

BIOGRAPHICAL NOTES.

Hereunder are presented brief biographical notes regarding those who held the most prominent positions in the development of the Government Munitions Factories from Federation in 1901 until the Greater Department of Supply was re-established by the merging of the Departments of Supply and of Defence Production in 1953. Also are included notes regarding some of the businessmen who assisted in co-ordinating the war efforts of the Government Factories and industry during World Wars I and II.

To them and to the tens of thousands of anonymous others whose names did not appear on the "organisation charts" but who laboured under their official and industrial leaders in factories and annexes, in offices and stores and in the associated laboratories and transport services throughout the Commonwealth, this Story of the Munitions Factories is a tribute. THEY made it happen!

ABBOTT. A.D. Abbott - Born at Bathurst (N.S.W.) 1903. Apprentice tool, jig and gauge maker, Small-Arms Factory, Lithgow (N.S.W.) 1924; Toolmaker 1930; Senior Engineer Ammunition Feeder Factory, Orange 1941-44; Assistant Manager, Small-Arms Factory, 1944-48; Works Manager, 1948-51; Manager, 1951 until transferring in 1956 to an industrial position.

ABBOTT. S.B. Abbott joined the staff of Explosives Factory, Maribyrnong as a Chemist in 1913. Assistant Manager of the Factory in 1941. In 1943 served at the War-time St. Mary's and Villawood Explosives Factories (N.S.W.). Head of the Australian Scientific & Technical Mission in Japan after World War II and later led the Secondary Industries Mission in London. Senior Representative in London before returning in 1950 as Manager to Explosives Factory, Maribyrnong until retirement in 1954.

✓ AMOS. L.J. Amos joined the Department as a Cadet Engineer at Ordnance Factory, Maribyrnong in 1941. Was Assistant Manager, Central Drawing Office 1953-55; Mechanical Engineering Representative, London 1955-58; Assistant Manager, Ordnance Factory, Maribyrnong 1958-64; Defence Supply Attache, Washington 1965-68; Production Manager, Ordnance Factory, Maribyrnong 1968-72; Manager of Factory since 1972.

ARMSTRONG. L.G. Armstrong, Chemist at Explosives Factory, Maribyrnong in 1934, was Head of Section at that Factory before appointment as Manager of the War-time

ARMSTRONG (Contd.)

Manager at Explosives Factory, Mulwala (N.S.W.) at the time of his death in 1953.

BACKHOUSE. E.E. Backhouse, F.R.A.C.I., joined the Colonial Ammunition Company as a Laboratory Assistant in 1920; Chemist at Munitions Supply Laboratories 1923-28; at Ammunition Factory, Footscray 1928-36, and at Explosives Factory, Maribyrnong from 1936; Assistant Manager, Explosives Factory, Maribyrnong 1943 to 1953; studied production of rocket motors, filling of bombs and manufacture of cordite in U.K. 1948-49; Manager, Explosives Factory, Mulwala 1953-55; Manager, Explosives Factory, Maribyrnong 1956-64; Manager, Explosives Factory, Albion, 1964 to his retirement in 1966.

BARRACLOUGH. Col. Sir Henry Barraclough, K.B.E., V.D., B.E., born in Sydney in 1874, was Professor of Mechanical Engineering of the University of Sydney from 1915-42. During World War I was loaned to the Department of Defence in 1915 as a Member of the Selection Committee appointed to administer the arrangements for the seconding of Australian Chemists and Engineers for work in British Munitions Factories. In 1916, he agreed to transfer to London to take charge of the arrangements for the thousands of Australian war-workers engaged under that scheme, returning to the University of Sydney when the War ended. He was knighted in 1920.

de BAVAY. Auguste de Bavay, O.B.E., born at Vilvorde, Belgium in 1856, was a Bacteriologist who was head brewer at Victoria Brewery for 10 years and at Foster Brewery for 10 years before discovering the flotation process for recovery of Zinc blende. In October 1915, he undertook to develop, without any fee, a process for the production of acetate of lime - an essential raw material at that time in the production of acetone for use in the manufacture of cordite - by the fermentation of alcohol derived from molasses surplus as a by-product of the Queensland sugar industry. He served also as Consultant to the Cordite Factory management in the design and construction of the Factory set up in Brisbane for that purpose.

de BAVAY. J.F.X. de Bavay, A.A.N.Z., born Melbourne 1888, son of Auguste de

de BAVAY (Contd.)

with the construction and operation of the Factory set up at Bulimba, Brisbane, in 1915 for the production from surplus molasses of supplies of acetate of lime to be processed at the Cordite Factory, Maribyrnong into acetone for the manufacture of cordite. As Works Manager, he conducted the factory as a subsidiary of the Cordite Factory until it closed in 1926, when he became Head Brewer for Tasmanian Breweries Pty.Ltd. and General Manager in 1933.

BEAVIS. Major-General L.E. Beavis, C.B., C.B.E., D.S.O., was born at Bathurst (N.S.W.) in 1895, and served with the 1st A.I.F. in World War I. At Lieut.-Colonel level he was Military Liaison Officer at Australia House, <sup>London</sup> including representation of Australia on the British Principal Supply Officers' Committee. He was appointed full-time Chairman of the Defence Resources Board, the executive body of the Australian Principal Supply Officers' Committee, in 1936, returning in 1937 to Army duty followed by active service as Director of Ordnance Services, A.I.F. in Middle East 1940-42, Master-General of the Ordnance A.M.F. 1942-46. He represented Australia as High Commissioner in Pakistan 1952-54.

BELL. Marcus Bell, C.B.E., born at Kew (Vic.) in 1881, was appointed in 1908 as Assistant to the Chemical Adviser to the Department of Defence (C. Napier Hake) whom he succeeded in 1911. In June 1915, he was made a Member of the Federal Munitions Committee, a War-time body, and in January 1916 he was appointed as one of the two Directors of Munitions concerned with the management of munitions production in industry as well as maintaining a critical supervision over imports and exports. Later in 1916, also, he was appointed Superintendent of Laboratories in the Department of Defence, a position which he occupied until his death in 1934. He visited England in 1917 in connection with Arsenal planning and was subsequently directly concerned with the continued development of the Munitions Supply Laboratories at Maribyrnong following World War I.

BENNETT. Col. H.B. Bennett, M.B.E., I.S.O., E.D., M.I. Mech. E. (London), born at Mt. Egerton (Vic.) in 1889, was General Manager, Tasmanian Government Railways 1932-44 and Director of Industrial Development (Tas.) 1944-53. He

BENNETT. K.W. Bennett, B.Sc., A.M.T.C., A.R.A.C.I., born Melbourne in 1912, was a Chemist at Explosives Factory, Maribyrnong 1937-47 following commercial experience with Titanium Products Ltd.; with Division of Industrial Development, Department of Post-War Reconstruction 1947-50; Acting Controller, Production Orders, Statistics & Stores 1953-54; Project Manager, Munitions Filling Factory, St. Mary's 1954-56; Manager, Explosives Factory, Mulwala 1956-61; Manager, Munitions Filling Factory, St. Mary's 1961-62; Assistant Secretary (Planning) 1962-65; General Manager, Stores & Transport 1965-66; Manager, Explosives Factory, Albion from 1966 until his retirement in 1972.

