 849, 882
- Litigation. See *Legal; Labour; Patents*
- Little Barford Power Station, Extensions to, 102
- Liverman, J. H., on Administration of Volta River Project, 485
- Liverpool Borax Co., Ltd., Maxwell Advisory Service Bureau, Building Maintenance (Trade Publication), 41
- Liverpool Engineering Society, Inc., Name of Publication Changed, 294
- and Leeds Canal, Development Plans for, 31
- Overhead Railway, Future of, Questions in House of Commons on, 903
- Street to Enfield Town Railway, Electrification of, Questions in House of Commons on, 710
- "Llandaff," H.M. Aircraft-Direction Frigate, Launch of, 867
- Llay Main Colliery, Use of "Martin" Stoker for Burning Coal Slurry at, 110
- Lloyd, Brig., on Potentialities of British Railways System as Reserved Roadway System, 34
- Lloyd, F. H., & Co., Ltd., Cinema Film on Building a Modern Steel Foundry, 722
- "Lloyd" Vertical Twin 4-Stroke Motor-Car Engine, 578*
- Lloyds (Burton), Ltd., New Method of Magnesium Addition in Manufacture of Ductile Iron, 88*
- Lloyd's Register of Shipping, Changes in Ship Construction Rules, 9; Revision in Content of Register Book, 63; Shipbuilding Returns, 99
- Load, Critical, for Framed Structures, Methods for Determination of, 658*
- Testing Equipment (Trade Publication), 297
- Loader, Tractor Fore-End, Ditch-Clearing Attachment for (Whitlock Bros., Ltd.), 30*
- Loading Equipment for Transatlantic Telephone Cable (Submarine Cables, Ltd.), 677*
- "Loadmaster" Hydraulic Shovel (Trade Publication), 850
- "Loadmaster" Miniature Circuit-Breaker (Dorman and Smith, Ltd.), 247
- "Lo-Bed" Electric Haulage Capstan (Taylor Stoker Co., Ltd.), 613*
- Lockheed Aircraft Corporation, "Lockheed T2V-1" Jet Trainer Aircraft, 788*; Iceing Research Tunnel for Aircraft, 820*; "Big Bruiser" Strength-Testing Equipment for Aircraft Components, 821*; Phenolic-Resin-Faced Dies for Stretch-Forming, 852
- Lockwood, J., on Methods of Photographing Air Flow, 167. See 25
- Locomotive Boiler, Calculation of Heat Losses of, by Dr. H. I. Andrews, 209*
- Builders, Private, Large Orders for, 746
- Cylinder Liner, Erosion of, 142*
- Design, Modern, Scientific Development of, 377*. See *Erratum*, 762
- Diesel (Trade Publication), 626
- 450-b.h.p., with Three-Speed Gearbox Hudswell, Clarke & Co., Ltd., 762*
- Electric, 550-h.p., Bo-Bo, Broad-Gauge, for Irish Railways (Metropolitan-Vickers Electrical Co., Ltd.), 185*
- Electric, 1,200-h.p., Co-Co, Broad-Gauge for Irish Railways (Metropolitan-Vickers Electrical Co., Ltd.), 185*
- Electric, Design of Bogies for, 791*
- Electric and Electric (Trade Publication), 330
- Electric, Narrow-Gauge, for Rhodesia Railways (English Electric Co., Ltd.), 120*
- Electric, Shunting, 350-b.h.p., for British Railways (Crompton Parkinson, Ltd. and Crossley Brothers, Ltd.), 311*. See also 676*
- Electrical, Mechanical and Hydraulic Drives for, 144
- and Gas-Turbine, Development of, in Comparison with Steam Locomotive, 377*
- Mechanical, Shunting, 240-h.p., for New Zealand Government Railways (W. G. Bagnall, Ltd.), 676*. See also 311*
- Electric, Design of Bogies for, 791*
- and Diesel-Electric (Trade Publication), 330
- 3,600-h.p., 3,000-volt, Direct-Current, for Spanish National Railways (English Electric Co., Ltd.), 120*
- Traction Engineering, by E. A. Binney (Review), 753
- Engineers and Firemen, Associated Society of, Railway Strike Not a Victory, 32; Wage Increases for Other than Engine-men, 32; Demand for Improved Wages and Conditions for Railway Employees, 288, 320; Wage Claims by, 808; Rejection of Wage Claims by, 840
- Institution of: Railway Breakdown Organisation and Equipment in Use on the London Transport System, by G. S. Bingham, 865
- Fitting of Speedometers to, Questions in House of Commons on, 775
- Gas-Turbine and Diesel, Development of, in Comparison with Steam Locomotive, 377*
- Mixed-Traffic, "Merchant Navy" Class, Tests on, 485
- Oil-Burning, for Sudan Railways (North British Locomotive Co., Ltd.), 59*
- Radio Communication on, 142
- and Rolling Stock, Indian Invitations for Tenders for, 522
- Safety Device for (Oerlikon Engineering Co.), 218*. See 195
- Sizes of, Determination of, 144
- and Numbers Required in Works, 143
- Steam, Development of Diesel and Gas-Turbine Locomotives in Comparison with, 377*
- Indian Orders for, Foreign Tenders Accepted for, 258
- Road, Formation of Preservation Society for, 591
- Utilisation and Availability of, 141. See *Erratum*, 284
- Vehicle-and-Track Testing Installation, Proposed, 481. See LETTERS, 557, 621
- Works, Crewe, of British Railways, Apprentice School at, 443, 444*
- Working, Methods of Overcoming Difficulties of, 142*
- Lodi Gasworks, Italy, Conversion to Natural Gas, 702

- Loewy Engineering Co., Ltd., 400-ton Piercing Press for Ring-Rolling Plant of Steel, Peech and Tozer, Ltd., 27*; Ring-Rolling Mill for Steel, Peech and Tozer, Ltd., 28; Continuous Medium-Strip Mill for Roth-erham Works of Steel, Peech and Tozer, Ltd., 39
- Loferski, J. J., on Direct Conversion of Radiation into Electrical Energy, 419*
- Lombard, A. A., on Low Consumption Turbine Engines, 125
- London-Birmingham Railway, the First Trunk Line, Construction of, 622
- 26th Building Exhibition, Plans for, 51
- Chamber of Commerce, Final Report on Working of London Docks, 712
- Research Station of Gas Council, Extension of Laboratories at, 770*
- School of Hygiene and Tropical Medicine, Public-Health Engineering Courses, 361
- Transmitting Stations of Independent Television Authority, 404*
- Transport Executive, Apparatus for Instantaneous Measurement of Underground Train Speeds, 156*; Wage Demands by London Busmen, 480; Jubilee of "Circle" Line, 518; Travelling Jib Breakdown Crane for Underground Railway Service, 835*; Breakdown Organisation and Equipment in Use on Railways, 865
- Underground Railways. See *Underground and London Transport Executive*
- Yorkshire Motorway, Plans for, 94*; Firm Proposals for, 443; Progress of, Questions in House of Commons on, 710
- Loom, Textile, Use of Timber in, 732*
- Lorries. See *Motor Vehicles, Tractors*
- Los Peares Power Station, Spain, 458*
- Lough, W. R., the Late, 878
- Love, P. P., on Criticism of Technical Education of Recently Qualified Engineers, 586, 684
- Low, the Rt. Hon., A. R. W., on Export Drive to Dollar Account Countries, 685. See 681; on Electrical Industry, 737
- Temperatures, Metals at, Paris Conference on, Proposed Meeting for Report of, 760
- Lubricants, Hot, Research on Rubbers for Resisting, 85
- Containing Molybdenum Disulphide (Trade Publication), 594
- Lubricating Oil, Automobile Engine, "Castrolite" (C. C. Wakefield & Co., Ltd.), 95
- Wear-Reducing Properties of, Cinema Film on, 178*
- See also *Oils*
- Pump, Automatic, "Falling-Drop" (Tecalmit, Ltd.), 422
- "Impulse" for Heavy-Duty Machinery (Tecalmit, Ltd.), 422*
- System, Centralised, "Enots One-Shot" (Benton and Stone, Ltd.), 397*
- Lubrication, Boundary, Hardy's Theory of, 685
- Cinema Films on (Vacuum Oil Co., Ltd.), 636
- Film on Porous Metal Bearings, 854
- Engineers, Group of, Proposed Formation of, 403
- Group of Institution of Mechanical Engineers, Formation of, 842
- Industrial, Guide to (Trade Publication), 41
- of Machine Tools (Trade Publication), 594
- with Molybdenum Disulphide (Trade Publication), 594
- Practice of (Book), 754
- Research on, 4
- Ring, of Bearings, Oil Transfer and Cooling in, 268*, 570*
- System for Rails of Travelling Cranes (Centralube, Ltd.), 707*
- Unit, Mobile, Vehicle Mounted (C. C. Wakefield & Co., Ltd.), 735
- Worm-Gear, Effect of Oil Viscosity on, by R. Tourret, 888*
- Lucas, J., Ltd., Slagging Cyclone Combustion Chamber for Coal-Fired Gas Turbine, 242*
- Lucas, J., (Industries), Ltd., Annual Report, 842
- Luffing Unit, Hydraulic, for "Hydral-Luff" Electric Crane, 674*
- "Lullington" H.M. Coastal Minesweeper, Launch of, 396
- Luminance of Fluorescent Powders, Photometer for Measurement of (General Electric Co., Ltd.), 118*
- Luminescence, Practical Applications of (Book), 330
- Lyon, A., & Co. (Engineers), Ltd., 4-in. Diesel-Driven Centrifugal Pump, 251*; Test Bench for Aircraft Generators, 251*; Equipment for Testing Inverters in Aircraft, 396*; "Alcon" Diaphragm Pump for Sludge, 576*
- Lysaght, J., Scunthorpe Works, Ltd., Expansion Scheme of, 630

M

- "M 986" Portable Cathode-Ray Indicating Equipment for Internal-Combustion Engines (Southern Instruments, Ltd.), 738
- Maas, River, Model of Delta of, 453
- Macadam. See *Roads*
- Machines, Complicated, Method for Testing Reliability While Reducing Cost of Prototype Trials by Dr. G. Morris, 723*. See 713. See LETTERS, 783, 813
- Design, Theory of (Book), 786
- and Machine Operators, Relationship Between, 403. See LETTER, 621
- Shops. See *Works and Machine Tools*
- Testing. See *Testing Machine and Tests (Materials)*

Machine Tools:

- Bending and Levelling Machines, Plate, Dual-Purpose (J. Bigwood & Son, Ltd.), 866*

Machine Tools—continued

- Bolt-Tightening Machines, Automatic, 885*
- Boring, Drilling and Tapping Machine, Horizontal, Adaptable for Any Angle (Kitchen and Wade, Ltd.), 217*
- Machine, Portable, "Cent-ro-mic," for Fine Bores ("Buma" Engineering Co., Ltd.), 23*
- "Sizer" Pre-Set Boring Head for (Paddon Precision Tools, Ltd.), 213
- for Wood (Book), 626
- and Turning Mill, 25 ft., Vertical, High-Accuracy (G. Richards & Co., Ltd.), 22*
- Box-Folding Machine "Besco," Hand Operated (F. J. Edwards, Ltd.), 117*
- Broaching Machine, Horizontal, 30-ft. (Lapointe Machine and Tool Co.), 885*
- Can-Filling Machine, Automatic, for Kerosene, with Photo-Electric Controls (Watts Fincham, Ltd.), 216*
- Canadian Industrial Tool and Equipment Show, 31
- Cropper, Rod, Transportable (Svenska Motorbon AB), 580*
- Cutter and Tool-Grinding Machine (Cincinnati Milling Machines, Ltd.), 61*
- Cutting and Profiling Machines, "Hancomatic" (Trade Publication), 721
- Dicing Machine, Automatic, for Forming Steel Strip into Stator Blade Base Plates, 884*
- Drill, Electric, Portable, for Commercial Vehicle Frames (Seddon Diesel Vehicles, Ltd., and Black and Decker, Ltd.), 118*
- Hand, Air-Operated (Broom and Wade, Ltd.), 464
- Three-Speed (Industrial Chain Supply Co., Ltd.), 214
- Rotary Power-Arm, Lorry-Mounted, for Oil and Mineral Prospecting (Hands-England Oilfields Equipment, Ltd.), 430*
- Rods and Bits for, Specification, 105
- Drilling, Boring and Tapping Machine, Horizontal, Adaptable for any Angle (Kitchen and Wade, Ltd.), 217*
- Equipment, Book (Trade Publication), 529
- Machines, Experiments of Deflections and Vibrations of, 823
- Radial, Vibration Under Test and Working Conditions of, 823
- Percussive, and Dry Dust Suppression (Review), 785
- Rig, Oil-Well, Trailer Mounted (Woodfield Hoist and Associated Industries Ltd.), 687
- Driving Dog for Lathes, Automatic, "Auto-Grip" (F. Pratt & Co., Ltd.), 118*
- Engraving Machines (Trade Publication), 786
- Forming, Hot, Techniques of, Research on, 852
- Machine for Complex Contours (C. Turnblade), 851*
- Stretch-Wrap (Hufford Machine Works), 851*
- Gear Cutting Machines, Bevel, the Gleason Method, Recent Developments in, 717. See LETTERS, 751, 813
- Grinding, Effects of High-Frequency Vibration on, 247
- Machine, Abrasive-Belt, for Steel Sheet, 886*
- "Endia" Radius Fixture with Interchangeable Mandrels for Wheels of (Engineering Diamonds, Ltd.), 119*
- Internal and External (Trade Publication), 330
- "Magco" Load Control Unit for (Trade Publication), 489
- Sander, Portable, Heavy-Duty (Black and Decker, Ltd.), 515*
- Surface, Automatic Down-Feed and Power Traverse to Wheelhead for (A. A. Jones and Shipman, Ltd.), 728
- Surface, "Slipmaterial-Naxos" (Mortimer Engineering Co.), 709*
- Tool and Cutting (Cincinnati Milling Machines, Ltd.), 61*
- Wheels, Methods of Manufacture of, 607
- Hacksaws, Heavy Duty (Trade Publication), 786
- Hammer, Drop, High-Speed, 8,000-lb. Capacity, "Ceco-drop" (Chambersburg Engineering Co. of America), 897*
- Steam, 7-ton, Massey, for Axle Forge, 28*
- Holder, Tool, "Eclipse" (Trade Publication), 626
- Hydraulic Press. See *Press (below)*
- Keyseating and Profile-Cutting Machine, "Fromag" (Fröndenberger Maschinen- und Apparatebau, G.m.b.H.), 117*
- Lapping Machine (Flexibox, Ltd.), 425*
- Lathe, Capstan and Turret, Practice of (Book), 754
- Commutator (Trade Publication), 137
- for Turning and Undercutting (Brownings' Electric Co., Ltd.), 317*
- Copying, with Hydraulically-Actuated Tool and Constant Cutting-Speed (E. Dubied et Cie, S.A.), 157*
- Driving Dog for, Automatic, "Auto-Grip" (F. Pratt & Co., Ltd.), 118*
- Levelling and Bending Machines, Plate, Dual-Purpose (J. Bigwood & Son, Ltd.), 866*
- Limit Gauging. See *Gauge*
- Machine-Shop Management. See *Works Management*
- Tools (Trade Publication), 330
- Annex of Steam-Turbine Test Shop of Fraser and Chalmers Works of General Electric Co., Ltd., 139*

Machine Tools—continued

- Machine Tools, Calculation of Gears for (Book), 881
- Design of, by Austin Motor Co., Ltd., 226
- Distribution in Germany, 656
- Impact of Scientific Development on, 694
- Increase in Demand for, Motor Vehicle Industry Expansion Plans, 259
- Industry as Guide to Market Trends, 874
- Industry, Survey of, by Noble Lowndes Finance Co., Ltd., 843
- Lubrication of (Trade Publication), 594
- Plastics (Book), 786
- United States Plan for Purchasing Large Quantities of, 483
- Universal, Ultrasonic, 2-kW (Mullard, Ltd.), 425*
- Versatile, for Small Workshops "Universal Rindis" (Levant & Co., Ltd.), 222*
- Work, Tolerance in. See *Gauge*
- Milling Cutters, "Zeelock" (Trade Publication), 489. See *Erratum*, 594
- Machine, 18 Axis, 200-ton Electronically-Controlled (General Dynamics Corporation), 854
- Copy, 14-Spindle, "Tracermatic," 885*
- Profile, with Electronic Programme Control (Electric and Musical Industries, Ltd.), 769*
- for Rubber and Plastics (Reed Brothers (Engineering), Ltd.), 477*
- Moulding Machine, Spindle, for Wood (T. Robinson & Son, Ltd.), 216*
- Parting and Sealing Machine for Wire Rope (Metropolitan-Vickers Electrical Co., Ltd.), 306*
- Plastics Tooling, Resins for, Research on, 852
- Plate-Bending and Levelling Machines, Dual-Purpose (J. Bigwood & Son, Ltd.), 866*
- Pneumatic Drills. See *Drills (above)*
- Polishing Wheel with Profiling Action (Minnesota Mining and Manufacturing Co., Ltd.), 900*
- Press, Automatic-Cycle, "Wheelon," (Verson All-Steel Press Co.), 852*
- Extrusion, 12,000-ton (Curtiss-Wright Corporation), 853*
- for Aluminium (Schloemann A.G.), 799*
- Hydraulic, 15-ton (Pilot Works, Ltd.), 279*
- Piercing, 400-ton, for Ring-Rolling Plant of Steel, Peech & Tozer, Ltd., (Loewy Engineering Co., Ltd.), 27*
- Power, 3-ton Bench, "Worcester" (Jones & Attwood, Ltd.), 189*
- Hydraulic (Trade Publication), 786
- Tool Design (Book), 754
- Production News, New House Journal of Drummond-Asquith (Sales), Ltd., 215
- Profile-Cutting and Keyseating Machine, "Fromag" (Fröndenberger Maschinen- und Apparatebau, G.m.b.H.), 117*
- Machine using Acetylene, Propane or Coal Gas (British Industrial Gases, Ltd.), 310*
- Machines, "Bison" and "Beagle" (British Oxygen Co., Ltd.), 461
- Milling Machine with Electronic Programme Control (Electric & Musical Industries, Ltd.), 769*
- Profiling and Cutting Machines, "Hancomatic" (Trade Publication), 721
- Routing Machines, High-speed, Use of, in American Aircraft Industry, 853
- Saw, Air-Driven, Hand-Held, Carbide-Tipped (Boeing Airplane Co.), 853
- Chain, "Fury," and Winch, Petrol-Engine Driven (J. Clubley Armstrong Danarm, Ltd.), 550
- See also *Hack-Sawing Machines (above)*
- Screw Pitch Measuring Machine (Trade Publication), 202
- Sealing and Parting Machine for Wire Rope (Metropolitan-Vickers Electrical Co., Ltd.), 306*
- Skin-Milling Machine (Giddings & Lewis, Ltd.), 854*
- Slitting Machine for Highly-Finished Stainless Steel (W. H. A. Robertson & Co., Ltd.), 542*
- Stretching Machine, 585-ton, for Aluminium Sections (Schloemann A.G.), 800*
- Strip-Forming Machine, Four-Slide "S.207" Heenan & Froude, Ltd., 85*
- Tapping, Boring and Drilling Machine, Horizontal, Adaptable for any Angle (Kitchen & Wade, Ltd.), 217*
- Thread-Cutting Machine, Portable (Wright Electric Motors (Halifax), Ltd.), 278*
- Tool, Cutting, "Aero Mist Spray" Cooling for (Orenda Engines, Ltd.), 885*
- Engineers, American Society of, 11th Exposition of, 31
- Grinding and Cutting Machine (Cincinnati Milling Machines, Ltd.), 61*
- Pneumatic (Trade Publication), 489
- Holder, "Eclipse" (Trade Publication), 626
- Trepanning Tool (Dixon-Lesley, Ltd.), 187*
- Tube-Parting Machine, Portable (Wright Electric Motors (Halifax), Ltd.), 278*
- Straightening Machine for Tubes of 3 in. to 15 in. diameter (J. Bigwood & Son, Ltd.), 606*
- Turning and Boring Mills. See *Boring (above)*
- Vice for Holding Irregular Shapes (Headland Engineering Developments, Ltd.), 770*

Machine Tools—continued

- Vice, Machine, "Down-Grip," "Dormer" (Sheffield Twist Drill & Steel Co., Ltd.), 96*
- Wheel, Polishing, with Profiling Action (Minnesota Mining & Manufacturing Co., Ltd.), 900*
- Woodworking Machines (Trade Publication), 267
- Boring, Machines for Wood (Book), 626
- Four-Cutter, Practice of (Book), 137
- Multi-Purpose (T. Robinson & Son, Ltd.), 216*
- Machine Vice. See *Vice* under *Machine Tools*
- Work. See *Machine Tools*
- Machinery, Dynamics of, by A. R. Holowenko (Review), 720
- Light Steel Construction of (Book), 881
- Mackay Industrial Equipment, Ltd., Allis-Chalmers "Tracto-Shovel" Excavator, 30*; "Fiat 55L" Excavator fitted with Mackay Hydraulic Angledozer, 30*
- Mac. See also *Mc*
- Madan, C. S., & Co., Ltd., "Airhydropump Junior" Air-Driven Hydraulic Pump, 548*
- Maddocks, K., on Nuclear Power for Commercial Vessels, 859*
- "Magco" Load Control Unit for Grinding Machine (Trade Publication), 489
- Magee, J. R., the Late, 39
- Magnel, Prof. G., the Late, 69
- Magnesium Addition in Manufacture of Ductile Iron, New Method of (Lloyds (Burton), Ltd.), 88*
- Alloys. See *Alloys* under *Metallurgy*
- "Magnestat" Voltage Regulator (British Thomson-Houston Co., Ltd.), 275*
- Magnets, Micropowder (Trade Publication), 9
- Magnetic Equipment Co., Ltd., "Magco" Load Control Unit for Grinding Machine (Trade Publication), 489
- Materials in Electrical Industry, by P. R. Bardell (Review), 625
- Magnetometer Survey of Rock Formations in Midlands, Proposed, 302
- Mains, Electric. See *Cables* under *Electric*
- Maintenance Costs, Excessive, Detection of, by B. A. Margo, 302*
- Handbooks for Presentation of Technical Information, 197
- Organisation for, 696
- Makepeace, H. C., the Late, 687
- Malaya, Technical Assistance to, Questions in House of Commons on, 807
- "Malcolm," H.M. Anti-Submarine Frigate, Launch of, 673
- Malmö Flygindustri, AB, Petrol Tanker with Plastics Body, 569
- Man and Metal: Views on Agitators, 128
- Management, British Institute of:
- Harrogate Conference on Impact of Science on Management in the Future:
- Arrangements for, 283
- Objectives of Good Management, by G. Hutton, 680
- Combination of Economic Trends in the Preparation of Forecasts, by C. P. D. Davidson, 694
- Economic Statistics—A Guide to Management Decisions, by D. J. Liston, 694
- Operational Research—The Front-Line Scientist in the Management Team, by Sir C. Goodeve, 694
- Electronic Processing of Data for Management, by Dr. B. V. Bowden, 694
- Automation, by J. Diebold, 694
- Discussion on Impact of Scientific Development on Tools of Production, 694
- Discussion on Revolutionary Developments in Materials and Processes, 694
- Some Contrasting Socio-Technical Production Systems, by Dr. A. T. M. Wilson, 695
- Management, Cinema Film on, 695
- Consultative Leadership, W. H. Scott, 361
- Impact of Automation on, 808
- Industrial Democracy (Book), 560
- Education and Training for, by A. Silberston (Review), 689
- Engineering, Handbook of (Book), 690
- Labour's Share in. See *Labour*
- Objectives of, by G. Hutton, 680
- Practice of, by P. F. Drucker (Review), 593. See 617. See LETTER, 655
- Role of Research Manager in Industry, 776
- Small Plant, Profitable, by M. H. Gotterer (Review), 409
- Study Centre, "Chesters," Royal Technical College, Glasgow, 584
- Training, Residential College at Sundridge Park for, 616
- and Employees, Better Relations between, Speech by H. Gaitskell on, 904
- and Employees, Co-operation Between, 480
- of Works. See *Works Management*
- Managers, European, Visit to United States of, Booklet on, 98
- Manchester College of Technology, Royal Charter for, 168; Facilities of Library of, 751. See 586
- and District Advisory Council for Further Education, Advanced Lectures on Specialised Engineering Subjects, 528
- to Euston Railway, Proposed Electrification of, Questions in House of Commons on, 775
- Public Libraries, Facilities of, 751. See 586
- Mancuna Engineering, Ltd., "Microclone" Dust Extractor and Collector (Trade Publication), 297
- Manipulator, Forging, for Axle Forge (Adamson-Alliance Co., Ltd.), 28*
- Mann's, A., Engineering Co., Ltd., Combination Two-High and Four-High Rolling Mill, 86*
- Mannesmann Group, New Steel-Tube Mill for Canada, 131. See 290

- Manning, W. R. D., on Ultimate Strength of Thick-Walled Cylinders, 783. See LETTERS, 132, 167, 368, 445, 591. See also vol. 179
- Manometer for Use in Heart Surgery (Mervyn Instruments), 115
- Manpower in Cotton Industry, Drift of, 224
- Foreign, Recruitment for Coalmining, 224
- Scientific, Government Debate on, 129. See 97, 127
- United States, Provision of Lay-off Funds for, 256
- Manufacture, Scientific Methods in. See *Works Management*
- Manufacturers, Associated Chambers of, Australia, Complaints of Low British Prices, 34
- Manufacturing Industry in Australia, Expansion of, Report on, 778
- “Manumatic” Clutch Control, 609
- Map Wall, Showing Oil Production (Trade Publication), 626
- Marbaix, G. E., Instrument for Measuring Surface Roughness, 313*
- Marconi International Marine Communication Co., Ltd., Newcastle Service Depot for Marine Radio, 517*; “Mimco” Sound Reproducing Equipment, 734; “Pantenna” Communal Aerial System for Use on Board Ship, 734; “Jericho” Power Megaphone, 734; “Quo-Vadis” Radar Equipment, 734*
- Marconi's Wireless Telegraph Co., Ltd., Television Training Centre, 5; Extensions to Post Office Radio Station at Rugby, 164*; Equipment for Beulah Heights Television Transmitting Station and Wembley Television Studios, 404*; Sub-Miniature Automatic Direction-Finder for Aircraft, 472; High-Power Air-Cooled Broadcasting Transmitter (Trade Publication), 690; Colour Television Camera for B.B.C. Experiments, 781*
- Margo, B. A., on Detecting Excessive Maintenance Costs, 302*
- Marine Boilers. See *Boilers*
- Engines. See *Engines; Turbines; Marine Propulsion*
- Engineers, Institute of: Passenger Liner with Engines Aft, by R. K. Craig, 673; Laying of Foundation Stone of National War Memorial Building, 766; Nuclear Power for Commercial Vessels, by K. Maddocks, 859*; Full-Scale Fatigue Tests of Diesel Engine Elements, by P. E. Weine, 891
- Engineering, Ferrous Materials in, 659
- History of, 331
- Review of, 590
- and Welding Exhibition. See *Engineering, Marine and Welding Exhibition*
- Propulsion, Combined Steering Console (S. G. Brown, Ltd. and J. Hastie & Co., Ltd.), 277
- Diesel Generator Sets for Trawlers “Sir William Hardy” (Metropolitan-Vickers Electrical Co., Ltd.), 220*
- 5,500-h.p. Gas-Turbine Unit for Oil Tanker “Auris” (British Thomson-Houston Co., Ltd.), 324*
- Gyro-Compass Binnacle, (S. G. Brown, Ltd.) 277*
- History of, 331
- Nuclear Power for, 859*
- Propeller, Five-Bladed Solid, “Novoston” (J. Stone & Co. (Deptford), Ltd.), 802
- Propellers, Models as Aid to Design of, 334*
- Propellers, Torsional Vibration in, 132. See LETTERS, 69, 230, 325. See also vol. 179
- Proposal for Full-Scale Propeller Tests, 590
- S.S. “Southern Cross,” Design and Behaviour of Unusual Engine Arrangement of, 673
- Steam Tug “Britannia” Converted to Diesel Power (Greenhithe Engineering Works), 887*
- Steering Gear for Aluminium-Alloy Yacht “Morag Mohr” (Mathwin Marine, Ltd.), 23
- Use of Ferrous Materials for Crankshafts, Gears, Pistons and Propellers, 659
- See also *Engines; Turbines; Propellers*
- Radio, Newcastle Service Depot for (Marconi International Marine Communication Co., Ltd.), 517*
- Turbines. See *Turbines; Steam; Marine Propulsion*
- Maritime Consultative Organisation, Inter-Governmental, Aims of, Questions in House of Commons on, 807
- Markets. See *Trade*
- “Marlco” Hydraulic Power Presses (Trade Publication), 786
- Marley, Dr. W. G., on Health and Safety in Nuclear Power Industry, 836
- Marley, W. H., & Co., Ltd., Hydraulic Power Presses (Trade Publication), 786
- Marriner, R. S., on Performance Tests on Indentors for Rockwell Hardness Testing, 17*
- Marryat, R. A., on Electrical Installation Contracting Industry as a Career, 75
- Marshall Richards Machine Co., Ltd., Drawblocks for Copper-Tube Factory, 468*
- Marshall, Sons & Co., Ltd., “Track-Marshall” Tracklaying Diesel-Driven Tractor, 30*; Diesel Tractor (Trade Publication), 137
- Martin Baker Aircraft Co., Ltd., Aircraft and Ejection Seats (Trade Publication), 529
- “Martin” Stoker for Burning Coal Slurry, 110
- Martonair, Ltd., Four-Port Push-Operated Pilot Valve (Trade Publication), 529
- Maschinenfabrik Rainhausen, On-Load Transformer Tap-Changer, 735*
- Masefield, P. G., on Operation of Turbo-Prop Aircraft, 6; on World Demand for Civil Airliners, 226; on Progress in Air Transport, 366; Appointment to Bristol Aeroplane Co., Ltd., 552; on Statistical Analysis of Capital Structure, Employment, Operating Costs and Revenue of British Transport Industry, 554
- Mason, E. N., and Sons, Ltd., Saving Time in Drawing Office on Plant Layouts, 106*
- Mason-Neilan Regulator Co., Reduced Trim for Control Valves Operating at Reduced Flow, 146*
- Massey-Harris-Ferguson (Manufacturing), Ltd., Epicyclic Reduction Gear and Live Power Take-Off Unit for Tractors, 92*; “Kale Cutrake,” 92*; Mounted Model of Spring-Tine Harrow, 92*
- Massey-Harris-Ferguson (Sales), Ltd., Tractor Equipment (Trade Publication), 202
- Mast Erecting and Concreting Equipment, Wagon-Mounted, for Use on Railway Electrification Work, 358*
- Stayed, Lightweight, Transportable, “Unit Radio Mast” (British Insulated Callender's Construction Co., Ltd.), 897*
- “Masterlock” Process for Cold Repair of Broken Castings (Metalock (Britain), Ltd.), 423*
- Materials, Bulk, Railway Wagons for Carrying, 132. See also vol. 179
- Engineering, Testing and Inspection of (Book), 105
- Handling (Trade Publications), 202, 786
- Equipment, Conveyor Development Centre of Fisher & Ludlow, Ltd., 119
- in House Building, Machines for (Book), 170
- Institute of, Annual Meeting and Dinner, 40
- and Work Study, Courses on, College of Production Technology, 528
- at High Rates of Strain, Properties of, Conference on, 1957, Arrangements for, 407
- and Processes, Revolutionary Developments, in, Discussion on, 694
- Strength of, Cours de Résistance des Matériaux (Book), 170
- of. See also *Stress and Tests (Materials)*
- Mathematics (Book), 297
- Abstract Algebraic Methods in Algebraic Geometry (Book), 529
- Advanced, for Engineers (Book), 818
- Differential Equations (Book), 754
- Equations, Ordinary, Theory of (Book), 690
- for Engineers (Book), 297
- Geometry of Classical Groups (Book), 594
- Heat Calculations, Slide Rules for (Potter's Insulations, Ltd.), 430
- for Higher National Certificate (Book), 754
- Higher Transcendental Functions, Vol. III (review), 41
- Impulse and Step Functions in Beam Problems, 211*, 244*
- “Otis King” Cylindrical Calculator (Trade Publication), 594
- Matheson, Prof. J. A. L., on Castigliano's Theorem of Compatibility, 828*. See LETTER, 877
- Mathew Brothers, Medium-Size Petrol or Diesel-Driven Fork Truck, 22
- Mathwin Marine, Ltd., Steering Gear for Aluminium-Alloy Yacht “Morag Mohr,” 23
- Matling, Ltd., Extra-Narrow, Battery-Driven Fork-Lift Truck, 21*; “Saturn II” Self-Propelled Floor Scrubber, 251*; Stackers and Transporters (Trade Publication), 489; Floor Cleansing Machines (Trade Publication), 881
- Matter under High Pressure, Physical Properties of, 789*
- Matthews & Yates, Ltd., Propeller Fans (Trade Publication), 489; Unit Heaters (Trade Publication), 489
- Matting, Rubber, Non-Slip (Dunlop Rubber Co., Ltd.), 118
- Mauvoisin Dam, Switzerland, 36
- Mavor, E. I., the Late, 655
- Maxwell Advisory Service Bureau, Building Maintenance (Trade Publication), 41
- Mayer, R., 3rd Anniversary Statement on European Coal and Steel Community by, 290
- “M.C.” Rust-proofing and Corrosion Protection Process (Walterisation Co., Ltd.), 465
- McAlpine, Sir A., & Sons, Ltd., Propeller-Turbine Aeroplane Engine Test House for Bristol Aeroplane Co., Ltd., 314; New Extrusion Plant for British Aluminium Co., Ltd., 799*
- McAlpine, Sir R., & Sons, Ltd., New London Headquarters for Cable and Wireless, Ltd., 847
- McAlpine, Sir R., & Sons (Midlands), Ltd., Drakelow Power Station, 663*
- McCance, Sir A., Statement on Effect of Strikes on Steel Supplies, 194
- McClellan, Sir F., the Late, 229
- McHattie, J. N., on Motor Vehicles and their Design 344*
- McLaren, J. & H., Ltd., “LE4” 120-b.h.p. and “LE6” 180-b.h.p. Diesel Engines for Earthmoving Equipment and Air Compressors, 248*; “PD4” Air-Cooled Diesel Engine with Clutch/Reduction Unit, 463;
- McLean, Dr. A. S., on Health and Safety in Nuclear Power Industry, 836
- McLean, Dr. D., on Grain Boundary Movement, Slip, and Fragmentation during Creep of Aluminium-Copper, Aluminium-Magnesium, and Aluminium-Zinc Alloys, 536
- “McLeod” Gauge for Testing Vacuum Pumps (Pulsometer Engineering Co., Ltd.), 516
- McLeod, I., on Mental-Health Problems, 712
- McMillan, J., on Dynamics of Process Plant 631
- Mc. See also *Mac.*
- “MD 550” Delta-Wing Fighter Aircraft (Avions Marcel Dassault), 10
- Meadows, H., Ltd., Diesel Engine for Research Trawler “Sir William Hardy,” 220*
- Measures and Weights, Imperial Standard, Reliability of, 718
- 40th National Conference on, U.S. National Bureau of Standards Report on, 880
- Measuring Instruments, Electrical (Book), 330
- (Pullin), Ltd., Multi-Range Test Set (Trade Publication), 107; Sealed Relays for Use in Aircraft, 452; Miniature Panel Mounting Instruments (Trade Publication), 721
- and Weighing Devices, Commercial, Specifications, Tolerances and Regulations for (Book), 850
- Mechanical Engineers, American Society of: 75th Anniversary Meeting, 168; Experiments to Determine Effects of High-Frequency Vibration on Grinding, by Prof. L. V. Colwell, 247
- Mechanical Engineers, Institution of:**
- Awards of Clayton Fellowships and Grants, 1955, 261
- Subject and Author Index to *Proceedings* 1937-54, 358
- Conference on Properties of Materials at High Rates of Strain, 1957, Arrangements for, 407
- Symposium on Advanced Courses for Engineers, Arrangements for, 687
- Formation of Lubrication Group, 842
- London Meetings: *Winter Session:*
- Criticism of Technical Education of Recently Qualified Engineers, by P. P. Love, 586, 684
- Presidential Address by P. L. Jones, on Review of Shipbuilding Industry, 590
- Annual Dinner, 590
- Thomas Hawkesley Lecture on Review of Some Recent Work on Physical Properties of Matter under High Pressure, by Prof. D. M. Newitt, 789*
- Hydraulic Accumulators in Heavy Industry, by J. G. Firth, 796*
- Some Experiments on Deflections and Vibrations of Drilling Machines, by Dr. D. F. Galloway, 823
- Vibrations of Radial Drilling Machines under Test and Working Conditions, by Dr. S. A. Tobias and Prof. W. Fishwick, 823
- Summer Meeting, Southampton:*
- Unveiling of Memorial Tablet to Commemorate Work of the Taylors of Southampton, 68*
- Southampton Docks, by R. P. Biddle, 68
- The Taylors of Southampton; Pioneers in Mechanical Engineering, by J. P. M. Pannell, 68*
- Changing Pattern of Maintenance and Repair of Machinery of the Fleet, by Rear-Adm. J. E. Cooke, 68
- Review of Freight Aircraft, by B. P. Leight, 68
- Automobile Division:*
- Personal Experiences in Automobile Research, by Dr. C. G. Williams, 559
- Growth and Present Position of Disc Brake as Applied to Motor Vehicles, by F. J. Bradbury and F. G. Parnell, 874, 892
- Mechanical Engineering and Electrical Engineering, Classified List of Historical Events, by G. F. Westcott (Review), 370
- Model (Book), 105
- Research Board, Annual Report, 4
- Handling, Cinema Film on, 608*
- Engineers Association, Materials Handling (Trade Publication), 786
- Lubricator. See *Lubricating*
- Stoker. See *Stoker*
- Mechanics, Physical (Book), 330
- Mechanisation of Farms, Farmers' Attitude to, by J. J. Coady, 812
- Medicine Creek Dam, Record of Design and Construction (Book), 560
- Medlock, R. S., on Fundamentals of Automatic Control, 631
- “Meehanite” Metal (Trade Publication), 297
- Meetings, Notices of, 32, 64, 319, 359, 399, 439, 479, 519, 551, 583, 647, 679, 711, 742, 774, 806, 870, 902
- Megaphone, Power, “Jericho” (Marconi International Marine Communication Co., Ltd.), 734
- Megator Pumps and Compressors, Ltd., “GH4” High-Head Pump for Mines, 24*; Range of 75 to 300 gallons per minute Pumps, 152*
- Mekorot Water Company, Construction of Yarkon-Negev Water Pipeline for Irrigation and Flood Control, 124*
- “Melesco” Superheater for Drakelow Power Station, 663
- Mental Health Exhibition, Opening of, 712
- “Mercedes 300S” Motor-Car Engine, Fuel Injection for, 578*
- “Merchant Navy” Class Mixed-Traffic Locomotives, Tests on, 485
- Ships. See *Ships; Steamers; Motorships*
- Shipbuilding. See *Shipbuilding*
- Mercury House, New London Headquarters of Cable and Wireless, Ltd., 847
- Merlin Engineering Co., Ltd., “Calimaster” Equipment for Calibrating and Testing Fuel-Injection Pumps of Diesel Engines, 274*. See *Erratum*, 399
- Mervyn Instruments, Square-Wave Polarograph, 115; Manometer for Use in Heart Surgery, 115; Spectrometer Amplifier for Photo-Voltaic and Photo-Conductive Cells, 115*
- Merz & McLellan, Bold “A” Power Station, 514*
- Metals, “Agidip” Cleaning Tank for, Using Two-Phase Solutions (Electro-Chemical Engineering Co., Ltd.), 548
- in American Aircraft Industry, Uses of, 851
- Bonding and Honeycomb Sandwich Construction in American Aircraft Industry 854
- Metal Box Co., Ltd., Annual Report, 130
- Metal, Brittle Fracture of, Research in, 145
- Cheap Methods of Extraction of, Research on, 653
- Corrosion of. See *Corrosion*
- Detector for Swarf in Propeller-Turbine Engines, 315
- Elasticity and Anelasticity of (Book), 202
- and Engineering Industries, Dependence of Economy on, 66
- Fatigue of. See *Fatigue* under *Tests (Materials)*
- Fixing Association, Metal-Fixing Systems (Trade Publication), 755
- Systems (Trade Publication), 755
- Hard, Handbook of (Book), 369
- Industry, Statistics of Employment in, 363
- Transfer of Responsibility to Board of Trade, 2
- Inspection and Testing of (Book), 850
- Metals, Institute of:**
- Symposium on Mechanism of Phase Transformations in Metals, Arrangements for, 179; Programme, 406
- Proposed Meeting for Report of Paris Conference on Metals at Low Temperatures, 760
- Appointment of Nuclear Energy Committee, 782
- 47th Annual Autumn Meeting, Buxton: Programme, 170
- Autumn Lecture, by Dr. C. Sykes, on Development and Improvement of Research Techniques, 475
- Reports of Proceedings, 475, 488, 536
- Elections to Council, 475
- Isothermal Transformations of Hypo-Eutectoid Aluminium Bronzes, by Dr. R. Haynes, 488
- Bainitic Transformation of Beta Phase in Copper-Zinc Alloys, by R. D. Garwood, 488
- Isothermal Transformations of Eutectoid Aluminium Bronzes, by Dr. R. Haynes, 488
- Some Observations on Isothermal Transformations of Eutectoid Aluminium Bronzes below their Ms Temperatures, by Dr. R. Haynes, 488
- Corrosion-Fatigue Properties of an Aluminium-Magnesium-Silicon Alloy in Unprotected Anodised and Painted Conditions, by Dr. N. P. Inglis and E. C. Larke, 488
- Grain Boundary Movement, Slip, and Fragmentation during Creep of Aluminium-Copper, Aluminium-Magnesium, and Aluminium-Zinc Alloys, by Dr. D. McLean and M. H. Farmer, 536
- Interactions of Static Stress and Corrosion with Aluminium Alloys, by Dr. F. A. Champion, 488
- Some Observations of the Creep of Pre-Strained Aluminium, by Dr. G. R. Wilms, 536
- Some Metallographic Observations of the Creep of Aluminium-Copper Alloys, by Dr. A. H. Sully and Dr. H. K. Hardy, 536
- Plastic Deformation of Aluminium-3.5 per cent. Copper Alloy Single Crystals, by K. M. Carlson and Prof. R. W. K. Honeycombe, 536
- Effect of Strain Rate and Temperature on Resistance of Aluminium, Copper and Steel to Compression, by Dr. J. F. Alder and Dr. V. A. Phillips, 536
- Hot Impact Tensile Test and Its Relation to Hot-Working Properties, by E. A. Leech, P. Gregory and R. Eborall, 536
- Inhomogeneous Deformation in Rolling and Wire-Drawing, by Dr. B. B. Hundy and Dr. A. R. E. Singer, 536
- Discussion on Radiation Damage to Metals and Associated Problems, 537
- Metals, Liquid, Use for Cooling High-Temperature Gas-Turbine Blades, 566*
- at Low Temperatures, Paris Conference on, Proposed Meeting for Report of, 760
- to-Metal Bonding, Autoclave for (Foster, Yates & Thom, Ltd.), 582*
- Newer, Review of, by P. W. Wigram, 172. See LETTERS, 230, 262
- Non-Ferrous, Products (Trade Publication), 107
- Phase Transformations in, Mechanism of, Symposium on, Arrangements for, 139; Programme, 406
- Metal and Pipeline Endurance, Ltd., Application of Cathodic Protection to Oil Tanker “Regent Springbok,” 608*
- Protective Coatings for (Book), 369
- Radiation Damage to, Discussion on, 537
- Reference Book (Book), 850
- Metal Sections, Ltd., Prefabricated Buildings (Trade Publication), 41
- Sheet, Drawing Qualities of, Non-Destructive Testing Instrument for (Jones & Laughlin Steel Corporation), 62*
- Work, Guide to (Book), 754
- Spraying Installation, Automatic (Metalizing Equipment Co., Ltd.), 353*
- Structure of. See *Metallography; Microphotographs*
- Utilisation of, Report of Research Committee of Institution of Production Engineers, 290. See 850
- Welding. See *Welding*
- Working Industries, Material Utilisation in (Book), 850. See 290
- See also *Metallography; Metallurgy; Microphotographs*
- “Metalace” Process for Cold Repair of Broken Castings (Metalock (Britain) Ltd.), 423*
- Metallisation by Vacuum Technique, Plant for (Trade Publication), 626
- Metallizing Equipment Co., Ltd., Automatic Metal-Wire Spraying Installation, 353*
- Metallography of Delta-Ferrite, 894
- See also *Metals; Metallurgy; Microphotographs*

- Metallurgical Control Laboratory at Newton Works of Garringtons, Ltd., 612*
- Metallurgy:**
 Alloy, Aluminium, Chemical Milling Technique for, 853*
 — Interactions of Static Stress and Corrosion with, 488
 — "Noral," for Shipbuilding (Trade Publication), 107
 — Pipes of, for Steam Heating in Oil Tankers, "Alacoil" System (Steels Engineering Installations, Ltd.), 151
 — Spot Welding of (Book), 408
 — in Textile Industry (Trade Publication), 267
 — with Water-Corrosion Resistance, 653
 — Copper, Grain Boundary Movement, Slip and Fragmentation during Creep of, 536
 — Copper, Metallographic Observations of Creep of, 536
 — Copper (Cu 3.5 per cent.) Single Crystals, Plastic Deformation of, 536
 — Magnesium, Grain Boundary Movement, Slip and Fragmentation during Creep of, 536
 — Magnesium-Silicon, Corrosion-Fatigue Properties of, in Unprotected, Anodised and Painted Conditions, 488
 — Zinc, Grain Boundary Movement, Slip and Fragmentation during Creep of, 536
 — Copper, Monopolies Commission Report on Supply and Export of, 362
 — Aluminium, Grain Boundary Movement, Slip and Fragmentation during Creep of, 536
 — Aluminium, Metallographic Observations of Creep of, 536
 — Aluminium (Cu 3.5 per cent.) Single Crystals, Plastic Deformation of, 536
 — Zinc, Bainitic Transformation of Beta Phase in, 488
 — See also *Brass; Bronze, etc.*
 — Heavy, for Gamma Radiation Shields, 176
 — Iron, Thermodynamics of Carbon Dissolved in, 829
 — Light, Use for Motor-Car Bodies, 642
 — Weldability of, Method of Assessing, 145
 — Magnesium-Aluminium, Grain Boundary Movement, Slip and Fragmentation during Creep of, 536
 — Aluminium-Silicon, Some Corrosion-Fatigue Properties of, in Unprotected, Anodised and Painted Conditions, 488
 — Nimonic 100, Creep-Resisting (H. Wiggan & Co., Ltd.), 405
 — Effect of Use on Life of Flame-Tubes of Propeller-Turbine Aircraft, 328
 — Non-Ferrous, Exhibits at Engineering Exhibition, 461
 — Properties of, Research on, 208
 — Silicon-Aluminium-Magnesium, Corrosion-Fatigue Properties of, in Unprotected, Anodised and Painted Conditions, 488
 — Silver Brazing, "Easy-flo" (Trade Publication), 267
 — Titanium, Research on, 763
 — Zinc, for Die Casting, Specification, 238
 — Aluminium, Grain Boundary Movement, Slip and Fragmentation during Creep of, 536
 — Copper, Bainitic Transformation of Beta Phase in, 488
 Blast Furnaces. See *Furnaces*
 Brass. See *Brass*
 Brazing of High-Temperature Sheet Steel, "Microbraz" Process for (Wall Colmonoy Corporation), 885*
 Bronze. See *Bronze*
 Cast Iron. See *Cast Iron*
 Coke Ovens. See *Coke Ovens*
 Corrosion. See *Corrosion*
 Crystal Structure, Research on, 763
 Drawing Qualities of Sheet Metal, Non-Destructive Testing Instrument for (Jones & Laughlin Steel Corporation), 62*
 Ferrous Materials in Marine Engineering, 659
 Furnaces, Electric. See *Furnaces*
 — Metallurgical. See *Furnaces*
 Heat Treatment, Annealing Brass Tubes, Roller-Hearth Electric Furnace for (G.W.B. Furnaces, Ltd.), 158*
 — Annealing, Bright, Mobile Furnace for (General Electric Co., Ltd.), 249*
 — "HRP" Furnace (Birlec, Ltd.), 274*
 Iron Manufacture. See *Furnaces, Blast*
 — Ore. See *Ore*
 Metals, Tests of. See *Tests (Materials)*
 Metallurgical Research in United States, Hadfield Memorial Lecture on, Arrangements for, 406
 Metallurgy, Engineering, by L. F. Mondolfo and O. Zmeskal (Review), 883
 — of Liquid Fuels and Slurries for Nuclear Energy Purposes, Research on, 653
 — Research Techniques in, Development and Improvement of, 475
 Pitting and Wear, Mechanism of, 889*
 Pyrometers. See *Pyrometers*
 Refractories. See *Refractory Materials*
 Rolling Mills. See *Rolling Mills*
 Slag Samples Standardised for Sulphur (Bureau of Analysed Samples, Ltd.), 123
 — Tap Methods of Firing at Power Stations, 447
 Steel Furnaces. See *Furnaces*
 Steelmaking, Open-Hearth, Relative Merits of Low and High-Sulphur Oil, 829
- Metallurgy—continued**
 Steelmaking at Redbourne Works, 696
 — Slag Samples Standardised, 123
 Wear and Pitting, Mechanism of, 889*
 Welding. See *Welding*
 See also *Iron and Steel Industries*
 See also *Iron and Steel Institute; Metals, Institute of; Metallography; Microphotography; Foundry*
 Metallurgy and Mining, Institution of. See *Mining*
 Metalock (Britain), Ltd. "Masterlock" and "Metalace" Processes for Cold Repair of Broken Castings, 423*
 Metcalf, B. L., on Use of Electricity in Coal Industry, 76; on How Electricity Assists the Coal Miner, 816
 Meteorology, Radar for, Modification of, 699
 — Research in, 765
 Meter Provers for Liquefied-Petroleum Gas, 880
 Metering Transmitters (Trade Publication), 137
 Methane, Emission in Coal Mines, Effect of Changes of Atmospheric Pressure on, 559
 — Explosions. See *Accidents*
 — in Natural Gas, Exploitation in Italy, 700*
 — and Natural Gas, Report on (Book), 818
 "Metica" Carbon-Lined Pipes for Corrosive Liquids (Talbot Stead Tube Co., Ltd.), 278
 Metrology (Book), 297
 Metropolitan-Cammell Carriage & Wagon Co., Ltd., Railway and Road Vehicles (Trade Publication), 330
 Metropolitan-Vickers Electrical Co., Ltd., Electrical Equipment for Oil Industry (Trade Publication), 9; 100-kW Wind-Driven Generator at Costa Head, 55*; 60-MW Hydrogen-Cooled Turbo-Alternators for Chadderton "B" Power Station, 111*; Infra-Red Oven for Heat Processing of Small Articles in Batch Production, 156; Training of Apprentices at Trafford Park, 100*. See *Erratum*, 168; 550-h.p. Bo-Bo and 1,200-h.p. Co-Co Diesel-Electric Locomotives for Irish Railways, 185*; Electrical Equipment for Rolling Mill at Stocksbridge Works of S. Fox & Co., Ltd., 190. See 163; Diesel Generator Sets for Research Trawler "Sir William Hardy," 220*; Automatic Turning Gear for Marine Steam Turbines, 306; Mobile Unit for Inert-Gas Arc Welding, 306; Parting and Sealing Machine for Wire Rope, 306*; Industrial X-Ray Equipment with Gas-Insulated Transformer and Tube, 306*; Linear Accelerator as Neutron Source, 354*; Mass Spectrometer, 354; 30-MW Turbo-Alternators for Bold "A" Power Station, 515*; Unified Boiler Control System at East Yelland Power Station, 546*; Fourteen-Head Spot Welding Machine, 549*; Rod Control Mechanism for Nuclear Reactors, 675
 — See also *London*
 "M.G." Motor-Car Engine with Twin Chain-Drive Overhead Camshafts, 578*
 Michelin Tyre Co., Ltd., Project for United Kingdom Manufacture of Synthetic Rubber, 747
 "Microlone" Dust Extractor and Collector (Trade Publication), 297
 Micrometer, Easy-Reading (Production Promotion), 249
 Micrometrical Manufacturing Co., Instrument for Measuring Surface Roughness, 313*
 Microphone for Dusty Atmospheres (Tannoy Products, Ltd.), 704
 Microphotograph, Fatigue Crack in Aluminium Cable Sheath after Cyclic Flexing in Bending-Test Machine, 184*
 Microscope, Electron, Siemens, at Battelle Memorial Institute, Frankfurt, 50*
 Microstructure of Metals. See *Metallography; Microphotograph*
 Mid-Essex Technical College and School of Art, Engineering Courses at, 365. See *LETTERS*, 445
 Middle East, Economic Development of, Competition between East and West in, 746
 — Opportunities for Exports to, 482
 Midlands Electricity Board, Motor Lorry with Aluminium Body, 24
 — Rock Formations in, Proposed Magnetometer Survey of, 302
 Miles, F. G., Ltd., Student Jet Trainer Aircraft, Construction of, 900
 Miley, P., the Late, 136
 Military Motor Transport. See *Motor*
 — Role in Nuclear Warfare, 442
 Milk Bottles, Metal Crates for, Specification, 238
 Mills, Roller, "Raymond" (Trade Publication), 409
 Millboard, Production of (Cape Asbestos Co., Ltd.), 708*
 Miller, C. W., on Linear Acceleration of Charged Particles to High Energies, 340*, 374*; on Isotope Radiography Exposure Times, 445. See 398*
 Miller, G. L., on the Newer Metals, 262. See 172. See *LETTERS*, 230, 262
 Milling, Chemical, Technique of (North American Aviation Inc.), 853*
 — Machines and Cutters. See *Machine Tools*
 Mills, Dr. H. R., on Railway Wagons for Carrying Bulk Materials, 132. See also vol. 179; on Conveying Information Quickly, 133. See *LETTERS*, 197. See also vol. 179; on Shunting Devices other than Locomotives, 144*
 — Rolling. See *Rolling Mills*
 — Steel-Tube, for Canada, 131. See 290
 "Milliscope" Automatic Temperature Control, 151*
 "Mimco" Sound Reproducing Equipment (Marconi International Marine Communication Co., Ltd.), 734
 Mines, Coal. See *Collieries*
 — Drainage by Cornish Engine, End of an Era of, 748*. See 747
 — H.M. Electrical Inspector of, Report of, 1952, 339
- Mines, and Quarries, Report of Chief Inspector, 1953, 15
 — United States Bureau of. See *United States*
 — Winding. See *Winding*
 — See also *Coal; Collieries; Mining; Ores; Winding*
 Minerals, Co-ordinated Use of, Symposium on, Programme, 128
 — Dressing, Introduction to (Book), 850
 — Oils. See *Oils*
 — and Oil Prospecting, Lorry-Mounted Rotary Power-Arm Drill for (Hands-England Oilfields Equipment, Ltd.), 430*
 — Research on, by U.S. Bureau of Mines, Grant from U.S. Government for, 290
 — See also *Coal; Mining; Ores*
 Minerva Detectors, Ltd., "Minerva" Smoke Detector, 117
 Mineworkers, National Union of, Demands for Wage Increases, 66, 96; Wage Structure in Coal-Mining Industry, 96; Restrictive Practices in Coal-Mining Industry, 96; Parliamentary Debate on Coal-Mining Industry, 160; Recruitment of Foreign Manpower, 224; Human Problems in Coal-Mining Industry, 224; Mechanisation in Coal-Mining Industry, 224; Unrest in Yorkshire Pits, 288; Agreement with National Coal Board for Investigation into Decline in Coal Production, 400, 440; Presentation of "Charter" to National Coal Board, 480
 — Union, Northern Rhodesia European, Agreement with Rhodesian Selection Trust on Training of Africans, 440
 Miniatic, Swiss System of Models for Teaching Kinematics, 501
 Mining Electrical and Mechanical Engineers, Association of, 7th W. M. Thornton Lecture on Atomic Energy and Future of Mining Industry, by Dr. J. Bronowski, 618
 — Industry, Atomic Energy and Future of, 618
 — German, Wages and Conditions in, 256
 — Protest by Federation of British Industries at High Price of Coal, 160; Debate on Impersonal Monopoly of National Coal Board, 160; Recruitment of Manpower for, 192
 Mining Machinery, Ltd., "Catto" Tubular Supports for Conveyor Belts (Trade Publication), 41
 — and Metallurgy, Institution of, Symposium on Co-ordinated Use of Minerals, Programme, 128
 — Underground, of Frodingham Ironstone Bed, 729
 — Use of Electricity in, 816
 "Minipac" Oil-Fired Packaged Boiler (J. Thompson Water Tube Boilers, Ltd.), 641*
 "Miniputer" Analogue Computer (Saunders-Roe, Ltd.), 472*
 Ministry of Labour and National Service. See under *Labour*
 — of Supply. See *Supply*
 — of Transport and Civil Aviation. See *Transport*
 Minnesota Mining & Manufacturing Co., Ltd., Polishing Wheel with Profiling Action, 900*
 Missiles, Underwater, Research on Water Entry of, 768*
 Mitchell Construction Co., Ltd., Ferro-Concrete Cooling Tower for Drakelow Power Station, 667
 Mitchell Engineering, Ltd., Tipplers for Coal-Handling Plant at Chadderton "B" Power Station, 111; "Hydron" Hydrostatic Steriliser for Canned Foods, 545*; Coal-Handling Plant at Drakelow Power Station, 663
 Mitchell, F., & Sons, Ltd., Cooling Water System for Chadderton "B" Power Station, 111
 Mitchell Library, Glasgow, Facilities of, 783. See 586
 Mitsubishi Shipbuilding & Engineering Co., "UEC" Type Single-Acting Two-Stroke Internal-Combustion Engine, 42
 Mixing Machines, Concrete. See *Concrete*
 M.K. Electric, Ltd., Electrical Accessories (Trade Publication), 626
 Mo i Rana, Norway, Steelworks at, Controversy Concerning, 651
 Mobil Oil Co., Ltd., Cinema Film on Extinguishing Oil Fires with Air, 847
 Models as Aid to Ship Design, 334*
 — Aircraft, of Glass Cloth and Phenolic Resins (Avro Aircraft, Ltd.), 853*
 — of Allt-na-Lairige Prestressed Gravity Dam, 52
 — for Analysis of Complex Structural Frames, 53
 — of Atomic Factory of Future, 177*
 — of Calder Hall Nuclear Power Station, 300*
 — of Delta of Rhine and Maas, 453
 — of "E.443" Nuclear Reactor, 299*
 — Engineer Exhibition, Arrangements for, 136
 — Experiments. See *Aeronautics*
 — of Haringvliet Channel, 863
 — of Helical Flow in Rivers, 53
 — of Improvements at Colombo Harbour, 52
 — to Investigate Action of North Sea Swell in Gooereze Gat, 453*
 — of Lagos Harbour, 863
 — of Linear Accelerator for Neutron Source, 354*
 — Mechanical Engineering (Book), 105
 — of "NRU" and "NRX" Canadian Nuclear Reactors, 299*
 — of Nuclear Reactor for Demonstration of Production of Radioactive Isotopes, 301*
 — of Proposed Nuclear Powered Vessel "Atomic Mariner," 861*
 — of River Severn, 53
 — for Stress Determination. See *Photo-Elastic*
 — of "Swimming Pool" Nuclear Research Reactor (John Thompson, Ltd.), 354*
 — for Teaching Kinematics, 501
 — of Vertical Take-Off Coleopter Aircraft (Bureau Technique Zborowski), 12
 — of Vessel for Removal of Compacted Mud, 53
 — of Willemstad Harbour, Curaçao, 863
- Models of "Zephyr" Nuclear Reactor, 300
 — of "Zeus" Nuclear Reactor, 300
 Modular Society, Ltd., Building Components (Trade Publication), 107; Modular Construction (Trade Publication), 850
 Moire Technique for Measuring Strains in Sheet Materials, 116*
 Moisture Meter for Agricultural Use (Scottish Mechanical Light Industries, Ltd.), 833
 Molloy, R., on Factors Affecting Efficiency of Fluorescent Lamps, 758
 Molybdenum Disulphide (Trade Publication), 107
 — Lubricants Containing (Trade Publication), 594
 — Use as Lubricant (Trade Publication), 594
 — Newer Uses of, 172. See *LETTERS*, 230, 262
 "Molykote" Molybdenum Disulphide Lubricants (Trade Publication), 594
 Momentum, Mastering, by L. K. Sillcox (Review), 201
 Monckton, Sir W., on Damage of Strikes to Export Trade, 35; on Work of Youth Employment Service, 192; on Human Relations in Industry, 648; on Accidents and Inefficiency in Industry, 680; on Mental Health Problems, 712; End of Term as Labour Minister, 904
 Monitors, Flameproof and Fast-Neutron Scintillation (General Radiological, Ltd.), 178
 Monk Fryston-Keadby Line for 275-kV National Grid, Completion of, 54*. See *Erratum*, 252
 "Monobloc" Air-Cooled Reciprocating Air Compressors (Worthington-Simpson, Ltd.), 309*
 Monometer Manufacturing Co., Ltd., Mechanised Rotary Oil-Fired Metal-Melting Furnace, 308*
 Monoplane. See *Aeronautics*
 Monopolies Commission, Investigation of Accumulator Manufacturers, 619
 — and Trade Unions, Association of British Chambers of Commerce Memorandum to Board of Trade on, 744
 Monsanto Chemicals, Ltd., New Phthalic Anhydride Plant for Newport Factory of 453
 "Moped" Motor Scooter, Exhibits at Cycle and Motor Cycle Show, 682
 "Morag Mohr" All-Welded Aluminium-Alloy Yacht (Saunders-Roe (Anglesey), Ltd.), 23*
 Morfax, Ltd., Transport Stand for "Dart" Propeller-Turbine Aeroplane Engine, 896*
 Morgan Crucible Co., Ltd., Collaboration with Pametrad on Research on Turbine Blades, 102; Refractory Linings (Trade Publication), 721
 Morgan, H. D., Model of River Severn, 53
 Morgan, I. G., on Testing Photographic Plates for Flatness or Straightness, 510*; on Precise Measurement of Diameter of Fine Wire, 703*
 Moriston Project of North of Scotland Hydro-Electric Board, Construction of New Road for (International Development Co. (Nottingham), Ltd.), 211
 Morley's Electrical Services (Holloway), Ltd., Fluorescent Lighting (Trade Publication), 786
 Morris, Dr. G., on Method for Testing Reliability of Complicated Machines While Reducing Cost of Prototype Trials, 723*, 813. See 713. See *LETTER*, 783
 Morrison, A. S. (Engineers), Ltd., Portable Generating Set for High-Speed Aircraft Rescue Saw, 246
 Mortimer Engineering Co., "Frömag" Key-seating and Profile-Cutting Machine, 117*; "Slipmaterial-Naxos" Rotary Surface Grinding Machine, 709*
 Moseley, W. (Engineers), Ltd., Washer for Lorry Wheels, 191*
 Moteurs d'Aéronautiques, Société Nationale d'Etudes et de Constructions des, "Atar" Turbojet Aeroplane Engine with Thrust Reverser, 12*
 Motor Car, "Alfa Giulietta," Suspension System for, 610*
 — Austin, with Gas Turbine, 98
 — Automobile Engineering, Readers Guide to Books on (Book), 690
 — Bodies, Light Alloys for, 642
 — Bodies, Plastics for, Experimental Work on, 642
 — British, Export of, Prospects for, 714
 — "Cadillac," "Hydramatic" Gearbox for, 642*
 — "Chevrolet," Suspension System for, 611*
 — "Citroen DS19," Use of Hydraulic Power in Suspension and Braking Systems of, 642*
 — Components Industry, Effect of Rising Costs on Expanding Output of, 875
 — Components Industry, Expansion and Change in, 524, 588
 — "De Soto," 644*
 — Economy, Post-War British, New Section Opened at Science Museum, 197
 — Engines. See *Engines, Petrol*
 — Engineers. See *Mechanical Engineers, Institution of, Automobile Division*
 — "Fiat 600," Suspension System for, 610*
 — "Ford Continental," 644*
 — German, "D.K.W.," 644*
 — "Goggomobil," Transmission and Suspension Unit of, 610*
 — Industry, Automation in, Shop-Stewards' Discussion on, 520
 — Industry, Expansion Plans, Increase in Demand of Machine Tools Due to, 259
 — Industry, Prices in, 683
 — Industry, Redundancy in West Midlands, 552
 — Industry, United States, Provision of Lay-off Funds for Employees of, 256
 — "Lincoln" Air-Conditioning and Refrigeration System for, 642*
 — Military. See *Motor Vehicles*

- Motor Car, Packard, "Allison" Suspension System for, 610*
- Price Increases by Rootes, Ltd., and Rover Co., Ltd., 443
- Progress Towards Easier Driving of, 317
- Project of H. Ferguson, Ltd., Rumours Concerning, 747
- Research, Personal Experiences in, by Dr. C. G. Williams, 559
- Safety Equipment and Designs in, 643*
- Safety Measures for Passengers in, 363
- Sea Transport of, Questions in House of Commons on, 710
- Show at Frankfurt, 483
- "Sunbeam Rapier," Suspension System for, 611*
- Suspension, Exhibits at Motor Show, 609
- Transmissions and Power Trains (Book), 690
- Trends in Demand for, 842
- See also *Motor Vehicles; Motor Cycles; Motor Scooters*
- Carriages, Railway. See *Carriages*
- Cycle and Cycle Show, Exhibits of Motor Scooters at, 682
- Electric (Trade Publication), 267
- 2,400-cycle, for Aircraft (Short Brothers & Harland, Ltd.), 473*
- Alternating-Current, Variable Speed, 5 to 35-h.p. (A. Reyrolle & Co., Ltd.), 307
- Direct-Current, for Unified Boiler Control System at East Yelland Power Station, 546*
- for Drakelow Power Station (Laurence, Scott & Electromotors, Ltd.), 663
- Fractional Geared (Trade Publication), 107
- Infinitely-Variable Speed-Control System for (Trade Publication), 881
- for Power Stations (Trade Publication), 297
- Speed Controller for (Trade Publication), 267
- for Use in Gasworks (Newman Industries, Ltd.), 463*
- Grader, "Super 12," Earthmoving Attachment for (Blaw Knox, Ltd.), 803
- Internal-Combustion. See *Aeronautics; Engines; Motor Cars; Tractors*
- Lorries. See *Motor Vehicles*
- Manufacturers and Traders, Society of, Formation of Standards Department, 67
- Marine. See *Engines; Marine Propulsion; Motorships*
- Paraffin. See *Engines, Oil*
- Petrol. See *Aeronautics; Engines, Petrol; Motor Cars; Tractors*
- Road Rollers. See *Road Rollers*
- Scooter Exhibits at Cycle and Motor Cycle Show, 682
- Increasing Popularity of, 483
- Show, Earl's Court, 553, 577*, 609*, 642*. See 317
- Tractors. See *Tractors*
- Trawler. See *Motorship*
- Trucks, Battery-Driven, Fork-Lift (Trade Publications), 169, 626
- Battery-Driven, Fork-Lift, Extra-Narrow (Matling, Ltd.), 21*
- Battery-Operated, with Hydraulic Lifting Ram (Trade Publication), 690
- Diesel-Driven, Fork-Lift, for Lifting and Towing on Rough Ground, "Overlander" (Conveyancer Fork Trucks, Ltd.), 316*
- Diesel or Petrol-Driven, Fork-Lift, "Bickerstaffe" Attachment for Handling Bricks (R. H. Corbett & Co., Ltd.), 435*. See LETTER, 557
- Electric, and Cranes (Trade Publication), 169
- Lift, Selection of (Trade Publication), 267
- Low-Lift Platform "Stubby" (Trade Publication), 107
- Pallet (Trade Publication), 107
- Petrol or Diesel-Driven, Fork, Medium-Size (Mathew Brothers), 22
- Stacking and Transporting (Trade Publication), 489
- See also *Truck, Hand-Operated*
- Tug. See *Motorship*
- Vehicles (Trade Publication), 330
- Animated Direction Indicators for (Simms Motor Units, Ltd.), 893
- British, Servicing Guide to (Book), 754
- for Carrying Lubrication Unit (J. B. Pillin, Ltd.), 735
- Design of, 344*
- Emission of Smoke from, Regulations Concerning, Questions in House of Commons on, 743
- Exhaust Gases from, Pollution of Air by, Questions in House of Commons on, 775
- Exhaust Gases from, Summonses Issued in Respect of, Questions in House of Commons on, 871
- Exhibition by County Commercial Cars, Ltd., 827
- Fuelling, "Cornwall," for Aircraft (British Petroleum Co., Ltd.), 645*
- Growth and Present Position of Disc Brakes as Applied to, 874, 892
- Heavy, Increase in Production of, 714
- Heavy, Worm-Gear Lubrication in, 888*
- Industry, Expansion Plans, Increase in Demand of Machine Tools due to, 259
- Lorry, with Aluminium Body (Northern Aluminium Co., Ltd.), 24
- Lorry, Diesel, 7-ton, 90-b.h.p. (British Motor Corporation), 191*
- Lorry, "Superpoise," 2 to 5 tons capacity (Commer Cars, Ltd.), 548
- Lorry Tipper, with Aluminium-Alloy Body (Redhill Bodybuilding Industries, Ltd.), 95
- Lorry, Tipping, Aluminium-Alloy Unloading Ramp for (F. Braby & Co., Ltd.), 191*
- Lorry, Twin-Engined, Diesel or Petrol Driven, with Extra-Wide Tyres (N. Straussler & Co., Ltd.), 87*
- Lorry, Wheel-Washer for (W. Moseley (Engineers), Ltd.), 191*
- Motor-Vehicles, Medium-Sized, Lightweight Air-Controlled Brake for (Clayton Dewandre Co., Ltd.), 516*
- Petrol Tanker, with Plastics Body (AB Malmo Flyindustri), 569
- Repair Depots, Central, Costs of, Questions in House of Commons on, 775
- Steam Road Vehicles and Railcars in Germany (Book), 560
- Trailer, Air-Brake Valve for (Clayton Dewandre Co., Ltd.), 318*
- Transport, "Ranger" Radio-Telephone System for Dashboard Mounting in (Pye, Ltd.), 518*
- Transport, Use of Aluminium in (Trade Publication), 594
- in United Kingdom, Increase in Numbers of, 363
- Wagons. See *Motor Vehicles*
- Motorship, "Lachinedoc," with Hydroconic Construction and Diesel-Electric Cargo Cranes (Atlantic Shipbuilding Co., Ltd.), 898*
- Launches and Trial Trips, 13, 63, 93, 119, 140, 182, 217, 249, 286, 318, 396, 439, 448, 550, 593, 973, 688, 747, 802, 867, 899
- Passenger 26 Years of Actual Operation at Sea of Two Large, 43
- "Rijeka," Measurements on, with Attempted Practical Application, 563
- Trawler, Electrically-Driven, "Sir William Hardy," for Fishery Research (Hall, Russell & Co., Ltd.), 220*
- Tugs, Paddle, Diesel-Electric, for H.M. Dockyards, 252
- Vehicle and Passenger-Carrying, for British Railways for Service on Clyde (Ailsa Shipbuilding Co., Ltd.), 323
- See also *Marine Propulsion*
- Motorway, London-Yorkshire, Plans for, 94*
- Firm Proposals for, 443; Progress of, Questions in House of Commons on, 710
- Modernisation Plans for British Roads, 94*
- Special Roads for Selected Traffic, 403, 410*
- Mouchel, L. G., & Partners, Ltd., Civil Engineering Work at Drakelow Power Station, 663*; 240-MW Chadderton "B" Power Station, 111*
- Moulds for "Burlington" Process of Long-Length Casting, Preparation of, 113*
- Ingot, Hot-Tops, Use of Oxy-Propane for Prolonging Fluid Conditions in (British Oxygen Co., Ltd.), 184*
- Moulded Components, Ltd., Manufacture of "Jabroc" Densified Wood, 619
- Moulding Machine, Automatic (Coleman-Wallwork Co., Ltd.), 60*
- Automatic, "Stationmaster," for Sand Moulds (Pneulec, Ltd.), 352*
- Wood. See *Machine Tools*
- Materials, Plastics, "Styron" (Distrene, Ltd.), 676
- Shell (Book), 105
- See also *Foundry*
- Moult, Dr. E. S., on Power Plants for Supersonic Aircraft, 125
- Mount, Sir A. H. L., the Late, 229
- Mowlem, J., & Co., Ltd., Loading Equipment for Transatlantic Telephone Cable, 677*
- Mozambique, Economic Survey of (Book), 529
- "MR75" Ground Radar (Decca Radar, Ltd.), 472
- M.T.E. Control Gear, Ltd., Variable-Speed Motor Control (Trade Publication), 881
- Mud, Compacted, Vessel for Removal of, Model of, 53
- Hog Crushers (Trade Publication), 267
- Mullard, Ltd., "Z803U" Cold-Cathode Trigger Valve, 190; Offer to Cambridge University for Research on Radio-Astronomy, 223; 2-kW Ultrasonic Generator, 243; 2-kW Universal Ultrasonic Machine Tool, 425*; Ultrasonic Cleaning Plant for Components, 425; High-Brightness Radar Tube for High Altitudes, 473; Short Range Transmitter-Receiver for Radiotelephony, 736; Line Output Pentode and Rectifier Valves (Trade Publication), 881
- Mullard "Ferrocube" (Book), 408
- "Multicross" Flexible Coupling with Easily Replaceable Members (Owl Engineering Supplies, Ltd.), 24*
- "Multigrasor" Lubrication System for Rails of Travelling Cranes (Centralube, Ltd.), 707*
- Multitubular Boilers. See *Boilers*
- Mulvin, Northern Ireland, Plans for Hydro-Electric Power Station at, 24
- Munger, H.P., on Factors in Selecting Processes for Producing Iron and Steel, 162
- Muntz, E. P., the Late, 69
- Murex, Ltd., on the Newer Metals, 262. See 172. See LETTERS, 230, 262
- Murex Welding Processes, Ltd., 300/400-amp. "Dyner" Brush-Shift Generator for Electric Welding, 273*; Transformer Equipment for Welding, 273; Rectifier Equipment for Welding, 273
- "Muroglass" Glass Cladding for Framed Building Structures (Pilkington Brothers, Ltd.), 613. See *Erratum*, 704
- Murray, G. L., the Late, 591
- Murray, J. D., on Bolting Materials for High-Temperature Steam-Plant Service, 824*
- Murray, J. M., on Early Use of Lignum Vitae in Stern-Tube Bearings, 37. See also vol. 179
- Murrell, K. F. H., on Scientific Study of Man's Environment, 621. See 403
- Museum of English Rural Life, Exhibits at, 876*
- Science. See *Science Museum*
- Mycoe, A., the Late, 845
- "Mystere II" Aircraft, "Atar" Turbojet Engine with Thrust Reverser for, 12*
- "Mystere IVA" Aircraft, "Verdon" Turbojet Engine for, 12*
- Eland" Gas Turbine Drives for Helicopters, 357; "Eland" Propeller Turbine Aeroplane Engine for Elizabethan Aircraft, 357. See LETTER, 405; Production of "Deltic" Diesel Engine, 868
- Naresco Equipment Corporation, High-Vacuum Drying (Trade Publication), 881
- Nash, G. W., on Recent Developments in Bevel Gear Cutting Machinery—the Gleason Method, 717. See LETTERS, 751, 813
- National Aeronautical Establishment, Change of Name to Royal Aircraft Establishment, Bedford, 727
- Coal Board, Annual Report, 3; Work Study Department of, 35; Wage Claims Against 66; "Martin" Stoker for Burning Slurry at Llay Main Colliery, 110; Protest at High Coal Prices to, 160; Parliamentary Debate on Monopolistic Aspects of, 160; Recruitment of Foreign Manpower, 224; Human Problems in Coal-Mining Industry, 224; Mechanisation in Coal-Mining Industry, 224; Increase in Coal Prices, Engineering Industries Association Statement on, 258; Agreement with National Union of Mineworkers for Investigation into Decline in Coal Production, 400, 440; Losses of, 402; Investment by, 442; Off-shore Boring Unit, Coal Struck in Firth of Forth, 611; Suggested Layouts for Colliery Workshops and Stores, 688
- College for Heating, Ventilating, Refrigeration and Fan Engineering, Advanced Lectures on Process Heating, 528
- Horology and Instrument Technology Engineering Courses at, 365. See LETTERS, 445
- Council for Diplomas in Technology, 127. See 97, 129. See LETTERS, 167
- National Gas & Oil Engine Co., Ltd., Diesel Engine for Thames Tug "Britannia," 887*
- Turbine Establishment, Wind-Tunnel Model Tests of Jet Flap, 471*; Modifications at, 504*, 538*
- Joint Advisory Council of Ministry of Labour, Views on Right to Strike, 224
- National Physical Laboratory:**
- Air Gauge for Measuring Flatness of Photographic Plates, 151. See 510*
- Symposium on Problems Connected with Cavitation in Hydrodynamics, Arrangements for, 184
- Caesium Atomic Time Standard, 303
- Testing of Photographic Plates for Flatness or Straightness, by Dr. J. C. Evans and I. G. Morgan, 510*. See 151
- Precise Measurement of Diameter of Fine Wire, by I. G. Morgan, 703*
- Research on Relation Between Sound and Hearing, 816. See 809
- National Service and Effect on Careers, Report of Inquiry on, 648
- Government Debate on, 680
- Men, Plans for Reduction in Numbers of, 521. See LETTER, 783
- Modifications in, 584
- Television Systems Committee System of Colour Television, Investigation by B.B.C. of, 780*
- Nationalisation, Demands for, Rejection by Transport and General Workers' Union, 98
- Natural Gas, Exploration in Britain for, 703
- Industry in Italy, Organisation of, 700*
- Nature Preservation and Hydro-Electric Works, Conference on, 875
- Naval Aeronautics. See *Aeronautics*
- Naval Architects, Institution of:**
- Autumn Meeting in Yugoslavia:*
- Opening of Proceedings, 484
- Reports of Proceedings, 563, 600, 629, 660
- Measurements on the M.V. "Kijeka" with their Attempted Practical Application, by Prof. S. Silovic and M. Fancev, 563
- Pitching and Heaving of Ships, by A. J. Sims and A. J. Williams, 564
- Frictional Drag of Smooth and Rough Ship Forms, by A. J. W. Lap, 600
- Organisational Developments of the Uljanik Shipyard, by D. Stipetic, 629
- Recent Development of the Shipyard at Split, by M. Stanger and S. Ercegovic, 660
- Design of Economic Tramp Ships, by Dr. E. C. B. Corlett, 660
- Naval Engineer, Story of, *Up Funnel, Down Screw*, by Cdr. G. Penn (Review), 689
- See also *Warships*
- Navigation, Aerial. See *Aeronautics*
- Navy. See *Excavator*
- Navy, British. See *H.M. under Warships*
- United States. See *United States under Warships*
- See also *Naval; Warships*
- Naylor Brothers Ltd., "Adequate" Belt Weigher for Conveyor-Belt System for Coal-Handling Plant, 514*
- Negev-Yarkon Water Pipeline for Irrigation and Flood Control, 124*
- Neill, J., & Co. (Sheffield), Ltd., "Eclipse" Toolholder (Trade Publication), 626
- Nelson, Sir G., on Prospects and Responsibilities of Electrical Engineers in Contributing to Future Prosperity of Mankind, 526, 528
- Neptune Tanker Corporation, World's Largest Oil Tanker "Spyros Niarchos" for, 802*
- Nervi, Prof. P. L., on Concrete and Structural Form: Synthesis of Engineer and Architect, 601*
- Nevelin Electric Co., Ltd., "Nevitron" Rectifiers (Trade Publication), 267
- New Zealand Government Railways, 240-h.p. Diesel-Mechanical Shunting Locomotives for, 676*
- Import Restrictions on Motor Cars, 482
- Newalls Insulation Co., Ltd., Insulation Materials (Trade Publication), 107; Insulation Materials (Trade Publication), 489
- Newcastle Service Depot for Marine Radio (Marconi International Marine Communication Co., Ltd.), 517*
- Newcomen Society: George Jackson Churchward, Chief Mechanical Engineer, Great Western Railway: The Man and His Work, by Sir W. Stanier, 556; Prenatal History of the Steamboat, by H. P. Spratt 687; Waterwheels of John Smeaton, by P. N. Wilson, 847
- Newitt, Prof. D. M., on Review of Some Recent Work on Physical Properties of Matter under High Pressure, 789*
- Newman Industries, Ltd., Electric Motor for Use in Gasworks, 463*
- Newport, Monmouthshire, Factory of Monsanto Chemicals, Ltd., New Phthalic Anhydride Plant for, 453
- Newspaper Proprietors Association, Settlement with Unions on Pay Increases, 360
- Newton, Isaac, 98-in. Telescope, Progress in Design of, 859
- Newton, Victor, Ltd., Diagnostic X-Ray Unit (Trade Publication), 721
- Newton Works of Garringtons, Ltd., New Laboratory for, 612*
- Nickel Plating, "Kanigen," Chemical Process for (Trade Publication), 529
- Shortage of, Questions in House of Commons on, 807
- "Nicrobraz" Process for Brazing High-Temperature Sheet Steel (Wall Colmonoy Corporation), 885*
- Nife Batteries, Ltd., Cabinet for Control of Battery Emergency Lighting Sets, 644*
- Nigeria and Gold Coast, Federation of British Industries Report on Visit to, Criticism of, 842
- Nikolayev, N. A., on First Atomic Power Station of U.S.S.R. and Prospects of Atomic Power Development, 228, 233*
- Nile, River, Aswan Dam, Contract Secured by Sir A. Gibb and Partners, 619
- Report of United Kingdom Trade Mission, 165. See LETTER, 230
- "Nimonic 100" Creep-Resisting Alloy (H. Wiggin & Co., Ltd.), 405
- Nitrogen Plants (Trade Publication), 9
- Solubility in Alpha-Iron of, 829
- Noble Lowndes Finance Co., Ltd., Survey of Machine-Tool Industry, 843
- Noel-Baker, P., on Recruitment for Coal-mining Industry, 192
- Noise, Government Debate on, 839
- Measurement, Techniques of (Book), 754
- Psychological Effect of, 809
- Reduction Manual, by P. H. Geiger (Review), 657
- Non-Conducting Coverings. See *Heat Insulation*
- Destructive Testing Instrument for Drawing Qualities of Sheet Metal (Jones & Laughlin Steel Corporation), 62*
- Testing, Research on, 145
- Ferrous Metals. See *Metals; Metallurgy*
- Nonhebel, G., on Use of Electricity in Chemical Industry, 77
- "Noral" Aluminium Alloys for Shipbuilding (Trade Publication), 107
- "Noral" Aluminium Roof Coverings and Flashings (Trade Publication), 721
- "Noral Snaprit" Aluminium Building Sheets (Trade Publication), 755
- "Norbide" Abrasive for Grinding Wheels, 607
- Nord, Société Nationale de Constructions Aéronautiques du, "Gerfaut" Supersonic, Experimental, Delta-Wing Aircraft, 10
- Normalair, Ltd., Improved Breathing Apparatus for Climbers, 844*
- Norsk Jernverk, A/S, Steelworks at Mo i Rana, Controversy Concerning, 651
- North American Aviation Inc., "Super Sabre F.100C" Fighter Aircraft, 787*; Static Test Stand for Determining Rocket Thrust, 821*; Chemical Milling Technique, 853*; Digital Electronic Computer using Transistors, for U.S. Air Force, 864
- Atlantic Treaty Organisation, Contracts of, Difficulties of British Firms in Tendering for, Questions in House of Commons on, 807
- North British Locomotive Co., Ltd., Oil-Burning Locomotives for Sudan Railways, 59*
- East Coast Institution of Engineers and Shipbuilders: Andrew Laing Lecture by Dr. S. F. Dorey, on Ferrous Materials in Marine Engineering, 659
- Engineering Bureau, Booklet on Engineering Capacity in North of England (Trade Publication), 489
- Point "B" Power Station for Hong Kong, 547
- of Scotland Hydro-Electric Board, 100-kW Wind-Driven Generator at Costa Head, 55*; Moriston Project, Construction of New Road for (International Development Co. (Nottingham), Ltd.), 211; Additions to Tummel Valley Hydro-Electric Scheme, 518; Work of Board, Questions in House of Commons on, 871
- Sea Swell, Action in Gooerese Gat, Model to Investigate, 453*
- Thames Gas Board, Extensions to Bromley-by-Bow Gasworks, 669
- Northampton Polytechnic, Engineering Courses at, 365. See LETTERS, 445; Courses on Fatigue of Metals, 405; Advanced Lectures on Specialised Subjects, 528
- Northern Aluminium Co., Ltd., Motor Lorry with Aluminium Body, 24; Joints for Conductors on Keadby-Monk Fryston Line of 265-kW National Grid, 54. See *Erratum*, 252; "Noral" Aluminium Alloys for Shipbuilding (Trade Publication), 107; "Noral" Aluminium Roof Coverings and Flashings (Trade Publication), 721; "Noral Snaprit" Aluminium Building Sheets (Trade Publication), 755
- Counties Textile Trades Federation, Moves Towards Triple-Shift Working in Lancashire Cotton Industry, 440
- England, Water Supplies in, 683
- Ireland Development Council, Functions of, 714
- Establishment of New Industries in, 259