BODYCOMB. A.I. Bodycomb, A.M.T.C., F.R.A.C.I., joined Explosives Factory, Maribyrnong as Chemist in 1934. Head of General Chemical Section (all manufacturing sections) 1946; Explosives & Chemical Engineering Representative London 1951-53; Assistant Manager, Explosives Factory, Maribyrnong 1953-55; Manager, Explosives Factory, Mulwala 1955-56; Manager, Explosives Factory, Albion, 1956 until retirement in 1964.

BOTT. L.F. Bott, D.S.C., B.Com. was born in Melbourne in 1917. Joined Department of Supply in 1939 as Headquarters Paymaster, Finance Branch. Lt. in RANVR, 1941-46; Finance Branch, Department of Munitions 1946; Assistant Secretary (Finance) 1954; <sup>First</sup> ~~1st~~ Asst. Secretary 1961-67; Deputy Secretary (F. & M.S.) 1967-69; appointed Secretary, Department of National Development in 1969.

BOYLE. Frank V. Boyle, A.I.C.A., A.F.I.A., transferred to Taxation Department in 1916 from teaching in Victorian Education Department; was Senior Investigating Officer before becoming Secretary of the Munitions Factory Board 1944 until his retirement in 1959.

BRADBURN. J.F. Bradburn was Controller of the War-time Finance Directorate 1940-45 and Assistant Secretary (Finance) of the Department of Munitions and Member of the Board of Factory Administration from 1945 until his retirement on health grounds in 1954.

BREEN (Contd.)

in 1936 to the Council for Scientific & Industrial Research as Assistant Secretary. He returned to the Department of Supply & Development as Assistant Secretary (Admin.) in 1940, continuing in the same position in the Department of Munitions 1941-45; Director, Stores & Transport 1944-45; Director of Secondary Industries Development, Department of Post-War Reconstruction 1945-46; Director of Industrial Development 1947-49; Secretary, Department of Supply (later of Defence Production) 1949 until his retirement in 1958.

BRIGDEN. J.B. Brigden, M.A., born Maldon (Vic.) 1887, was Professor of Economics, University of Tasmania, 1924-29; Director, Queensland Bureau of Economics (later of Industry) and State Statistician 1930-38; Chairman, National Insurance Commission 1938-39; Secretary, Department of Supply & Development (later of Munitions) 1939-42; transferred to Washington as Economic Counsellor to the Australian Minister to the U.S.A. 1942-47.

BRISBANE. H.L. Brisbane, born at Fitzroy (Vic.) 1893, Managing Director, H.L. Brisbane & Co., of Perth, and a Member of the Board of Area Management (W.A.); was appointed Business Administrator for Western Australia for 1943-44 as well as Consultative Member of the Board of Factory Administration during that period.

✓ BRODRIBB. Noel K.S. Brodrigg, C.B.E., F.I.C., A.A.C.I., M.I.P.E., born at Kew (Vic.) 1885, was Assistant Chemist in the Victorian Government Laboratories 1903-09. He was appointed in 1909 as Chemist for the proposed Commonwealth Government Cordite Factory, Maribyrnong (Vic.); Assistant Manager of the Factory 1911. Acted as Manager of the Factory 1915-17 during absence of Manager Leighton in England. Factory Manager 1917 and Chief Chemical Engineer 1918 in the proposed Arsenal and retained that position in the Department of Defence during the establishment of Munitions Factories, at Maribyrnong (Vic.) Controller-General of Munitions Supply and Chairman, Munitions Supply Board, 1937-50, including War-time service 1940-45 as Assistant Director-General of Munitions and from 1943 as Chairman of the Australian Shipbuilding Board also.

BROMLEY. H.J. Bromley, born at Fremantle in 1906, was Assistant Works Manager,

BROCKLEY (Contd.)

Controller, Directorate of Small-Craft Production 1943-45.

BROWN. W.H. Brown, Dip.Cem., A.M.T.C., A.R.A.C.I., was a Laboratory Assistant at the Explosives Factory, Maribyrnong 1931; Chemist 1940; Head of Section 1946-53; Assistant Manager, 1953-57; Explosives & Chemical Engineering Representative in London 1958-60; Assistant Manager, Munitions Filling Factory, St. Mary's 1960; Manager, Explosives Factory, Mulwala 1961; Manager, Munitions Filling Factory, St. Mary's from 1962 until his retirement on health grounds.

BYRNE. J.W.J. Byrne, M.B.E., born at Forbes (N.S.W.) in 1899, was Secretary and Accountant of the War-time Board of Area Management for New South Wales 1940-43; Chief Executive Officer of the Board 1943-45; Assistant Secretary (N.S.W.) of the Department of Munitions (and its successors) 1947 until his retirement in 1964. He was a Member of the Defence Production Planning Committee 1951-58, and of the Board of Management for Production, continuing as Member of the latter Board for several years after his retirement. He was also Finance Member of the Australian Shipbuilding Board 1947-52.

CAMPAGNOLO. S. Campagnolo, B.Sc.(Eng.) after experience at Ordnance Factory, Maribyrnong 1931-49; became Acting Manager of the Factory for two years before his appointment as Manager, Ordnance Factory, Bendigo, from January 1, 1951, until his death in 1959.

CARGILL. W.J. Cargill, born near Braidwood (N.S.W.) 1897; apprentice gauge-maker, Small-Arms Factory, Lithgow, 1914. Foreman of the Toolroom 1933; Engineer-in-Charge of the Bren light machine-gun project 1949; Assistant Manager, 1942-43; Technical Adviser, Directorate of Technical Practice 1943-44; Assistant Manager, Small-Arms Factory, 1944-48; acted as Manager 1948-49; died 1953.

CARTWRIGHT. G.A. Cartwright was Managing Director and General Manager of the Colonial Ammunition Company in 1920 when the Commonwealth took a 7-year lease of the Company's Small-Arms Ammunition Factory at Footscray. He continued to manage the factory for the period of the lease as an official of the Commonwealth.

CASEY. H.E. Baron Casey of Berwick, P.C., G.C.M.G., C.H., D.S.O., M.C., M.A.,

born at Brisbane in 1890, was the first Minister for Supply & Development when that Department was created in 1939, continuing in that position until appointed in 1940 as Australian Minister to U.S.A. He was again Minister for Supply & Development 1949-50.