N

NAPIER, D., & SON, LTD., "Oryx" Single-Shaft Turbo-Gas-Generator Aeroplane Engine, 179*; "Oryx" and "Rotodyne

- Northern Ireland, Larne, New Turbine Works of British Thomson-Houston Co., Ltd., at, 443
 — Plans for Hydro-Electric Power Stations at Mulvin and Sion Mills, 24
 — Report of Census of Production of, 99
 — to Scotland Tunnel, Questions in House of Commons on, 743
 Northey Rotary Compressors, Ltd., "Oil Free" Compressors and Vacuum Pumps (Trade Publication), 594
 Norton Grinding Wheel Co., Ltd., Expansion Plans of, 607
 Norwegian-Danish Telephone Cable, Laying of, 739
 — Steelworks at Mo i Rana, Controversy Concerning, 651
 Notched-Bar Tests. See *Tests (Materials)*
 Notes, Labour, 32, 64, 96, 128, 160, 192, 224, 256, 288, 320. See also *Human Element*
 — on New Books. See *Books*
 Notices of Meetings, 32, 64, 319, 359, 399, 439, 479, 519, 551, 583, 647, 679, 711, 742, 774, 806, 870, 902
 Nottingham, Royal Show, Exhibits at, 29*, 92*
 Nova Scotia, Bank of, *Review*, Rise in Industrial Production in Canada, 194
 "Novopan" Laminated Board for Fire-Retarding Divisions in Ships (Trade Publication), 409
 "Novoston" Five-Bladed Solid Marine Propeller (J. Stone & Co. (Deptford), Ltd.), 802
 "NRU" and "NRX" Research Reactors, Canadian, Models of, 299*
 "NT" Type Flexible Coupling for Shafts (Crofts (Engineers), Ltd.), 544
 Nuclear Energy Committee, Appointment by Institute of Metals, 782
Nuclear Energy Conference, British: First Meeting:
 Programme, 329
 Reports of Proceedings, 779, 804*, 836*
 United Kingdom Atomic Energy Authority and Its Functions, by Sir J. Cockcroft, 804*
 Place of Nuclear Energy in United Kingdom Power Development, by V. A. Pask and J. C. Duckworth, 804* 836*
 Health and Safety in Nuclear Power Industry, by Dr. A. S. McLean and Dr. W. G. Marley, 836
 Use of Research Reactors in Nuclear Power Development, by H. J. Grout, 837*
 Nuclear Energy Development and the Commonwealth (Book), 267
 — New Weekly Report *Applied Atomic* (Comtel Reuter), 605
 — Possible Role of Thorium in, 264
 — in Power Development of United Kingdom, 805
 — for Power and Transport, Speeches at Annual Dinner of Institution of Mechanical Engineers, 590
 — Production of, Questions in House of Commons on, 775
 — Proposed New British Standards on, 717
 — Survey of Geneva Conference on Peaceful Uses of, 364
 — Engineering, Commercial Implications of, 227
 — Equipment, Russian, 598*
 — Fusion, Research on Power from, 599
 — Particles in Curved Paths, Circular Accelerators for, 530*
 — Power, British Co-operation in Production of, 3
 — in Canada, Forecast of Development and Costs, 198
 — Contributions to United Kingdom and World Energy Resources up to 1975 of, 265*
 — Electricity from, Exhibition on, 72
 — Industry, Health and Safety in, 836
 — for Marine Propulsion, 859*
 — Plant Company, Ltd., Contributions to Calder Hall Power Station, 432*
 — Projects Throughout the World, Comparative Survey of, 483, 490*
 — Programme of, Government White Paper on, 3
 — Stations, Acquisition of First Two Sites by Central Electricity Authority, 628
 — Station, Calder Hall, Model of, 300*;
 Construction Work at, 355*, 431*;
 Engineering Techniques and Construction of, 740*;
 Pressure Vessels for Nuclear Reactors, 835
 — Station, First, in U.S.S.R., 228, 233*, 300
 — Stations, Progress, of, Questions in House of Commons on, 678
 — Stations, Siting of, 487
 — in United States, Economics of, 232, 282*
 — Use of Research Reactors in Development of, 837
 — Reactors at Calder Hall, Pressure Vessels for, 835
 — Capacities of, Questions in House of Commons on, 775
 — Design and Operation of, 561
 — "Dido" High-Flux Heavy-Water Research, 804*, 836*
 — Experimental, Homogeneous, 653
 — Experimental Light-Water, "Leo," 653
 — Experimental, at United Kingdom Atomic Energy Authority, 804*
 — Export of, Sir C. Hinton on, 259
 — Fast Breeder, Dounreay, Progress in Construction of, 652*
 — Research, at Harwell, 266
 — Research, Use in Nuclear Power Development of, 837
 — Rod Control Mechanism for (Metropolitan-Vickers Electrical Co., Ltd.), 675
 — "Zeus" Uncooled Fast Research, 804*, 837*
 — See also *Reactor*
 — Research, European Organisation for, Establishment of, 3
 — Warfare, Eminent Scientists' Statement on, 65
 — Traditional Role of Army in, 442
 — See also *Atomic*
 Nuffield Foundation, Aerial Survey of Rock Formations in Midlands, Proposed, 302;
 Report on Ageing in Industry, 744
 Nuffield, Lord, Life of, by P. W. S. Andrews and E. Brunner (Review), 201
 Nuneaton Works of Sterling Metals, Ltd., Extensions to Foundry Building of (Beecham Buildings, Ltd.), 574*
 Nuralite Sales, Ltd., Flexible Waterproof Roofing Materials (Trade Publication), 330
 Nylon Rod, "Akulon" (Trade Publication), 690
 — Tail, "Viking" for Fibre Ropes (British Ropes, Ltd.), 427*
O
 "O-21" Experimental Ram-Jet Aircraft (R. Leduc et Fils), 10*
Obituary:
 Ablett, C. A., 136
 Aitken, A., 294
 Allen, Sir R. W., 103*
 Bamford, H. B., 166
 Bartlett, Sir C. J., 263
 Belavia, Col. N. T., 719
 Bennett, Lt.-Col. G. T., 782
 Blackburn, R., 368
 Bland, M. G., 407
 Boneham, J., 878
 Booth, S., 687
 Branczik, E. A. C., 407
 Bridge, N. C., 720
 Burstall, F. C., 816
 Bush, F. C., 407
 Cameron, J., 166
 Candelin, J. W., 878
 Cochran-Carr, W., 136
 Collins, W., 878
 Conlan, J. J., 70
 Cooke, W. H., 166
 Corin, P. G., 623
 Cox, H. J., 655
 Cruse, H., 407
 Docking, F. F., 407
 Donaldson, T., 487*
 Ellison, G., 136
 Evans, H., 407
 Faull, H. G., 294
 French, Lt.-Col. W., 448
 Fogarty, L. F., 136
 Ford, E. H., 719
 Foster, E. F., 878
 Gardner, J., 136
 Gibb, A. M., 196
 Gordon, Maj. K., 782
 Grant, Sir A., 135*
 Hale, C. E. B., 70
 Hall, C. L., 136
 Hamilton, R. L., 782
 Harris, T. E., 135
 Hefford, Eng. Rr.-Adml. E. O., 263
 Hillier, H., 328*
 Hirst, E., 655
 Hoadley, E. E., 69
 Hood, E. M., 720
 Julian, C. R., 407
 Kift, A. A., 816
 King, E. G., 655
 Kirke, H. L., 294
 Lawrence, E. W., 655
 Lawrie, T., 229
 Legge, Brig.-Gen. R. F., 294
 Lough, W. R., 878
 Magee, J. R., 39
 Magnel, Prof. G., 69
 Makepeace, H. C., 687
 Mavor, E. I., 655
 McClean, Sir F., 229
 Miley, P., 136
 Mount, Sir A. H. L., 229
 Muntz, E. P., 69
 Murray, G. L., 591
 Mycoe, A., 845
 Oldham, G., 196
 Parsons, H. K., 263
 Pearce, W. F., 591
 Pearson, J. B., 687
 Penny, F. G., 229
 Petter, P. W., 407
 Porter, E. W., 263
 Power, F. D., 70
 Purse, F. W., 816
 Reeves, H. Q. A., 623
 Rhoden, A. K., 263
 Richardson, P., 623
 Roberts, Sir S., 845
 Robertson, A., 591
 Rogers, F. H., 782
 Rogers, Lt.-Col. H. S., 196
 Russell, A., 782
 Sayers, E., 448
 Shilstone, F. W., 591
 Skentelbery, G. A., 687
 Skinner, F. G., 407
 Stephenson, R. H., 39
 Storey, Sir J. S., 136
 Stoye, H. B., 263
 Swales, E. W., 655
 Thom, R. A., 720
 Town, W., 294
 Tweedy, G. F., 655
 Vedy, L. G., 8
 Vine, L. N., 407
 Walder, H., 294
 Walker, E. B., 655
 Watson, A., 487
 Wheeler, H. D., 623
 Whyman, A. E., 687
 Williams, Maj. C. E., 687
 Wright, H. D. M., 196
 Wrightson, E. A., 655
 Yarrow, N. A., 70
 Yerbury, H. E., 136
 Young, J., 196
 Observatory, Royal, Installation of Equipment at Herstmonceux, 858
 "Ocean Vulcan" S.S., Sea and Still Water Trials, of, 108*
 O'Dea, W., on Value of Statistical Methods in Developing a Design, 783. See 713
 O.E.E.C. See *Organisation for European Economic Co-operation*
 Oerlikon Engineering Co., Safety Device for Locomotives, 218*. See 195
 Oesterreichische - Alpine - Montangesellschaft, A.G., Two-High Reversing Roughing Rolling Mill for (Blaw-Knox Co.), 243
 Office Equipment, Steel (Trade Publication), 107
 Oil and Coal Production, Prospects for, 843
 — Engines. See *Engines, Oil; Motor Cars; Tractors*
 — Film Extent in Complete Journal Bearings, 5. See LETTER, 37. See also vol. 179
 — Pressure and Thickness of Parallel-Surface Thrust Bearings, Determination of, 174*
 — Fires, Use of Air for Extinguishing, Cinema Film on, 847
 — Firing, Auxiliary, of Pulverised-Fuel Boilers, "Initiator" for (Fuel Firing, Ltd.), 428*
 — Flow through Small Orifices at High Pressures, Research on, 596
 — Free" Compressors and Vacuum Pumps (Trade Publication), 594
 — Fuel Burner, Automatic (Trade Publication), 626
 — Fuel Burner for Domestic Heating (C. Kieft & Co., Ltd.), 897*
 — Heavy, Process for Gasification of (Office Central de Chauffe Rationnelle), 89*
 — Possible Use in Place of Coal, 35
 — and Greases (Trade Publication), 41
 — Industry, Electrical Equipment for (Trade Publication), 9
 — Valves for (Black Automatic Controls, Ltd.), 115*
 — Lubricating, Automobile Engine, "Castrolite" (C. C. Wakefield & Co., Ltd.), 95
 — Wear-Reducing Properties of, Cinema Film on, 178*
 — and Mineral Prospecting, Lorry-Mounted Rotary Power-Arm Drill for (Hands-England Oilfields Equipment, Ltd.), 430*
 — Motors. See *Engines, Oil; Motor Vehicles; Tractors*
 — Production, Wall Map Showing (Trade Publication), 626
 — Refinery, Altona, Australia, Completion of (Braun Transworld Corporation), 45
 — Products of, Science of Petroleum, Vol. V (Book), 754
 — Stanlow, Reclamation of Land at, 207
 — Residual, Burning in Industrial Gas Turbines, Research on, 538
 — Seal, Rotary, Magnetic (J.C. Rotary Magnetic Seal Co., Ltd.), 462*
 — Separator, Self-Opening (Alfa-Laval Co., Ltd.), 309
 — Steam-Turbine, Specification, 169
 — as Substitute for Coal, Government Debate on, 130
 — Switches. See *Switchgear*
 — Tanker, Aluminium, for River Work, Design for, 684
 — "Auris," 5,500-h.p. Gas-Turbine Propulsion Unit for (British Thomson-Houston Co., Ltd.), 324*
 — Building Programme of Peninsular and Oriental Steam Navigation Co., Ltd., 403
 — Cargoes, Ventilator for Removal of Toxic Gases from (Gotaverken A.B.), 801*
 — Heating of Oil Cargoes of, Steel Pipes with Cast-Iron Sleeves for (E. Green & Son, Ltd.), 393*
 — Launches and Trial Trips, 13, 63, 93, 119, 182, 217, 286, 318, 396, 439, 448, 550, 593, 673, 688, 737, 802, 867, 899
 — Oil Companies' Building Plans for, 442
 — "Regent Springbok," Cathodic Protection Applied to, 608*
 — "Spyros Niarchos," World's Largest, Launch of (Vickers-Armstrongs (Shipbuilders), Ltd.), 802*
 — Steam Heating Using Aluminium-Alloy Pipes, "Alacoil" System (Steels Engineering Installations, Ltd.), 151
 — and Tar, Gas Production from, "Segas" Process for (Trade Publication), 594
 — Town Gas from, British Petroleum Co., Ltd., and South Eastern Gas Board Arrangements for Kent, 363
 — Tractors. See *Tractors*
 — Transfer and Cooling in Ring-Oiled Bearings, by Dr. N. Özdas and Prof. H. Ford, 268*, 570*
 — and Water Cooler, "W" Type, for Internal Combustion Engines (Serck Radiators, Ltd.), 352*
 — Well Drilling Rig, Trailer-Mounted (Woodfield Hoist and Associated Industries, Ltd.), 687
 Oil Well Engineering Co., Ltd., Slush-Pump, Diesel-Driven, for Oil Drilling Rigs, 581*
 — See also *Lubrication; Petroleum*
 "Oildag" Colloidal Graphite (Trade Publication), 330
 Old Centralians, Luncheon, Value of Wind-Tunnel Tests in Developing Speedboat "Bluebird III," by P. T. Fink, 554
 Oldham, G., the Late, 196
 Oldham & Son, Ltd., Output of Accumulators, 619
 Oliver, K. L., on Spiral-Bevel Gear-Cutting Machines, 813. See 717. See LETTER, 751
 Olympia. See *Exhibition*
 "Olympia IV" Sailplane, 126
 "One-Wire System" of Prestressing Concrete (P.S.C. Equipment, Ltd.), 190*
 Open-Cast Coal-Mining Sites, Questions in House of Commons on, 903
 — Hearth Furnace. See *Furnace*
 Operational Research, 694
 Ophthalmic Instruments and Spectacles Industry, Book on Development of, 52
 Ores, Iron, Low-Grade, Development of Chemical Treatment of, 729
 — Problems in Smelting Varying Grades of, 162
 — Low-Grade, Concentration of, "Humphreys Spiral Concentrator" for (Fraser and Chalmers Engineering Works of General Electric Co., Ltd.), 153*
 Ores, Low-Grade, Electronic Concentration of, with Lapointe Picker (Book), 79
 Orenda Engines, Ltd., Application of Digital Computers to Gas-Turbine Engineering, 640*;
 "Aero Mist Spray" Cooling for Cutting Tools, 885*
 Orenstein-Koppel und Lubecker Maschinenbau A.G., 247,000 tons per day capacity Bucket-Wheel Excavator, 604*
 Organisation for European Economic Co-operation, Comments on Ten-Year Development Plan for Southern Italy, 2, 811;
 Report on Use of Power in Member Countries, 3;
 Commission for Energy, Announcement of Members of, 318;
 Statistics of Sales of Plastics in Western Europe, 682;
 Report on Economic Conditions in France, 779;
 Report on Economic Conditions in Germany, 810
 Orifices, Small, Oil Flow at High Pressures through, 596
 "Orpheus" Jet Aeroplane Engine (Bristol Aeroplane Co., Ltd.), 356*;
 United States Grant for Development of, 221
 Orvieto, Italy, Aircraft Hangar with Reinforced Concrete Shutterwork Roof, 602*
 "Oryx" Gas-Turbine Drive for Helicopters (D. Napier & Son, Ltd.), 357
 "Oryx" Single-Shaft Turbo-Gas-Generator Aeroplane Engine (D. Napier & Son), Ltd., 179*
 Oscilloscope Images, Camera for Recording (Polarizers (U.K.), Ltd.), 128
 "Otis King" Cylindrical Calculator (Trade Publication), 594
 Ottawa, Unveiling of Memorial to Lt.-Col. J. By, 715
 Ovens, Coke. See *Coke Ovens*
 — Electric, for Drying Arc-Welding Electrodes (Schuckert (Great Britain), Ltd.), 549*
 — Infra-Red, for Heat Processing of Small Articles in Batch Production (Metropolitan-Vickers Electrical Co., Ltd.), 156
 — Rivet, Electric Resistance, Two-Headed, 16-kV (Holden and Hunt, Ltd.), 304*
 Overhead Cranes. See *Cranes*
 "Overlander" Fork Truck for Lifting and Towing on Rough Ground (Conveyancer Fork Trucks, Ltd.), 316*
 Owen-Barnett, R. A., on Strain-Ageing of Pure Iron, 862
 Owl Engineering Supplies, Ltd., "Multicross" Flexible Coupling with Easily Replaceable Members, 24*;
 Vibrator Conveyors and Screening Machines (Trade Publication), 881
 Oxy-Acetylene Welding. See *Welding*
 Oxy-Propane, Use for Prolonging Fluid Conditions in Ingot-Mould Hot-Tops (British Oxygen Co., Ltd.), 184*
 Oxygen Breathing Apparatus for Kangchenjunga Climbing Expedition, 844*
 — Dissolved, Recorder for (Iraue Publication), 786
 — Meter, "Hersch," for Small Concentrations (Engelhardt Industries, Ltd.), 91*
 — and Temperature Recorder for Boiler Houses (Trade Publication), 755
 — Tonnage, Scunthorpe Plant for Production of (British Oxygen Co., Ltd.), 731
 Özdas, Dr. N., on Oil Transfer and Cooling in Ring-Oiled Bearings, 268*, 570*
 Ozone Layer, Turbulence Above, 236
P
 "P.1" Jet Supersonic Interceptor Aircraft (English Electric Co., Ltd.), 436*
 "Pa.49" Delta-Wing Aircraft (Ets. N. R. Payen), 11*
 Package Unit, 495-h.p., Diesel Engine and Slush Pump, for Oil Drilling Rigs, 581*
 Packaging, Research and Development on (Trade Publication), 786
 "Packard" Motor Car, "Allison" Suspension System for, 610*
 Packing, Adjustable, for Machine Shops (Rupert & Co., Ltd.), 187
 — Gland, Metallic, for Reciprocating Shafts (Wellworthy Ltd.), 424
 — of Scientific Equipment (G. Salter & Co., Ltd.), 869
 Paddon Precision Tools, Ltd., "Sizer" Pre-Set Boring Head, 213
 Paint, Chlorinated-Rubber, "Pitan" (Trade Publication), 137
 — Research on, New Laboratories of Imperial Chemical Industries, Ltd., at Slough, 114*
 — Zinc-Dust Primer, "Galvafrid" (Trade Publication), 137
 Painter Brothers, Ltd., Steel Tube Pole for Overhead Transmission Lines, 285*
 Painting, Spray (Trade Publication), 107
 — of Structural Steelwork, Report on, 522
 Pakistan, Co-operation with India on Irrigation by Waters of River Indus, 35
 — Economic Survey of (Book), 408
 — International Airlines, Improvement of Engineering Facilities at Karachi Airport, 407
 Palmer Tyre, Ltd., Runway Brake for Helicopters, 473
 "Pamela" High-Temperature Steam Turbine, Research by Pametrada, 101
 Pametrada, Progress Report for 1954, 101;
 Turbine Development at, 566*
 Panama, Economic Survey of (Book), 170
 Pannell, J. P. M., on The Taylors of Southampton: Pioneers in Mechanical Engineering, 68*
 "Pantatron" Units for Gamma Radiography (Teleflex Products, Ltd.), 427*
 "Pantatron III" for Radiographic Examination of Metals (Teleflex Pantatron, Ltd.), 434*
 "Pantenna" Communal Aerial System for Use on Board Ship (Marconi International Marine Communication Co., Ltd.), 734
 Paraffin Engines. See *Engines, Oil*
 — Tractors. See *Tractors*
 Parion Products, Ltd., Commercial Trailers (Trade Publication), 755

- Paris, International Building and Public Works Exhibition, Exhibits at, 36
Parliament, Work of, 646, 678, 710, 743, 775, 807, 871, 903
Parnell, F. G., on Growth and Present Position of Disc Brake as Applied to Motor Vehicles, 874, 892
Parsons, C. A., & Co., Ltd., 500-h.p. Experimental Coal-Fired Gas Turbine, 241*; Bladed High-Pressure Cylinder for 60-MW Steam Turbine, 275*; Core and Windings of 1,000-kVA Distribution Transformer, 275*; New Turbo-Blower for Scunthorpe Works of Appleby-Frodingham Steel Co., Ltd., 402, 408; Impulse Generator for Testing E.H.V. Transformers, 430
Parsons, H. K., the Late, 263
— Turbines, See *Turbines, Steam; Marine Propulsion*
Particles, Charged, Linear Acceleration to High Energies of, 340*, 374*
— Nuclear, in Curved Paths, Circular Accelerators for, 530*
— Sampling, Apparatus for, Fuel Research Station, 116*
Pask, V. A., on Place of Nuclear Energy in United Kingdom Power Development, 804*, 836*
Passenger Aeroplane. See *Aeroplane under Aeronautics*
— Steamers. See *Steamers*
Patent Law in Research Laboratory (Book), 137
Paterson, A. B., on Facilities of Mitchell Library, Glasgow, 783. See 586
Paterson, J. J. C., on Scientific Development of Modern Locomotive Design, 377*. See *Erratum*, 762
Paterson, Dr. T. T., Book on *Morale in War and Work*, 776
Patternmakers, United Association of, Automation and Working, Conditions in Patternmaking Trade, 160
Patternmaking Machines. See *Machine Tools*
Paul, K. S. (Molybdenum Disulphide), Ltd., "Molykote" Molybdenum Disulphide Lubricants (Trade Publication), 594
Paviors Co., Summer School in Highway Engineering at Birmingham University, 157
Payen, Ets. N. R., "Pa.49" Delta-Wing Aircraft, 11*
"PD4" Air-Cooled Diesel Engine with Clutch/Reduction Unit (J. and H. McLaren, Ltd.), 463*
Peaceful Uses of Atomic Energy, Conference on. See *Atomic Energy, Peaceful Uses of, Conference on*
Pearce, W. F., the Late, 591
Pearson, Dr. J., on Solubility of Nitrogen in Alpha-Iron, 829
Pearson, J. B., the Late, 687
Pearson, J. D., on Development and Future of Turbine Engines for Airline Aircraft, 261, 390*
Peddinghaus, Flame-Hardening Process for Crankshaft Bearing Surfaces, 151*
Pegson, Ltd., "Vibro-King" Two-Bearing Heavy-Duty Vibrating Screens for Sand, Gravel and Stone, 541
Pelham Bridge Scheme, Questions in House of Commons on, 678
Peninsular and Oriental Steam Navigation Co., Ltd., Programme of Oil Tanker Building, 403
Penny, F. G., the Late, 229
Periscope, Scanning, for Furnaces, 798. See *Erratum*, 866
— Water-Cooled, for Studying Open-Hearth Furnace Behaviour, 298
Permal, Ltd., Manufacture of "Permal" Densified Wood, 619
Permanent Magnets. See *Magnets*
Perrott, F. C., Application for Patent for Free-Piston Gas Generator, 733*. See *Letter*, 813
Personal, 8, 38, 70, 104, 134, 166, 200, 231, 263, 295, 326, 367, 406, 446, 486, 527, 558, 592, 624, 654, 686, 719, 752, 784, 846, 878
Peru, Economic Survey of (Book), 818
Pest Infestation Research, 1954 (Book), 267
Peterson, G. R., on Possibilities of a Thermal Power Station Operating on both Coal and Heavy Oil, 447; on Atmospheric Pollution by Power Stations, 447; on Toxic Effluents from Power Stations, 447
Petrol Motors. See *Aeronautics; Engines, Petrol; Motor Cars; Tractors*
— Tanker with Plastics Body (AB Malmö Flygindustri), 569
Petroleum Equipment, British, 1955-56 (Book), 137
— Information Bureau, Wall Map Showing Oil Production (Trade Publication), 626
— Plant and Equipment, Increase in Orders for, 194
— Science of, Vol. V: Refinery Products (Book), 754
Petter, P. W., the Late, 407
Phase Transformations in Metals, Symposium on, Programme, 406
Philips Electrical Ltd., Quartz Infra-Red Heater for Simulation of Heating Conditions of Aircraft at High Speeds, 72; Low-Voltage Safety Relay for Welding in Confined Spaces, 452; Quartz Tubular Infra-Red Heater for Simulating Kinetic Heating Effects in Aircraft, 471*; 1,000 watt Infra-Red Lamp for Industrial Purposes, 738
Phillips, Dr. V. A., on Effect of Strain Rate and Temperature on Resistance of Aluminium, Copper and Steel to Compression, 536
Phosphating Process for Corrosion and Wear Protection (Trade Publication), 594
Photoelasticity, Lectures on, at University College London, 528
Photo-Electric Cells at Thoresby Colliery, Applications of (General Electric Co., Ltd.), 580
Photographic Plates, Air Gauge for Measuring Flatness of, 151
Photographic Plates, Apparatus for Testing Flatness or Straightness of, 510*
Photography, Flameproof Flash Equipment for Use in Collieries (E. Turner Electrical Instruments, Ltd.), 705
— High-Speed, Third International Congress on, 1956, Arrangements for, 671
Photometer for Measuring Luminance of Fluorescent Powders (General Electric Co., Ltd.), 118*
Photomicrographs. See *Micrographs*
Phthalic Anhydride Plant, New, for Newport Factory of Monsanto Chemicals, Ltd., 453
Physical Laboratory. See *National Physical Physics, Institute of: Stress Analysis Group: Ninth Annual Conference, Arrangements for*, 245
— Introductory Applied, by N. C. Harris and E. M. Hemmerling (Review), 329
— Radio and Extra-Terrestrial, Research on, 765
Pick, Coal, Water-Controlled (Trade Publication), 690
Pickering, F. B., on Microscopical Examination of Samples of Iron Containing Siliceous Inclusions, 862; on Microscopical Examination of Samples of Iron Containing Titanium-Bearing Inclusions, 862
"Picton," H.M. Coastal Minesweeper, Launch of, 688
Piecework. See *Labour*
Pietzch, W., on Exploitation of Water Sources using Small Reservoirs to Even the Over-All Flow, 537
Pig Iron, Phosphorus and Sulphur in, Research on, 695
— 30-ton Railway Wagon for Carrying (British Railways), 149*
— Record Output by Appleby-Frodingham Steel Co., Ltd., 549
Pike, G., Ltd., Building Contractors' Equipment (Trade Publication), 137
Pilkington Brothers, Ltd., Insulator Strings for Keadby-Monk Fryston Line of 275-kV National Grid, 54*. See *Erratum*, 252; "Muroglass" Glass Cladding for Framed Building Structures, 613. See *Erratum*, 704
Pillin, J. B., Ltd., Motor Vehicle for Carrying Lubrication Unit, 735
Pilot Works, Ltd., 15-ton Hydraulic Press, 279*
Pinions. See *Gears; Marine Propulsion*
Pipes, Aluminium-Alloy, for Steam Heating in Oil Tankers, "Alacoil" System (Steels Engineering Installations, Ltd.), 151
— Carbon-Lined, "Metica," for Corrosive Liquids (Talbot Stead Tube Co., Ltd.), 278
— and Columns, Electric Jackets for (Trade Publication), 755
— Electrically Resistance-Welded, Proposed New Factory in Canada for Manufacture of, 290. See also 131
— Leakage in, Use of Radioactive Materials for Detection of, 292
— for Natural Gas in North West Canada, South Durham Steel & Iron Co., Ltd., Contract for, 587
— Steel, with Cast Iron Sleeves for Heating Coils for Oil Tanker Cargoes (E. Green & Son, Ltd.), 393*
— Thick-Walled, Machine for Applying High Pulsing Pressures inside, 145
— and Tube, Steel, Industry, European, Report on, 226
— Welds, Instruments for Internal and External Examination of, by Radiography, 398*. See *Letter*, 445
— See also *Tubes*
Pipelines, Buried, Metal-Plate Rectifiers for Cathodic Protection of, 900
— Natural-Gas, in Italy, 700*
— and Pipe Assemblies, Steel, Oxy-Acetylene Welding of, Specification, 818
— Water, Yarkon-Negev, for Irrigation and Flood Control in Southern Israel, 124*
Pirelli-General Cable Works, Ltd., Fatigue Bending-Test Machine for Electric Cables, 184*
Piston Rods, Diesel Engine, Full-Scale Fatigue Tests of, 891
"Pitan" Chlorinated-Rubber Paint (Trade Publication), 137
Pitt, C. (Barton Stacey), Ltd., Hand-Propelled Tipping Truck with Glass Fibre Body, 833*
Pitting. See *Corrosion*
Planning and Development, Regional, Conference on, 485. See 523
Plant House at National Gas Turbine Establishment, 504*
— Maintenance Costs, Excessive, Detection of, by B. A. Margo, 302*
— Management, Small, Profitable, by M. H. Gotteres (Review), 409
Plasticity, Theory of, Problems of (Book), 560
Plastics Body for Petrol Tanker (AB Malmö Flygindustri), 569
— Glass-Reinforced (Trade Publication), 202
— High-Temperature, for Aircraft Use (Curtiss-Wright Corporation), 789
— Industry Education Fund, 39*
— Institute, Booklet on Careers in Plastics Industry, 39*
— Laboratory for Research on, 373
— for Motor-Car Bodies, Experimental Work on, 642
— Moulded (Trade Publication), 107
— Moulding Materials, "Styron 475" and "Styron 666" (Distrene, Ltd.), 676
— Reinforced, Fire Hose of, "Plastidry" (British Tyre & Rubber Co., Ltd.), 221
— and Rubber, Milling Machine for (Reed Brothers (Engineering), Ltd.), 477*
— Sales in Western Europe, Statistics of, 682
— Tooling (Book), 786
— Resins for, Research on, 852
"Plastidry" Fire Hose of Reinforced Plastics (British Tyre & Rubber Co., Ltd.), 221
Plates, Photographic, Air Gauge for Measuring Flatness of, 151
Plates, Photographic, Flatness or Straightness of, Apparatus for Testing, 510*
— Steel, Fabrication of, 705*
— Bending Rolls. See *Machine Tools*
Plating, Electro. See *Electro*
Platinum Resistance Pyrometers. See *Pyrometers*
Plenty & Son, Ltd., "Handipump" Hand Pump (Trade Publication), 786
Plesman, A., Memorial Lecture on Development and Future of Turbine Engines for Airline Aircraft, by J. D. Pearson, 261, 390*
Plessey Co., Ltd., 100-watt, Heavy-Duty Vibrator, 78
"Pliobond" Synthetic Adhesive Cement (Goodyear Tyre & Rubber Co. (Great Britain), Ltd.), 190
"Pluto" Nuclear Research Reactor at Harwell 266
Plywood, Adhesives for (Trade Publication), 529
Pneulec, Ltd., "Stationmaster" Automatic Moulding Machine for Sand Moulds, 352*
Pneumatic Tools. See *Machine Tools*
— See also *Air, Compressed; Air Compressor*
"p-n-p" Type Germanium-Alloy Junction Transistors (General Electric Co., Ltd.), 152
Poland, Town Planning and Building in, 879*
Polarised Light. See *Photo-Fluor*
Polarizers (U.K.), Ltd., "Fairchild Oscilloscope" Camera for Recording Cathode-Ray Oscilloscope Images, 128
Polarograph, Square-Wave (Mervyn Instruments), 115
Polarographic Research Laboratory, New, of Cambridge Instrument Co., Ltd., 795
Pole, Steel Tube, for Overhead Power Transmission Lines (Painter Brothers, Ltd. and British Insulated Callender's Construction Co., Ltd.), 285*
Political and Economic Planning, Survey on Recruitment of University Graduates, 648
Pollution, Atmospheric, by Power Stations, 447
Polyethylene, Production in Scotland by Union Carbide, Ltd., 162
Polymerisation, Radiation-Induced, 598
"Polyp" Machine Vice for Holding Irregular Shapes (Headland Engineering Developments, Ltd.), 770*
Polytechnic. See *Education*
Polytetrafluorethylene Plant of Imperial Chemical Industries, Ltd., at Hillhouse, Lancashire, Progress on, 103
— Properties and Applications of (Trade Publication), 881
Polyvinyl Chloride Extrusion Compounds, Flexible, Specification, 238
— Unplasticised (Trade Publication), 529
Pontop Pike Television Station, Opening of, 790
"Popular" Ford, Production Moved to Doncaster, 283
Porges, F., on Diplomas in Technology, 167. See 127. See also 97
Port Working, Introduction to (Book), 657
Portable Engine. See *Engine*
— Machine Tools. See *Machine Tools*
Porter, E. W., the Late, 263
Porter, L. C., on Reliability of Imperial Standards, 718
Portland Cement. See *Cement*
— Training College for the Disabled, Training in Engineering Work, 620*
Portsmouth College of Technology, Engineering Courses at, 365. See *Letters*, 445
Positioning Equipment, "Twiner-Aronson," for Manipulating Large Components during Welding (D. Ross & Partners, Ltd.), 307*
Post Office, Annual Report, 131
— Employees, Wage Awards, 32, 224
— Engineering Developments, Discussion on Post Office and Telegraph (Money) Bill in House of Commons, 710
— Extensions to Rugby Radio Station, 164*
— Telephones, Waiting List for, 619
Postans, Ltd., Use of Ultrasonic Vibrations for Protection of Ships' Hulls Against Barnacles, 416
Potters Bar Railway Station, Reconstruction of, 830*
Potter's Insulations, Ltd., Slide Rules for Heat Calculations, 430
Powders, Fluorescent, Photometer for Measuring Luminance of (General Electric Co., Ltd.), 118*
Powell Duffryn, Ltd., Annual Report, 322
Power Convention, British Electrical. See *Electrical Power Convention, British*
— Development, United Kingdom, Place of Nuclear Energy in, 805
— Electrical, Radioisotopes as Auxiliary Source of, 419*
Power, F. D., the Late, 70
Power Gas Corporation, Ltd., "Segas" Process for Production of Gas from Oils and Tar (Trade Publication), 594
— Hammer. See *Hammer under Machine Tools*
— and Irrigation Potential of Jordan Basin, by P. H. Doron, 46*
— Nuclear, British Co-operation in Production of, 3
— in Canada, Forecast of Development and Costs, 198
— Contributions to United Kingdom and World Energy Resources up to 1975 265*
— Electricity from, Exhibition on, 72
— Industry, Health and Safety in, 836
— for Marine Propulsion, 859*
— Programme of, Government White Paper on, 3
— Projects Throughout the World, Comparative Survey of, 483, 490*
— in United States, Economics of, 232, 282*
— Use of Research Reactors in Development of, 837
— Plant, Hydraulic, Cast-Iron Waterwheels of John Smeaton, 847
Power Plant, Hydro-Electric, Additions to Tummel Valley Scheme, 518
— Hydro-Electric, British, for Los Peares, Spain, Station, 458*
— Hydro-Electric, Castet, of French Railways, Fluid-Cooled Monobloc Turbo-Alternator at, 628*
— Hydro-Electric, Dead Sea Scheme, 47*
— Hydro-Electric, Glockner-Kaprun High-Head Scheme in Austrian Tyrol, 16*
— Hydro-Electric, Low-Head, Developments in, by M. Gariel, 627*
— Hydro-Electric, Opposition to Construction in Nature Reserves of, Conference on, 875
— Hydro-Electric, in Scotland, Questions in House of Commons on, 871
— Steam (Trade Publication), 107
— Works, Management of, by R. H. Emerick (Review), 817
— See also *Power Stations; Power, Water; Substations*
— Press. See *Machine Tools*
— Station, Electric (Book), 818
— Electric, Agecroft "B," Extensions to, 158
— Electric, Annual Report of British Electricity Authority, 447. See 441
— Electric, Atmospheric Pollution by, 447
— Electric, 120-MW, Bold "A," 514*. See *Erratum*, 816
— Electric, British, Thermal Efficiencies of, 39
— Electric, Castle Donington Substation, Overhead Line for Energisation of, 87*
— Electric, Catalagzi, Turkey, Extension of, 581
— Electric, 240-MW, Chadderton "B," 111*
— Electric, Chemistry in (Book), 754
— Electric, Dhekelia, Cyprus, 28-MW, 312*
— Electric, 240-MW, Drakelow, 663*
— Electric, East Yelland, Unified Boiler Control System at, 546*
— Electric, Exploitation of Water Sources using Small Reservoirs to Even the Over-All Flow, 537
— Electric, Hemweg, Amsterdam, 503
— Electric, 1,000-MW, High Marnham, Commencement of Construction of, 573
— Electric, Little Barford, Extensions to, 102
— Electric, Los Peares, Spain, 458*
— Electric, Motors for (Trade Publication) 297
— Electric, North Point "B," for Hong Kong, 547
— Electric, Operating Experiences of Slag-Tap Methods of Firing at, 447
— Electric, Pulverised Fuel Ash from, Possible Uses of, 683
— Electric, 240-MW, Rugeley "A," Proposed, 158
— Electric, South Denes, Pre-Drainage of Site of, Wellpoint System for, 730*
— Electric, 360-MW, Staythorpe "B," Proposed Construction of, 53
— Electric, Steam from, Use by British Celanese, Ltd., 323
— Electric, Tabgha, Israel, Construction of, 47
— Electric, Tavazzano, Italy, Use of Natural Gas at, 702*
— Electric, Thermal Efficiency of, Research on, 84
— Electric, Toxic Effluents from, 447
— Electric, Underground, Fionnay, Switzerland, 36
— Gas-Turbine, 10,000-kW, at National Gas Turbine Establishment, 506
— Hydro-Electric, Kaprun, in Austrian Tyrol, 16*
— Hydro-Electric, at Mulvin, Plans for, 24
— Hydro-Electric, at Sion Mills, Plans for, 24
— Nuclear, Acquisition of First Two Sites by Central Electricity Authority, 628
— Nuclear, Calder Hall, 265*; Model of, 300*; Construction Work at, 355*, 431*; Engineering Techniques and Construction of, 740*
— Nuclear, Progress of, Questions in House of Commons on, 678
— Nuclear, Siting of, 487
— Nuclear, in U.S.S.R., the First, 228, 233*, 300
— Steam, Used for Equalising Water Power, Method of Operation of, 537
— Thermal, Operating on both Coal and Heavy Oil, Possibilities of, 447
— See also *Power Plants; Substations*
— Supply, Electric, Annual Report of British Electricity Authority, 447. See 441
— Electric, in Cyprus, 312*
— Electric, Electricity Undertakings of World (Book), 786
— Electric, Exchanges of Electrical Energy between Interconnected European Countries, 442
— Electric, Generation of Electricity in Britain, 43
— Electric, in Holland, 502*
— Electric, Industry, as a Career, 75
— Electric, in Turkey, 581
— Report of Electricity Sub-Committee of Joint Consultative Committee, 195
— Transfer and Frequency Regulation between Interconnected Systems, Problems of, 537
— Transmission, Overhead Lines, Aluminium Conductors for (Trade Publication), 721
— Overhead Lines, 300-kV, Carrier-Current Telephone System from Kemano to Kitimat, 158
— Overhead Lines, Compressors and Jointing Equipment for (Trade Publication), 267
— Overhead Lines, Costs of, Questions in House of Commons on, 743
— Overhead Lines, 66-kV, in Cyprus, 312*
— Overhead Lines, Hydraulic Compressor for Jointing (Tate Brothers, Ltd.), 466
— Overhead Lines, Keadby-Monk Fryston Line, Completion of, 54*. See *Erratum*, 252