CHIFLEY. Rt. Hon. J.B. Chifley, M.H.R., born at Bathurst (N.S.W.) in 1885, was Minister for Defence 1931. He was first War-time Director of Labour for the Department of Munitions, appointed mid-1940, but relinquished that appointment some months later to continue as a Member of the Federal Parliament, becoming Prime Minister 1945-49.

CHURCHER. G.J. Churcher, B.Eng.Sc., M.I.E. Aust., born in Melbourne in 1920; Cadet Engineer trained at Ammunition Factory, Footscray; transferred from that position of Head of Section at the Factory to Defence Production Planning Branch in 1953; Assistant Secretary (Planning) 1956-60; Manager, Government Aircraft Factories since 1961.

CLAPP. Sir Harold Clapp, K.B.E., born Melbourne 1875; was Chairman of Victorian Railways Commissioners 1920-1939 when he was appointed General Manager, Aircraft Construction Branch, Department of Supply & Development. From 1940-42 he was Chairman of the Aircraft Production Commission, and Director-General of Land Transport 1942-44.

CLARKE. E.S. Clarke, B.Mech.E., A.M.I.E. (Aust.) M.I.Mar.E., born at Perth in 1918, joined the Department of Defence as a Cadet Engineer in 1938 at Ordnance Factory, Maribyrnong. With Reparations Mission, London, 1947-48; Engineer at Ordnance Factory, Maribyrnong 1949-51; Assistant Manager, Ordnance Factory, Bendigo, 1952-55; Manager, Commonwealth Government Marine Engine Works, Port Melbourne 1956-60; appointed General Manager, Australian Shipbuilding Board in 1961.

CLARKSON. Engineer-Commander (later Engineer-Captain) William Clarkson, C.M.G., born at Whitby (England) in 1859, joined the Australian Naval Service in 1884.

CLARKSON (Contd.)

ship of the Australian Fleet Unit as well as the manufacture and acceptance of the plant for the Small-Arms Factory, Lithgow (N.S.W.). He was responsible for bringing the Factory into production, as Acting Manager until August 1912, when he resumed his Naval career, becoming Third Naval Member of the Commonwealth Naval Board.

COCHRANE. J.R.S. Cochrane, B.Sc., A.M.T.C., A.I.C., A.A.C.I., born at Melbourne

in 1891, joined the Cordite Factory, Maribyrnong in 1915 as a Chemist. Assistant Manager of the Maribyrnong Factory 1927-41; Manager of the new Explosives Factory, Salisbury (S.A.) 1941-45; leader of the Australian Scientific & Technical Mission to Germany 1947-48; Chief Chemical Engineer and Director, Defence Supply Planning Branch 1948-50; General Manager, Explosives Factories from 1951 until his death in 1955.

CODE. A.R. Code, born at Melbourne in 1901, was an Engineer with the Vacuum Oil

Company until 1941 when he became War-time Director of Armored Fighting Vehicles in the Ministry of Munitions until 1944, transferring then until 1946 to the A.F.V. Directorate of the British Ministry of Supply when the Australian project was discontinued.

COLLINS. R.C. Collins was Manager of the War-time Ammunition Feeder Factory at

Kalgoorlie (W.A.) 1942-44.

COLLINS. Commander (later Captain and knighted in 1919) R.M. Collins, C.M.G. born

Chen Wayne, Somerset, England in 1852, formerly of the Royal Navy, was Secretary for Defence for the Colony of Victoria 1886-1901; first Secretary, Department of Defence for the Commonwealth 1901-1906; representative of the Commonwealth in London from 1906, becoming Official Secretary when the first Australian High Commissioner in London was appointed.

CONSTANTINE. A. H. Constantine was Manager of the War-time Ammunition Feeder

Factory at Welshpool (W.A.) 1942-43.

COCK. F. J. Cock, M.B.E., born at Ballarat (Vic.) 1904, transferred from Victorian

COOK (Contd.)

including responsibility also for the final stages of the Directorate of Small-Craft Construction and of Radio & Signals Supplies; Secretary, Long-Range Weapons Board of Administration, 1947-52; Assistant Secretary (Research & Development), Department of Supply 1952-61; Senior Representative in U.K. 1961-64; Assistant Secretary, (Personnel & Establishments) 1964-67; Regional Director (Vic.) 1967 until his death in 1969.

COOK. Hon. J. Cook, on July 18, 1909, as Minister for Defence, approved the acceptance of the tender of the Pratt & Whitney Company, U.S.A. for the supply, installation and bringing into production of the plant for the Government Small-Arms Factory to be established at Lithgow, N.S.W.

✓ COOLEY. A.S. Cooley, C.M.G., B.Eng.Sc., A.M.I.E. (Aust.) was born in Melbourne in 1920; Clerk at Ordnance Factory, Maribyrnong, 1939; Cadet Engineer 1940-43; Mechanical Engineering Representative, London, 1949-51; Head of Section, Ordnance Factory, Bendigo 1952-53; Manager, Ball Bearing Factory, Echuca 1953-55; Engineering Representative, Washington (U.S.A.) 1956-57; Manager, Small-Arms Factory, Lithgow (N.S.W.) 1958-60; First Assistant Secretary (Management Services) 1961-62; Controller-General, Munitions Supply 1962-66; Secretary, Department of Supply 1966-71; Chairman, Public Service Board since 1971.

COPSEY. W.A. Copsey was Manager of the War-time Ammunition Factory, Finsbury (S.A.) 1942-44.

CORBETT. F. E. Corbett, born at Ballarat in 1875, was first Accountant at the Harness Factory at Clifton Hill and later Manager of the Government Clothing Factory at South Melbourne from which position he retired in 1939, but undertook War-time duty at the No.2 Factory at Carlton (Vic.) as Supervisor of Manufacture of Artillery components, retiring again in 1946.

CRAIG. R.J. Craig, M.B.E., B.Sc., born at Frahan (Vic.) 1834, Chemist at Cordite Factory, Maribyrnong 1914; Works Manager for Australian Fertilisers Ltd., Port Kembla (N.S.W.); was borrowed by the Department of Munitions 1940-44 to

CRAIG (Contd.)

the technicians sent to England during the 1914-18 War to assist in production of nitrocellulose.

CROWE. C.E. Crowe was the Manager of the Government Harness, Saddlery & Leather Accoutrements Factory, which he established in 1911 at Roseneath Street, Clifton Hill, (Vic.) and conducted until he retired in 1923.

DALEY. F.S. Daley, B. Mech.E., M.I.P.E., F.I.M., born at Bendigo (Vic.) in 1892, Assistant Engineer in the Department of Defence, was sent to England in 1922 to study production of gun-mountings and gun-carriages and on his return assisted in the planning and design of the proposed new Ordnance Factory to be erected at Maribyrnong (Vic.). He was appointed Assistant Manager of the Factory in 1925 but resigned in 1932 to join the General Motors organisation. He returned to become War-time Controller of Ordnance Production, 1940-45, transferring at the War's end to become General Technical Manager of Kelvinator Australia Ltd.

DAVIES. R.W.B. Davies, O.B.E., A.M.T.C. (Applied Chem.), A.V.A.C.I., A.F.A.I.M., born at Essendon (Vic.) 1916; was Chemist and Head-of-Section at Salisbury Explosives Factory (S.A.) 1941-45; Chemist-in-Charge and Head of Section at Explosives Factory, Maribyrnong (Vic.) 1946-53; Explosives & Chemical Engineering representative, London, 1953-55; Project Manager and Manager, Munitions Filling Factory, St. Mary's (N.S.W.) 1956-61; First Assistant Secretary, Department of Supply since 1962.

FAWKINS. A.E. Fawkins, B.Sc., A.R.I.C., F.R.A.C.I., born in Adelaide (S.A.). Chemist with the Chemical Adviser's Branch. Was awarded the 1851 Exhibition Research Scholarship by the University of Melbourne in 1920. Undertook special research on behalf of the Department of Defence in the radiological examination of war material. Appointed in 1921 to take charge of the General Chemical Section, Munitions Supply Laboratories. Became Assistant Superintendent in 1934; Deputy Superintendent 1938-46; Chief Superintendent 1947-57.

FAWSON. M.E. Fawson, a Toolmaker at the Small-Arms Factory during World War I but

DEAN. H. S. Dean was Manager of the War-time Ammunition Factory, Finsbury (S.A.) 1944-45.

DONALDSON. R.J. Donaldson, D.S.O., B.C.E. (Melb.), born at Richmond (Vic.) 1833, a partner of Gibbs Bright & Co., was Business Administrator for Queensland, 1942-44 as well as being a Consultative Member of the Board of Factory Administration during that period.

DONALDSON. Thos. Donaldson, born Stevenston (Scotland) 1877, Technical Director, I.C.I.A.N.Z., was War-time Director of Explosives Supply in the Department of Munitions 1940-44.

DOWNES. Major-General M.F. Downes, Secretary of Defence of the Colony of Victoria in April 1886, urged unsuccessfully that the Premiers of the Australian Colonies should promote a united effort for a local factory for production of small-arms ammunition and similar items.

✓ DOYLE. R.H. Doyle, A.M.I.E. (Aust.), F.A.I.M., was a Draftsman at the Small-Arms Factory, Lithgow, early in World War I. He enlisted in the A.I.F. Engineers' Corps and was seriously wounded in France. After hospitalisation in England he was seconded in 1919 to study production practices in England for rifles and other small-arms as a section of the Arsenal project. He returned to the Small-Arms Factory as Senior Engineer and became Assistant Manager in 1935; Acting Assistant Manager and Acting Manager, Ammunition Factory, Footscray 1937-39; Sub-Manager Ordnance Factory, Maribyrnong 1939-40; in charge of Production Orders & Statistics Directorate 1940; Manager, Ammunition Factory, Footscray, 1941 and Divisional Manager, Ammunition Factories 1942-46; General Manager, Ammunition Factories 1947-50; General Manager, Ordnance Factories 1950-51; Controller-General of Munitions Supply 1952 to his retirement in 1958.

DUNCAN. C. Duncan was Manager of the War-time Ammunition Factory, Hendon (S.A.) 1940-45.

EADY  
EADY. M.T.W., President of the Victorian Chamber of Manufactures 1935-37 and

EADY (Contd.)

from 1938 until the Panel was terminated in 1940 when he became a Controller in the Munitions organisation as Employer Representative on the Central Advisory Committee for Dilution of Skilled Labour.

ELDRIDGE. R.V.F. Eldridge was Manager of the Southern Group of War-time Ammunition Feeder Factories in N.S.W. 1942-44.

ELLIS. J.A. Ellis, M.Inst.C.E., M.I.E.Aust., born 1887 at Wokington, Cumberland, England, Commissioner for Railways, W.A., was appointed in August 1942 as Director of Locomotive & Rolling Stock Construction as well as Member of the Land Transport Board, with responsibility for building Garrett-type locomotives and railway goods wagons for Australia's 3 ft. 6 ins. gauge railways. He returned to the Western Australian Railways when the War-time Directorates were discontinued at the end of May 1945.

ELTHAM. E.P. Eltham, I.S.O., B.E.E., born at Boolarra (Vic.) in 1892, President, Victorian Apprenticeship Commission 1928-34; Chief Inspector of Technical Schools and Deputy Director of Education in Victoria 1930-46; was appointed as War-time Controller of Labour (Technical Training) in the Department of Munitions in 1940, transferring to the position of Director of Industrial Training with the Department of Labour & National Service when that Department was created.

ESSERMAN. N.A. Esserman, B.Sc., F.Inst.P., a Sydney University graduate, was sent to England during the 1914-18 War to assist under the Chemists' & Munitions Workers' Scheme. He was selected in England, in mid-1918, for training for a position with the Arsenal then under consideration <sup>for</sup> of Australian munitions production and was directed to specialise in Physics & Metrology at the National Physical Laboratory. He became Assistant Superintendent of the Munitions Supply Laboratories on the engineering side in 1938 but transferred on January 11, 1939 to the position of Chief of the Division of Metrology in the National Standards Laboratory of the C.S.I.R.O. which greatly assisted the 1939-45 War-effort of the Department of Supply.

EVANS (Contd.)

appointed in 1940 as Chairman of the War-time Board of Area Management for Queensland.

EWING. Thomas Ewing, Minister for Defence, in 1907, was personally responsible for much of the drive in Defence developments and particularly for the setting-up of the Cordite Factory and the Defence Laboratory in Victoria and the Small-Arms Factory at Lithgow.

FARROW. Dr. M.D. Farrow was Assistant Manager of the Munitions Filling Factory, St. Mary's (N.S.W.) 1942-43; Manager 1943-44.

FINLAY. J. Finlay, M.B.E., born at Kilmore (Vic.) in 1885, was one of the six "mechanics" sent to the Pratt & Whitney Factories in U.S.A. in 1910 to study heat treatment of steel as related to the mass production of rifles. Return to the newly-established Small-Arms Factory at Lithgow (N.S.W.) in 1911, he was made General Foreman in Charge of the Factory Tool-room. In 1925, he was promoted to Assistant Manager of the Factory; Acting Manager 1941; Divisional Manager of Government Small-Arms Factories 1942-47 and General Manager, Small-Arms Factories, from 1947 until his retirement in 1950.

FLEMING. H.D. Fleming was Manager of the War-time Ammunition Feeder Factory, Port Pirie (S.A.) 1943-45.