- Power Transmission, Overhead Lines, 5½-Mile Line for Energisation of Castle Donington Sub-station, 87*
- Overhead Lines, Steel Tube Pole for (Painter Brothers, Ltd., and British Insulated Callender's Construction Co., Ltd.), 285*
- See also *Hydraulic; Power Plants, Hydro-Electric; Turbines, Hydraulic*
- Use in Europe, O.E.E.C. Report on, 3
- Wind, in Haiti, Survey of Possible Uses of, 264
- "PR21" 31-ton Capacity Dumper Truck (Caterpillar Tractor Co.), 517*
- Pratt, F., & Co., Ltd., "Auto-Grip" Driving Dog for Lathes, 118*
- Pratt & Whitney Aircraft, Test Chamber for Aeroplane Engines under High-Altitude Conditions, 822*
- Pre-Drainage of South Denes Power Station Site, Wellpoint System for, 730*
- Precipitation, Electrostatic, Pilot Plant for Research on, 84*
- Precipitators, Electrostatic, for Drakelow Power Station (Sturtevant Engineering Co., Ltd.), 666
- "Precipitron" Electrostatic Air Cleaner (Trade Publication), 107
- Precision Heating, Ltd., Speed Controller for Electric Motor (Trade Publication), 267
- Preece, Cardew & Rider, Electrification Scheme for Cyprus, 312*
- Preservative, "Tanalith C." for Protection of Timber (Hickson's Timber Impregnation Co. (G.B.), Ltd.), 732
- Presidential Address to British Electrical Power Convention by Sir H. Railing, on Electricity and the Future, 6
- to Geneva Conference on Peaceful Uses of Atomic Energy, by Dr. H. J. Rhabha, 234
- to Institute of Transport, by P. Masfield, on Statistical Analysis of Capital Structure, Employment, Operating Costs and Revenue of British Transport Industry, 554
- to Institution of Civil Engineers, by W. K. Wallace, on Construction of London-Birmingham Railway, the First Trunk Line, 622
- to Institution of Electrical Engineers, by Sir G. Nelson, on Prospects and Responsibilities of Electrical Engineers in Contributing to Future Prosperity of Mankind, 526, 528
- to Institution of Mechanical Engineers, by P. L. Jones, on Review of Shipbuilding Industry, 590
- to Section G (Engineering) of British Association, by Dr. S. F. Dorey, on Influence of Engineer on Sea Transport and Trade, 327, 331
- to Section J (Psychology) of British Association, by A. Rodger, on Effective Use of Manpower, 360, 586
- Pressed Steel Co., Ltd., Automatic Defrosting System for Refrigerating Plant, 92; Expansion Plans for Motor-Car Components Manufacture, 589
- Pressure-Controller, Gas (Trade Publication) 786
- Pressure, High, Physical Properties of Matter Under, 789*
- Indicator, Trolley-Mounted, for Internal-Combustion Engines and Compressors (Southern Instruments, Ltd.), 462*
- Recorder, "Commander," for Three Pressures Simultaneously (G. Kent, Ltd.), 116*
- Vessel Exhibits at Engineering Exhibition (G. A. Harvey & Co., Ltd.), 277
- Fibreglass, Resin-Impregnated, for Use in Aircraft Pneumatic Systems (Rotax, Ltd., Dunlop Rubber Co., Ltd., and W. Kidde Co., Ltd.), 474*
- High-Strength, Application of "Unionmelt" Welding Technique to (Quasi-Arc, Ltd.), 868*
- Reactor, for Calder Hall (Whessoe, Ltd.), 835
- Preston Works of English Electric Co., Ltd., Building of Electric and Diesel-Electric Locomotives at, 120*
- Pre-Stressed Concrete Co., Ltd., "Intergrid" System of Building Construction, 154*
- Prestressed Concrete Equipment Co., Ltd., Factory and Workshops of Matthews & Mumby, Ltd., 186*
- Concrete. See *Concrete, Prestressed*
- Prices, Coal, High, Protest at, 160
- Increase in, Engineering Industries Association Statement on, 258
- Price, R. A., on Design, Development, Production and Servicing of Helicopter Rotor Blades, 389
- Prices, Retail, Index of, 160
- Priest, H., Chemical Engineering Co., Ltd., Chemical Engineering Technical Charts (Trade Publication), 297
- Primary Battery. See *Cell under Electric Printing Industry, Wage Disputes in, 360*
- Wage Increases and Work Study in, 552
- Packaging and Allied Trades Research Association, Moire Technique for Measuring Strains in Sheet Materials, 116*
- Prior Stokers, Ltd., Automatic Oil Burner (Trade Publication), 626
- Prisoners, After-Care of, Report of Council of Central After-Care Association, 872
- Process Control, Economics of, 631
- System Design, Introduction to, by A. J. Young (Review), 238
- Industries, Automatic Control in, Conference on, 552
- Automatic Control in, Conference on, 631
- Automatic Control in, Joint Conference of Institution of Chemical Engineers and Society of Instrument Technology, Programme, 133
- and Materials, Revolutionary Developments in, Discussion on, 694
- Plant, Dynamics of, 631
- Producteurs et Distributeurs d'Énergie Electrique, Union Internationale de. See *Unipede*
- Production, Census of, of Northern Ireland, Report of, 99
- Engineers, Institution of: Research Committee Report on Utilisation of Metals, 290; Automatic Factory, Conference on, Report of (Book), 408; Annual Dinner, 559; Fuel Prospects and Efficiency, by Dr. G. H. Daniels, 843
- Engineering Research Association, Programme of Research on Automation, 523
- Index of, 64
- Industrial, Index of, 778
- Statistics, 64, 482, 650
- Trends in, 874
- Production News, New House Journal of Drummond-Asquith (Sales), Ltd., 215
- Promotion, Easy-Reading Micrometer, 249
- Seasonal Decline in, 322
- Systems, Some Contrasting Socio-Technical, 695
- Productivity Agency, European, Work of, 444
- Cinema Film on, 695
- in Farming, Review of, British Productivity Council Pamphlet, 40
- in the Firm, 401
- in Heavy Motor-Vehicle Industry, Increase in, 714
- in High-Pressure Die Casting Industry, Report on, 746
- in Motor-Car Components Industry, 524
- on Railways, by Sir B. Robertson, 559
- Standardisation as Aid to, 260
- Statistics, 64, 482, 650
- for Northern Ireland, Proposed Issue by Northern Ireland Development Council, 714
- in Steel Industry, Increase in, 584
- and Welding, Advanced Courses on, British Welding Research Association, 528
- Professional Engineers, National Association of, A Professional Look at the Engineer in Industry, 699. See *LETTER, 751*
- Profiling Machine. See *Machine Tools*
- Profit Sharing. See *Labour*
- Programmed Radar Simulator for Training Observers (Solartron Electronic Group, Ltd.), 126
- Propellers Aerial. See *Aeronautics*
- Marine, Five-Bladed Solid, "Novoston" (J. Stone & Co. (Deptford), Ltd.), 802
- Models as Aid to Design of, 334*
- Torsional Vibration in, 132. See *LETTERS, 69, 230, 325*. See also vol. 179
- Propulsion of Ships. See *Marine Propulsion; Engines; Turbines; Propellers*
- Protective Equipment, Use and Abuse of, Conference on, Arrangements for, 253
- "Protecto-seal" Pressure-Balanced Relief Valve (Crosby Valve & Engineering Co., Ltd.), 217*
- "Proteus-Ambassador" Aircraft, Icing Tests on, Use of Television for Examination of (Bristol Aeroplane Co., Ltd.), 319*
- Prototypes, G. Wailes & Co., Ltd., as Builders of, 843
- Trials, Method of Reducing Costs of When Testing Complicated Machines, 723*. See *LETTERS, 783, 813*
- Proudlove, J. A., on Motorways, 403, 410*. See *LETTER, 525*
- Prus-Chacinski, T. M., Model of Helical Flow in Rivers, 53
- "PS.60" Hot Air Reducing Valves for Aircraft (Hymatic Engineering Co., Ltd.), 613*
- P.S.C. Equipment, Ltd., "One-Wire System" of Prestressing Concrete, 190*
- Public Health Engineers, Institution of, Change of Name from Institution of Sanitary Engineers, 183, 201
- Engineering Courses, Attendance at, 261
- Lighting Engineers, Association of: Folkestone Conference, Programme, 316
- Publications, Trade, 9, 41, 107, 137, 169, 202, 267, 297, 330, 409, 489, 529, 594, 626, 690, 721, 755, 786, 850, 881
- Pullers for Removing Wheels and Bearings, "Kukko" (E. F. Allichin & Co.), 88
- Pulley Systems, Flexible Wire Ropes for, by J. F. Sutton, 44*
- Variable-Speed, with Reduced Belt Wear, "Johnson" (L. J. Gear Co., Ltd.), 318*
- Pulsometer Engineering Co., Ltd., "McLeod" Gauge for Testing Vacuum Pumps, 516
- Pulverised Coal Burning Systems for Gas Turbines, Potentialities of, 239*
- Fired furnace at International Flame Research Station, 728*
- Fuel Ash, Possible Uses of, 683
- Pumps, Air. See *Air Compressors*
- Centrifugal, Corrosion-Resistant (Worthington-Simpson, Ltd.), 805
- 4-in., Diesel-Driven (A. Lyon & Co. (Engineers), Ltd.), 251*
- Flow in, Research on, 596*
- for Liquids and Gases (Book), 850
- and other Rotodynamic (Book), 330
- Vertical, Cargo (Hayward Tyler & Co., Ltd.), 305*
- Vertical, with Constant-Running Primer (Hamworthy Engineering, Ltd.), 426*
- Circulating, Glandless, for Atomic Energy Applications (Hayward Tyler & Co., Ltd.), 433*
- Diaphragm, "Alcon," for Sludge (A. Lyon & Co. (Engineers), Ltd.), 576*
- Displacement, Paddle, for Viscous Fluids (Varley Pumps & Engineering, Ltd.), 352*
- Fuel-Injection, of Diesel Engines, "Calimaster" Equipment for Calibrating and Testing of (Merlin Engineering Co., Ltd.), 274*. See *Erratum, 399*
- Hand, "Handipump" (Trade Publication), 786
- High-Head, "GH4," for Mines (Megator Pumps & Compressors, Ltd.), 24*
- Hot-Water Accelerating, for Central Heating Systems (Sealed Motor Construction Co., Ltd.), 352*
- Hydraulic, Air-Driven, "Airhydropump Junior" (C. S. Madan & Co., Ltd.), 548*
- Induction, Annular Linear, for Liquid Sodium (British Thomson-Houston Co., Ltd.), 354
- Linear, Float, for Liquid Metals (English Electric Co., Ltd.), 431*
- Pumps, Lubricating, Automatic, "Falling-Drop" (Tecalmit, Ltd.), 422
- "Impulse," for Heavy-Duty Machinery (Tecalmit, Ltd.), 422*
- Range of, 75 to 300 gallons per minute (Megator Pumps & Compressors, Ltd.), 152*
- Sewage, Vertical, Motor-Driven, Mixed-Flow (W. H. Allen, Sons & Co., Ltd.), 276*
- Slush and Diesel Engine Unit for Oil Drilling Rigs (Oil Well Engineering Co., Ltd., and English Electric Co., Ltd.), 581*
- Suds, Gear-Type (Trade Publication), 594
- Vacuum, and Compressors (Trade Publication), 594
- "McLeod" Gauge for Testing (Pulsometer Engineering Co., Ltd.), 516
- and Rotary Compressors (Trade Publication), 9
- Pumping Installations, Gas, for Bromley-by-Bow Gasworks (British Thomson-Houston Co., Ltd.), 669
- Purification of Sewage. See *Sewage*
- of Water. See *Water*
- Purse, F. W., the Late, 816
- Putman, J. L., on Developments in Thickness Gauges and Allied Instruments, 292; on Application of Radioisotopes to Leakage and Hydraulic Problems, 292; on Use and Disposal of Radioactive Materials: Review of Papers Presented at Geneva Conference on Peaceful Uses of Atomic Energy, 597
- Pye, Ltd., Television Transmission from Helicopter, 350; "Ranger" Radio-Telephone System for Dashboard Mounting in Transport Vehicles, 518*
- Pyrene Co., Ltd., "E.D.-Hol" System for Extinction of Fires in Ships using Inert Gas from Oil Combustion, 544*; Phosphating Process for Corrosion and Wear Protection (Trade Publication), 594
- Pyrometer Control Laboratory at Garringtons, Ltd., 612*
- Suction, for Measuring Gas Temperatures in Gas Turbines. Research on, 541
- See also *Thermocouples; Thermometry*

Q

- QUALTERS & SMITH BROTHERS, LTD., Heavy-Duty Hacksaw (Trade Publication), 786
- Quantometer, Production-Control, at Rotherham Works of Steel, Peech & Tozer, Ltd. (Applied Research Laboratories), 28
- Quarries and Mines, Report of Chief Inspector, 1953, 15
- Quasi-Arc Co., Ltd., Spring-Loaded Reel for Carrying Electrode Wire, 149*; Arc Welding (Trade Publication), 202; 400-amp. Diesel-Driven Welding Set, 278*; "Sigma" Process for Shielded-Inert-Gas Metal-Arc Welding, 278*; Co-operation with Fusarc Co., Ltd., in Production of Electric Welding Equipment, 291; Arrangement of Technical Training Courses for Apprentices, 528; Application of "Unionmelt" Welding Technique to High-Strength Pressure Vessels, 868*; Reclamation of Large Rolling-Mill Bearings by Welding, 894
- "Quo-Vadis" Radar Equipment (Marconi International Marine Communication Co., Ltd.), 734*
- Q.V.F., Ltd., Immersion Heat Exchanger for Chemical Laboratories (Trade Publication), 107; Glass Sink Traps for Laboratory Use, 187*

R

- RADAR, Double-Modulated F.M., Study of (Book), 721
- Equipment for Aviation (Trade Publication), 529
- "Quo-Vadis" (Marconi International Marine Communication Co., Ltd.), 734*
- Ground, "MR75" (Decca Radar, Ltd.), 472
- Services, Modification for Meteorological Use (Winston Electronics, Ltd.), 699
- Simulator, Programmed, for Training Observers (Solartron Electronic Group, Ltd.), 126
- Tactical, for Training Observers (Solartron Electronic Group, Ltd.), 126
- for Small Ships, Trials of, Questions in House of Commons on, 903
- Tube, High-Brightness, for High Altitudes (Mullard, Ltd.), 473
- Radiation, Infra-Red, Electronic Relay for Detecting, 646*
- Ionising, for Preservation of Food, Problems of (Book), 79
- from Radioactive Materials, Direct Conversion into Electrical Energy of, 419*
- Radio Aerial Exhibits at National Radio and Television Exhibition, 296
- Astronomy, Offer by Mullard, Ltd., to Cambridge University for Research on, 223
- Communication on Locomotives, 142
- Radio Heaters, Ltd., "Radyne" Bench Induction Heater, 426*
- Marine, Newcastle Service Depot for (Marconi International Marine Communication Co., Ltd.), 517*
- Show, Earl's Court, Strike of Electricians at, 288, 320
- Station, Rugby, of Post Office, 164*
- Telephone, Combined Amplitude and Frequency-Modulated (Redifon, Ltd.), 279*
- System, Mobile, "Ranger," for Dashboard Mounting in Transport Vehicles (Pye, Ltd.), 518*
- Telephony, Short-Range Transmitter-Receiver (Mullard, Ltd.), 736
- and Television Exhibition, National, Exhibits at, 296
- Radio Transmitters at Post Office Radio Station at Rugby (Marconi's Wireless Telegraph Co., Ltd.), 164*
- See also *Telephony, Wireless; Television; Radar Valves, Thermionic*
- Radioactive Materials, Thickness Gauges Using, Developments in, 292
- Use and Disposal of, Review of Papers Presented at Geneva Conference on Peaceful Uses of Atomic Energy, 597
- Waste, Filtration of Water for Removal of, 14*
- Radiographic Examination of Fusion-Welded Joints, Specification, 105
- Radiography, Gamma, "Pantatron" Units for (Teleflex Products, Ltd.), 427*
- Industrial, "Fedrex" X-Ray Equipment for (Trade Publication), 594
- "Pantatron III" for Examination of Welds (Teleflex Pantatron, Ltd.), 434*
- Russian Apparatus for, 598*
- Isotope, Instruments for (Gamma-Rays, Ltd.), 398*. See *LETTER, 445*
- Radioisotopes, Application to Leakage Detection and Hydraulic Problems, 292
- as Auxiliary Source of Electrical Power, 419*
- in Industry, Recent Developments in Use of, 292
- Radiology, Glossary of Terms used in, Specification, 9
- Radiotelephony, Short Range Transmitter-Receiver for (Mullard, Ltd.), 736
- Radiotherapy, Use of Caesium-137 for, 37. See also vol. 179
- Radiovisor Parent, Ltd., Smoke Density-Measuring Equipment for Smoke Control in Boilers, 222*
- Radius Fixture with Interchangeable Mandrels "Endia," for Grinding Wheels (Engineering Diamonds, Ltd.), 119*
- "Radyne" Bench Induction Heater (Radio Heaters, Ltd.), 426*
- Railcars. See *Carriages, Railway*
- Railing, Sir H., on Electricity and the Future, 6
- Railroad. See *Railways*
- Railway Accidents. See *Accidents*
- Branch Line, Uneconomic, Closing of, Questions in House of Commons on, 903
- Breakdown Organisation and Equipment in Use on London Transport System, 865
- Bridge. See *Bridge*
- British. See *British Railways*
- Carriage. See *Carriage*
- Civil Engineering, Soil Mechanics in, 384*. See *LETTERS, 655*
- Electric, Aluminium Conductors for Overhead Systems of (Trade Publication), 721
- Engineering, by T. Ferguson (Review), 753
- Traction Engineering, by E. A. Binney (Review), 753
- Electrification of, Wagon-Mounted Equipment for Earth-Boring, Mast Erection and Concreting (British Insulated Callender's Construction Co., Ltd.), 358*
- Engineers, by O. S. Nock (Review), 169
- Euston to Manchester, Proposed Electrification of, Questions in House of Commons on, 775
- Freight Charges, Questions in House of Commons on, 839
- French, Brochure on Post-War Development of, 261
- German, Steam Railcars on (Book), 560
- Indian, 75-ton Breakdown Crane for (Cowans, Sheldon & Co., Ltd.), 706*
- Irish, 550-h.p. Bo-Bo and 1,200-h.p. Co-Co Diesel-Electric Locomotives for (Metropolitan Vickers Electrical Co., Ltd.), 185*
- Liverpool Street to Enfield Town, Electrification of, Questions in House of Commons on, 710
- Locomotive. See *Locomotive*
- London-Birmingham, the First Trunk Line, Construction of, 622
- Monorail, Proposal for Lines from Airports to City Centres, 554; from London Airport, Questions in House of Commons on, 743
- Motor Carriage. See *Carriage*
- New Zealand Government, 240-h.p. Diesel-Mechanical Shunting Locomotives for, 676*
- Overhead, Liverpool, Future of, Questions in House of Commons on, 903
- Productivity on, by Sir B. Robertson, 559
- Rails, Flat-Bottom, Specification, 818
- Railway Review, Railway Strike Not a Victory, 32; Demand for Improved Wages and Conditions for Railway Engineering Staffs, 288
- Rhodesia, Narrow-Gauge Diesel-Electric Locomotive for, 120*
- Rolling Stock, Helical and Volute Springs for, Specification, 818
- Stock. See also *Carriages; Locomotives; Wagons*
- Safety Device for Locomotives (Oerlikon Engineering Co.), 218*. See 195
- Scottish, Suburban, Electrification of, Questions in House of Commons on, 807
- Shunting Devices other than Locomotives, 144*
- Signalling. See *Signalling*
- Spanish National, 3,600-h.p., 3,000-volt, Direct-Current Electric Locomotive for, 120*
- Station, Potters Bar, Reconstruction of, 830*
- Strike, Views on, 32
- Sudan, Oil-Burning Locomotives for (North British Locomotive Co., Ltd.), 59*
- Track Ballast, Cleaning Plant for, 247*
- Traction, 750 to 2,000 h.p. Diesel Engines for (Davey, Paxman & Co., Ltd.), 148*
- Equipment, Large Orders for Private Builders from British Transport Commission, 746
- Tube. See *Underground; London Transport Executive*
- Underground. See *Underground; London Transport Executive*