FORD. A.S. Ford, A.M.I. Mech.E., A.M.Am.Soc.M.E., A.M.I.E.(Aust.) a former employee of Vickers Ltd. (England) in the production of machine-guns; was appointed as a Draftsman at the Small-Arms Factory (Lithgow) 1913. In 1917, and again 1918-19, as <sup>Engineer</sup> ~~Chief Draftsman~~, he was sent to England to study technical developments and particularly those related to the production of small-arms and Vickers machine-guns in Australia. Works Manager, Machine-Gun Section, 1927; Manager, Small Arms Factory, Lithgow, 1930. Visited England 1936 on Bren light machine-gun project. General Manager of Small-Arms and Machine-Gun Factories 1940-44; Director, Gun-Ammunition Production 1944 and subsequently of Radio & Signal Supplies, of Small-Craft Construction and of Technical Practice. He also served as State Controller (Vic.) 1945-46 and retired because

FORREST. Sir John Forrest, G.C.M.G., a former Premier of Western Australia, on March 1, 1901, took up the position of the first Minister for Defence of the Commonwealth of Australia.

FORSYTH. J. Forsyth, born Glasgow, Scotland 1892; A.I.F. 1915-17; toolmaker at Small-Arms Factory 1917-41; Senior Engineer in charge of the Toolroom 1941-42; Assistant Manager 1942 until his death in 1949.

FOWLER. W.M.B. Fowler, B.E., (Q'land), A.M.I.E., was sent to England as one of the Engineers to assist under the Chemists & Munitions Workers' Scheme during the 1914-18 War. He was selected in mid-1918 for special training in England in relation to the staffing of the Arsenal then planned for the production in Australia of munitions of war, and became Assistant Manager, Ammunition Factory, Footscray. During the 1939-45 War, as Divisional Manager, S.A. & W.A. of the Ammunition Factories group, 1941-45, he was responsible for the construction and equipping of large ammunition factories in Adelaide, Brisbane (Rocklea), and Perth (Walshpool).

FRASER. Sir Colin Fraser, M.Sc. (N.Z.) born at Coronandel (N.Z.) in 1875 - Mining Geologist and Engineer, and Chairman of Directors of Electrolytic Zinc Co. of A/asia. Ltd., was appointed a Member of the Advisory Panel on Industrial Organisation of the Department of Defence in 1933. He became Chairman of the Panel in 1939 until it was abandoned in June 1940 with the creation of the Department of Munitions, with which he became War-time Director of Materials Supply until his death in 1944.

FREESTUN. A.M. Freestun was Manager of the War-time Ammunition Factory at Finsbury (S.A.) 1945-46.

FRENCH. Major-General C.A. French, C.M.G., R.A., on loan from the British Army was, in 1896, Military Commandant of the Colony of New South Wales. He supported Federal action for manufacture of gun and small-arms ammunition under Government supervision but pressed for a separate factory in N.S.W. in preference to supporting the Victorian Factory of the Colonial Ammunition Company.

GILLAN (Contd.) at Army Headquarters in 1939; Assistant Secretary and Chief Accountant, Department of Munitions, 1941. Finance Member of the Munitions Board of Factory Administration 1941-45; First Assistant Secretary, Department of Munitions 1945-48.

GIPPS. H.B.L. Gipps, born at Forbes (N.S.W.) in 1880, was deputed by the Royal Australian Artillery in 1901, when he was a Lieutenant, to assist the Board set up to test ammunition produced by the Colonial Ammunition Factory at Footscray (Vic.). He subsequently specialised in the field of inspection of military supplies and visited England in 1917 for special studies related to the Arsenal project. As Lieut-Colonel he became Chief Inspector of Munitions 1920-32. He was Inspector-General of Munitions 1939-45 and later, as Colonel, Director of Mechanisation at Army H.Q.

GOLDFINCH. Sir Philip Goldfinch, K.B.E., born at Gosport (England) in 1884, General Manager, Colonial Sugar Refining Company 1923-43, was Chairman of the War-time Board of Area Management for N.S.W. from 1940 until his death in 1943.

GREEN. H.C. Green, O.B.E., F.S.A., F.C.I.S., A.I.C.A., born at Shepparton (Vic.) in 1893 was Assistant Commonwealth Statistician 1937-38; Member, Royal Commission on National Insurance in Australia 1938-39; Assistant Secretary (Materials), Department of Supply & Development 1939; Controller, War-time Directorate of Materials Supply 1940-44; Director of Materials Supply from 1944 until he transferred, when the War ended, to private industry.

GRIFFITH. S.W. Griffith, F.C.A. (Aust.), F.I.C.A., F.C.I.S. (Eng.), born at Tamworth (N.S.W.) in 1882, was Chief President of A.N.A. and President, Commonwealth Institute of Accountants prior to the 1939-45 War. He was Deputy Chairman of the Advisory Accountancy Panel of the Defence Department in 1939 and, from 1941 on, Finance Member of the Australian Shipbuilding Board.

HAKE. C. Napier Hake, born in England in 1848, Fellow of the Institute of Chemistry in Great Britain, was Chief Inspector of Explosives, Department of Chemistry of the Colony of Victoria in 1890. In 1896, he was appointed

HAKE (Contd.)

the Commonwealth as Chemical Adviser to Department of Defence in charge of newly-established Government Laboratories at Victoria Barracks, Melbourne, which virtually was the foundation of the Munitions Supply Laboratories. Carried out investigations in Australia and England in 1896 and subsequently regarding Australian production of gunpowder and cordite, including having responsibility for setting up the Government Cordite Factory at Maribyrnong until it was brought into operation in 1911. He retired in 1911.

HALL. A.G. Hall, A.A.C.I., A.M.T.C., born at Elmore (Vic.) in 1883; Chemist at Cordite Factory, Maribyrnong 1915; was Assistant Manager of the Explosives Factory at Maribyrnong prior to his appointment in 1940 as Manager of the Factory which position he held until his retirement in September 1950.

HAMMOND. H.J. Hammond, Dip.El.Mech.Eng., M.I.E. (Aust.), F.I.P.E., joined the Central Drawing Office, Maribyrnong as a Junior Draftsman in 1928, transferring to a similar position at Ammunition Factory, Footscray, 1930; promoted Engineer 1935; at War-time Ammunition Factory, Rutherford (N.S.W.) 1942-43; Assistant Manager, Ammunition Factory, Footscray 1944-50; Manager, Ball-Bearing Factory, Echuca 1950-53; Manager, Ammunition Factory, Footscray 1953-64; Assistant Controller (Explosives & Ammunition) 1964-67; Assistant Controller (Project Control Branch) 1967 until his retirement in 1972.

HARTNETT. L.J. (later Sir Lawrence) Hartnett, C.B.E., M.I.E. (Aust.) born Woking, (England) 1898; Managing Director of General Motors-Holdens 1934-47; was War-time Director of Ordnance Production in the Department of Munitions from 1940 until 1945. Chairman, Army Inventions Directorate 1942-46.

HARVEY. R.J. Harvey, B.Sc., born in the Denmark district of Western Australia; joined Explosives Factory, Maribyrnong as Chemist after working as a research officer with the W.A. Department of Agriculture and the University of W.A. Assisted in setting up of Explosives Factory, Mulwala, and became Assistant Manager 1953-55, followed by appointment as Superintendent (Production) in the Explosives Branch. Explosives & Chemical Engineering Representative in London, 1957-58; Chief Chemical Engineer, Explosives Branch 1958-64; Manager 1964 until his retirement in 1972.

HEDDING. W.A. Hedding, O.B.E., B.Sc., F.R.A.C.I., born in Melbourne in 1897, served with 1st A.I.F. in Egypt and France; Industrial Chemist in textile industry; joined the Defence Laboratories in 1924 as a Chemist; transferred to Explosives Factory, Maribyrnong 1932; Assistant Manager 1942; Manager 1954 Chief Chemical Engineer 1955; General Manager, Explosives Factories 1957; C.G.M.S. 1958 to his retirement in 1962.

✓ HERBERT. E.J.W., Herbert, I.S.O. trained as a Marine Engineer for five years before joining Small-Arms Factory, Lithgow, as Draftsman in 1923; Leading Draftsman, Central Drawing Office 1925; Senior Engineer, Ordnance Factory, Maribyrnong, 1941; Assistant Manager, 1943; in U.K. and U.S.A. 1944-46 studying production of 4.5" naval gun mountings and of traction diesel engines for locomotives; Manager, Ordnance Factory, Bendigo, 1946-51; General Manager, Ordnance Factories (later Controller, Ordnance & Small-Arms Supply) 1952-66; Controller-General, Munitions Supplies 1966-67.

JACK. A.K. Jack, M.Sc., was a member of the Shackleton Trans-Antarctic Expedition 1914-17; Chemist at the Cordite Factory, Maribyrnong 1918, advancing to Head-of-Section before being appointed Asst. Manager, Explosives Factory, Maribyrnong, 1941-43; on London Staff 1943-45; Controller, Directorate of Explosives Supply 1945-46; Chief Safety Officer, Government Explosives Factories and Secretary, Operational Safety Committee until retirement 1950.

JENKINS. J.L. Jenkins, of the Broken Hill Proprietary Company Ltd., was Personal Secretary to Essington Lewis during his War-time appointment from 1940 to 1945 as Director-General of Munitions <sup>Supply</sup> and, from 1942, of Aircraft Production also.

JENSEN. J.G. Jensen, son of Sir John Jensen, was one of the first four Cadet Engineers, in 1937. He had already completed three diploma courses at the Royal Melbourne Technical College and was in the first year of a Science Degree at the Melbourne University. He was Production Manager of the War-time Ammunition Feeder Factory at Mildura (Vic.) 1942-44. He was killed in an aircraft accident in January 1945, when returning to Mildura to close the

JENSEN. Sir John Klunder Jensen, O.B.E., F.C.A.A., born at Bendigo (Vic.) in 1884, was a Telegraph Messenger at Bendigo for 2½ years before transferring to Melbourne in 1900 as a Junior Messenger in the Ordnance Stores Branch of the Victorian Defence Department at Victoria Barracks. Transferred with the same status to the Commonwealth Department of Defence in 1901 and was appointed as Junior Clerk in the same year. Assistant Officer-in-Charge, Central Correspondence Registry 1906. In 1910, spent 8 months in U.S.A. studying American Accounting methods in connection with piecework and factory accounting generally and specifically in relation to costing and other aspects of accounting associated with the production of small-arms at the proposed Small-Arms Factory, Lithgow (N.S.W.) where he became first Factory Accountant. Chief Clerk at Head Office 1914-18. Studied administration of British Ministry of Munitions in England for War-time production 1918-20. Chairman, Defence Contract Board 1923-39; Controller, Munitions Supply 1937-39; Assistant Secretary (Administration), Department of Supply & Development 1939-42; Secretary, Department of Munitions 1942-48, and of Department of Supply & Development 1948 until his retirement in 1949. He was also Chairman of the Secondary Industries Commission 1943-49.

JONES. Lt. Col. S.O. Jones, F.I.R.E., M.I.E., born at Frankston (Vic.) in 1905, was a P.M.G. Engineer 1927-39; Lt. Col. with the A.I.F. Signals Unit 1939-41; Chief Signals Officer, Australian Home Forces 1941-42; Director of Radio & Signal Supplies, Department of Munitions 1942-45; transferred to Philips Electrical Industries of Australia as Technical Manager when the War ended.

KAVANAGH. The Hon. E.J. Kavanagh, a N.S.W. Conciliation Commissioner, succeeded the Rt. Hon. J.B. Chifley in 1940 as Director of Labour in the Department of Munitions, which position he retained until 1948.

KESSELL. S.L. Kessell, M.B.E., M.Sc., Dip. Forestry (Oxon), born 1897 at Wollongong (N.S.W.), was Conservator of Forests in Western Australia from 1921 until being appointed War-time Controller of Timber 1941-45. Chairman Commonwealth Board of Higher Forestry Education 1945. Resigned late 1945 to become Managing Director of Australian Newsprint Mills Pty.Ltd. of Tasmania.

KNEESHAW. The Hon. F.P. Kneeshaw, O.B.E., M.I.E. (Aust.), born at Canterbury (N.Z.) in 1883; General Manager, Australian Portland Cement Pty.Ltd.; was a member of the Advisory Panel on Industrial Organisation of the Department of Defence 1938-40; Member, N.S.W. Board of Area Management 1940-41; Chairman, Australian Shipbuilding Board 1941-43; Member of Legislative Council (N.S.W.) 1933-49.

KNIGHT. J.L. Knight, M.Sc., F.R.A.C.I., F.A.I.M., born at Cressy in 1912; Chemist at Nobel (Aust.) Pty.Ltd., 1933-36; Chemist at Explosives Factory, Maribyrnong (Vic.) 1936-41; Member, Explosives Mission to U.S.A. & Canada (1941-42); Assistant Manager, Explosives Factory, Mulwala (N.S.W.) 1942-45; Secretary, Explosives Committee 1947-49; Explosives & Chemical Engineering Representative (London) 1950-51; Assistant Manager, Explosives Factory, Maribyrnong (Vic.) 1952-54; Manager, Explosives Factory, Albion 1954-56; Chief Chemical Engineer 1957-58; Controller, Explosives & Ammunition Supply 1958-67; Deputy Controller (Munitions Supply) since 1967.