- Railway, United States, Influence of Modern Transport Trends on Equipment of (Book), 267
- Wagons. See *Wagons*
- Workshops, Use of, Questions in House of Commons on, 903
- Railwaymen, National Union of, Railway Strike not a Victory, 32; Wage Increases for Other than Enginemens, 32; Wage Claims by, 66, 808; Demand for Improved Wages and Conditions for Railway Employees, 288, 320; Rejection of Wage Claims by British Transport Commission, 840
- Ramp, Unloading, Aluminium-Alloy, for Tipping Lorries (F. Braby & Co., Ltd.), 191*
- "Ranger" Mobile Radio-Telephone System for Dashboard Mounting in Transport Vehicles (Pye, Ltd.), 518*
- Ransome & Marles Bearing Co., Ltd., Ball and Roller Bearings (Trade Publication), 409
- Ransomes & Rapier, Ltd., Concrete Mixer (Trade Publication), 850; Mobile Cranes (Trade Publication), 850
- Ransomes, Sims & Jefferies, Ltd., Battery-Driven Fork-Lift Trucks (Trade Publication), 169; Electric Trucks and Cranes (Trade Publication), 169; Battery-Operated Fork-Lift Truck (Trade Publication), 626
- Rappaport, P., on Direct Conversion of Radiation into Electrical Energy, 419*
- Ratemeter, Field, for Tracing Radioactive Materials (Ericsson Telephones, Ltd.), 434*
- Ravenscraig Works of Colvilles, Ltd., Construction of New Iron and Steel Plant, 651
- Rays. See *X-Rays*
- "Raymond" Roller Mills (Trade Publication), 409
- "RB.109" Propeller-Turbine Aeroplane Engine, Development of (Rolls-Royce Ltd.), 390*
- Reactor, Gas-Cooled, for Marine Propulsion, 859*
- Nuclear, Aqueous Homogeneous, 282*
- Boiling-Water, 282*
- Boiling Water Power, Prototype, Design and Operating Experience of, 228
- at Calder Hall Power Station, 740*
- Capacities of, Questions in House of Commons on, 775
- Design and Operation of, 561
- "Dido" High-Flux Heavy-Water Research, 804*, 836*
- Disposal of Wastes from, 597
- "E.443", Control System for (H. M. Hobson, Ltd.), 177*
- "E.443", Experimental Facilities of, 235
- "E.443", Model of, 299*
- Experimental, Homogeneous, 653
- Experimental Light-Water, "Leo", 653
- Experimental, at United Kingdom Atomic Energy Authority, 804*
- Fast, at Dounreay, 280*, 652*
- Fast-Breeder, 282*
- Fast Breeder, Dounreay, Progress in Construction of, 280*, 652*
- Model, for Demonstration of Production of Radioactive Isotopes, 301*
- "NRU" and "NRX", Canadian, Models, of, 299*
- Pressure Vessels for (Whessoe, Ltd.), 835
- Pressurised-Water, 282*
- Projects Throughout the World, Comparative Survey of, 483, 490*
- Projected, for United States, 301
- Research at Harwell, 266
- Research, "Swimming Pool," Model of (John Thompson, Ltd.), 354*. See 283*, 299*
- Research, Use in Nuclear Power Development of, 837
- Rod Control Mechanism for (Metropolitan-Vickers Electrical Co., Ltd.), 675
- Sodium-Graphite, 282*
- "Swimming Pool," "Cerenkov" Radiation from, 283*, 299*, 354*
- In United Kingdom Nuclear Power Programme, 265*
- United States Building Programme for, 232, 282*
- Uranium-Graphite, Thermal, Pressurised-Water Cooled, 228, 233*, 300
- "Zephyr," Model of, 300
- "Zeus," Model of, 300
- "Zeus" Uncooled Fast Research, 804*, 837*
- See also *Nuclear*
- Real and Virtual Work, Concepts of, Theory of, Structures, 139*
- Réalisations Ultrasoniques, Société Française de, "Aerosonic" Ultrasonic Flaw Detector for Inspection of Metal-to-Metal Bonding, 12*
- Record Changers, Repair of (Book), 818
- Recorder, Gas-Flow, "Arkon" (Walker Crossweller & Co., Ltd.), 733
- Indicators and Controllers (Trade Publication), 169
- Tape, Exhibits at National Radio and Television Exhibition, 296
- Recording Dynamometer. See *Dynamometer*
- Tape, Measures for Safeguarding when Transported by Air, 655
- Rectifiers. See *Electric*
- Redbourn Works of Richard Thomas & Baldwins, Ltd., Steelmaking at, 696
- Redhill Bodybuilding Industries, Ltd., Lorry Tipper with Aluminium-Alloy Body, 95
- Redifon, Ltd., Combined Amplitude and Frequency-Modulated Radio Telephone, 279*
- Rediworld, Ltd., "Boyce" Centre Gauge for Inside or Outside of Round Work, 549*
- Redpath Brown & Co., Ltd., Tower Structures for Keadby-Monk Fryston Line of 275-kV National Grid, 54*. See *Erratum*, 252
- Reduction Gears. See *Gears; Marine Propulsion*
- Reed Brothers (Engineering), Ltd., Milling Machine for Rubber and Plastics, 477*
- Reel, Spring-Loaded, for Electrode Wire (Quasi-Arc Co., Ltd.), 149*
- Reeve, Dr. L., on Development of Chemical Treatment of Low-Grade Iron Ores at Appleby Frodingham, 729
- Reeves, H. Q. A., the Late, 623
- Refinery, Oil, Altona, Australia, Completion of (Braun Transworld Corporation), 45
- Products of, Science of Petroleum, Vol. V (Book), 754
- Stanlow, Land Reclamation at, 207
- Sugar, Control Panel for (Costain-John Brown Instrumentation Division), 728*
- Refractory Linings (Trade Publication), 721
- Ware (Trade Publication), 881
- Refrigerating Plant, Automatic Defrosting System for (Pressed Steel Co., Ltd.), 92
- Refrigeration and Air-Conditioning System for "Lincoln" Motor Car, 642*
- Questions and Answers on (Book), 754
- Regenerative Furnace. See *Furnace*
- "Regent Springbok," Oil Tanker, Cathodic Protection Applied to, 608*
- Regional Advisory Council for Higher Technological Education, Courses for Foremen and Supervisors, 528
- Council for the Organisation of Further Education in the East Midlands, Conference on Technical Education, 221
- Regulator, "Electrotap," for Electrical Heating Apparatus (Stabilag Co., Ltd.), 469*
- Reheating Furnace. See *Furnace*
- Reinforced Concrete. See *Concrete*
- Relay. See under *Electric*
- Remote Control Desk for Mechanical Handling Installation (A. West & Co., Ltd.), 424*
- Remploy, Ltd., Financial Statement of, 744
- Rendel, Palmer & Tritton, Pre-Drainage of Site of South Denes Power Station, 730*
- Renold Chains, Ltd., Chain Drives (Trade Publication), 881
- Rensselaer Polytechnic Institute, Opening of Hartford Graduate Centre for Employees of United Aircraft Corporation, 555
- Rentrix, Ltd., System for Transmitting Information from Cash Registers to Central Control Unit, 87*
- Repeaters for Deep-Sea Telephone Cable, Precautions in Manufacture of, 228
- Report, Annual, Aeronautical Research Laboratories of Australian Department of Supply, 208
- Air Registration Board, 110
- Allen, E., & Co., Ltd., 130, 227
- of Astronomer Royal, 858
- British Broadcasting Corporation, 204
- British Cast Iron Research Association, 695
- British Electricity Authority, 447. See 441
- British European Airways, 291
- British Independent Air Transport Association, 779
- British Internal-Combustion Engine Research Association, 541
- British Standards Institution, 717
- British Transport Commission, 33
- Brown, J., & Co., Ltd., 402
- of Central Board of Irrigation, India, 1950 (Book), 330
- Chief Inspector of Mines and Quarries, 1953, 15
- Cohen, G., Sons & Co., Ltd., 362
- Colombo Plan Organisation, 811
- Commonwealth Scientific and Industrial Research Organisation, 763
- Council of British Manufacturers of Petroleum Equipment, 194
- Courtaulds, Ltd., 99
- Crossley Brothers, Ltd., 618
- Demag, 258
- Dowty Group, Ltd., 618
- Doxford, W., & Sons, Ltd., 650
- on Federation of British Industries Scheme for Oversea Scholarships, 258
- Finance Corporation for Industry, 162
- Gas Council, 587
- General Electric Co., Ltd., 163, 483
- Gloucester Railway Carriage & Wagon Co., Ltd., 522
- Head Wrightson & Co., Ltd., 3
- Lucas, J. (Industries), Ltd., 842
- Mechanical Engineering Research Board, 4
- Metal Box Co., Ltd., 130
- Ministry of Labour and National Service, 135
- National Coal Board, 3
- Pametrada, 101
- Post Office, 131
- Powell Duffryn, Ltd., 322
- Rhodesian Anglo-American, Ltd., 746
- Richardsons, Westgarth & Co., Ltd., 66
- Rolls-Royce Ltd., 67
- Rootes Motors, Ltd., 683
- Rural Industries Bureau, 747
- Ruston & Hornsby, Ltd., 66
- Simms Motor Units, Ltd., 227
- Simon Carves, Ltd., 131
- Smith, S., & Sons (England), Ltd., 875
- Société Nationale de Constructions Aéronautiques du Sud-Ouest, 130
- Thompson, J. Ltd., 3, 131
- Thornycroft, J. I., & Co., Ltd., 650
- Tube Investments, Ltd., 715
- United Kingdom Atomic Energy Authority, 651, 652*
- Ward, T. W., Ltd., 650
- Wickman, Ltd., 259
- of Australian Manufacturing Industry, Expansion of, 778
- of Census of Production of Northern Ireland, 99
- of Chief Inspector of Factories, 1954, 872
- of Committee on Scientific Manpower, 745
- of Conference on Automatic Factory (Book), 408
- on Co-ownership in Industry, 840
- of Council of Central After-Care Association, 872
- on Economic Conditions in France, 779
- on Economic Conditions in Germany, 810
- Report, Electricity Sub-Committee of Joint Consultative Committee, 195
- on European Steel Pipe and Tube Industry, 226
- on High-Pressure Die Casting, 746
- of 38th International Labour Conference, 840
- on Methane and Natural Gas (Book), 818
- Monopolies Commission, on Supply and Export of Wrought Copper and Copper Alloys, 362
- of 40th National Conference on Weights and Measures, U.S. National Bureau of Standards, 880
- of National Insurance Advisory Committee, 712
- Nuffield Foundation, on Ageing in Industry, 744
- O.E.E.C. See *Organisation for European Economic Co-operation*
- on Painting of Structural Steelwork, 522
- on Recruitment of Scientists and Engineers by Engineering Industry, 745
- of Trade Mission to Austria, 874
- on Training of Managers in Iron and Steel Industry, 239
- of United Kingdom Trade Mission to Egypt, the Sudan and Ethiopia, 165. See *LETTER*, 230
- on Utilisation of Metals, Research Committee of Institution of Production Engineers, 290
- on Working of London Docks, 712
- See also *Board of Trade*
- Reporting Back, Booklet on European Managers' Visit to United States, 98
- Research, Applied, in Europe, Organisation of, Proceedings of O.E.E.C. Conference (Review), 409
- Association, Cast Iron, British. See *Cast Iron Research Association, British*
- Fruit and Vegetable Canning and Quick Freezing, "Hydron" Hydrostatic Steriliser for Canned Foods, 545*
- Hydromechanics, British. See *Hydromechanics Research Association, British*
- Internal-Combustion Engine, British. See *Engine, Internal-Combustion, Research Association, British*
- Iron and Steel, British. See *Iron and Steel Research Association, British*
- Printing, Packaging and Allied Trades. See *Printing, Packaging and Allied Trades Research Association*
- Production Engineering. See *Production Engineering Research Association*
- Welding, British. See *Welding Research Association, British*
- on Automation, Programme of Production Engineering Research Association, 523
- Automobile, Personal Experiences in, by Dr. C. G. Williams, 559
- Committee, Flame, International, New Pulverised-Fuel Fired Furnace at Experimental Station, Ijmuiden, Holland, 726*
- Council, Corrosion, United States, Formation of, 245
- Department of Furniture Development Council, Opening of New Premises for, 670
- Scientific and Industrial. See *Scientific and Industrial Research, Department of Research Engineers, Ltd., Profile Milling Machine with Electronic Programme Control, 769**
- Establishment, Atomic Energy. See *Atomic Energy Research Establishment*
- in Europe and America by Battelle Memorial Institute, 50*
- Forest Products, 1954 (Book), 369
- on Gas and Steam Turbines by Pametrada, 102
- on High-Altitude Rockets, United Kingdom Plans for, 223
- Hydraulics, 6th International Congress on, 453*, 863
- in United States, 1955 (Book), 594
- Industrial, Education and Training of Graduate Staff for (Book), 560
- Institute, Sondes Place (Trade Publication), 850
- Laboratory, Admiralty. See *Admiralty Research Laboratory*
- Aeronautical, Australian Department of Supply, Annual Report, 208
- of Central Electricity Authority, Extensions to, 84*
- Chemical. See *Chemical Research Laboratory*
- Fishery, Aboard Trawler "Sir William Hardy," 220*
- Mechanical Engineering. See *Mechanical Engineering Research*
- of N.V. tot Keuring van Electrotechnische Materialen (Kema), 502*
- of Paints Division of Imperial Chemical Industries, Ltd., at Slough, 114*
- Polarographic, New, of Cambridge Instrument Co., Ltd., Opening of, 795
- Road. See *Road Research Laboratory*
- Switchgear, of Belmos Co., Ltd., 671*
- Walsall, Proposed, of Tube Investment Group, 373
- Water Pollution. See *Water Pollution Research Laboratory*
- Manager in Industry, Role of, 776
- Operational, 694
- Organisation, Commonwealth Scientific and Industrial, 6th Annual Report, 763
- Pest Infestation, 1954 (Book), 267
- on Radio-Astronomy, Offer by Mullard, Ltd., to Cambridge University, 223
- Rubber (Trade Publication), 850
- Solar Energy, by F. Daniels and J. A. Duffie (Review), 449
- Station, Building. See *Building Research Station*
- Fuel. See *Fuel Research Station*
- London, of Gas Council, Extension of Laboratories at, 770*
- Techniques in Metallurgy, Development and Improvement of, 475
- Timber, High Wycombe Laboratory of Timber Development Association, 457
- See also *National Physical Laboratory*
- Reservoir, Hillfield Park, of Colne Valley Water Co., 575*
- Tekuma, for Irrigation and Flood Control in Southern Israel, 124*
- Resin, "R 18774," for Adhesive and Casting Material (Bakelite, Ltd.), 696
- Resistance, Electric. See *Electric*
- Welding. See *Welding*
- Resonator and "Donut," Glass, for Electron Synchrotron (General Electric Co., Ltd.), 176*
- Restrictive Practices, Pamphlet on, Federation of British Industries, 2
- Retail Prices, Index of, 160
- Retort House for Bromley-by-Bow Gasworks (West's Gas Improvement Co., Ltd.), 669
- Reuter, Dr., on German Industry
- Reavell & Co., Ltd., Reciprocating and Rotary Air Compressors, 310
- Review, Annual, of Esso Petroleum Co., Ltd., for 1954, 194
- Book, 9, 41, 73, 169, 201, 238, 266, 298, 329, 370, 409, 449, 489, 560, 593, 625, 657, 689, 720, 752, 785, 849, 882*
- Reyrolle, A., & Co., Ltd., Ring-Main Switch (Trade Publication), 107; Protective Systems for Electrical Networks (Trade Publication), 267; 5 to 35-h.p. Variable Speed Alternating-Current Electric Motors, 307; 11-kV Combined Ring-Main Switch and T-off Fuse Switch Unit for Outdoor Use, 307*; Switchgear for Bold "A" Power Station, 515*; Air-Blast Circuit Breakers and "Isomaker" Isolator and Making Switch for Drakelow Power Station, 667*; "Easigo" Metal-Clad Plugs and Sockets (Trade Publication), 765
- Rhine, River, Model of Delta of, 453
- Rhoden, A. K., the Late, 263
- Rhodesia, Inter-Employment of Africans and Europeans in, 224
- Railways, Narrow-Gauge Diesel-Electric Locomotive for, 120*
- Rhodesian Anglo-American, Ltd., Annual Report, 746
- Selection Trust, Agreement with Northern Rhodesia European Mineworkers Union on Training of Africans, 440
- Ribaud, Prof. G. M., on Work of International Flame Research Committee, 726*
- Ribbons, R. T., on Determination of Locomotive Sizes, 144
- Ricard, J., on Advantages and Problems of Shutting Down and Starting Up Turbo-Alternator Sets and Boilers, 537
- Ricardo & Co., Engineers (1927), Ltd., Piston Supercharger for Diesel Engines, 424*
- Richards, G., & Co., Ltd., 25 ft., High-Accuracy, Vertical Boring and Turning Mill, 22*
- Richardson, Gen. C. L., on Scientific Methods in the Army, 783. See 521
- Richardson, P., the Late, 623
- Richardsons, Westgarth & Co., Ltd., Annual Report, 66
- Richmond Works of Electronic Instruments, Ltd., 581*
- Rideau Canal, Unveiling of Memorial to Builder of, 715
- "Rijeka," Motorship, Measurements on, with Attempted Practical Application, 563
- "Riplingham," H.M. Inshore Minesweeper, Trial Trip of, 93
- Ritchie, C., Support System for Roof of Advancing Coal Face, 738*
- River Clyde, Vehicle and Passenger-Carrying Motor Vessel for Service on, 323; Proposed New Dry Dock for, 525
- Helical Flow in, Model of, 53
- Indus, Co-operation between India and Pakistan on Irrigation by Waters of, 35
- Jordan, Irrigation and Power Potential of, by P. H. Doron, 46*
- Maas, Model of Delta of, 453
- Nile, Report of United Kingdom Trade Mission, 165. See *LETTER*, 230; Aswan Dam, Contract Secured by Sir A. Gibb & Partners, 619
- Rhine, Model of Delta of, 453
- Severn, Model of, 53
- Thames, Survey of Estuary of, 15
- Trent Waterway, Development Plans for, 31
- Volta Project, Administration of, by J. H. Liverman, 485
- Water, Pollution by Synthetic Detergents, Research on, 14*
- Wear, Prospects of Shipbuilders on, 586
- Yarkon, Water Pipeline for Irrigation and Flood Control in the Negev, 124*
- Rivets, Aluminium-Alloy, Concave-Pointed, by J. D. Haddon, 79*. See *Erratum*, 127
- Headless, Use of Plastics Collar while Driving, 37*
- Oven, Electric Resistance, Two-Headed 16-kV (Holden & Hunt, Ltd.), 304*
- Rivington Moor Television Transmitting Station of I.T.A., 631
- "RJD/2" 16-s.h.p. Two-Cylinder Marine Diesel Engine with Closed-Circuit Cooling (J. I. Thornycroft & Co., Ltd.), 188*
- Road Accidents. See *Accidents*
- Asphalt Surface on Concrete Base, Recommendations of Asphalt Roads Association and Cement and Concrete Association, 179
- Bituminous Compositions, Design of (Book), 594
- British, Modernisation Plans for, Statement by Minister of Transport, 94*
- Compositions, Bituminous, Design of (Book), 594
- Concrete, in Belgium and Western Germany, Booklet on, 483
- in Belgium and Western Germany, Design and Performance of (Book), 594
- Filling and Sealing Materials for Joints in (Book), 202
- Construction, Capital Expenditure on, Questions in House of Commons on, 743
- Post-War, in Italy, 757*
- Design, Modern, Courses on, Arrangements for, 262
- Financing of, in Canada, Publication on *Taxes and Traffic*, 163
- Forms (Trade Publication), 20

- Road Haulage Trunk Services, Decision on Retention by British Transport Commission, 162
- Highway Engineering, Summer School, University of Birmingham, 157
- Modernisation, British, Plans for, Statement by Minister of Transport, 94*
- Housing-Estate, Using Granular Base Materials, Construction of (Book), 690
- London-Yorkshire Motorway, Plans for, 94*; Firm Proposals for, 443; Progress of Question in House of Commons, 710
- for Moriston Hydro-Electric Project, Construction of, 211
- Research Laboratory, Courses on Modern Road Design, Arrangements for, 262; Investigations on Non-Skid Road Surfaces, 710
- Scottish, Local Government (Street Works) (Scotland) Bill, 710
- Special, for Selected Traffic, 403, 410*
- Summer School in Highway Engineering at Birmingham University, 157
- St. Albans By-Pass, Details of, 830; Costs of, Questions in House of Commons on, 839
- Surfaces, Non-Skid, Investigations on, Questions in House of Commons on, 710
- Traffic Signs, New Regulations for, Weaknesses of, 555
- Trunk, London to Yorkshire, Progress of, Questions in House of Commons on, 710
- Vehicles and Railcars, Steam, in Germany (Book), 560
- Robbins, Prof., on Profit-Sharing Schemes, 584
- Roberts, L. C., on Safety of Oil-Fired Boiler Installations, 5. See also vol. 179
- Roberts, Sir S., the Late, 845
- Robertson, A., the Late, 591
- Robertson, Sir B., on Productivity on Railways, 559
- Robertson, T., on Analysing Railway Carriage Design, 621. See 481. See LETTER, 557
- Robertson, W. H. A., & Co., Ltd., Slitting Machine for Highly-Finished Stainless Steel, 542*
- Robinson's Engine, Use in Cornish Mines of, 748*. See 747
- Robinson, T., & Son, Ltd., Multi-Purpose Woodworking Machine, 216*; Flour-Milling Machinery (Trade Publication), 267; Woodworking Machines (Trade Publication), 267
- Rock Formations in Midlands, Magnetometer Survey of, Proposed, 302
- Rocke International Corporation, Harmonic Distortion Meter (Trade Publication), 267
- Rockwell, Ltd., "E.B." Weld Insert Process, 465*; 15.6-b.h.p. Lightweight Diesel-Driven Welding Equipment, 465*
- Rockwell Tests. See *Hardness under Tests (Materials)*
- Rocol, Ltd., Lubricants Containing Molybdenum Disulphide (Trade Publication), 594
- Rod Control Mechanism for Nuclear Reactors (Metropolitan-Vickers Electrical Co., Ltd.), 675
- Rodger, A., on Effective Use of Manpower, 360, 586
- Rodseth, F., on Education of Native Peoples to Industrial Life, 34
- Roe, A. V., & Co., Ltd., "Shackleton" Long-Range Reconnaissance Aircraft, 438
- Rogers, F. A., on Use of Electricity in Catering Industry, 78
- Rogers, F. H., the Late, 782
- Rogers, Lt.-Col. H. S., the Late, 196
- Rolls, Plate-Bending. See *Machine Tools*
- Roller Bearings. See *Bearings*
- Copper, for Textile Printing, 468
- Mills, "Raymond" (Trade Publication), 409
- Rolling Mill, for Bar and Rod, for S. Fox & Co., Ltd. (Brightside Foundry & Engineering Co., Ltd.), 190. See 163
- 34-in. Blooming and Slabbing (Brightside Foundry & Engineering Co., Ltd.), 286*
- Combination Two-High and Four-High (A. Mann's Engineering Co., Ltd.), 86*
- Continuous Strip, for Steel Company of Wales, Proposals for, 746
- Large Bearings in, Reclamation by Welding of (Quasi-Arc, Ltd.), 894
- Medium-strip, Continuous, for Rotherham Works of Steel, Peech & Tozer, Ltd. (Loewy Engineering Co., Ltd.), 39
- Plant, of Workington Iron & Steel Co., Ltd., Modernisation of, 518
- Reconstruction Scheme at Stocksbridge Works of S. Fox & Co., Ltd., 656
- Ring-, for Steel, Peech & Tozer, Ltd. (Loewy Engineering Co., Ltd.), 28*
- Rolls for (Trade Publication), 41
- Steel, Contract for, Award to Italy by Venezuelan Government, 443
- Steel Tube, for Canada, 131. See 290
- Two-High Reversing Roughing, for Austrian Steelworks (Blaw-Knox Co.), 243
- Stock (Trade Publication), 330
- and Locomotives, Indian Invitations for Tenders for, 522
- Railway, Helical and Volute Springs for, Specification, 818
- See also *Carriages; Locomotives; Wagons*
- and Wire-Drawing, Inhomogeneous Deformation in, 536
- Rolls-Royce Ltd., Annual Report, 67; "Flying Bedstead" Vertical Take-Off Aircraft, 71*; "Conway" By-Pass Jet Aeroplane Engine, 356*; "Dart" Propeller-Turbine Aeroplane Engine, Development of, 390*; "RB.109" Propeller-Turbine Aeroplane Engine, Development of, 390; Appointment of Mr. W. Straight, 552; "Tyne" Propeller-Turbine Aeroplane Engine, 672*; Strikes at Scottish Factories of, 744; End of Strikes at Scottish Factories of, 904
- Rolls-Royce Motor Car Engine, Cylinder Head with Six Inlet Ports for, 578*
- Röntgen Rays. See *X-Rays*
- Roof Construction, Method Based on Ferro-Cement Moulds for, 603
- Coverings and Flashings, Aluminium, "Noral" (Trade Publication), 721
- Roof Members, Pre-Cast Concrete, for Foundry Building of Sterling Metals, Ltd., 574*
- Shell, Concrete, Loading Tests on, 123*
- Slabs and Floors, "St. Paul's Cray" Type, for Paint Research Laboratory (Concrete Development Co., Ltd.), 114
- Support System for Advancing Coal Face (C. Ritchie), 738*
- Roofing, Aluminium-Foil (Trade Publication), 529
- Materials, Flexible, Waterproof (Trade Publication), 330
- Rootes, Ltd., Price Increases on New Motor Cars, 443; Annual Report, 683
- Rootes, Sir W., on Export Drive to Dollar Account Countries, 685. See 681
- Rope, Fibre, with "Viking" Nylon Tail (British Ropes, Ltd.), 427*
- Wire. See *Wire Ropes*
- Rosalex, Ltd., Barrier Creams, 397
- Rosen, M. W., on Influence of Space Flight on Engineering and Science, 371*
- Ross, D., & Partners, Ltd., "Twinner-Aronson" Positioning Equipment for Manipulating Large Components during Welding, 307*
- Ross, F. F., on Toxic Effluents from Power Stations, 447
- Rotary Blowers. See *Blowers; Turbo-Blowers*
- Engine. See *Engine; Aeronautics*
- Rotax, Ltd., Resin-Impregnated Fibreglass Pressure Vessels for Use in Aircraft Pneumatic Systems, 474*
- Rotherham Works of Steel, Peech & Tozer, New Developments at, 27*; Continuous Medium-Strip Mill for, 39
- "Rotodyne Eland" Gas Turbine Drive for Helicopters (D. Napier & Son, Ltd.), 357
- Rotor Blades of Gas Turbines, Effect of Use of Nimonic Alloys on Life of, 328
- Helicopter, Design, Development, Production and Servicing of, 389
- Temperatures of Gas Turbines, Measurement of, Research by Pametrada, 102
- Gas Turbine, Instrument for Rebalancing in Own Bearings of, 569*
- "Rotorfloat" Power-Operated Rotary Trowel (Winget, Ltd.), 254*
- Rouet, P., on Comparative Analysis of Single-Screw Diesel and Steam-Turbine Propelling Plants Developing 10,000 s.h.p. and Over, 42
- Roughness, Surface, Instrument for Measuring (Micrometrical Manufacturing Co.), 313*
- Scales for (Trade Publication), 409
- Rover Co., Ltd., Price Increases on New Motor Cars, 443
- "Rover IS60" Gas Turbine, Tests on, 548*
- Royal Aeronautical Society. See *Aeronautical*
- Aircraft Establishments. See *Aeronautics*
- Dutch-Shell Group, Plans for Building Oil Tankers, 442
- Institution, Christmas Lectures for Juniors, 835
- Observatory, Installation of Equipment at Herstmonceux, 858
- Sanitary Institute. See *Sanitary*
- Show, Nottingham, Exhibits at, 29*, 92
- Royal Society:**
- Statement on United Kingdom Plans for Research on High-Altitude Rockets, 223
- Royal Society of Arts. See *Arts*
- Society for Prevention of Accidents, Campaign for Safer Working in Industry, 680
- Technical College, Glasgow, Opening of "Chesters" Management Study Centre, 584
- Rubber-Forming Technique, Impact (Boeing Airplane Co.), 852
- Matting, Non-Slip (Dunlop Rubber Co., Ltd.), 118
- and Plastics, Milling Machine for (Reed Brothers (Engineering), Ltd.), 477*
- Research on (Trade Publication), 850
- for Resisting Hot Lubricants, Research on, 85
- Synthetic (Trade Publication), 529
- Project for United Kingdom Manufacture of, 747
- Rubert & Co., Ltd., Adjustable Packing for Machine Shops, 187; Surface Roughness Scales (Trade Publication), 409
- Rudkin & Riley Ltd., Internal and External Grinding Machine (Trade Publication), 330
- Rudman Darlington (Electronics), Ltd., Tape Recorder with Four-Stage Transistor Amplifier, 296
- Rugby Radio Station of Post Office, Extensions to, 164*
- Works of British Thomson-Houston Co., Ltd., Increase of Capacity for Small Plant at, 641
- Rugeley "A" 240-MW Power Station, Proposed, 158
- Runacres, A., on Capacity of Tennessee Valley Authority, 621. See 485
- Rural Industries Bureau, Annual Report, 747
- Life, English, Museum of, Exhibits at, 876*
- Transport Improvement Bill, Government Debate on, 871
- Rush, D. N., on Lifting Bricks and Blocks on Fork Trucks, 557. See 435
- Russell, A., the Late, 782
- Russell Constructions, Ltd., "Streamline" Gyrotary Separator, 893
- Russia, First Nuclear Power Station in, 228, 233*, 300
- Visit of United Kingdom Steel and Building Delegations to, 405
- Russian Delegation on Building Methods, Exchange of Information with, 523
- Iron and Steel Plant, 755
- Nuclear Engineering Equipment, 598*
- Steel Industry, Economic Conditions in, 716
- Rust-Proofing, "M.C." Process for (Walterisation Co., Ltd.), 465
- Rusting. See *Corrosion*
- Ruston & Hornsby, Ltd., Test Reports on Residual Fuels for Gas Turbines, 49*; Annual Report, 66; Experimental Peat-Fired Gas Turbine, 242*
- Ryder, E. A., on Oil Film Extent in Complete Journal Bearings, 5. See LETTER, 37. See also vol. 179

S

- "S.207" Four-Slide Strip-Forming Machine (Heenan & Froude, Ltd.), 85*
- Safety Factors in Aircraft Design, 772
- and Health in Industry (Book), 105
- of Life at Sea. See *Life-Saving*
- Saint. See *St.*
- Salescope, Gear-Type Suds Pump (Trade Publication), 594
- Salesmanship, Cinema Film on, 695
- Salford Electrical Instruments, Ltd., Micro-powder Magnets (Trade Publication), 9; Quartz-Crystal Units (Trade Publication), 41; Selenium Rectifiers (Trade Publication), 41; Instrument Exhibits at Geneva Exhibition of Peaceful Uses of Atomic Energy, 176; Model of Atomic Factory of Future, 177*; Application of Electro-Magnetic Transducer System to Measurement of Expansion Characteristics of Turbines, 251*
- Salisbury Precision Engineering, Ltd., Hand-Operated Lift Truck, 477*
- Salt Water, Purification by Electrodialysis, Research on, 285
- Salter, G., & Co., Ltd., Expansion Plans for Motor Car Springs Manufacture, 589
- "Salterpak" Prepackaging Division of G. Salter & Co., Ltd., 869
- Samenwerkende Electriciteits-Productiebedrijven, N.V., Electricity Supply in Holland, 503
- Sampling, Particle, Apparatus for, Fuel Research Station, 116*
- Sandifer, R. H., on Consideration of Flight Loads in Aircraft Design, 772
- Sanitary Engineers, Institution of, Change of Name to Institution of Public Health Engineers, 183, 201
- Engineering Terms, Glossary of (Book), 170
- Institute, Royal, Modernisation of Museum of Health, 36
- Sankey, J., & Sons, Ltd., Expansion Plans for Motor Car Components Manufacture, 589
- Satellite, Artificial, Orbit Synchronising System, 236
- Proposed, 225. See LETTER, 294
- Earth, Visibility of, 236
- Satteloid, The, 236
- "Saturn II" Self-Propelled Floor Scrubber (Matling, Ltd.), 251*
- Saunders-Roe (Anglesey), Ltd., All-Welded, Aluminium-Alloy Yacht "Morag Mohr," 23*
- Saunders-Roe, Ltd., "Miniputer" Analogue Computer, 472*
- Savitt, G., & Sons, Ltd., Steel Office Equipment (Trade Publication), 107
- Savona-Genoa Autostrada Motorway, 757*
- Saws. See *Machine Tools*
- Sayers, E., the Late, 448
- Scales for Measuring Surface Roughness (Trade Publication), 409
- Schenck, C., Maschinenfabrik, G.m.b.H., Fatigue Testing Machine with Automatic Operation to Pre-Determined Programme, 669*
- Schlieren Camera for Photographing Shock Waves in Supersonic Wind Tunnel, 26.* See LETTER, 167
- Schloemann A.G., Extrusion Press for Aluminium, 799*; 585-ton Stretching Machine for Aluminium Sections, 800*
- Schmidt, Fr., on Comparison of Claims of Direct-Drive Diesel Engine and Geared Engine for High Outputs, 42
- Scholarships. See *Education*
- Schuckert (Great Britain), Ltd., Electric Oven for Drying Arc-Welding Electrodes, 549*
- Sciaky Electric Welding Machines, Ltd., 150-kVA Conveyor-Drive Seam Welding Machine for Long Flat Components, 246*; 100-kVA Projection Welder, 279*; 25-kVA and 150-kVA Spot Welders, 279
- Science, Illustrated History of, by F. Sherwood Taylor (Review), 785
- Influence of Space Flight on, 371*
- and Modern Life, by Sir E. J. Russell (Review), 625
- Museum, Exhibition on Electrical Standards and Metering, 152; New Section Opened on British Post-War Economy Cars, 197; Exhibits of Linear Electron Accelerators, 298; Exhibition to Illustrate Evolution of Dividing Engine, 558; Replica of James Watt's Workshop at, 770
- and Technology in Western Germany, Review of (Review), 817. See also 810
- Scientific Development, Impact on Tools of Production of, 694
- Education in Schools, Industrial Fund for the Advancement of, Formation of, 650, 656
- Equipment, Packing of, 869
- and Industrial Research, Department of, Mechanical Engineering Research Laboratory, Annual Report, 4; Exhibits at British Instrument Industries' Exhibition, 116*; Third International Congress on High-Speed Photography, 1956, Arrangements for, 671; Report on Automation in Industry, Questions in House of Commons on, 807
- Instruments, International Scheme for Safe Transit of, 487
- Manufacturers' Association, Concern at Foreign Competition, 714
- Management. See *Works Management*
- Manpower, Government Debate on, 129. See 97, 127
- Shortage of, J. Eccles on, 4. See LETTER, 69
- Shortage of, Recommendations of Barlow Committee on, 1. See LETTERS, 69, 101
- Policy, Advisory Committee on, Report of Committee on Scientific Manpower, 745
- Scientific Research. See *Research*
- Societies. See *Institutions*
- Scientists, Eminent, Statement on Nuclear Warfare, 65
- Scintillation and Geiger Counters (Trade Publication), 881
- Scooter Car, Increasing Popularity of, 483
- See also *Motor Scooter*
- Scotland, Development of Chemical Industry in, 162
- Dounreay, Fast Nuclear Reactor at, 280*
- Electrification of Suburban Railways in, Questions in House of Commons on, 807
- Highland Development in, Proposed Conference of Scottish Trade Union Congress on, 440
- Institution of Engineers and Shipbuilders in. See *Engineers*
- North, Hydro-Electric Board. See *North of Scotland Hydro-Electric Board*
- to Northern Ireland Tunnel, Questions in House of Commons on, 743
- Scott, K., on Factors Affecting Efficiency of Fluorescent Lamps, 758
- Scott, W. H., on Industrial Democracy, 361
- Scott and Wilson, Kirkpatrick & Partners, Electrification Scheme for Cyprus, 312*
- Scottish Aviation, Ltd., "Twin Pioneer" Civil Transport Aircraft with High-Lift Device, 394*
- Scottish Mechanical Light Industries, Ltd., Moisture Meter for Agricultural Use, 833
- Scrap, Steel, Scarcity in United States, 323
- Scraper, Drag, Using Motor of Concrete Mixer (Winget, Ltd.), 254*
- Screen for Crushed Rock, "Ty-Rock" (Trade Publication), 755
- Vibrating, Two-Bearing, Heavy-Duty, "Vibro-King," for Sand, Gravel and Stone (Pegson, Ltd.), 541
- Screening Machines (Trade Publication), 881
- Screw Pitch Measuring Machine (Trade Publication), 202
- Propellers. See *Propellers; Aeronautics*
- Threads, Transmission (Trade Publication), 721
- Unified, British Standards Institution Conference to Assess Progress of Adoption of, 131
- Scunthorpe Plant for Production of Tonnage Oxygen (British Oxygen Co., Ltd.), 731
- Works of Appleby-Frodingham Steel Co., Ltd., Extensions to, 402, 408
- of J. Lysaght Scunthorpe Works, Ltd., Expansion Scheme at, 630; Development of Chemical Treatment of Low-Grade Iron Ores at, 729
- Sea Transport and Trade, Influence of Engineer on, 331
- Seal, Fluid, "Hallprene" (Hall and Hall, Ltd.), 294, 336. See LETTERS, 268, 557. See also vol. 179
- for Reciprocating Shafts, 294. See LETTERS, 368, 557. See also vol. 179
- Mechanical, for Rotary Shafts (Flexibox, Ltd.), 425
- Oil, Rotary, Magnetic (J.C. Rotary Magnetic Seal Co., Ltd.), 462*
- Rubber, for Concrete Structures (Trade Publication), 881
- Sealed Motor Construction Co., Ltd., Hot-Water Accelerating Pump for Central Heating Systems, 352*
- Sealing, Materials, Elastomer (Trade Publication), 690
- Seattle Works of Boeing Airplane Co., New Flight Test Hangar at, 819*
- Secondary Battery. See *Accumulator* under *Electric; also Motor Trucks*
- Schools and Education. See *Education*
- Sections, Structural, Aluminium-Alloy, Marine, Specification, 9
- Seddon Diesel Vehicles, Ltd., Portable Electric Drill for Commercial Vehicles, 118*
- "Segas" Process for Production of Gas from Oils and Tar (Trade Publication), 594
- Segundo, El, Division of Douglas Aircraft Corporation, New Design Office, 819*
- Seismology. See also *Earthquake*
- "Selectable Superheat" Marine Boiler (Babcock and Wilcox, Ltd.), 213*
- Self-Changing Gear Co., Ltd., Air-Operated Reduction Gearbox for 240-h.p. Diesel-Mechanical Shunting Locomotives, 676
- Self, Sir H., on Electricity Supply Industry as a Career, 75
- Seligman, Dr. H., on Recent Developments of Radioisotopes Uses in Industry, 292
- Separator, Gyrotary, "Streamline" (Russell Constructions, Ltd.), 893
- for Nuclear Energy Purposes, Research on, 653
- Oil, Self-Opening (Alfa-Laval Co., Ltd.), 309
- Sereck Radiators, Ltd., "W" Type Oil and Water Cooler for Internal Combustion Engines, 352*; Steam Air-Heater for Use on Board Ship, 550*
- Service Aviation. See *Aeronautics*
- Men, National, Plans for Reduction in Numbers of, 521
- Servomechanism Theory, Elements of (Book), 137
- Severn, River, Model of, 53
- Sewage Aeration Plants, Small (Trade Publication), 41
- Pump, Vertical, Mixed-Flow (W. H. Allen, Sons & Co., Ltd.), 276*
- "Shackleton" Long-Range Reconnaissance Aircraft (A. V. Roe & Co., Ltd.), 438
- Shafts, "Block," "Uniflex" and "NT" Type Flexible Couplings for (Crofts (Engineers), Ltd.), 544
- Coupling. See *Coupling*
- Crank. See *Crankshaft*
- Dynamometer. See *Dynamometer*
- and Holes, Fitting of. See *Gauge*
- Reciprocating, Fluid Seal for, 294. See LETTERS, 368, 557. See also vol. 179
- Shears, Wire-Cutting (Trade Publication), 330
- Sheepbridge Alloy Castings, Ltd., Long-Length and Bi-Metal Centrifugal Casting Processes at Sutton-in-Ashfield Works of, 112*

- Sheet Materials, Strains in, Moire Technique for Measuring, 116*
- Metal, Drawing Qualities of, Non-Destructive Testing Instrument for (Jones and Laughlin Steel Corporation), 62*
- Fabrication of, 705*
- Sheffield Corporation, Ohio, Air Gauging Machine for Turbine-Blade Inspection, 885*
- Sheffield Twist Drill and Steel Co., Ltd., "Dormer" Down-Grip Machine Vice, 96*
- Shells, Cylindrical, Symmetric, Analysis of (Book), 202
- Shell Film Unit, Cinema Film on Engine Wear, 178*
- Shell Petroleum Co., Ltd., Land Reclamation at Stanlow Oil Refinery, 207
- Shenfield/Southend and Shenfield/Chelmsford Lines of British Railways, Modifications to Colour-Light Signalling on, 589
- Shenstone, B. S., on Problem of the Very Lightweight Highly Efficient Aeroplane, 748
- Sheppard & Sons, Ltd., Two-Strand Casting Machine for Electrically-Smelted Iron, 183*; Loading Equipment for Transatlantic Telephone Cable, 677*
- Shilstone, F. W., the Late, 591
- Ships, "Atomic Mariner" Proposed Nuclear Powered Vessel, Model of, 861*. See 859*
- Auxiliaries, Grouped Contactor Switchboard for (A. West & Co., Ltd.), 425*
- Breathing Apparatus for Use in (Siebe, Gorman & Co., Ltd.), 351
- Canal. See *Canal*
- Commercial, Prospects of Nuclear Power for Propulsion of, 859*
- Construction, Comparison of Welded and Riveted, by B. Baxter, 108*
- Design, Application of Model Research to, 334*
- Diesel-Engined. See *Motorships; Marine Propulsion*
- Electrical Equipment of, Regulations for, Preparation of Fourth Edition of, 486
- Fires in, Extinction Using Inert Gas from Oil Combustion, "E.D.-Hol" System for (Pyrene Co., Ltd.), 544*
- Fishery-Research, "Explorer," Statement in House of Commons on, 646
- Forms, Smooth and Rough, Frictional Drag of, 600
- Hulls, Protection Against Barnacles by Use of Ultrasonic Vibrations (Postans Ltd.), 416
- Launches and Trial Trips, 13, 63, 93, 119, 140, 182, 217, 249, 286, 318, 396, 439, 448, 550, 593, 673, 688, 737, 802, 867, 899
- Launching. See *Launching*
- Merchant, World Built (Book), 137
- Motor. See *Motorships; Marine Propulsion*
- Nuclear Power Prospects for, 859*
- Pitching and Heaving of, 564
- Propellers. See *Propellers*
- Propulsion. See *Marine Propulsion; Engines; Turbines; Propellers*
- for Sea Transport of Motor Cars, Questions in House of Commons, 710
- and Seafarers (Book), 657
- Small, Radar for, Trials of, Questions in House of Commons on, 903
- Stabiliser Fins for, Fold-Back, "Gyrofin" (Sperry Gyroscope Co.), 253*
- Telegraph, Remote-Controlled, "Synchrostep" (Chadburns (Liverpool), Ltd.), 276
- Tramp, Design of Economic, 660
- See also *Marine; Motorships; Shipping; Steamers; Warships*
- Shipbuilders and Engineers, North-East Coast Institution of. See *North-East Coast*
- in Scotland, Institution of. See *Engineers*
- Shipbuilding, Comparison of Welded and Riveted Ship Construction, by B. Baxter, 108*
- and Engineering Unions, Confederation of, Pension Proposals for Engineering Employees, 32; Demands for Shorter Working Hours and Less Overtime, 256; Demand for Improved Wages and Conditions for Railway Employees, 288, 320; Wage Negotiations by, 680
- Foreign, Subsidies for, Questions in House of Commons on, 775
- Industry, Boom in, 586
- French, Unrest in, 288
- Position in, 650
- Prosperity of, 525
- Review of, 590
- Lloyd's Register, Rules of Construction Changes in, 9; Revision of Contents of Register Book, 63; Shipbuilding Returns, 99
- Naval. See *Warships*
- "Noral" Aluminium Alloys for (Trade Publication), 107
- Oil Tankers, Oil Companies' Plans for, 442
- Tankers, Programme of Peninsular and Oriental Steam Navigation Co., Ltd., 403
- for Sea Transport of Motor Cars, Questions in House of Commons on, 710
- Speedboat "Bluebird III," Value of Wind-Tunnel Tests in Developing, 554
- S.S. "Ocean Vulcan," Sea and Still Water Trials of, 108*
- S.S. "Southern Cross," Design and Behaviour of Unusual Engine Arrangement of, 673
- Steel Supplies for, Apprehension Concerning, Questions in House of Commons on, 775
- Tugs, Paddle, Diesel-Electric, for H.M. Dockyards (W. Simons & Co., Ltd.), 252
- United States, Modernisation and Expansion Plans for, 194. See *Erratum*, 226
- Use of Ferrous Materials in, 659
- Yacht, All-Welded, Aluminium-Alloy, "Morag Mohr" (Saunders-Roe (Anglesey), Ltd.), 23*
- "Irene" with Ferro-Cement Hull and Cabin, 603*
- Shipbuilding Yard, Construction of, for Freeport, Bahamas, 810
- Split, Recent Development of, 660
- Steel Plates Delivery, Questions in House of Commons, 678
- Uljanik, Organisational Developments of, 629
- See also *Steamers; Naval; Warships*
- "Shipham" H.M. Inshore Minesweeper, Launch of, 119
- Shipping, British, Controversy on Company Mergers in, 715
- Lloyd's Register of, Changes in Rules of Construction, 9; Revision in Contents of Register Book, 63; Shipbuilding Returns, 99
- Merchant, Progress in Safety of (Book), 657
- Port Working, Introduction to (Book), 657
- United States, Modernisation and Expansion Plans for, 194. See *Erratum*, 226
- Shipyards. See *Shipbuilding Yard*
- Shock Tests. See *Impact Tests under Tests (Materials)*
- Shock-Wave Patterns, Photography of, 26*
- Shone, Sir R., on Economic Conditions in Russian Steel Industry, 716
- Shop Management. See *Works Management*
- Retail, Manpower Problems of, 288
- Short Brothers and Harland, Ltd., Analogue Computer, 472; 2,400-Cycle Sub-Synchronous Motors for Aircraft, 473*
- Short and Mason, Ltd., "Transect" Control System, 91*
- Shot-Cleaning System, "Broman-Ekstrom" for Boilers (Babcock and Wilcox, Ltd.), 273*
- Show. See *Exhibition*
- Shubenko, L. A., on Problems of Soviet Chief Designer, 877
- Shunting Device, "Beetle," with Retractable Arms (Strachan and Henshaw, Ltd.), 145*
- Petrol-Engine Driven, Hand-Guided, 144*
- Remotely-Controlled "Wagontroler" for, 145*
- Use of Tractor Fitted with Buffer Beam for, 145*
- Siebe, Gorman & Co., Ltd., Breathing Apparatus for Use in Ships, 351
- Siemens Electron Microscope at Battelle Memorial Institute, Frankfurt, 50*
- Siemens and General Electric Railway Signal Co., Ltd., Modifications to Colour-Light Signalling on Shenfield/Southend and Shenfield/Chelmsford Lines of British Railways, 589
- Siemens-Martin Furnaces. See *Furnaces*
- "Sigma" Process for Shielded Inert-Gas Metal-Arc Welding (Quasi-Arc Co., Ltd.), 278
- Signal Lamps (Trade Publication), 107
- Signalling, Automatic and Power (Trade Publication), 297
- Colour Light, at Potters Bar Railway Station, 831*
- Light, Modifications on Shenfield/Southend and Shenfield/Chelmsford Railway Lines, 589
- "Silco-flex" Silicone-Based Insulating Material (Allis-Chalmers Great Britain, Ltd.), 127
- Silencer for Jet Aeroplane Engine Test Bed (Detuners, Ltd.), 470*
- Silencing Installation for Propeller-Turbine Aeroplane Engine Test House (Cementation (Muffelste), Ltd.), 314*
- Silos, Aluminium, for Grain Storage (F. Braby & Co., Ltd.), 438
- Prestressed-Concrete, for Sugar Storage (J. Laing & Sons, Ltd.), 895*
- Silovic, Prof. S., on Measurements on the M.V. "Rijeka" with their Attempted Practical Application, 563
- Simmons Aerocessories, Ltd., Electrically-Operated Remote-Indicating Specific Gravity Meter, 310*; Electronic Flowmeter, 310
- Simms Motor Units, Ltd., Annual Report, 227; Animated Direction Indicator for Motor Vehicles, 893
- Simon-Carves, Ltd., Steam Power Plant (Trade Publication), 107; Coal-Handling Plant at Chadderton "B" Power Station, 111; Steam-Raising Plant for Chadderton "B" Power Station, 111; Annual Report, 131
- Simon Sound Service, Ltd., Tape Recorder-Reproducers, 296
- Simons, W., & Co., Ltd., Order for Diesel-Electric Paddle Tugs for H.M. Dockyards, 252
- Sims, A. J., on Pitching and Heaving of Ships, 564
- Singapore, Technical Assistance to, Questions in House of Commons on, 807
- Singer, Dr. A. R. E., on Inhomogeneous Deformation in Rolling and Wire-Drawing, 536
- Singer, Prof. S. F., on Cosmic Ray Effects on Matter at High Altitudes, 237
- Sink Traps, Glass, for Laboratory Use (Q.V.F., Ltd.), 187*
- Sinobad, H., on Comparative Analysis of Single-Screw Diesel and Steam-Turbine Propelling Plants Developing 10,000 s.h.p. and Over, 42
- Sion Mills, Northern Ireland, Plans for Hydro-Electric Power Station at, 24
- Sir John Cass College, Engineering Courses at, 365. See *LETTERS*, 445
- "Sir William Hardy," Electrically-Driven Trawler for Fishery Research (Hall, Russell & Co., Ltd.), 220*
- "Sizer" Pre-Set Boring Head (Paddon Precision Tools, Ltd.), 213
- "S.K.B." Ladle for Addition of Magnesium to Molten Iron (Lloyds (Burton), Ltd.), 88*
- Skentelbery, G. A., the Late, 687
- Skinner, F. G., the Late, 407
- "Sky" Sailplane, 126
- "Skylark" Sailplane, 126
- Slag. See *Metallurgy*
- Slater, Dr. A. E., on Sailplanes Designed for Soaring, 126; on Turbulence Above the Ozone Layer, 236
- Slide Rules for Heat Calculations (Potter's Insulations, Ltd.), 430
- "Slipmaterial-Naxos" Rotary Surface Grinding Machine (Mortimer Engineering Co.), 709*
- Slipperiness, Machine for Measuring, 53
- Slotted Angle Co. (G.B.), Ltd., "Supaslot Major" Slotted Angle Material for Construction of Racks, Benches, etc., 254
- Slough, New Laboratories for Paints Division of Imperial Chemical Industries, Ltd., 114*
- Sludge, "Alcon" Diaphragm Pumps for (A. Lyon & Co. (Engineers), Ltd.), 576*
- See also *Sewage*
- Sluice, Kornwerderzand, Holland, Model of, 863
- Slurry, Coal, Flow in Pipes, Research on, 595
- "Martin" Stoker for Burning, 110
- Small Electric Motors, Ltd., Commutator Lathe (Trade Publication), 137
- Small, Prof. J., on Recruitment of Graduates to Industry, 101. See *LETTER*, 69
- Smeaton, John, Cast-Iron Waterwheels of, 847
- Smeaton & Sons, Ltd., Air-Conditioning Plant for Instrument Testing Building, 868
- Smelting Furnaces. See *Furnaces*
- Smethwick Factory of "Salterpak" Division of G. Salter & Co., Ltd., 869
- Smith, C., on Underground Mining of the Frodingham Ironstone Bed, 729
- Smith, S., & Sons (England), Ltd., Annual Report, 875
- Smith, T., & Sons (Rodley), Ltd., Export of 100th Bucket Excavator to Canada and 100th Dragline Excavator to New Zealand, 517
- Smith, Sir W., on Accidents and Inefficiency in Industry, 680
- Smithfield Show and Agricultural Machinery Exhibition, Exhibits at, 778, 832*
- Smith's Aircraft Instruments, Ltd., "Smith's Flight System," 472
- Smith's Industrial Instruments Ltd., Tachometer Generator for Use on Oil-Drilling Rigs and Diesel Engines, 305*
- Smoke Abatement, Government Clean Air Bill, 168. See 163
- Density Indicator, "Electricon" (R. Trist & Co., Ltd.), 353*
- Measuring Equipment for Smoke Control in Boilers (Radiovisor Parent Ltd.), 222*
- Detector, "Minerva" (Minerva Detectors, Ltd.), 117
- from Motor Vehicles, Regulations Concerning, Questions in House of Commons on, 743
- Snow Melting at Airports (Trade Publication), 786
- Soag Machine Tools, Ltd., Machine Tools (Trade Publication), 330
- Social Implications of Technological Change, Work of UNESCO Social Science Department, 650
- Society of Motor Manufacturers and Traders. See *Motor*
- Technical and Scientific. See *Institutions*
- Trade. See *Labour*
- Socony Mobil Oil Co., Inc., Cinema Film on Extinguishing Oil Fires with Air, 847
- Softener, Water. See *Water*
- Soil Mechanics Aspects of Design of Foundations, 413*, 454*
- Elementary Introduction to, 348*
- in Railway Civil Engineering, 384*. See *LETTERS*, 655
- Research on, 121
- and Water Conservation Engineering (Book), 690
- Solar Energy Research, by F. Daniels and J. A. Duffie (Review), 449
- Solartron Electronic Group, Ltd., Check Weighing Machine for Large Quantities of Packages, 117; Programmed and Tactical Radar Simulators for Training Observers, 126
- Solel Boneh Contracting Co., Water Pipeline for Irrigation and Flood Control in the Negev, 124*
- Sondes Place Research Institute, Booklet on (Trade Publication), 850
- Soot-Blowers for Boiler Cleaning (Babcock & Wilcox, Ltd.), 272
- Equipment (Trade Publication), 330
- Sound and Hearing, Research on Relation Between, 816. See 809
- Reproducing Equipment, "Mimco" (Marconi International Marine Communication Co., Ltd.), 734
- South Africa, Duncanville Boiler-Making Works of Babcock & Wilcox of Africa (Pty.), Ltd., 150*
- South African Iron and Steel Industrial Corporation, 450-b.h.p. Diesel Locomotive with Three-Speed Gearbox for, 762*
- Denes Power Station, Wellpoint System for Pre-Drainage of Site of, 730*
- South Durham Steel and Iron Co., Ltd., Expansion of Steel Production Capacity in North-East, 259; Contract for Pipes for Natural Gas in North West Canada, 587
- East London Technical College, Engineering Courses at, 365. See *LETTERS*, 445
- Eastern Gas Board, Arrangement with British Petroleum Co., Ltd., for Supply of Town Gas from Oil for Kent, 363
- Kensington, Science Museum. See *Science Museum*
- South Wales Switchgear, Ltd., Equipment for Extensions to Post Office Radio Station at Rugby, 165; Vacation Training Courses for Schoolboys, 293
- Southampton Docks, by R. P. Biddle, 68
- Southend/Shenfield Line of British Railways, Modifications to Colour Light Signalling on, 589
- "Southern Cross," S.S., Design and Behaviour of Unusual Engine Arrangement of, 673
- Southern Instruments, Ltd., Trolley-Mounted Pressure Indicator for Internal-Combustion Engines and Compressors, 462; "M 986" Portable Cathode-Ray Indicating Equipment for Internal-Combustion Engines, 738
- Southwell, R. V., Method of Determination of Critical Load for Framed Structures, 658*
- Soviet Union, Visit of United Kingdom Steel and Building Delegations to, 405
- Space Flight, Considerations in Regard to Physiology of, 237
- Influence on Engineering and Science of, 371*
- Spain, Los Peares Power Station, 458*
- Spanish National Railways, 3,600-h.p., 3,000-volt, Direct-Current Electric Locomotive for, 120*
- Specific Gravity Meter, Remote-Indicating, Electrically-Operated (Simmonds Aerocessories, Ltd.), 310*
- Specifications as Aid to Productivity, 260
- Based on Limiting Number of Defectives Permitted in Small Samples, Drafting of, Specification, 818
- Engineering, Guide to Preparation, by G. F. Webb, 171
- Standard. See *Standards; Standardisation*
- Spectacles and Ophthalmic Instruments Industry, Book on Development of, 52
- Spectrometer Amplifier for Photo-Voltaic and Photo-Conductive Cells (Mervyn Instruments), 115*
- Mass (Metropolitan-Vickers Electrical Co., Ltd.), 354
- Russian, 598*
- Spectrophotometer Cells (Trade Publication), 850
- Speed-Changing Gears. See *Gears; Marine Propulsion*
- Control of Gas Turbine Rotors, Research on, 541
- Controller for Electric Motor (Trade Publication), 267
- Indicator, Tachometer Generator for Use on Oil-Drilling Rigs and Diesel Engines (Smith's Industrial Instruments Ltd.), 305*
- Measurement, Instantaneous, of Underground Trains (R. Dell), 156*
- Reducers, Torque-Arm (Trade Publication), 881
- Reduction Gears. See *Gears; Marine Propulsion*
- Trials. See *Trials*
- Speedometers for Locomotives, Questions in House of Commons on, 775
- Spenneman, Dr. L., on Operating Experiences of Slag-Tap Methods of Firing at Power Stations, 447
- Sperry Gyroscope Co., Ltd., "Gyrofin" Fold-Back Stabiliser Fins for Ships, 253*; Aircraft Instruments (Trade Publication), 529; Flight-Control System for Helicopters, 709
- Spherometer for Measuring Curvature of Sheet Metal, 62*
- Spillways Design, Research on, 596
- Spinning Frames, Textile, Two-Speed Drive for Reducing End-Breakages of, 865*
- Mule, Textile, Use of Timber in, 732*
- Spiral Tube and Components Co., Ltd., "Spiraluxe Mark II" Unit Heater for Offices, 424
- Split Shipyards, Recent Development of, 660
- Spratt, H. P., on Prenatal History of the Steamboat, 687
- Spray Guns (Trade Publication), 881
- Spraying, Metal, Installation, Automatic (Metallizing Equipment Co., Ltd.), 353*
- Springs, Diesel Engine, Full-Scale Fatigue Tests of, 891
- Helical and Volute, for Railway Rolling Stock, Specification, 818
- Spur Gearing. See *Gears; Marine Propulsion*
- "Spyros Niarchos," World's Largest Oil Tanker, Launch of (Vickers-Armstrongs (Shipbuilders), Ltd.), 802*
- St. Albans By-Pass Road, Details of, 830; Costs of, Questions in House of Commons on, 839
- "St. Laurent," H.M. Canadian Twin-Screw Anti-Submarine Destroyer, Commissioning of, 737
- "St. Paul's Cray" Type Floors and Roof Slabs for Paint Research Laboratory (Concrete Development Co., Ltd.), 114
- Stabilag Co., Ltd., "Electrotap" Regulator for Electrical Heating Apparatus, 469*
- Stabiliser Fins, Fold-Back, "Gyrofin," for Ships (Sperry Gyroscope Co.), 253*
- "Stad" Diesel Engines, Agreement between Auto Diesels, Ltd., and Standard Motor Co., Ltd., for Industrial Adaptation of, 900*
- Stampings, Aircraft, in Hyduminium (Trade Publication), 786
- and Forgings, Quality Control of, Laboratory for, 612*
- Hammers and Presses. See *Machine Tools*
- Stanat Manufacturing Co., Combination Two-High and Four-High Rolling Mill, 86*
- Stanchions. See *Columns*
- Stand, Display, Wire (Trade Publication), 529
- Standards Association, Canadian, Approvals System (Book), 381
- Department, Formation of, by Society of Motor Manufacturers and Traders, 67
- Electrical, and Metering, Science Museum Exhibition on, 152
- Engineering Specifications, Guide to Preparation of, by G. F. Webb, 171
- German, Catalogue of Translations of, 39
- Standard Helicopters, Inc., Prefabricated Helicopter Landing Stations, 569
- Standards, Imperial, Reliability of, by L. C. Porter, 718
- Institution, British: Annual Report, 717
- British: Conference to Assess Progress of Adoption of Unified Screw Threads, 131
- British, and Progress of Standardisation, 260

- Standards, Institution, British, Specifications Aluminium-Alloy Sections, 9; Glossary of Terms used in Radiology, 9; Canadian Welding Qualification Code, 9; Metal-Arc Welding of Weldable Structural Steel Tubes, 41; Sizes and Outputs of Crushing Machinery, 41; Glossary for Valves and Valve Parts, 41; Electrical Performance of Rotating Electrical Machinery, 105; Radiographic Examination of Fusion-Welded Joints, 105; Rotary Drill Rods and Rotary Drill Bits, 105; Zinc-Alloy Pressure Die Casting for Engineering, 105; Aluminium Wire for Electrical Purposes, 169; Horizontal Mild-Steel Welded Storage Tanks, 169; Steam-Turbine Oils, 169; Flexible Polyvinyl Chloride (P.V.C.) Extrusion Compounds, 238; Zinc and Zinc Alloys for Die Casting, 238; Components of Crawler Tractors and Earth-Moving Equipment, 238; Spot Welding Electrodes, 238; Metal Crates for Milk Bottles, 238; Flat-Bottom Railway Rails, 818; Helical and Volute Springs for Railway Rolling Stock, 818; Oxy-Acetylene Welding of Steel Pipelines and Pipe Assemblies, 818; Drafting Specifications Based on Limiting the Number of Defectives in Small Samples, 818
- Standard Motor Co., Ltd., Agreement with Auto Diesels, Ltd., for Industrial Adaptation of "Stad" Engines, 900*
- Reference, Calibration of, in Australia, 763
- Specifications as Aid to Productivity, 260
- Based on Limiting Number of Defectives, 818
- Engineering, Guide to Preparation, by G. F. Webb, 171
- Standard Telephones & Cables, Ltd., Coaxial Cables for Austrian Telephone System, 243; Development of "TACAN" Air Navigation System, 284; Repeaters for Danish-Norwegian Telephone Cable, 739
- United States Bureau of. See *United States Standard-Vacuum Refining Company* (Australia) Pty., Ltd., Completion of Altona Oil Refinery, 45
- Standardisation in Motor Car Components Industry, Impact of, 589
- Progress and Economic Advantages of, 260
- Technical, Accuracy in (Book), 560
- Stanesby, H., on Use of Radio Relay Systems in Television and Multi-Channel Telephony, 739
- Stanger, M., on Recent Development of the Shipyard at Split, 660
- Stanier, Sir W., on George Jackson Churchward: The Man and His Work, 556
- Stanlow Oil Refinery, Land Reclamation at, 207
- Stanton Ironworks Co., Ltd., Extensions to Stanton Works of, 512*
- Starter, "Handraulic," for Diesel Engines (Bryce Berger, Ltd.), 307*
- Starting System, Compressed-Air, for Diesel Engines of up to 20-b.h.p. per Cylinder Output (Hymatic Engineering Co., Ltd.), 86
- State Railways. See *Railways*
- Static Stiffness Method for Determination of Critical Load for Framed Structures, 658
- Stations, Power. See *Power Stations*
- "Stationmaster," Automatic Moulding Machine for Sand Moulds (Pneulec, Ltd.), 352*
- Statistics of Business Trends and Prospects, "Konjunkturtest," Method for Determining, 810
- Trade. See *Trade*
- Stator Blades, Compressor, Formation from Steel Strip of, 884*
- Staythorpe "B" Power Station, 360-MW, Proposed Construction of, 53
- Steam Boats. See *Steamers*
- Boilers. See *Boilers*
- Condensation. See *Condensation*
- Consumption. See *Coal Consumption*
- Engines. See *Engines*
- Hammer. See *Hammer* under *Machine Tools*
- Heating in Oil Tankers, Aluminium-Alloy Pipes for, "Alacoil" System (Steels Engineering Installations, Ltd.), 151
- Lorries. See *Motor Vehicles; Tractors*
- Plant, High-Temperature, Bolting Materials for Use in, 824*
- Raising Plant for Chadderton "B" Power Station (Simon-Carves, Ltd.), 111
- Road Vehicles and Railcars in Germany (Book), 560
- Sampling of, Apparatus for, 569
- Superheater. See *Superheater; Superheat*
- Tug. See *Steamer*
- Turbines. See *Turbines*
- Wagons. See *Motor Vehicles*
- "Steamloc" Oil-Fired Packaged Boiler (Babeock & Wilcox, Ltd.), 272*
- Steamers, Geared Turbines for. See *Marine Propulsion*
- Launching of. See *Launch*
- Prenatal History of Steamboat, 687
- Propulsion of. See *Marine Propulsion; Engines; Turbines; Propellers*
- Tug "Britannia" Converted to Diesel Power (Greenhithe Engineering Works), 887*
- See also *Engines; Marine Propulsion; Shipbuilding; Shipping; Ships; Turbines; Warships*
- Steamships. See *Ships; Steamers; Warships*
- Stedeford, Sir I., on New Age of Industrial Revolution, 715
- Steels, Alloy, Drop Forgings in, Cinema Film on (Brown-Firth Research Laboratories), 405
- and Plate, Increased Production Facilities for, 651, 656
- Application of Self-Adjusting Arc Welding Process to, 145
- Billets, Production and Importation of, Questions in House of Commons on, 871
- Steels, for Bolting for High-Temperature Steam-Plant Service, 824*
- Castings, Centenary of, 625
- Chimney Stacks, Request for Design Data on, 133
- Chromium. See *Steel, Stainless*
- Steel City Testing Machines, Inc., Non-Destructive Testing Instrument for Drawing Qualities of Sheet Metal, 62*
- Steel Company of Wales, Ltd., Proposals for Fourth Continuous Strip Mill, 746
- Corrosion. See *Corrosion*
- Delegation, United Kingdom, Visit to U.S.S.R. of, 405
- Steels Engineering Installations, Ltd., Aluminium-Alloy Pipes for Steam Heating in Oil Tankers, "Alacoil" System, 151
- Steel Equipment Co., Ltd., Factory Storage Equipment, 427
- Fabrication Factory of F. Braby & Co., Ltd., at Crayford, 705*
- Fatigue of. See *Fatigue* under *Tests (Materials)*
- Foundry. See *Foundry*
- Frames, Concrete-Encased, Loading Tests on, 122*
- Furnaces. See *Furnaces*
- Heat Treatment of. See *Heat Treatment* under *Metallurgy*
- High-Speed Scale-Free Heating of, "Equivise" Furnace System for (Incandescent Heat Co., Ltd.), 639*
- Industry, French, Plans of, 362
- Increase in Productivity in, 584
- Russian, Economic Conditions in, 716
- Use of Electricity in, 76
- and Iron, Factors in Selecting Processes for Producing, 162
- Plant, Russian, 755
- Suspension of Import Duty on, Questions in House of Commons on, 807
- Joists, Rolled, Plastic Moduli of British Standard (Book), 408
- Manufacture. See *Metallurgy; Furnaces*
- Market, European, in 1954, Report on, 99
- Microstructure of. See *Microphotographs; Metallography*
- Mill, Contract for, Award to Italy by Venezuelan Government, 443
- Mission to India, British, Report of, Acceptance by Indian Government, 290
- Output Statistics, 682
- Steel, Peech & Tozer, Continuous Medium-Strip Mill for Rotherham Works of, 39
- Plates for Shipyards, Delivery of, Questions in House of Commons on, 678
- Price Increases of, 130
- Rails. See *Rails*
- Resistance to Compression of, Effect of Strain Rate and Temperature on, 536
- Rolling Mills. See *Rolling Mills*
- Ropes. See *Wire Ropes*
- Scrap, Scarcity in United States, 323
- Sections, Strengthening by Concrete Encasement, 759*
- Sheet, "Microbraz" Process for Brazing of High-Temperature (Wall Colmonoy Corporation), 885*
- Stainless, Highly-Finished, Slitting Machine for, 542*
- Stress Distribution in. See *Stress; Tests (Materials)*
- Structural, in Building, Use of, British Standard on, 759*
- Tubes, Metal-Arc Welding of, Specification, 41
- Supplies, Effect of Strikes on, Statement by Sir A. McCance, 194
- Need for Further Increase in, 874
- for Shipbuilding, Apprehension Concerning, Questions in House of Commons on, 775
- Threat of Shortage of, 585
- Tests of. See *Tests (Materials)*
- Tube, New Mill in Canada, 131. See 290
- Use in American Aircraft Industry, 851
- Steelmaking, Open-Hearth, Relative Merits of Low and High-Sulphur Oil for, 829
- at Redbourn Works of Richard Thomas & Baldwins, Ltd., 696
- Slag Samples Standardised for Sulphur for (Bureau of Analysed Samples, Ltd.), 123
- Steelworks. See *Works*
- Steelwork, Structural, Painting of, Report on, 522
- Steering Console, Combined (S. G. Brown, Ltd., and J. Hastie & Co., Ltd.), 277
- Gear, Gyro-Compass Binnacle, Marine (S. G. Brown, Ltd.), 277*
- Steinman, D. B., Writings of (Book), 850
- Stella Lamp Co., Ltd., Electric Lamps (Trade Publication), 690
- Stephenson, George, and Construction of London-Birmingham Railway, 622
- Stephenson, R. H., the Late, 39
- Steriliser, Hydrostatic, "Hydron," for Canned Foods (Mitchell Engineering, Ltd.), 545*
- Stevadores and Dockers, National Amalgamated, Dock Strike, 32, 64; One-day Strike at Liverpool by, 480
- Stevenage, New Laboratory of Water-Pollution Research Laboratory at, 14*
- Steward, H. R., Model of Vessel for Removal of Compacted Mud, 53
- Stewarts & Lloyds, Ltd., Increase in Profits Since De-Nationalisation, 811
- Stiffness and Creasing Tester for Fabrics (Shirley Developments, Ltd.), 91*
- Stipetic, D., on Organisational Developments of the Uljanik Shipyard, 629
- Stocksbridge Works of S. Fox & Co., Ltd., New Bar and Rod Rolling Mill for (Brightside Foundry and Engineering Co., Ltd.), 190. See 163; Modernisation at, 651, 656
- Stoker, "Martin," for Burning Coal Slurry, 110
- Stone, J. & Co. (Deptford), Ltd., "Novoston" Five-Bladed Solid Marine Propeller, 802; "Vapor" Oil-Fired Forced-Circulation Boiler for Heating Diesel Trains, 900
- Stoneware, Industrial Trade Publication, 594
- Storage Battery. See *Accumulator* under *Electric; Motor Trucks*
- Equipment for Factories (Steel Equipment Co., Ltd.), 427
- Stores, Colliery, and Workshops, Suggested Layouts for, 688
- Storey, Sir J. S., the Late, 136
- Storey, T. (Engineers), Ltd., Bailey Bridging (Trade Publication), 41
- Stothert & Pitt, Ltd., Rotary Magnetic Oil Seal, 462*
- Stoyle, H. B., the Late, 263
- Strachan & Henshaw, Ltd., "Beetle" Shunting Device with Retractable Arms, 145*
- Straight, W., Appointment to Rolls-Royce Ltd., 552
- Straightening of Photographic Plates, Apparatus for Testing, 151, 510*
- Strain, Materials at High Rates of, Properties of, Conference on, 1957, Arrangements for, 407
- in Sheet Materials, Moire Technique for Measuring, 116*
- See also *Stress*
- Strainers and Filters (Trade Publication), 107
- Self-Cleaning, Multi-Duty (Auto-Klean Strainers, Ltd.), 310
- Strang, Dr. W. J., on Effects of Turbine Engines on Civil Transport Aircraft, 691*
- "Stratofortress" Boeing B.52 Bomber Aircraft, 788*
- Straussler, N. & Co., Ltd., Twin-Engine, Diesel or Petrol Driven Lorry with Extra-Wide Tyres, 87*
- "Streamline" Gyrotory Separator (Russell Constructions, Ltd.), 893
- Street, Sir R., on Redundancy in Cotton Industry, 586
- See *Roads*
- Strength of Materials. See *Stress and Tests (Materials)*
- Stress, Alternating and Combined. See *Tests (Materials)*
- Analysis Group of Institute of Physics, Ninth Annual Conference, Arrangements for, 245
- Distributions under Foundations, Investigations of, 507*
- Repletions. See *Fatigue* under *Tests (Materials)*
- Strikes. See *Labour*
- Structural Concrete, Joint Committee on Concrete and Structural Form: Synthesis of Engineer and Architect, by Prof. P. L. Nervi, 601*; Symposium on Strength of Concrete Structures, 1956, Arrangements for, 603
- Design of Aeroplanes. See under *Aeronautics*
- Engineers, Institution of: Concrete and Structural Form: Synthesis of Engineer and Architect, by Prof. P. L. Nervi, 601*; Savings to be Effected by the More Rational Design of Cased Stanchions as a Result of Recent Full-Sized Tests, by O. Faber, 855*
- Engineering, Aluminium in (Book), 786
- "Castella" Beams for (Trade Publication), 107
- Collapse Behaviour of Vierendeel Trusses, 632*
- Full-Scale Tests on Concrete-Encased Stanchions, 855*
- Modular Construction (Trade Publication), 850
- Form in Concrete Construction, 601*
- Frames, Complex, Analysis by Use of Models, 53
- Sections, Marine, Aluminium-Alloy, Specification, 9
- Steelwork. See *Steelwork*
- Structures, Building, Framed, "Muroglass" Glass Cladding for (Pilkington Brothers, Ltd.), 613. See *Erratum*, 704
- Concrete, Strength of, Symposium on, 1955, Arrangements for, 603
- Flexible, Wind Effects on (Book), 202
- Framed, Determination of Critical Load for, by Dr. D. B. Chandler, 658*
- Structures Naturelles, Centre de Recherches des, "Clay Bottle" Technique of Building Construction, 36
- Non-Linear, Analysis of, Castigliano's Theorem of Compatibility, 828.* See *LETTER*, 877
- Reinforced-Concrete. See *Concrete, Reinforced*
- Statically-Indeterminate, Analysis of (Book), 657
- Steel, Simple, Practical Design of (Book), 721
- Supporting, Cross Method for Calculating Bending Strength of (Book), 850
- Theory of, Bending of Straight Beam under Transverse Loading, 211*, 244*
- of, Concepts of Real and Virtual Work, by T. M. Charlton, 139*
- Struts. See *Columns*
- "Stubby" Low-Lift Platform Truck (Trade Publication), 107
- Stubs, P., Ltd., Wall Charts (Trade Publication), 137
- "Student" Jet Trainer Aircraft, Construction of (F. G. Miles, Ltd.), 900
- Stulen, F. L., on Design, Development, Production and Servicing of Helicopter Rotor Blades, 389
- Sturtevant Engineering Co., Ltd., Electrostatic Air Cleaner (Trade Publication), 107; Exhaust Ventilation (Trade Publication), 297; Electrostatic Precipitators for Drakelow Power Station, 666
- "Styron" Plastics Moulding Materials (Distrene, Ltd.), 676
- Submarine Boats. See *Warships*
- Submarine Cables, Ltd., Loading Equipment for Transatlantic Telephone Cable, 677*; Danish-Norwegian Telephone Cable, 739
- Submarine Signal Co. (London), Ltd., Depth Recorder for Shallow Waters, 277
- Substation, Castle Donington, Overhead Line for Energising, 87*
- Sud-Ouest, Société Nationale de Constructions Aéronautiques du, "Trident" Lightweight, Rocket-Driven, Fighter Aircraft, 11*; "Vatour SO-4050" Twin-Jet Bomber Aircraft, 11*; "Aerosonic" Ultrasonic Flaw Detector for Inspection of Metal-to-Metal Bonding, 12*; Annual Report, 130
- Sudan, Egypt and Ethiopia, Report of United Kingdom Trade Mission to, 165. See *LETTER*, 230
- Railways, Oil-Burning Locomotives for (North British Locomotive Co., Ltd.), 59*
- Sugar Production, Brix Controller for (Trade Publication), 489
- Refinery, Control Panel for (Costain-John Brown Instrumentation Division), 728*
- Storage, Prestressed-Concrete Silos for (J. Laing & Sons, Ltd.), 895*
- Sullivan, J. D., on Problems in Smelting Varying Grades of Iron Ore in United States, 162
- Sully, Dr. A. H., on Some Metallographic Observations of the Creep of Aluminium-Copper Alloys, 536
- Sulphur Production, Report in House of Commons on, 678
- Sumerfield General Directorate, 34-in. Blooming and Slabbing Mill for Karabuk Iron and Steel Works, 286*
- Sumps, Formation of Air-Entraining Vortices by, Research on Prevention of, 596*
- "Sunbeam Rapier" Motor Car, Suspension System for, 611*
- "Supaslot Major" Slotted Angle Material for Construction of Racks, Benches, etc. (Slotted Angle Co. (G.B.), Ltd.), 254
- "Super-Mystere" Interceptor Aircraft (Avions Marcel Dassault), 11*
- "Super Sabre F.100C" Fighter-Aircraft, 787*
- Superchargers (Trade Publication), 489
- Piston, for Diesel Engines (Wellworthy, Ltd., and Ricardo & Co. Engineers (1927), Ltd.), 424*
- Superheat Boost System for Avoiding Temperature Shocks in Steam Turbines (J. Thompson Water Tube Boilers, Ltd.), 214*
- Superheater Co., Ltd., "Melesco" Superheater for Drakelow Power Station, 663
- "Superpoise" 2 to 5 tons capacity Lorries (Commer Cars, Ltd.), 548
- Supervising Electrical Engineers, Association of, Award of W. E. Highfield Shield and Swann Diploma, 189
- Supply, Australian Department of, Aeronautical Research Laboratories, Annual Report, 208
- Ministry of, Transfer of Responsibility for Metal and Engineering Industries to Board of Trade, 2; Flexible Wire Ropes for Pulley Systems, by J. F. Sutton, 44*; Exhibits at British Instrument Industries Exhibition, 116; Development of "TACAN" Air Navigation System, 284*; Exhibit of Kinetic Heating Effects in Aircraft at Farnborough Air Show, 471*; Review of British Civil and Military Aircraft, 737
- Support System for Roof of Advancing Coal Face (C. Ritchie), 738*
- Surface Grinding Machine. See *Grinding* under *Machine Tools*
- Roughness, Instrument for Measuring, (Micrometrical Manufacturing Co.), 313*
- Scales for Measuring (Trade Publication) 409
- Surfard, Ltd., Flame-Hardening Process for Crankshaft Bearing Surfaces, 151*
- Surveying, Elementary (Book), 267
- and Levelling, Questions and Answers on (Book), 170
- Modern, for Civil Engineers (Book), 237
- Plane, Elementary (Book), 170
- Practice (Book), 818
- Sutcliffe, Richard, Pioneer of Underground Conveying (Book), 721
- Sutton-in-Ashfield Works of Sheepbridge Alloy Castings, Ltd., Long-Length and Bi-Metal Centrifugal Casting Processes at, 112*
- Sutton, J. F., on Flexible Wire Ropes for Pulley Systems, 44*
- Svenska Motorbros AB, Transportable Rod Cropper, 580*
- Swales, E. W., the Late, 655
- Swaminathan, T., on Administration of Indian Community Project, 485
- Swansea, Waunarlwydd, Proposed New Works of Imperial Chemical Industries, Ltd., for Fabrication of Titanium, 718
- Swarf Bin and Carrier for Workshop Use (Wickley, Ltd.), 900*
- Swedish Atlas Diesel Organisation, Increase in Output of, 810
- "Swift Mark 5" Fighter Aircraft (Vickers-Armstrongs Ltd.), 437*
- "Swimming Pool" Nuclear Reactor, "Cerenkov" Radiation from, 283*, 299*
- Nuclear Research Reactor, Model of (John Thompson, Ltd.), 354*
- Swiss System of Models for Teaching Kinematics, 501
- Switchgear, "Allo" Security Switch for Machinery (Brace Products), 733
- for Bold "A" Power Station (A. Reyrolle & Co., Ltd.), 515*
- Cabinet for Control of Battery Emergency Lighting Sets (Nife Batteries, Ltd.), 644*
- for Chadderton "B" Power Station (Ferguson Pailin, Ltd.), 112
- Circuit-Breaker, 250-MVA, 11-kV (G. Ellison, Ltd.), 277
- Breakers, Air-Blast, for Drakelow Power Station (A. Reyrolle & Co., Ltd.), 667*
- Breaker, Arc-Control, Direct-Blast (Erskine, Heap & Co., Ltd.), 308*
- Breakers, Improvements in, 623
- Breaker, Miniature, "Loadmaster" (Dorman & Smith, Ltd.), 247