KNOTT. Sir John L. Knott, Dip.Com., I.D.C., A.A.S.A., F.C.I.S., A.F.A.I.M., L.C.A. born Romsey (Vic.) in 1910; joined Commonwealth service as Telegraph Messenger in 1926; Trade Treaties & Tariff Revision Branch, Central Customs Office 1933; Private Secretary to Minister for Trade & Customs 1936; Personal Assistant to Secretary, Department of Supply & Development 1939; Chief Clerk, Department of Munitions 1940; Secretary, Australian Delegation to Eastern Group Supply Council (New Delhi, India) 1940; Secretary, Board of Factory Administration, Department of Munitions 1941-43; Executive Officer, Secondary Industries Commission, 1943-45; Assistant Director of Industrial Development, Department of Post-war Reconstruction; Director, Defence Production Planning Branch 1950-52; Assistant Secretary (Policy & Administration) and Member, Board of Management for Munitions Factories 1952-57; Secretary, Department of Defence Production 1957-58; Deputy Secretary, Department of Supply 1958-59; Secretary of the Department 1959-66; Deputy High Commissioner for Australia in London 1966-68; Director-General of Posts & Telegraphs 1968-72.

LAIDLAW. D.K. Laidlaw, as Controller, Land, Buildings & Works throughout the 1939-45 War was responsible on the works side for all extensions to existing

LAILAW (Contd.)

for all expenditure of Government funds for the building additions or replacements on contractors' premises.

LAW. R.O. Law, born at Ballarat (Vic.) 1867. General Manager of Metropolitan Brick Co. Ltd. 1940-47. Appointed in 1940 as Chairman of the War-time Board of Area Management for Western Australia.

LENNE. I.J. Lenne trained as Cadet Engineer at Ammunition Factory, Footscray; transferred from position of Assistant Manager of the Factory in 1953 to that of Director, Defence Production Planning Branch after a period as Technical Assistant to the C.G.M.S.; Manager, Small-Arms Factory, Lithgow, 1956 until his resignation in 1958 to take up a position in industry.

LEIGHTON. A.E. Leighton, C.M.G., F.I.C., F.R.A.C.I., M.I.Chem.E., was born in England in 1873. Conducted commercial practice as general consulting and explosives chemist in England, including research work on explosives and ballistics. Assisted in modernising Indian Government Munitions Factories 1903. Assistant Manager, Aruvankadu Cordite Factory, India 1903-09. Manager, Government Cordite Factory, Maribyrnong (Vic.) 1909. General Manager, Central Arsenal 1916-21. Controller-General, Munitions Supply 1921-37. Loaned to British Government during World War I to assist in establishing War-time Explosives Factories in U.K. After his retirement as C.G.M.S., continued to serve as Consultant on Explosives and Consultative Member of the Munitions Supply Board until 1946 and as Chairman of the Operational Safety Committee from its inception in 1939 until early 1950.

LEWIS. Essington Lewis, C.H. born at Burra (S.A.) in 1881. Managing Director, Broken Hill Proprietary Company Ltd. 1926-38; Chief General Manager, 1938-50; Chairman, Advisory Panel on Industrial Organisation of the Department of Defence in 1938, relinquishing that position to become Business Consultant to the Department after World War II commenced in 1939. Director-General of Munitions <sup>Supply</sup> (and later of Aircraft Production also) 1940-45 in which position he directed the whole of the War-time activities in Government Factories and industry generally for production of munitions, aircraft and associated

LILLYWHITE. S. Lillywhite, M.B.E., born Magill (S.A.) in 1882, was Secretary of the War-time Board of Area Management for South Australia 1940-45 and State Controller, Department of Munitions 1945-48.

LOORHAM. J.T.O. Loorham was Secretary of the Board of Factory Administration 1940-41, before transferring in 1942 to Assistant Controller, Stores & Transport and in 1945-46 to Controller, Production Orders Statistics, and later Controller of Stores and Transport.

LUCAS. S. Lucas, O.B.E., A.I.C.A. born at Casalis (Vic.) in 1896; was Chief Inspector, National Insurance 1938-39; Deputy Controller, Materials Supply (Munitions) 1940-44; Controller, 1944; Director 1945. Also Consultative Member of Board of Factory Administration 1945.

McALPINE. A.S. McAlpine, born at Redfern (N.S.W.) in 1891, Assistant Secretary, N.S.W. Labour Council 1936-41; Member, Australian Shipbuilding Board, serving as Employees' Representative on the Board from 1941.

McCORMICK. J.T. McCormick, M.Sc., born at Hawksburn (Vic.) 1887, was appointed in 1910 as Chemist at the Government Laboratories established at Victoria Barracks, Melbourne. He studied the engineering plant and scientific equipment used for munitions production in England in World War I. By 1922, he was Assistant Superintendent of the Laboratories and in 1934 became Superintendent of the Munitions Standard Laboratories, Maribyrnong (Vic.), which position he retained until his retirement in 1947. He was a Member of the original Operational Safety Committee created in 1939 and also of the Australian Council for Aeronautics created in 1941.

McKAY. B.T. McKay, General Manager, Walkers Ltd. of Maryborough, Queensland, served as Assistant Manager of the Small-Arms Factory at Lithgow from June 27, 1915 to July 23 1915. He was also a Member of the Arsenal's Committee. He subsequently assisted in a managerial capacity at the Factory until his death in 1918.

McNEIL (Contd.)

Chief of Naval Construction 1940-43; Director of Shipbuilding and Deputy Chairman, Australian Shipbuilding Board 1943-48.

McSHANE. J.M. McShane, B.A.(Oxon), B.Sc., born at Tamworth (N.S.W.) in 1910, of the Broken Hill Proprietary Company Ltd. Was Technical Assistant (until 1943) to Essington Lewis during his War-time appointment as Director-General of Munitions <sup>Supply</sup> 1940-45, and, from 1942, of Aircraft Production also.

McVEY. Sir Daniel McVey, C.M.G., born at Falkirk, Scotland 1892, a P.M.G. Engineer and a Member of the National Insurance Commission 1936-39; appointed Secretary of the Department of Supply & Development on its creation on July 1, 1939, but was shortly thereafter appointed Director-General of Posts & Telegraphs (1939-46), as well as, concurrently, Director-General of Civil Aviation (1944-46); Chairman, Radiophysics Advisory Board (1942-46) and Secretary, Department of Aircraft Production (1942-45). He joined Standard Telephones <sup>+ Cables</sup> Pty. Ltd. in 1946 as Managing Director and continued his association with industry thereafter.

MALONE. F.J. Malone, I.S.O., joined Ordnance Factory, Maribyrnong in 1935 as a Junior Technical Assistant, becoming one of the first four Cadet Engineers in 1937; Senior Engineer 1942; Manager, Ball-Bearing Factory, Echuca 1943-50; Manager, Ordnance Factory, Maribyrnong from 1950 until his retirement in 1972.