- Switchgear Circuit-Breakers, Oil, Low-Tension (Erskine, Heap & Co., Ltd.), 308*
- 11-kV Combined Ring-Main Switch and T-off Fuse Switch Unit for Outdoor Use (A. Reyrolle & Co., Ltd.), 307*
- Distribution (Trade Publication), 409
- Gate-End Panel, Flameproof, for Mines (General Electric Co., Ltd.), 736*
- Research Laboratory of Belmos Co., Ltd., 671*
- Starter Board, Motor, Marine (General Electric Co., Ltd.), 304
- Switches, Aerial Selector, at Post Office Radio Station at Rugby, 165*
- — Flush Electric, for Alternating-Current Circuits (Trade Publication), 755
- — Pressure-Fluctuation, for Safety Device for Locomotives, 218*. See 195
- Ring-Main (Trade Publication), 107
- and Signal Lamps (Trade Publication), 107
- Tapping, Off-Circuit (Trade Publication), 755
- Switchboard, 45-MVA, 660-volt (G. Ellison, Ltd.), 277*
- — Grouped Contactor, for Ship's Auxiliaries (A. West & Co., Ltd.), 425*
- Switching Station for Los Peares Power Station, Spain, 460*
- Tap-Changer, Transformer, On-Load (Maschinenfabrik Rainhausen), 735*
- for Unified Boiler Control System at East Yelland Power Station, 547*
- Switzerland, Escher Wyss, Ltd., One Hundred and Fiftieth Anniversary of, 36
- Fionnay Underground Power Station, 36
- Sykes, Dr. C., on Development and Improvement of Research Techniques in Metallurgy, 475
- Synchro-Cyclotrons for Acceleration of Nuclear Particles in Curved Paths, 530*
- "Synchrostep" Remote-Controlled Ship's Telegraph (Chadburns (Liverpool), Ltd.), 276
- Synchrotrons for Acceleration of Nuclear Particles in Curved Paths, 530*
- Electron, Components for (General Electric Co., Ltd.), 176*
- T**
- TABGHA Power Station, Israel. Construction of, 47
- Tables, Reference, for Thermocouples (Book), 237
- "TACAN" Air Navigation System, Development of, 284*
- Tachometer. See *Speed Indicator*
- Tactical Radar Simulator for Training Observers (Solartron Electronic Group, Ltd.), 126
- Talbot Stead Tube Co., Ltd., "Metica" Carbon-Lined Pipes for Corrosive Liquids, 278
- "Tanalith C" Preservative for Protection of Timber (Hickson's Timber Impregnation Co. (G.B.), Ltd.), 732
- Tangves, Ltd., "Climbing" Hydraulic Jack for Concrete Formwork, 422*
- Tank, Cleaning, "Agidip," for Metals, Using Two-Phase Solutions (Electro-Chemical Engineering Co., Ltd.), 548
- Cleansing, Pneumatic (Trade Publication), 529
- Fittings (Trade Publication), 330
- Pressed-Steel (Trade Publication), 202
- Ships, Motor. See *Oil Tankers*
- Steamers. See *Oil Tankers*
- Storage, Welded, Mild-Steel, Horizontal, Specification, 169
- — Welded, Research on Reinforcement of Openings of, 145
- Water-Entry, for Admiralty Hydrodynamics Laboratory, 768*
- Tannoy Products, Ltd., Microphone for Dusty Atmospheres, 704
- Tantalum, New Uses of, 172. See *LETTERS*, 230, 262
- "1001 Taon" Lightweight Fighter Aircraft (Société Anonyme des Ateliers d'Aviation Louis Breguet), 11
- Tape Recording, Measures for Safeguarding when Transported by Air, 655
- Tapping Machine. See *Machine Tools*
- Tar Deposits in Tubes, Method of Removing (British Oxygen Co., Ltd.), 222*
- and Oils, Gas Production from, "Segas" Process for (Trade Publication), 594
- Tarpen Engineering Co., Ltd., "Tarpentiller" Electrically-Operated Hand Tiller, 93*
- "Tarpentiller" Electrically-Operated Hand Tiller (Tarpen Engineering Co., Ltd.), 93*
- Tate Brothers, Ltd., Compressors and Jointing Equipment for Overhead Power Transmission Lines (Trade Publication), 267; Hydraulic Compressor for Jointing Overhead Electric Transmission Lines, 466
- Tate & Lyle, Ltd., Control Panel for Sugar Refinery of (Costain-John Brown Instrumentation Division), 728*
- Tatterson, G. K., on Methods of Overcoming Specific Difficulties with Locomotive Working, 142*
- Tavazzano Power Station, Italy, Use of Natural Gas at, 702*
- Taylor Brothers & Co., Ltd., Agreement with American Rolling Mills Corp. to Supply Technical Assistance on Forge Plant, 362
- Taylor, G. M. C., Hillfield Park Reservoir of Colne Valley Water Co., 575*
- Taylor Stoker Co., Ltd., "Lo-Bed" Electric Haulage Capstan, 613*
- Taylor Woodrow, Ltd., Construction Work at Calder Hall Nuclear Power Station, 355*, 431*
- Taylor & Young, Factory and Workshops of Matthews & Mumby, Ltd., 186*
- Taylor of Southampton, Pioneers in Mechanical Engineering, 68*; Unveiling of Memorial Tablet to, 68*
- Teachers, National Union of, Dispute over Superannuation Scheme, 872
- Teaching. See *Education*
- Tecalemit, Ltd., "Impulse" Lubricating Pumps for Heavy-Duty Machinery, 422*; "Falling-Drop" Automatic Lubricating Pump, 422
- Technical Appointments Service of Ministry of Labour and National Service, 160
- College and Education. See *Education*
- Societies. See *Institutions*
- Technological Change, Social Implications of, 650
- Technology, History of, Vol. I: From Early Times to Fall of Ancient Empires, by C. Singer, E. J. Holmyard and A. R. Hall (Review), 74
- Proposed Diplomas in, 127. See 97, 129. See *LETTERS*, 167
- and Science in Western Germany, Review of (Review), 817. See also 810
- Teeth, Gear. See *Gear*
- Tekuma Reservoir for Irrigation and Flood Control in Southern Israel, 124*
- Telecine Apparatus at Beulah Heights Television Transmitting Station (Cinema-Television, Ltd.), 404
- Equipment for Wembley Television Studios (Electric & Musical Industries, Ltd.), 404
- Telecommunications, Principles and Practice of (Book), 754
- Teleflex Pantatron, Ltd., "Pantatron III" for Radiographic Examination of Metals, 434*
- Teleflex Products, Ltd., "Pantatron" Units for Gamma Radiography, 427*
- Telegraph, Ship's, Remote-Controlled, "Synchrostep" (Chadburns (Liverpool), Ltd.), 276
- Telegraphy, Wireless. See *Radar; Radio; Television*
- Telephone Cable, Danish-Norwegian, Laying of, 739
- — Deep-Sea, Repeaters for, Precautions in Manufacture of, 228
- — Transatlantic, Progress of, 31
- Meter (Trade Publication), 489
- Post Office, Development in Engineering Services, 710
- Radio, Combined Amplitude and Frequency-Modulated (Redifon, Ltd.), 279*
- — System, Mobile, "Ranger," for Dashboard Mounting in Transport Vehicles (Pye, Ltd.), 518*
- System, Austrian, Coaxial Cables for (Standard Telephones & Cables, Ltd.), 243
- — Carrier-Current, Kemano-Kitimat (General Electric Co., Ltd.), 158
- Waiting List for, Post-Office Annual Report, 131. See 619
- Telephony, Multi-Channel, Use of Radio Relay Systems in, 739
- Radio, Short Range Transmitter-Receiver for (Mullard, Ltd.), 736
- Wireless. See also *Radar; Radio; Television*
- Teletypewriter for Industrial Use, 298
- Teletyping, Suppressed Frame System of (Book), 369
- Telescope, Isaac Newton, 98-in., Progress in Design of, 859
- Television Camera, Underwater, Combined Supply Cable and Lifting Rope for (British Insulated Callender's Cables, Ltd.), 582*
- Colour, B.B.C. Experimental Equipment for, 779, 780*
- — Experiments in, 631
- — Experiments by British Broadcasting Corporation, 205
- Commercial, Impact on Engineering Industry, 554
- and Radio Exhibition, National, Exhibits at, 296
- Stations, by W. J. Duschinsky (Review), 73
- — Pontop Pike, Opening of, 790
- Training Centre of Marconi's Wireless Telegraph Co., Ltd., 5
- Transmission from Helicopter (Bristol Aeroplane Co., Ltd. and Pye, Ltd.), 350
- — Stations for B.B.C. and I.T.A., 631
- — Stations, London, of Independent Television Authority, 404*
- Use for Examination of Icing Tests on "Proteus-Ambassador" Aircraft (Bristol Aeroplane Co., Ltd.), 319*
- — of Radio Relay Systems in, 739
- Temperature Control, Automatic, "Milliscope," 151*
- Distribution in Ring-Oiled Bearings, 572*
- Measurement. See *Pyrometer; Thermometry*
- and Oxygen Recorder for Boiler Houses (Trade Publication), 755
- Problems in Astronautics, 236
- Shocks in Steam Turbines, System of Superheat Tube for Avoiding (J. Thompson Water Tube Boilers, Ltd.), 214*
- Tempering. See *Heat Treatment* under *Metallurgy*
- "Tenby," H.M. Anti-Submarine Frigate, Launch of, 550
- Tennant, C., Sons & Co., Ltd., Non-Destructive Testing Instrument for Drawing Qualities of Sheet Metal, 62*
- Tennessee Valley Authority Scheme, Administration of, by Dr. E. A. Scherman, 485. See *LETTER*, 621
- Tensile Tests. See *Tests (Materials)*
- Ternary Alloys. See *Alloys* under *Metallurgy*
- "Terrier" Guided Missile (General Dynamics Corporation), 734*
- Tests, Aeronautical. See *Aeronautics*
- House, Admiralty, at National Gas-Turbine Establishment, 504*
- — High-Pressure Combustion, Australian Department of Supply, 208
- — for School of Gas-Turbine Technology, 548*
- Tests (Materials):**
- Balance, Testing, 1,000-lb., for Road Weighbridges, 880
- Creasing and Stiffness Tester for Fabrics (Shirley Developments, Ltd.), 91*
- Creep, Research on, 4
- — Resistance of Steels for High-Temperature Steam-Plant Bolting, 826*
- — Testing, Compression, for Assessment of High-Temperature Properties of Materials, Research on, 208
- Disc Wear Machine for Studying Wear and Pitting Phenomena, 889*
- Fatigue in Aircraft, Design Philosophy of, 773
- — of Aircraft Pressure Cabins, 73
- — Bending-Test Machine for Electric Cables (Pirelli-General Cable Works, Ltd.), 184*
- — of Metals, Courses at Northampton Polytechnic, 405
- — Research on, 4
- — Testing of Aircraft, Exhibits Demonstrating, 71*
- — of Flexible Wire Ropes for Pulley Systems, 45*
- — Full-Scale, of Diesel Engine Elements, 891
- — of Helicopter Rotor Blades, 389
- — Machine with Automatic Operation to Pre-Determined Programme (C. Schenck Maschinenfabrik, G.m.b.H.), 669*
- — Research on, 145
- Flatness or Straightness of Photographic Plates, Apparatus for Testing, 151, 510*
- Freezing and Thawing Tests on Cement Mortar (Book), 881
- Hardness Testing, Rockwell, Performance Tests on Indenters for, by R. S. Marriner, 17*
- Impact Tensile Test, Hot, Relation to Hot-Working Properties, 536
- Non-Destructive Testing Instrument for Drawing Qualities of Sheet Metal (Jones & Laughlin Steel Corporation), 62*
- — Testing, Use of Vibratory Energy in, 637*
- Rockwell Hardness Testing, Performance Tests on Indenters for, by R. S. Marriner, 17*
- Shear Tests of Aluminium-Alloy Concave-Pointed Rivets, 79*. See *Erratum*, 127
- Stanchions, Concrete-Encased, Full-Scale Tests on, 855*
- Strength, Structural, of Aircraft, Testing of, 773
- — Testing Equipment, "Big Bruiser," for Aircraft Components, 821*
- Stress Determination, Optical. See *Photo-Elastic*
- — in Materials and Structures. See *Stress*
- Tensile Tests of Aluminium-Alloy Concave-Pointed Rivets, 79*. See *Erratum*, 127
- — Impact, Hot, Relation to Hot-Working Properties, 536
- Tests on Riveted and Welded Ships, Comparison of, 108*
- — on Steels for High-Temperature Steam-Plant Bolting, 826*
- Tests, Model, Wind-Funnel, of Jet Flap in Aircraft, 471*
- Pit for Steam Turbines, 138*
- Rig for Combustion Chamber of Gas Turbine, 539*
- — Overspeed and Bursting, at National Gas Turbine Establishment, 506
- — on Rupturing of Safety Diaphragm of 66-MW Steam Turbine, 696*
- Tester, "Briticent" Full-Load Earth Continuity, for Portable Electrical Apparatus (British Central Electrical Co., Ltd.), 175
- Neutral Loop Impedance (British Central Electrical Co., Ltd.), 175
- Testing, Balance, 1,000 lb., for Road Weighbridges, 880; Wear and Pitting Phenomena, Disc Machine for Studying, 889*
- Building Construction, Symposium on Methods of (Book), 408
- E.H.V. Transformers, Impulse Generator for (C. A. Parsons & Co., Ltd.), 430
- and Inspection of Engineering Materials (Book), 105
- Laboratory. See also *National Physical*
- Materials, American Society for, Standards in Building Codes (Book), 369
- Machine, Fatigue (C. Schenck Maschinenfabrik, G.m.b.H.), 669*
- Rig, Wide-Plate, for Brittle Fracture, 145
- Short-Circuit, at Research Laboratory of Belmos Co., Ltd., 671*
- Unit for Stationary Test on 4-6-0 Locomotive to Ascertain Boiler Losses due to Radiation, 209*
- See also *Tests (Materials); Trials*
- Textile Industry, Aluminium Alloys in (Trade Publication), 267
- Machinery Industry, Competition in, 99
- — Use of Timber in, 732*
- Spinning Frames, Two-Speed Drive for Reducing End-Breakages of, 865*
- Thames, River, Survey of Estuary, 15
- Theorem of Compatibility, Castigliano's, by Prof. J. A. L. Matheson, 828*. See *LETTER*, 877
- Thermal Shock in Gas-Turbine Blades, Research on, 539
- Thermal Syndicate, Ltd., Spectrophotometer Cells (Trade Publication), 850; "Vitrosil" Acid-Resistant Immersion Heater (Trade Publication) 850; Hydrochloric Acid Plant (Trade Publication), 881; Refractory Ware (Trade Publication), 881
- Treatment, Metals. See *Heat Treatment* under *Metallurgy*
- Thermocouples, Reference Tables for (Book), 237
- for Tests of Heat Transfer in Ring-Oiled Bearings, 570*
- See also *Pyrometer*
- Thermodynamics, by J. F. Lee and F. W. Sears (Review), 883
- Applied (Book), 330
- of Carbon Dissolved in Iron Alloys, 829
- and Physics of Matter, Vol. I of High-Speed Aerodynamics and Jet Propulsion, by F. D. Rossini (Review), 882
- Use of Digital Computers in Solving Problems in, 640*
- Thermometry, Temperature-Measuring Instruments. Calibration of (Book), 202
- — and Oxygen Recorder for Boiler Houses (Trade Publication), 755
- See also *Pyrometer*
- Thermostat for Control of Room Heating (C. Kieft & Co., Ltd.), 613*
- Thickness Control Unit, Russian, 598*
- Gauges using Radioactive Materials, Developments in, 292
- — Transverse-Profile (Baldwin Instrument Co., Ltd.), 90*
- Thirlwell, J. B., on Technical Education, 445
- Thom, R. A., the Late, 720
- Thomas, A., on Drawing and Design, 23. See *LETTERS*, 5, 167. See also vol. 179
- Thomas, Dr. F. G., on Strength of Concrete-Encased Steel Stanchions, 759*
- Thomas, Sir M., on Delay in Production of Civil Airliners, 226
- Thomas, R., & Baldwin, Ltd., Steelmaking at Redbourn Works of, 696
- Thomas, Dr. W. R., on Strain-Ageing of Alpha-Iron, 862
- Thompson, J., Ltd., Annual Report, 3, 131; Model of "Swimming Pool" Nuclear Research Reactor, 354*
- Thompson, J., Water Tube Boilers, Ltd., System of Superheat Boost for Avoiding Temperature Shocks in Steam Turbines, 214*; "Minipac" Oil-Fired Packaged Boiler, 641*
- Thompson, J. (Wolverhampton), Ltd., Heavy-Fuel-Oil-Fired Packaged Boiler, 641
- Thompson, T. R., Statement on Electronic Computers in the United States, 841
- Thoresby Colliery, Applications of Photo-Electric Cells at, 580
- Thorium, Possible Role in Nuclear Energy of, 264
- Thornycroft, J. I., & Co., Ltd., "RJD/2" 16-s.h.p. Two-Cylinder Marine Diesel Engine with Closed-Circuit Cooling, 188*; "JD/2" Diesel Engine for Distillation Plant, 274*; Annual Report, 650
- Threads, Screw. See *Screw*
- Thrombosis, Coronary, Incidence in Industry, Questions in House of Commons, 839
- Thrust Bearing. See *Bearing*
- of Propellers. See *Propellers; Aeronautics*
- "Tidereach," H.M. Fast-Replenishment Oil Tanker, Delivery of, 396
- Tiffin, A. E., Statement on Preparing for Future, 400
- Tiller, Hand, Electrically-Operated "Tarpentiller" (Iarpen Engineering Co., Ltd.), 93*
- Timber in Building, Special Display to be Held at 26th Building Exhibition, 51
- Chipboard Factory at Annan, Dumfriesshire (Airscrew Co. & Jicwood, Ltd.), 476*
- Development Association, Rigid Frame System of Timber Construction, 93*; New Laboratory at High Wycombe, 457
- Import and Export of, 402
- Machine Boring of (Book), 626
- Research on, 764
- of South East Asia (Book), 202
- Struts, Strength of (Book), 170
- — "Tanalith C" Preservative for Protection of (Hickson's Timber Impregnation Co. (G.B.), Ltd.), 732
- in Textile Machinery, Use of, 732*
- Time Standard, Atomic, Caesium, at National Physical Laboratory, 303
- Tin-Plate Supplies, Need for Further Increase in, 874
- Tipping Wagons, Motor. See *Motor Vehicles*
- Tipplers for Coal-Handling Plant at Chadderton "B" Power Station (Mitchell Engineering, Ltd.), 111
- Wagon (Trade Publication), 850
- Titanium Abstract Bulletin*, First Issue of New Publication, 230
- Fabrication of, Proposed New Factory of Imperial Chemical Industries, Ltd., at Waulnarlydd, Swansea, 718
- Granular, Application by Imperial Chemical Industries, Ltd., for Manufacture in United States, 219
- Improvements in Quality and Availability of, 230. See *LETTERS*, 262. See 172
- — Melting Plant for (W. Jessop & Sons, Ltd.), 293
- Newer Uses of, 172. See *LETTERS*, 230, 262
- Use in American Aircraft Industry, 851
- Tizard, Sir H., Haldane Memorial Lecture by, 246
- Tobias, Dr. S. A., on Vibrations of Radial Drilling Machines under Test and Working Conditions, 823
- Tolerances in Machine Work. See *Gauge*
- Toms, A. H., on Soil Mechanics in Railway Civil Engineering, 384*. See *LETTERS*, 655
- Tool Engineers, American Society of, 11th Exposition of, 31
- Grinder. See *Grinding* under *Machine Tools*
- Holder. See *Machine Tools*
- Machine. See *Machine Tools*
- Negligence in Manufacture and Use of, 325
- Pneumatic. See *Machine Tools*
- Steel. See *Steel*
- Toothed Gear. See *Gear; Gearing; Marine Propulsion*
- Torque Converter, "Buick Dynaflo," 609*
- Meters. See *Dynamometers*
- Torsion Tests. See *Tests (Materials)*
- Torsionmeters. See *Dynamometers*
- Touret, R., on Worm-Gear Lubrication, 888*
- Tousey, R., on Visibility of an Earth Satellite, 236
- Tower, Steam-Generating, for Calder Hall Nuclear Power Station, 431*

- Tower Structures for Keadby-Monk Fryston Line of 275-kV National Grid (W. Bain & Co., Ltd., and Redpath Brown & Co., Ltd.), 54*. See *Erratum*, 252
- Valve, for Colne Valley Water Co. Reservation Scheme, 575
- Town Development in Scottish Highlands, Proposed Conference of Scottish Trades Union Congress on, 440
- Gas. See *Gas*
- Planning and Building in Poland, 879*
- Town, W., the Late, 294
- "Tracermatic" 14-Spindle Copy Milling Machine, 885*
- "Track-Marshall" Tracklaying Diesel-Driven Tractor (Marshall, Sons & Co., Ltd.), 30*
- Traction Control Unit, Trailer Attachment for (D. Brown Tractors (Engineering), Ltd.), 29*
- "Tracto-Shovel" Excavator, Allis-Chalmers (Mackay Industrial Equipment, Ltd.), 30*
- Tractor, Agricultural, Ferguson Epicyclic Reduction Gear and Live Power Take-Off Unit for Massey-Harris-Ferguson (Manufacturing), Ltd.), 92*
- General Purpose, Low-Cost (D. Brown Tractors (Engineering), Ltd.), 832*
- Tracklaying, Diesel-Driven, "Track-Marshall" (Marshall, Sons & Co., Ltd.), 30*
- Caterpillar, Side-Mounting Crane Jib and Winch (County Commercial Cars (Sales), Ltd.), 599
- Crawler, "D9" (Caterpillar Tractor Co.), 517*
- and Earth-Moving Equipment, Components of, Specification, 238
- Diesel (Trade Publication), 137
- "Fordson-Major," Radio-Controlled Version of (Ford Motor Co., Ltd.), 677*
- Equipment (Trade Publication), 202
- and Excavator, Combined, "Traxcavator" (Trade Publication), 626
- Exhibition of, by County Commercial Cars, Ltd., 827
- Fitted with Buffer Beam, Use for Shunting, 145*
- Fore-End Loader, Ditch-Clearing Attachment for (Whitlock Bros., Ltd.), 30*
- Track-Laying (Trade Publication), 297
- Trade Balance, Investment and, 442
- Collective Discrimination, Board of Trade Monopolies Commission, Investigation on, 34
- Commercial Implications of Nuclear Engineering, 227
- Disputes. See *Labour*
- Exhibition. See *Exhibition*
- Export, Accumulators, 619
- Austria as Market for, 874
- to Canada, British Opportunities for, 842
- Clocks and Watches, 526
- Damage by Strikes, 35
- to Denmark, Opportunities for, 482
- Diesel Engines, 66
- to Dollar Account Countries, Renewed Drive for, 685. See 681.
- Electrical Plant, Australia Complains of Low British Prices, 34
- Engines, Increase in, 714
- Excavators, 517
- Heavy Motor Vehicles, Prospects of, 714
- and Import, Statistics of, 64
- and Import, Trends in, 874
- and Import, United Kingdom, 554
- Jet Aeroplane Engines, Hawker Siddeley Group Statement on, 3
- to Middle East, 482
- Motor Cars, 714, 842
- Nuclear Reactors, Sir C. Hinton on, 259
- Opportunities in Western Europe, 482
- Scientific Instruments, 714
- Textile Machinery, 99
- Viscount Bruce of Melbourne on, 162
- to Western Europe, Pamphlet on, 156
- Wrought Copper and Copper Alloys, Monopolies Commission Report on, 362
- General Agreement on Tariffs and, Election of Japan into, 258
- Import, Australian, Cuts in, 523
- Australian and New Zealand Restrictions on, 482
- Copper, 98
- Iron and Steel, Suspension of Duty on, Questions in House of Commons on, 807
- Steel Billets, Questions in House of Commons on, 871
- Machine Tool Industry as Guide to Market Trends, 874
- Mission, United Kingdom, to Egypt, the Sudan and Ethiopia, 165. See *LETTER*, 230
- Multilateral, with Brazil, System of, 291
- Power Plant, Demand for, 66
- Publications, 9, 41, 107, 137, 169, 202, 267, 297, 330, 409, 489, 529, 594, 626, 690, 721, 755, 786, 850, 881
- Rising Costs and Foreign Competition, 227
- Statistics of Business Trends and Prospects, "Konjunkturtest" Method for Determining, 810
- as Guide to Management Decisions, 694
- Steel, in Europe, 1954, Report on, 99
- Timber, 402
- and Transport, Sea, Influence of Engineer on, 331
- Unions. See *Labour*
- Traffic Census, United Kingdom, Ministry of Transport and Civil Aviation, 363
- Trafford Park Works of Metropolitan-Vickers Electrical Co., Ltd., Student and Apprentice Training Schemes at, 100*. See *Erratum*, 168
- Trailer Attachment for Traction Control Unit (D. Brown Tractors (Engineering), Ltd.), 29*
- Commercial (Trade Publication), 755
- for Oil Well Drilling Rig (Cranes (Dereham), Ltd.), 687
- Pallet-Carrying (Lansing, Bagnall, Ltd.), 491*
- for Transport of Locomotive Boilers (R. A. Dyson & Co., Ltd.), 189*
- Train Control, Automatic, on British Railways, Arguments for and against, 875
- for Mobile Mechanical Handling Demonstration, 685
- Speeds, Apparatus for Instantaneous Measurement of (R. Dell), 156*
- See also *Railway*
- Training. See *Education*
- Transcendental Functions, Higher, Vol. III (Review), 41
- Transducer System, Electro-Magnetic, Application to Measurement of Turbine Expansion Characteristics (Salford Electrical Instruments, Ltd.), 251*
- Transductor for Metering Field Currents (British Thomson-Houston Co., Ltd.), 893*
- "Transet" Control System (Short & Mason, Ltd.), 91*
- Transformers (Trade Publication), 626
- Air-Cooled (Trade Publication), 755
- for Bold "A" Power Station (Brush Electrical Engineering Co., Ltd.), 515
- Constant Voltage (Trade Publication), 626
- Distribution, 1,000-kVA, Core and Windings of (C. A. Parsons & Co., Ltd.), 275*
- Improvements in, 623
- E.H.V., Impulse Generator for Testing (C. A. Parsons & Co., Ltd.), 430
- 20.5-MVA, for Los Peares Power Station, Spain (British Thomson-Houston Co., Ltd.), 459*
- for Metering Field Currents (British Thomson-Houston Co., Ltd.), 893*
- Transistors and Other Crystal Valves, by T. R. Scott (Review), 489
- Germanium-Alloy Junction, "p-n-p" Type (General Electric Co., Ltd.), 152
- Transmission Gear. See *Gear*; *Marine Propulsion*
- of Power. See *Marine Propulsion*; *Power Transmission*
- Transmitters, Broadcasting, High-Power Air-Cooled (Trade Publication), 690
- Metering (Trade Publication), 137
- Radio, 30-kW, at Post Office Radio Station at Rugby (Marconi's Wireless Telegraph Co., Ltd.), 164*
- Receiver, Short Range, for Radiotelephony (Mullard, Ltd.), 736
- Transmitting Station, Television, London, of Independent Television Authority, 404*
- Transparencies, Use for Saving Time in Drawing Office on Plant Layouts, 106*
- Transport, Aerial. See *Aeronautics*
- and Civil Aviation, Ministry of, Plans for Modernisation of Roads, 94*; United Kingdom Traffic Census, 363; Firm Proposals for London-Yorkshire Motorway, 443
- and General Workers' Union, Dock Strike, 32, 64; Pensions for Engineering Employees, 32; 16th Biennial Conference, 98; Blackpool Biennial Conference, 128; Demand for Shorter Hours of Work, 128; Views on Wages and Profit Sharing, 128; Demands for Increased Wages, 256; Statement on Future, by A. E. Tiffin, 400; Wage Demands by London Busmen, 480; Signs of Change of Attitude to Wage Claims, 904
- Institute of: Presidential Address by P. Masefield, on Statistical Analysis of Capital Structure, Employment, Operating Costs and Revenue of British Transport Industry, 554
- of Large Pieces of Equipment, Congestions Caused by, Questions in House of Commons on, 743
- Motor. See *Road*; *Motor*
- Salaried Staffs' Association, Demand for Improved Wages and Conditions for Railway Employees, 288, 320; Wage Claims by, 808; Rejection of Wage Claims by, 840
- of Scientific Instruments, International Scheme for Safe Handling, 487
- Stand for "Dart" Propeller-Turbine Engine (Morfax, Ltd.), 896*
- Railway. See *Railway*
- Road. See *Road*; *Motor*
- in Rural Areas, Rural Transport Improvement Bill, 710
- Rural, Improvement Bill, Government Debate on, 871
- and Trade, Sea, Influence of Engineer on, 331
- Tribunal, Membership of, Questions in House of Commons on, 839
- Works, Conference on, 141*. See *Erratum*, 284
- "Transverco" Crop-Drying Equipment (General Electric Co., Ltd.), 833
- Traps, Sink, Glass, for Laboratory Use (Q.V.F., Ltd.), 187*
- Travelling Crane. See *Crane*
- "Traxcavator" Combined Tractor and Excavator (Trade Publication), 626
- "Traxcavator" Integral Tractor-Shovel (Caterpillar Tractor Co., Ltd.), 477*
- Treasury Central Statistical Office, Index of Production, 64; Views on Labour Costs, 288
- Trenching Equipment for "Ahlmann" Swing-Shovel (Abelson & Co. (Engineers), Ltd.), 168
- Trent, River, Waterway, Development Plans for, 31
- Trials, Agricultural Tractors. See *Tractors*
- Prototype, Method of Reducing Costs of When Testing Complicated Machines, 723*. See 713. See *LETTERS*, 783, 813
- Sea and Still Water, for Comparison of Riveted and Welded Ship Construction, 108*
- Trips and Launches of Ships, 13, 63, 93, 119, 140, 182, 217, 249, 286, 318, 396, 439, 448, 550, 593, 673, 688, 737, 802, 867, 899
- See also *Tests*
- "Trident" Lightweight, Rocket-Driven Fighter Aircraft (Société Nationale de Constructions Aéronautiques du Sud-Ouest), 11*
- Triplex Safety Glass Co., Ltd., Abandonment of Profit-Sharing Scheme, 584
- Trist, R., & Co., Ltd., "Electricon" Smoke Density Indicator, 353*
- Tritton, J. S., on Scientific Development of Modern Locomotive Design, 377*. See *Erratum*, 762
- Trolley, Bottle-Carrying (Trade Publication), 330
- Trounson, J. H., on Formation of West of England Steam Engine Society, 591; on Last Cornish Engine to Work at Cornish Mine, 748*. See 747
- Trowel, Rotary, Power-Operated, "Rotor-float" (Winget, Ltd.), 254*
- Truck, Battery-Operated, Oil or Petrol-Driven See *Motor Truck*
- Hand-Operated, Fork-Lift, Convertible to Trailer (Lansing Bagnall, Ltd.), 149*
- Operated, Platform (Trade Publication), 690
- Propelled, Tipping, with Glass-Fibre Body (C. Pitt (Barton Stacey), Ltd.), 833*
- Lift, Hand-Operated (Salisbury Precision Engineering, Ltd.), 477*
- Railway. See *Wagons*
- See also *Bogie*
- Trusses, Vierendeel, Collapse Behaviour of 632*
- Tubes, Brass, Annealing, Roller-Hearth Electric Furnace for (G.W.B. Furnaces, Ltd.), 158*
- Copper, Factory of Imperial Chemical Industries, Ltd., at Kirkby, 467*
- Finned, "Integron," for Heat Exchangers, Manufacture of, 468
- and Hoses, Flexible, Choice of, by J. V. Klein, 48*
- Tube Investment Group, Proposed Walsall Laboratories for Research on Irradiated Materials, Plastics and Control Engineering, 373
- Tube Investments, Ltd., "Chesterfield-Unisteel" Joint for Dissimilar Alloys, 432; Exhibits at Geneva Exhibition on Peaceful Uses of Atomic Energy, 432; Annual Report, 715
- and Pipe, Steel, Industry, European, Report on, 226
- Railways. See *Underground Railways*; *London Transport Executive*
- Stainless-Steel, Seamless, Flexible (Accles & Pollock, Ltd.), 322, 358*
- Steel, New Mill in Canada, 131. See 290
- Structural-Steel, Weldable, Metal-Arc Welding of, Specification, 41
- Tarry, Method of Cleaning (British Oxygen Co., Ltd.), 222*
- See also *Pipes*
- Tummel Valley Hydro-Electric Scheme, Additions to, 518
- Tungsten Lamps. See *Lamps*
- Newer Uses of, 172. See *LETTERS*, 230, 262
- Tunnel, Dartford, Proposed, Questions in House of Commons on, 678
- Railway, Breakdown Equipment for Use in, 865
- Early, on London-Birmingham Railway, 622
- Scotland to Northern Ireland, Questions in House of Commons on, 743
- Turbine, Gas, Aeroplane Engine, "Oryx," (D. Napier & Son, Ltd.), 179*
- for Aircraft, by I. H. Driggs and O. E. Lancaster (Review), 298
- Aircraft, Diffuser Rings of, Gauge for Checking Throat Area of (British Indicators, Ltd.), 869*
- in Austin Motor Car, 98
- Blade Tip Clearance in, Instrument for Continuous Measurement of, Research on, 541
- Brown Coal-Burning, Research on, 208
- r.p.m. Calibrator for (Bristol Aeroplane Co., Ltd.), 315
- Ceramic Blades for, Resistance to Thermal Shock of, 539
- for Civil Aircraft, Development and Future of, 390*
- Coal-Burning, Research on, 538*
- 500-h.p., Coal-Fired, Experimental (C. A. Parsons & Co., Ltd.), 241*
- Combustion Chamber of, Test Rig for, 539*
- 350-kW, for Direct-Current Generator for Marine Stand-By Duty (W. H. Allen, Sons & Co., Ltd.), 276*
- Effect of Use of Nimonic Alloys on Life of Flame Tubes and Rotor Blades of, 328
- Engineering, Applications of Digital Computer to, 640*
- Establishment, National. See *National Gas Turbine Establishment*
- High-Temperature, Air-Cooled, Experimental, 538*
- High-Temperature, Use of Liquid Metals for Blade Cooling in, 566*
- Instrument for Rebalancing Rotors of, 569*
- and Jet Propulsion (Book), 450
- Liquid-Cooled, Research by Pametrada, 101
- Marine, Hydraulic Reversing Transmission for, 567*
- for Marine Propulsion using Nuclear Power, 859*
- Marine, 1,000-kW, Prototype (W. H. Allen, Sons & Co., Ltd.), 538*
- Peat-Fired, 500-h.p., Experimental (J. Brown & Co., Ltd.), 241*
- Peat-Fired, Experimental (Ruston & Hornsby, Ltd.), 242*
- 5,500-h.p. Propulsion Unit for Oil Tanker "Auris" (British Thomson-Houston Co., Ltd.), 324*
- Residual Fuels for, Test Reports on (Ruston & Hornsby, Ltd.), 49*
- for Road Transport and Industrial Use, Courses at College of Aeronautical and Automobile Engineering, 695
- "Rover IS60," Tests on, 548*
- Turbine Shaft, Application of Electro-Magnetic Transducer System to Measurement of Expansion Characteristics of (Salford Electrical Instruments, Ltd.), 251*
- Solid-Fuel-Fired, Potentialities of, by Dr. A. Fitton and R. G. Voysey, 239*
- Technology, School of, New Test House for, 548*
- Vibration of Blades of, Research on, 539
- See also *Engines under Aeronautics*
- Hydraulic, for Los Peares Power Station, Spain (Boving & Co., Ltd.), 458*
- for Low-Head Hydro-Electric Power Stations, 627*
- See also *Power Plant*
- Pumps. See *Pumps*; *Centrifugal*
- Steam, 60-MW, Bladed High-Pressure Cylinder for (C. A. Parsons & Co., Ltd.), 275*
- Blading for. See *Blades*; *Blading*
- Die Dampfturbinen (Book), 330
- High-Pressure, 4,000-h.p., Tests on (R. & W. Hawthorn, Leslie & Co., Ltd.), 568*
- High-Temperature, "Pamela," Research by Pametrada, 101
- Marine, Automatic Turning Gear for (Metropolitan-Vickers Electrical Co., Ltd.), 306
- Marine, Geared. See *Marine Propulsion*
- Marine Propelling Machinery, Comparative Analysis with Single-Screw Marine Diesel Engine of 10,000 s.h.p. and Over, 42
- New Shop for Testing at Fraser & Chalmers Works of General Electric Co. Ltd. (Dorman, Long & Co., Ltd., and W. F. Blay, Ltd.), 138*
- Oils for, Specification, 169
- System of Superheat Boost for Avoiding Temperature Shocks in (J. Thompson Water Tube Boilers, Ltd.), 214*
- 66-MW, Tests on Rupturing of Safety Diaphragm of, 696*
- 60-MW, Testing of, 139*
- See also *Turbo-Generators*
- Steamers. See *Steamers*; *Warships*
- Turboblowers (Book), 721
- Turbo-Blower, New, for Scunthorpe Works of Appleby-Frodingham Steel Co., Ltd. (C. A. Parsons & Co., Ltd.), 402, 408
- Generator, Old Brush-Ljungström Alternator, Presentation to Makers by Central Electricity Authority, 740*
- Turin, Exhibition Hall with Roof of Pre-Cast Ferro-Cement Corrugations, 601*
- Turkdogan, Dr. E. T., on Thermodynamics of Carbon Dissolved in Iron Alloys, 829; on Solubility of Nitrogen in Alpha-Iron, 829
- Turkey, Catalagzi Power Station, Extension of, 581
- Karabuk Iron and Steel Works, 34-in. Blooming and Slabbing Mill for, 286*
- Turnblade, C., Forming Machine for Complex Contours, 851*
- Turnbull, J. H., on Locomotive Utilisation and Availability, 141. See *Erratum*, 284
- Turner, E., Electrical Instruments, Ltd., Flameproof Flash Equipment for Use in Collieries, 705
- Turner, J. H. W., on Professional Engineer and His Employer, 751. See 699
- Turning. See *Machine Tools*
- and Boring Mills. See *Machine Tools*
- Gear, Automatic, for Marine Steam Turbines (Metropolitan-Vickers Electrical Co., Ltd.), 306
- Turnstile, Coin Mechanism for (Sir W. H. Bailey & Co., Ltd.), 158*
- Tuscan Engineering Co., Ltd., Self-Exciting Self-Regulating Alternators, 399*
- Tustin, Prof. A., on Next Ten Years of Electrical Engineering, 848
- TV Stations: A Guide for Architects, Engineers and Management, by W. J. Duschinsky (Review), 73
- Tweedy, G. F., the Late, 655
- "Twin Pioneer" Civil Transport Aircraft with High-Lift Device (Scottish Aviation, Ltd.), 394*
- "Twinner-Aronson" Positioning Equipment for Manipulating Large Components during Welding (D. Ross & Partners, Ltd.), 307*
- "Ty-Rock" Screen for Crushed Rock (Trade Publication), 755
- "Tyne" Propeller-Turbine Aeroplane Engine (Rolls-Royce, Ltd.), 672*
- Typewriter, New British (Byron Business Machines), 40
- Tyres for Motor and Aircraft Industries, New Methods of Manufacture (Dunlop Rubber Co., Ltd.), 588

U

- "UEC" Type Single-Acting Two-Stroke Internal-Combustion Engine (Mitsubishi Shipbuilding & Engineering Co.), 42
- Uljanik Shipyard, Organisational Developments of, 629
- "Ultra-Light" Helicopter (Fairley Aviation Co., Ltd.), 395*
- Violet Meter, Short-Wave, for Measuring Radiation from Mercury Discharge Lamps (Hanovia, Ltd.), 91
- Ultrasonic Vibrations for Protection of Ships' Hulls Against Barnacles (Postans, Ltd.), 416
- Underground Gasification, Experiments on, Questions in House of Commons on, 871
- Railway, London, Apparatus for Instantaneous Measurement of Train Speeds on (R. Dell), 156*
- Travelling Jib Diesel-Electric Breakdown Crane for, 835*
- See also *London Transport Executive*
- Unemployment. See *Labour*
- UNESCO. See *United Nations Educational Scientific and Cultural Organisation*
- "Uniflex" Type Flexible Coupling for Shafts (Crofts (Engineers), Ltd.), 544

Union Carbide, Ltd., Production of Polyethylene in Scotland, 162
 Union-Castle Mail Steamship Co., Ltd., Proposed Merger with Clan Line Steamers, Ltd., Controversy on, 715
 Union Internationale des Producteurs et Distributeurs d'Énergie Electrique. See *UNIPÉDE*
 Union Internationale pour la Protection de la Nature. Conference on Hydro-Electric Works and Nature Preservation, 875
 — Trade. See *Labour*
 "Unionmelt" Welding Technique Applied to High-Strength Pressure Vessels (Quasi-Arc, Ltd.), 868*

UNIPÉDE:
Tenth Congress:
 Reports of Proceedings, 442, 447, 537
 Exchanges of Electrical Energy between Interconnected European Countries, 442
 Development of Domestic Applications of Electricity, 442
 Possibilities of a Thermal Power Station Operating on Both Coal and Heavy Oil, by G. R. Peterson, 447
 Possible Uses of Fly Ash, by G. Van Antro, 447
 Operating Experiences of Slag-Tap Methods of Firing, by Dr. L. Spenneman, 447
 Atmospheric Pollution by Power Stations, by G. R. Peterson and Dr. H. E. Crossley, 447
 Toxic Effluents from Power Stations, by G. R. Peterson and F. F. Ross, 447
 Advantages and Problems of Shutting Down and Starting Up Turbo-Alternator Sets and Boilers, by J. Ricard, 537
 Nature and Method of Operation of Steam Power Stations Used for Equalising Water Power, by G. Bardon, 537
 Exploitation of Water Sources Using Small Reservoirs to Even the Over-All Flow, by W. Pietzch, 537
 Problems of Frequency and Power Transfer Regulation Between Interconnected Systems, by F. Cahen, 537
 "Unit Radio Mast," Lightweight Stayed Mast (British Insulated Callender's Construction Co., Ltd.), 897*

— of Weight and Measure, Definitions and Tables of Equivalents (Book), 408
 United Aircraft Corporation, Opening of Hartford Graduate Centre of Rensselaer Polytechnic Institute for Employees of, 555; Aircraft Propeller Test Cells, 823*; New Plant of Hamilton Standard Division of, 886
 — Automobile Workers, Provision of Lay-off Funds for Employees in United States Automobile Industry, 256
 — Kingdom Atomic Energy Authority. See *Atomic Energy Authority, United Kingdom*.
 — Balance of Payments, 554
 — Coal Stocks, Position of, 522
 — Power Development in, Place of Nuclear Energy in, 805
 — Trade Mission to Egypt, the Sudan and Ethiopia, Report of, 165. See *LETTER*, 230
 — Traffic Census, Ministry of Transport and Civil Aviation, 363
 — and World Energy Resources to 1975, Contribution of Nuclear Power to, 265*
 — Nations Educational Scientific and Cultural Organisation, Social Science Department, Work of, 650
 — Technical Assistance Programme, United Kingdom Contributions to, Questions in House of Commons on, 743
 — States Aircraft Industry, Aspects of, 196, 787*, 819*, 851*, 884*
 — Atomic Energy Commission, "Swimming Pool" Nuclear Reactor, 299*; Research on Power from Nuclear Fusion, 599
 — Bureau of Mines, Grant from U.S. Government for Research on Minerals, 290; Report on Effect of Changes of Atmospheric Pressure on Gas Emissions in an Illinois Coal Mine, 559
 — Bureau of Standards, Leather Research and Technology at (Book), 79; Report of 40th National Conference on Weights and Measures, 880
 — Contracts for Electrical Distribution Plant, Award to Foreign Firms, 714
 — Corrosion Research Council, Formation of, 245
 — Developments in Propeller-Turbine Aircraft, 482
 — Economics of Nuclear Power in, 232, 282*
 — European Managers' Visit to, Booklet on, 98
 — Grant for Development of "Orpheus" Turbojet Aeroplane Engine, 221
 — Hydraulic Research in, 1955 (Book), 594
 — Manpower, Provision of Lay-off Funds for, 256
 — Manufacture of Granular Titanium in, Application by Imperial Chemical Industries, Ltd., 219
 — Metallurgical Research in, Hatfield Memorial Lecture on, Arrangements for, 406
 — Navy. See *United States under Warships*
 — Pipe and Foundry Co., "Burlington" Process for Casting Long Lengths, 113*
 — Plan for Purchasing Large Quantities of Machine Tools, 483
 — Problems in Smelting Varying Grades of Iron Ore in, 162
 — Production and Use of Electronic Computers in, 841
 — Projected Nuclear Reactors for, 301
 — Prospects for British Motor Cars in, H. Ford on, 714
 — Railways. See *Railways*

United States, Rejection of Tender of English Electric Co., Ltd., for Equipment for Chief Joseph Dam, 323
 — Scarcity of Steel Scrap in, 323
 — Shipping and Shipbuilding, Modernisation and Expansion Plans for, 194. See *Erratum*, 226
 — Trade Unions in, Merging of American Federation of Labour with Congress of Industrial Organisations, 840
 — Welding Techniques and Uses in (Book), 690
 — See also *America*
 United Steel Companies, Ltd., Rotherham Works of Steel, Peech and Tozer Branch, New Developments at, 28; Continuous Medium-Strip Mill for, 39
 United Steel Structural Co., Ltd., "Castella" Beams for Castellated Construction (Trade Publication), 107
 Universal and International Exhibition of Brussels, 1958, Arrangements for, 261
 "Universal Rindis" Versatile Machine Tool for Small Workshops (Levant & Co., Ltd.), 222*
 University, Birmingham, Summer School in Highway Engineering, 157
 — California, Investigation on Economic Construction of Airport Runways, 500
 — Cambridge, Offer by Mullard, Ltd., for Research on Radio-Astronomy, 223; Engineering Department, Activities of, 525
 — Liverpool, Department of Social Studies, Industrial Democracy, by W. H. Scott, 361; Advanced Lectures on Specialised Subjects, 528
 — London, Birkbeck College, Haldane Memorial Lecture, by Sir H. Tizard, 246; University College, Lectures on Photoelasticity, 528
 — Oxford, Conference on Education of Young Worker, 1956, Programme, 611; Institute of Statistics, Survey of Private Limited Companies in Birmingham, 651
 — Reading, Museum of English Rural Life at, 876*
 — Sheffield, Hatfield Memorial Lecture on Trends in Metallurgical Research in United States, Arrangements for, 406
 — See also *Education*
Up Funnel, Down Screw! Story of the Naval Engineer, by Cdr. G. Penn (Review), 689
 Uranium Supplies, Availability of, 259
 Urquhart, Dr. D. J., on Public Technical Library Service Based on Technical Colleges, 586. See *LETTERS*, 751, 783
 U.S.S.R., Problems of Chief Designer in, by L. A. Shubenko, 877
 — See also *Russia*

V

"V.1000" Military Transport Aircraft, Development of, 737
 Vacuum Gauges (Trade Publication), 721
 — High, Technique of (Book), 754
 Vacuum Oil Co., Ltd., Cinema Films on Lubrication, 636
 — Pump. See *Pump*
 — Tube. See *X-Ray*
 "Valiant" Jet Bomber Aircraft (Vickers-Armstrongs Ltd.), 438
 Valve, Air-Brake, for Trailer Vehicles (Clayton Dewandre Co., Ltd.), 318*
 — Control, Diaphragm, "Venturiflo," (Hammel-Dahl (Blakeborough, J., & Sons, Ltd.), 115*
 — Hydraulic (Keelavite Rotary Pumps and Motors, Ltd.), 464*
 — Hydraulic, Locking in, Research on, 596
 — Operating at Reduced Flow, Reduced Trim for (Crosby Valve and Engineering Co., Ltd.), 146*
 — Crystal, and Transistors, by T. R. Scott (Review), 489
 — Hydraulic, Electrically-Operated (Trade Publication), 267
 — Jointing and Level Indicators (Trade Publication), 594
 — Magnetically-Operated, for High Vacuum Systems (Trade Publication), 721
 — Non-Throttling, Two-Way, for "Oryx" Gas-Turbine Aeroplane Engine, 181*
 — for Oil Industry (Black Automatic Controls, Ltd.), 115*
 — Pilot, Four-Port, Push-Operated (Trade Publication), 529
 — Reducing (Trade Publication), 409
 — Hot Air, "PS.60," for Aircraft (Hymatic Engineering Co., Ltd.), 613*
 — Relief, Pressure-Balanced, "Protectoseal" (Crosby Valve and Engineering Co., Ltd.), 217*
 — Spherical (Trade Publication), 137
 — Springs, Internal-Combustion Engine, Causes of Failure in, 797
 — Tower for Colne Valley Water Co., Reservation Scheme, 575
 — and Valve Gear. See also *Engines*
 — and Valve Parts, Glossary for, Specification, 41
 — See also *Valve* under *Electric*.
 Van Antro, G., on Possible Uses of Fly Ash, 447
 van Asperen, F. C., on Development and Service Results of High-Powered Turbo-Charged Two-stroke Marine Diesel Engine, 42
 Vanadium, Newer Uses of, 172. See *LETTERS*, 230, 262
 "Vanguard" Propeller-Turbine Aircraft for British European Airways, 555
 Vanoni Ten-Year Plan for Italy, 2, 811
 "Vapor" Oil-Fired Forced-Circulation Boiler for Heating Diesel Trains (J. Stone & Co. (Deptford), Ltd.), 900
 Varazze Bridge, Italy, Construction of, 758*
 Variable-Speed Gear. See *Gear*
 Varley Pumps and Engineering, Ltd., Paddle Displacement Pumps for Viscous Fluids, 352*

"Vatour SO-4050" Twin Jet Bomber Aircraft (Société Nationale de Constructions Aéronautiques du Sud-Ouest), 11*
 Vaughan Crane Co., Ltd., Rigid-Mast Crane for Moving Coiled Copper Tube, 469*
 Vedy, L. G., the Late, 8
 Venezuela, Government of, Award of Steel-Mill Contract to Italy, 443
 Ventilating and Heating, Art of, 205
 — and Heating Engineers, Institution of. See *Heating*
 — and Heating Manual, 1955 (Book), 626
 Ventilation, Exhaust (Trade Publication), 297
 Ventilator for Removal of Toxic Gases from Oil Tanker Cargoes (Gotaverken A.B.), 801*
 "Venturiflo" Diaphragm Control Valve, Hammel-Dahl (J. Blakeborough & Sons, Ltd.), 115*
 Verrijp, M. B., on Solubility of Nitrogen in Alpha-Iron, 829
 Versil, Ltd., Glass Silk and Fibre (Trade Publication), 786
 Verson All-Steel Press Co., "Wheelon" Automatic-Cycle Press, 852*
 Viaduct. See *Bridges*
 Vibrating Screens, Two-Bearing, Heavy-Duty, "Vibro-King," for Sand, Gravel and Stone (Pegson, Ltd.), 541
 Vibrations in Buildings (Book), 594
 — Damper, Torsional, "Holset" (Trade Publication), 330
 — of Drilling Machines, Experiments on, 823
 — Generators (Trade Publication), 137
 — High-Frequency, Effects on Grinding, 247
 — Problems in Engineering, by S. Timoshenko (Review), 329
 — Stiffness Method for Determination of Critical Load for Framed Structures, 658*
 — Torsional, in Marine Propellers, 69. See *LETTERS*, 132, 230, 325. See also vol. 179
 — Ultrasonic, for Protection of Ships' Hulls Against Barnacles (Postans, Ltd.), 416
 Vibrator, Electro-Magnetic, Heavy-Duty, Resonance-Free (Electric and Musical Industries, Ltd.), 474*
 — Heavy-Duty, 100-watt (Plessey Co., Ltd.), 78
 Vibratory Energy, Applications of, by A. Graves, 637*
 "Vibro-King" Two-Bearing Heavy-Duty Vibrating Screens for Sand, Gravel and Stone (Pegson, Ltd.), 541
 "Vibron" Electrometer for Currents of 10⁻¹³ amps. and Resistances of 10⁹ megohms (Electronic Instruments, Ltd.), 581
 Vice. See *Machine Tools*
 Vickers-Armstrongs Ltd., "Swift Mark 5" Fighter Aircraft, 437*; "Valiant" Jet Bomber Aircraft, 438; "Vanguard" Propeller-Turbine Aircraft for British European Airways, 555
 Vickers-Armstrongs (Aircraft) Ltd., Opening of Apprentice Training School, 861
 Vickers-Armstrongs (Shipbuilders) Ltd., Launch of World's Largest Oil Tanker "Spyros Niarchos", 802*
 Vierendeel Trusses, Collapse Behaviour of, 632*
 "Viking" Nylon Tail for Fibre Ropes (British Ropes, Ltd.), 427*
 "Viking" Rocket for Reaching Upper Atmosphere, 225. See *LETTER*, 294
 Vine, D. K. D., on Maintenance Handbooks for Presentation of Technical Information, 197
 Vine, L. N., the Late, 407
 Virtual and Real Work, Concepts of, Theory of Structures, 139*
 Vision, Enterprise for, Book on Development of Spectacles and Ophthalmic Instruments Industry, 52
 "Vitreosil" Acid-Resistant Immersion Heater (Trade Publication), 850
 Vivian, A. C., on Opportunities for Young Engineers, 69. See *1*. See *LETTER*, 101
 Volkswagen Co., Completion of Millionth Car, 195
 Volta River Project, Administration of, by J. H. Liverman, 485
 "Votator" Continuous Heat Exchanger, Laboratory for Research on Applications of (A. Johnson & Co. (London), Ltd.), 803*
 Voysey, R. G., on Potentialities of Solid-Fuel-Fired Gas Turbine in Great Britain, 239*

W

"W" TYPE Oil and Water Cooler for Internal Combustion Engines (Serck Radiators, Ltd.), 352*
 Wade Engineering, Ltd., Superchargers (Trade Publication), 489
 Wages. See *Labour*
 Wagons, Agricultural, Exhibits at Museum of English Rural Life, 876*
 — Aluminium, All-Welded (Canadian Car and Foundry Co.), 831
 — Motor. See *Motor Vehicles*
 — Railway, and Carriage Industry, Narrowing Profit Margins of, 522
 — for Carrying Bulk Materials, 132. See also vol. 179
 — 30-ton, for Carrying Pig-Iron (British Railways), 149*
 — Loading of, in Conjunction with 247,000 tons per day capacity Bucket-Wheel Excavator 604*
 — Shunting Devices for, 144*
 — Tipplers (Trade Publication), 850
 "Wagontroler," Remotely-Controlled Shunting Device, 145*
 Wailles, G., & Co., Ltd., Builders of Prototypes, 843
 Wain, W., & Co., Ltd., Tower Structures for Keadby-Monk Fryston Line of 275-kV National Grid, 54*. See *Erratum*, 252

Wakefield, C. C., & Co., Ltd., "Castrolite" Automobile Engine Oil, 95; Dewatering Fluids (Trade Publication), 137; Foundation of Two Wakefield Scholarships at College of Aeronautical and Automobile Engineering, 685; Vehicle Mounted Mobile Lubrication Unit, 735
 Wakefield, Water Supplies in, 683
 Walder, H., the Late, 294
 Walker Croweller & Co., Ltd., "Arkon" Gas-Flow Recorder, 733
 Walker, E. B., the Late, 655
 Walker, Dr. P. B., on Fatigue of Aircraft Pressure Cabins, 73; on Aircraft Structural Strength Testing, 773
 Wall Charts (Trade Publication), 137
 — Cladding, "Dialindre" Two-Skin Method of (Freeman, Morrison, Ltd.), 801*
 Wall Colmonoy Corporation, "Microbraz" Process for Brazing High-Temperature Sheet Steel, 885*
 — Load-Bearing, Research on Structural Behaviour of, 122
 — Strength and Stability of (Book), 170
 Wallace, W. K., on Construction of London-Birmingham Railway, the First Trunk Line, 622
 Wallis, S. W. J., on Economics of Process Control, 631
 Walsall Research Laboratory, Proposed, of Tube Investment Group, 373
 Walterisation Co., Ltd., "M.C." Rust-Proofing and Corrosion Protection Process, 465
 Ward, T. W., Ltd., Coal Handling Plant at Bold "A" Power Station, 514*; Annual Report, 650
 Warerite, Ltd., "Novopan" Laminated Board for Fire-Retarding Divisions in Ships (Trade Publication), 409
 Warfare, Naval. See *Warships*
 — Use of Aircraft in. See *Aeronautics*
 Warner, F. E., on Higher National Certificate in Chemical Engineering, 5. See also vol. 179
 Warren, H. A., on Technical Education, 445

Warships:
 Aircraft Carriers, Disposal of Outdated, Questions in House of Commons on, 807. See *871*
 Aviation, Naval. See *Aeronautics*
 H.M. Aircraft-Direction Frigate, "Llan-daff," Launch of, 867
 — Anti-Submarine Frigate "Blackwood," Launch of, 550
 — Submarine Frigate "Exmouth," Launch of, 737
 — Submarine Frigate "Hardy," Trials and Acceptance into Naval Service of, 869, 899
 — Submarine Frigate "Malcolm," Launch of, 673
 — Submarine Frigate "Tenby," Launch of, 550
 — Canadian Twin-Screw Anti-Submarine Destroyer, "St. Laurent," Commissioning of, 737
 — Coastal Minesweeper "Dufton," Trial Trip of, 217
 — Minesweeper, "Lullington," Launch of 396
 — Minesweeper "Picton," Launch of, 688
 — Fast-Replenishment Oil Tanker, "Tide-reach," Delivery of, 396
 — Inshore Minesweeper "Downham," Launch of, 396
 — Minesweeper "Riplingham," Trial Trip of, 93
 — Minesweeper "Shipham," Launch of, 119
 — Navy, Changing Pattern of Maintenance and Repair of Machinery of Fleet, 68
 — Twin-Screw Tug "Confiance," Launch of, 867
 Naval Aeronautics. See *Aeronautics*
 — Vessels, Priority for Refitting of, Questions in House of Commons on, 807
 United States Ship Guided-Missile Carrier, "Boston," Commissioning of, 734*
 Warships, Scrapping of Outdated, Questions in House of Commons on, 871. See *807*
 — See also *Naval*
 Washer, "Keno," for Removing Dust Particles from Air (K. Blackman, Ltd.), 277
 — for Lorry Wheels (W. Moseley (Engineers), Ltd.), 191*
 Waste, Atomic, Use of Caesium 137 for Radiotherapy, 37. See also vol. 179
 — Disposal from Nuclear Reactors, 597
 — Plant of Hamilton Standard Division of United Aircraft Corporation, 886
 — Water, Cyanide-Contaminated, from Metal-Finishing Processes, Research on Treatment of, 14
 — Toxic, from Plating and Pickling Process, Continuous-Flow Plant for Neutralisation of (British Thomson-Houston Co., Ltd.), 58*
 Watches and Clocks Industry, British, Progress in, 526
 Water Filters. See *Filters*
 — Heaters. See *Feed-Water*
 — Infusion for Dust Control (Book), 297
 — Land and Food, by H. Addison (Review), 560
 — Level Indicator, Remote, for Large Boilers (Hopkinsons, Ltd.), 465*
 — and Oil Cooler, "W" Type, for Internal Combustion Engines (Serck Radiators Ltd.), 352*
 — Pollution Research Laboratory, New Laboratory at Stevenage, 14*
 — Power. See *Hydraulic; Power Plant; Turbine, Hydraulic*
 — Reservation Scheme of Colne Valley Water Co., 575*
 — River, Pollution by Synthetic Detergents, Research on, 14*

- Water, Salt, Purification by Electrodialysis, Research on, 285
- Shortage, Effect on Supplies of Aluminium, 778
- and Soil Conservation Engineering (Book), 690
- Sources using Small Reservoirs to Even the Overall Flow at Power Stations, Exploitation of, 537
- Supplies and Demand, in Northern England, 683
- — Engineering (Book), 237
- — See also *Irrigation*
- Surface, Year Book of Great Britain, 1945-53 (Book), 721
- Tanks. See *Tanks*
- Treatment Works of Colne Valley Water Co., 576
- Tube Boiler. See *Boiler*
- Tunnel and Rotating Beam for Admiralty Hydrodynamics Laboratory (Costain-John Brown, Ltd.), 766*
- Turbines. See *Turbines, Hydraulic; Power Plant*
- Waterways Division of British Transport Commission, Announcement of Development Plans, 31
- See also *Rivers; Canals*
- Waterwheels, Cast Iron, of John Smeaton, 847
- See also *Turbines, Hydraulic; Power Plant*
- Waterworks. See *Water Supply*
- Watkins, E. R. S., on Best Sizes and Numbers of Locomotives Required in Works, 143
- Watkinson, H., on Co-operation Between Management and Workers, 480
- Watson, A., the Late, 487
- Watt, James, Workshop of, Replica at Science Museum, 770
- Watts Fincham, Ltd., Automatic, Photo-Electrically Controlled Can-Filling Machine for Kerosine, 216*
- Waunarlwydd, Swansea, Works of Imperial Chemical Industries, Ltd., for Fabrication of Titanium, Proposed New, 718
- Waverley Committee on Coastal Flooding, Recommendations of, Questions in House of Commons on, 743
- Wear in Engines, Use of Radioactive Materials for Determination of, 597
- Protection by Phosphating Process (Trade Publication), 594
- Wear Shipbuilding Association, Statement on Prospects of Shipbuilding Industry, 586
- Weather. See *Meteorology*
- Weaving Machinery, Textile, Use of Timber in, 732*
- Webb, G. F., on Guide to Preparation of Engineering Specifications, 171
- Weekly Survey, 2, 34, 66, 98, 130, 162, 194, 226, 258, 290, 322, 362, 402, 442, 482, 522, 554, 586, 618, 650, 682, 714, 746, 778, 842, 874
- Weighbatches, Swing, for Feeding Mixers of 14 cu. ft. capacity (Winget, Ltd.), 254*
- Weighbridges, Road, 1,000-lb. Testing Balance for, 880
- Weigher, Belt, "Adequate," for Conveyor Belt System for Coal Handling Plant (Naylor Brothers, Ltd.), 514*
- Weighing Machine, Check, for Large Quantities of Packages (Solartron Electronic Group, Ltd.), 117
- and Measuring Devices, Commercial, Specifications, Tolerances and Regulations for (Book), 850
- Weights and Measures, Imperial Standard, Reliability of, 718
- 40th National Conference on, U.S. National Bureau of Standards Report on, 880
- Units of, Definitions and Tables of Equivalents (Book), 408
- Weine, P. E., on Full-Scale Fatigue Tests of Diesel Engine Elements, 891
- Weld Insert Process, "E.B." (Rockwell, Ltd.), 465*
- Pipe, Instruments for Internal and External Examination of, by Radiography, 398*
- See *LETTER*, 445
- in Pressure Pipelines, Inspection of (Trade Publication), 330
- "Weldex" Tubular Heat Exchangers (Trade Publication), 107
- Welding, Arc (Trade Publication), 202
- Electrodes for, BEAMA Guide to (Book), 408
- Electrodes, Electric Oven for Drying (Schuckert (Great Britain), Ltd.), 549*
- Equipment, Transformer (Murex Welding Processes, Ltd.), 273
- Inert-Gas, Mobile Unit for (Metropolitan-Vickers Electrical Co., Ltd.), 306
- Process, Self-Adjusting, Application to Steels, 145
- in Confined Spaces, Low-Voltage Safety Relay for (Philips Electrical Ltd.), 452
- Control Equipment, Electronic (British Thomson-Houston Co., Ltd.), 275
- Device, Poke, for Spot Welding in Inaccessible Areas (General Electric Co., Ltd.), 733*
- Electric, 300/400 "Dynex" Brush-Shift Generator for (Murex Welding Processes, Ltd.), 273*
- Engineering and Marine Exhibition. See *Engineering, Marine and Welding Exhibition*
- Equipment, "Argonaut," Type 21E (British Oxygen Co., Ltd.), 462*
- Diesel-Driven, Lightweight, 15.6-b.h.p. (Rockwell, Ltd.), 465*
- Electric, Co-operation between Quasi-Arc Co., Ltd., and Fusarc Co., Ltd., in Production of, 291
- Fusion, of Joints, Radiographic Examination of, Specification, 105
- Institute of: Annual Dinner, 656; Petition for Royal Charter, 656
- Machine, Diesel-Driven, with Dual Control (Lincoln Electric Co., Ltd.), 464*
- Multi-Layer, for Boiler Drums, 150*
- Welding Machine Seam, Conveyor-Drive, 150-kVA, for Long Flat Components (Sciaky Electric Welding Machines, Ltd.), 246*
- Metal-Arc, Shielded-Inert-Gas, "Sigma" Process for (Quasi-Arc Co., Ltd.), 278
- Arc, of Weldable Structural Steel Tubes, Specification, 41
- Oxy-Acetylene, of Steel Pipelines and Pipe Assemblies, Specification, 818
- and Productivity, Advanced Courses on, British Welding Research Association, 528
- Projection, 100-kVA Machine for (Sciaky Welding Machines, Ltd.), 279*
- Qualification Code, Canadian, Specification, 9
- Rectifier Equipment for (Murex Welding Processes, Ltd.), 273
- Research Association, British, Open Day 145; Advanced Courses on Welding and Productivity, 528
- Set, 400-amp., Diesel-Driven (Quasi-Arc Co., Ltd.), 278*
- Spot, of Aluminium and its Alloys (Book), 408
- Electrodes for, Specification, 238
- Fourteen-Head Machine for (Metropolitan-Vickers Electrical Co., Ltd.), 549*
- 25-kVA and 150-kVA Machines for (Sciaky Welding Machines, Ltd.), 279
- Pedal-Operated and Air-Operated Machines for (Holden & Hunt, Ltd.), 304
- Pneumatic Gun for (A.R.O. Machinery Co., Ltd.), 466*
- Technique, "Unionmelt" Applied to High-Strength Pressure Vessels (Quasi-Arc, Ltd.), 868*
- in United States (Book), 690
- "Twinner-Aronson" Positioning Equipment for Manipulating Large Components during (D. Ross & Partners, Ltd.), 307*
- Wellington Tube Works, Ltd., "Weldex" Tubular Heat Exchangers (Trade Publication), 107
- Wellman Smith Owen Engineering Corporation, Ltd. Gasifier for Gasification of Heavy Fuel Oil, 89*; Open-Hearth Furnace for Scunthorpe Works of Appleby-Frodingham Steel Co., Ltd., 402, 408
- Wellpoint System for Pre-Drainage of Site of South-Denes Power Station (Blaw Knox, Ltd.), 730*
- Wells, Dr. F. A., on Productivity in the Firm, 401
- Oil, Trailer-Mounted Drilling Rig, 687
- Wellworthy, Ltd., Metallic Gland Packing for Reciprocating Shafts, 424; Piston Supercharger for Diesel Engines, 424*
- Wellworthy Piston Rings, Ltd., Expansion Plans for Motor Car Components Manufacture, 589
- Welwyn Garden City Works of Norton Grinding Wheel Co., Ltd., Expansion Plans for, 607
- Wembley Television Studios, 404*
- West, A., & Co., Ltd., Control Gear for Diesel-Electric Shunting Locomotives for British Railways, 311; Remote Control Desk for Mechanical Handling Installation, 424*; Grouped Contactor Switchboard for Ship's Auxiliaries, 425*
- of England Steam Engine Society, Formation of, 591
- West's Gas Improvement Co., Ltd., Retort House for Bromley-by-Bow Gasworks, 669
- Hartlepool Technical College, Engineering Courses at, 365. See *LETTERS*, 445
- Western Electric Co., Repeaters for Deep-Sea Telephone Cable, 228
- German Mineworkers' Union, 256
- Westinghouse Brake & Signal Co., Ltd. Automatic and Power Signalling (Trade Publication), 297
- Westland Aircraft, Ltd., Proposed "Westminster" Turbine-Powered Helicopter, 324; "Widgeon" Helicopter, 395
- "Westminster" Helicopter, Turbine-Powered, Proposed (Westland Aircraft, Ltd.), 324
- Westool, Ltd., Transformers and Chokes (Trade Publication), 626
- Wharton Engineers (Elstree), Ltd., Wagon-Mounted Equipment for Earth-Boring, Mast Erection and Concreting for Railway Electrification Work, 358*
- Wheels, Gear. See *Gears; Marine Propulsion*
- Grinding. See *Grinding Under Machine Tools*
- Lorry, Washer for (W. Moseley (Engineers), Ltd.), 191*
- Removal of, "Kukko" Pullers for (E. F. Allchin & Co.), 88
- Wheeler, H. D., the Late, 623
- "Wheelon," Automatic-Cycle Press (Verson All-Steel Press Co.), 852*
- Whessoe, Ltd., Tank Fittings (Trade Publication), 330; Reactor Pressure Vessels for Calder Hall, 835
- Whitaker's Almanack, 1956 (Book), 850
- Whitlock Bros., Ltd., Ditch-Clearing Attachment for Tractor Fore-End Loader, 30*
- Whittaker, Hall & Co. (1929), Ltd., Rotary Compressors and Vacuum Pumps (Trade Publication), 9; Centrifugal Blowers and Exhausters (Trade Publication), 41; Friction Clutches (Trade Publication), 41; Flexible Couplings (Trade Publication), 107
- Whitworth Fellowships, Introduction of, and Abandonment of Scholarships, 167
- Whyman, A. E., the Late, 687
- Wickley, Ltd., Swarf Bin and Carrier for Workshop Use, 900*
- Wickman, Ltd., Annual Report, 259
- "Widgeon" Helicopter (Westland Aircraft, Ltd.), 395
- Wieberdink, G., on Application of Supercharging by Turbo-Blowers to Two-Stroke Marine Diesel Engines of More than 10,000 b.h.p., 42
- Wiggin, H., & Co., Ltd., Effect of Use of Nimonic Alloys on Life of Flame Tubes and Rotor Blades of Propeller-Turbine Aircraft, 328; "Nimonic 100" Creep-Resisting Alloy, 405; Non-Ferrous Alloy Exhibits at Engineering Exhibition, 461
- Wigram, P. W., on Review of Newer Metals, 172. See *LETTERS*, 230, 262
- Willemstad Harbour, Curaçao, Model of, 863
- Williams, A. J., on Pitching and Heaving of Ships, 564
- Williams, Maj. C. E., the Late, 687
- Williams, Dr. C. G., on Personal Experiences in Automobile Research, 559
- Williams, J., on Trade Union Attitude to Automation, 680
- Williams, J. K., on Safety Factors in Aircraft Design, 772
- Williamson, J., & Partners, Bold "A" Power Station, 514*
- Willink, Rt. Hon. H. U., on Engineering Department of Cambridge University, 525
- Wilms, Dr. G. R., on Some Observations of the Creep of Pre-Strained Aluminium, 536
- Wilson, Dr. A. T. M., on Some Contrasting Socio-Technical Production Systems, 695
- Wilson, P. N., on Waterwheels of John Smeaton, 847
- Wimpey, G., & Co., Ltd. North Point "B" Power Station for Hong Kong, 547
- Winch, "Falcon," and "Fury" Chain Saw, Petrol-Engine Driven, Interchangeable (J. Clubley Armstrong Danarm, Ltd.), 550
- Wincott, G. P., Ltd., Continuous Furnace for Axle Forge, 28*
- Wind Effects on Bridges and other Flexible Structures (Book), 202
- Machine at Costa Head (J. Brown & Co. (Clydebank), Ltd.), 55*
- Power in Haiti, Survey of Possible Uses of, 264
- Tunnels. See *Aeronautics*
- Winding in Staple-Pits (Book), 754
- Wine, Tester for Alcohol Content of (H. J. Elliott, Ltd.), 117
- Winget, Ltd., Swing Weighbatches for Feeding Concrete Mixers of 14 cu. ft. Capacity, 254*; Drag Scraper using Motor of Concrete Mixer, 254*; "Rotorfloat" Power-Operated Rotary Trowel, 254*
- Wingham, E. G. R., on Function of City and Guilds Institute, 621. See 528
- Winston Electronics, Ltd., Modification of Services Radar for Meteorological Use, 699
- Wire, Aluminium, for Electrical Purposes, Specification, 169
- Cutting Shears (Trade Publication), 330
- Drawing and Rolling, Inhomogeneous Deformation in, 536
- Electrode, Spring-Loaded Reel for Carrying (Quasi-Arc Co., Ltd.), 149*
- Fine, Method of Precise Measurement of Diameter of, 703*
- Joining Tool, "Blundell" (Adams & Benson (Dalbukirk), Ltd.), 833*
- and Mesh, Metal and Plastics (Trade Publication), 755
- Metal, Automatic Spraying Installation for (Metalizing Equipment Co., Ltd.), 353*
- Ropes, Flexible, for Pulley Systems, by J. F. Sutton, 44*
- Twisting (Trade Publication), 169
- Wireless Telegraphy. See *Telegraphy; Radio; Radar; Television*
- Telephony. See *Telephony; Radio; Radar; Television*
- Wohler's Tests. See *Fatigue under Tests (Materials)*
- Wolfsburg Works of Volkswagen Co., Completion of Millionth Car, 195
- Wolseley Engineering, Ltd., All-Mains Electric Fender, 30
- Wood, Densified, Manufacture of, 619
- Woodfield Hoist & Associated Industries, Ltd., Trailer-Mounted Oil Well Drilling Rig, 687
- Woodworking Machinery. See *Machine Tools*
- "Worcester" 3-ton Bench Power Press (Jones & Attwood, Ltd.), 189*
- Work-Factor Co., Courses for Industrial Executives, 528
- Study (Book), 529
- Department of National Coal Board, 35
- and Materials Handling, Courses on, College of Production Technology, 528
- Outline of, Part II (Book), 721
- and Wage Increases in Printing Industry, 552
- Workington Iron & Steel Co., Ltd., Modernisation of Rolling-Mill Plant, 518
- Workmen. See *Labour*
- Compensation. See *Labour*
- Works:**
- Bristol Works of Bristol Aeroplane Co., Ltd., Test House for Propeller-Turbine Engines at, 314*
- Crayford Works of F. Braby & Co., Ltd., New Steel Fabrication Factory at, 705*
- Crewe Locomotive Works of British Railways, Apprentice School at, 443, 444*
- Denton Works of Matthews & Mumby, Ltd., Factory and Workshops with Tied-Arch Frames of Pre-Cast Concrete, 186*
- Duncanville, South Africa, Boiler-Making Works of Babcock & Wilcox of Africa (Pty.), Ltd., 150*
- Evendale, Cincinnati, Works of General Electric Co., Steps Towards Automation at, 884*
- Fleet Assembly Shops of County Commercial Cars, Ltd., Opening of, 827
- Fraser & Chalmers Works of General Electric Co., Ltd., New Steam-Turbine Shop at, 138*
- Gasworks. See *Gasworks*
- Hamilton Standard Division of United Aircraft Corporation, New Plant of, 886
- Works—continued**
- Hillhouse, Lancashire, Plant for Polytetrafluorethylene of Imperial Chemical Industries, Ltd., Progress on 103
- Hulton Works of J. Booth & Sons (Bolton), Ltd., 50th Anniversary of, 735
- Industrial Diseases. See *Labour*
- Karabuk Iron and Steel Works, Turkey, 34-in. Blooming and Slabbing Mill for, 286*
- Kirkby Copper Tube Factory of Imperial Chemical Industries, Ltd., 467*
- Larne, Northern Ireland, Turbine Works of British Thomson-Houston Co., Ltd., 443
- Latchford Locks Works of British Aluminium Co., Ltd., New Extrusion Plant for, 799*
- Letchworth Factory of Borg-Warner, Ltd., Building of, 324
- Maintenance Costs, Excessive, Detection of, by B. A. Margo, 302*
- Newport, Monmouthshire, Factory of Monsanto Chemicals, Ltd., New Phthalic Anhydride Plant for, 453
- Newton Works of Garringtons, Ltd., New Laboratory for, 612*
- Nuneaton Works of Sterling Metals, Ltd., Extensions to Foundry Building of (Beecham Buildings, Ltd.), 574*
- Preston Works of English Electric Co., Ltd., Building of Electric and Diesel-Electric Locomotives at, 120*
- Ravenscraig Works of Colvilles, Ltd., Construction of New Iron and Steel Plant, 651
- Redbourn Works of Richard Thomas & Baldwins, Ltd., Steelmaking at, 696
- Richmond Works of Electronic Instruments, Ltd., 581*
- Rotherham Works of Steel, Peech & Tozer, New Developments at, 27*; Continuous Medium-Strip Mill for, 39
- Rugby Works of British Thomson-Houston Co., Ltd., Increase of Capacity for Small Plant at, 641
- Scunthorpe Works of Appleby-Frodingham Steel Co., Ltd., Extensions to, 402, 408; Developments in Iron-making at, 630; Development of Chemical Treatment of Low-Grade Iron Ores at, 729
- of J. Lysaght Scunthorpe Works, Ltd., Expansion Scheme at, 630
- Seattle Works of Boeing Airplane Co., New Flight Test Hangar at, 819*
- Smethwick Factory of "Salterpak" Division of G. Salter & Co., Ltd., 869
- Stanton Works of Stanton Ironworks Co., Ltd., Extensions to, 512*
- Steelworks, Austrian, Two-High Reversing Roughing Rolling Mill for (Blaw-Knox Co.), 243
- Karabuk, Turkey, 34-in. Blooming and Slabbing Mill for, 286*
- in North-East, Extensions to, Major Projects, 259
- Norwegian at Mo-i-Rana, Controversy Concerning, 651
- at Redbourn, Steelmaking at, 696
- at Scunthorpe, Extensions to, 402, 408, 630
- at Stanton, Extensions to, 512*
- of Steel, Peech & Tozer, Developments at, 27*, 39
- at Stocksbridge, New Plant at, 163, 190, 651, 656
- at Workington, Modernisation of Plant, 518
- Stocksbridge Works of S. Fox & Co., Ltd., New Bar and Rod Rolling Mill for (Brightside Foundry & Engineering Co., Ltd.), 190. See 163; Modernisation at, 651, 656
- Sutton-in-Ashfield Works of Sheepbridge Alloy Castings, Ltd., Long-Length and Bi-Metal Centrifugal Casting Processes at, 112*
- Trafford Park Works of Metropolitan-Vickers Electrical Co., Ltd., Apprentice Training Schemes at, 100*. See *Erratum*, 168
- Waunarlwydd, Swansea, Works of Imperial Chemical Industries, Ltd., for Fabrication of Titanium, Proposed New, 718
- Welwyn Garden City Works of Norton Grinding Wheel Co., Ltd., Expansion Plans for, 607
- Wolfsburg Works of Volkswagen Co., Completion of Millionth Car, 195
- Workington Works of Workington Iron & Steel Co., Ltd., Modernisation of Rolling-Mill Plant, 518
- Works Management, Consultative Leadership, W. H. Scott on, 361
- Education and Training for Industrial, by A. Silberston (Review), 689
- Power Plant, by R. H. Emerick (Review), 817
- Practice of Management, by P. F. Drucker (Review), 593. See 617. See *LETTER*, 655
- Profitable Small Plant Management, by M. H. Gotterer (Review), 409
- Training of Managers in the Steel Industry, Report on, 239
- Visit of European Managers to United States, Booklet on, 98
- Ministry of, Tests on Control of Smoke in Medium-Sized Boilers, 222*; Participation in Building Delegation to U.S.S.R., 405; Wind-Tunnel Control Desk for (Costain-John Brown Instrumentation Division), 728*
- Transport, Conference on, 141*. See *Erratum*, 284
- Workshops of Boiler-Making Works of Babcock & Wilcox of Africa (Pty.), Ltd., Duncanville, 150*
- Colliery, and Stores, Suggested Layouts for, 688

Workshops and Factory with Tied-Arch Frames of Pre-Cast Concrete, Matthews & Mumby, Ltd., 186*

— of James Watt, Replica at Science Museum, 770

— Railway, Use of, Questions in House of Commons on, 903

— Small, Versatile "Universal Rindis" Machine Tool for (Levant & Co., Ltd.), 222*

— Training. See *Education*

— See also *Works: Machine Tools*

Worm Gear. See *Gear*

Worthing Technical High School, "Intergrid" System of Building Construction for, 154*

Worthington-Simpson, Ltd., Condenser for Steam-Turbine Test Bed, 138; "Monobloc" Air-Cooled Reciprocating Air Compressors, 309*; Corrosion-Resistant Centrifugal Pumps, 805

Wright Electric Motors (Halifax), Ltd., Portable Thread-Cutting Machine, 278*; Portable Tube-Parting Machine, 278*

Wright, H. D. M., the Late, 196

Wrightson, E. A., the Late, 655

X

X-RAY Diffraction Equipment (Trade Publication), 786

X-ray Diffraction Powder Patterns, Standard (Book), 850

— Equipment, "Fedrex," for Industrial Radiography (Trade Publication), 594

— Equipment, Industrial, with Gas-Insulated Transformer and Tube (Metropolitan-Vickers Electrical Co., Ltd.), 306*

— Linear Electron Accelerators, Science Museum Exhibits of, 298

— Unit, Diagnostic (Trade Publication), 721

— Use for Determination of Sulphur Content of Fuel, 598

— Use for Examination of Fusion-Welded Joints, Specification, 105

Y

YACHT, All-Welded, Aluminium-Alloy, "Morag Mohr" (Saunders-Roe (Anglesey), Ltd.), 23*

— H.M. "Britannia," Models as Aid to Design of, 334*

— "Irene," with Ferro-Cement Hull and Cabin, 603*

Yale & Towne Manufacturing Co., "Stubby" Low-Lift Platform Truck (Trade Publication), 107

Yarkon-Negev Water Pipeline for Irrigation and Flood Control, 124*

Yarrow & Co., Ltd. Boilers for Steam Raising Plant at Bold "A" Power Station, 514

Yarrow, N. A., the Late, 70

Yerbury, H. E., the Late, 136

"8YLY" Eight-Cylinder, Pressure-Charged Diesel Engine (Davey, Paxman & Co., Ltd.), 148*

York Shipley, Ltd., "Yorkmatic" Air-Conditioning Set, 426; 16-Cylinder Refrigeration Air Compressor, 427*

— Technical College, Engineering Courses at, 365. See *LETTERS*, 445

"Yorkmatic" Air-Conditioning Set (York Shipley, Ltd.), 426

Yorkshire Copper Works, Ltd., Roller-Hearth Electric Furnace for Annealing Brass Tubes, 158*

— London Motorway, Plans for, 94*; Firm Proposals for, 443; Progress of, Questions in House of Commons on, 710

Young, A. J., on Future Requirements of Industry from Chemical and Instrument Engineers, 631

Young, J., the Late, 196

Young's Modulus of Elasticity, Apparatus for Measurement of, by Vibration Techniques (K.C. Productions), 637*

Youth Employment Service, Work of, 192

Yugoslavia, Autumn Meeting of Institution of Naval Architects. See *Naval Architects*

Z

"Z803U" COLD-CATHODE Trigger Valve (Mullard, Ltd.), 190

Zborowski, Bureau Technique, Models of Vertical Take-Off Coleopter Aircraft, 12

"Zeelock" Milling Cutters (Trade Publication), 489. See *Erratum*, 594

"Zephyr" Nuclear Research Reactor at Harwell, 266; Model of, 300

"Zeus" Nuclear Research Reactor at Harwell, 266; Model of, 300

"Zeus" Uncooled Fast Research Nuclear Reactor, 804*, 837*

Zinc Alloys. See *Alloys under Metallurgy*

— and Zinc Alloys for Die Casting, Specification, 238

Zinn, Dr. W. H., on Design and Operating Experience of a Prototype Boiling Water Power Reactor, 228

Zirconium, Newer Uses of, 172. See *LETTERS*, 230, 262

Zwicky, M., on Prospects of Building Marine Engines of More than 10,000 b.h.p., 42