MATTHEWS. H.P. Matthews, F.S.A.S.M., was educated in Adelaide and worked for seven years as an industrial chemist in industry before joining Explosives Factory, Maribyrnong, as a Chemist in 1934. Assistant Manager, Explosives Factory, Salisbury (S.A.) during its building and bringing into service; Assistant Manager, Explosives Factory, Villawood (N.S.W.) 1943-44; Assistant Manager, Munitions Filling Factory, St. Mary's (N.S.W.) 1945; with Division of Industrial Development for three years; with Scientific & Technical Mission to Germany 1947-48; Assistant Director, Defence Production Planning Branch 1949-51; Assistant Secretary (Munitions Production) 1952-53; Senior Representative, Department of Supply, London 1958-61; Assistant Secretary (Research & Development) 1961-66; Assistant Secretary (Production) 1966 until retirement.

MEALAND. A. Mealand, M.I.Mech.E., M.A.S.M.E.; was appointed in 1918 as Chief Draftsman for the Arsenal planned to be set up for production of munitions of war in Australia. He became Chief Draftsman, in charge of the Central Drawing Office and, from August 1941 to January 1942, was Controller, Production Orders & Statistics. He was later Controller, Machine Tools & Gauges 1944-45; Australian Munitions Representative, London, 1945.

MENZIES. S.K. Menzies, born at Jeparit (Vic.) in 1905, was loaned by G.J.Coles & Co. to the Department of Munitions in 1940; Director, Production Orders & Statistics 1942-45; Member of Services Munitions Coordination Committee 1940-45; Munitions Representative on the War Commitments Committee of U.N.R.R.A.

MEREDITH. David A. Meredith, Manager, Electrolytic Zinc Co. of Aust. Ltd. was the original Chairman of the War-time Board of Area Management (Tas.) but retired a few months later in favour of Colonel Bennett. He was appointed as Business Administrator for Tasmania 1942-44, as well as Consultative Member of the Board of Factory Administration during that period.

MERRETT. F.T. Merrett, born at Auburn (Vic.) in 1890, Chief Engineer of Australian Iron & Steel Ltd.; was Chief Technical Assistant to Essington Lewis 1942-43; Director of Small-Craft Construction 1943-45; Deputy Chairman, Secondary Industries Commission 1943.

MERRILEES. J.C.M. Merrilees was appointed Secretary of the Australian Shipbuilding Board in February 1945.

MILLS. D.C. Mills was Manager of the War-time Ammunition Factory, Kalgoorlie (W.A.) 1944-45; Engineer in Head Office until 1966; Assistant Manager, Ammunition Factory, Footscray, 1966 until retiring 1971.

MILLS. F. Mills, born at Newcastle-on-Tyne (Eng.) in 1897; Chief Mechanical Engineer of the Western Australian Railways and a Member of the Board of Area Management (W.A.) was appointed in August 1942, as Controller in the Directorate of Locomotive & Rolling Stock Construction, which had the

MILLS (Contd.)  
Railways at the beginning of June 1945.

MIRLS. H.V. Mirls, born at West Melbourne (Vic.) in 1901; Assistant Works Manager, A.C.I. Glass Works, Spotswood 1937-40; Assistant Controller, Gun-ammunition Directorate 1940; Controller 1941; Director 1942-44.

MITCHELL. L.G. Mitchell, B.Sc. born at Gisborne (Vic.) in 1905, was a Chemist at the Sunshine Harvester Works (Vic.) 1927; joined Explosives Factory, Maribyrnong 1928; with Brass Company of Australia 1929; returned to Explosives Factory, Maribyrnong as Chemist 1938-40; Directorate of Explosives Supply 1940-42; Assistant Manager, Explosives Factory, Salisbury (S.A.) 1942-46; returned to Explosives Factory, Maribyrnong as Chemist; Assistant Manager 1954; later Manager, Explosives Factory, Mulwala until retiring in 1970.

MONK. E.G. Monk, foreman experienced in all details of cordite manufacture as practised at the Royal Explosives Factory, Waltham Abbey, near London, was appointed in 1910 as Foreman of the Commonwealth Government Cordite Factory to be established at Maribyrnong, Victoria, advancing to the position of Senior Engineer. He was accompanied to Australia by his son, Albert, who was destined to become Chairman of the Australian Congress of Trades Unions.

MOORE. R.G. Moore, B.E., born Sydney 1905; Senior Engineer, Ammunition Factory, Footscray; ~~Works Manager 1942~~; Assistant Controller, Directorate of Machine Tools & Gauges, 1940-41; Manager of the Ammunition Factory, Footscray 1943-45.

MORRIS. C.W. Morris was Manager of the War-time Ammunition Feeder Factory at Derwent Park (Tas.) 1942-44.

MOSS. R.I.M. Moss joined Ordnance Factory, Maribyrnong in 1937 as one of the first four Cadet Engineers. Transferred from Assistant Manager, at Maribyrnong, in 1953 to similar position at Ordnance Factory, Bendigo. Washington 1958-61. Manager, Ordnance Factory,

MUNRO. C.H. Munro, B.E., M.I.E. (Aust.), born at Toowoomba (Q'ld.) in 1904, was Lecturer-in-Charge of Engineering at Sydney Technical College in 1939. Supervising Engineer (N.S.W.) for Directorate of Armoured Fighting Vehicles. Controller, Directorate of Small-Craft Construction 1942-45.

MURPHY. R.J. Murphy, O.B.E., born at Yengarie (Q'ld.) in 1882, appointed as War-time Controller of Labour (Labour Supply) in the Department of Munitions in 1940 before transferring to the Department of Labour & National Service as Assistant Secretary and, from 1943-45, to the Department of Transport as Secretary. He returned to the Department in 1948 in the part-time appointment of "Industrial Adviser".

MURRAY. Dr. H.M.L. Murray, L.R.C.P., L.R.C.S. (Edin.) D.P.H. (Lond.) was appointed as the first full-time Medical Officer for the Government Munitions Factories at Maribyrnong in September 1936. Principal Medical Officer, Department of Munitions 1940-42, and Controller of the Factory Welfare Branch of the Department of Labour & National Service 1942-45.

NIXON. Sir Edwin Nixon, C.M.G. F.I.C.A., F.C.A. (Aust.) born at Jersey (Channel Islands) in 1876, a chartered accountant, was Chairman of the Advisory Accountancy Panel of the Department of Defence 1939. Director of Finance, Department of Munitions 1940-45.

NUTT. A.L. Nutt O.B.E., born in 1900 in Melbourne, Assistant Australian Government Trade Commissioner throughout 1935-38, was appointed as Secretary of the Australian Shipbuilding Board from 1941 to early 1945 when he was transferred to Canberra as Chief Migration Officer, Department of the Interior, becoming Assistant Secretary, 1954-6 and Secretary 1960-65.

O'CONNOR. F.A. O'Connor, C.B.E., born at Leongatha (Vic.) in 1894; Clerk in Navy, Directorate of Contracts 1912; Secretary, Contract Board, Department of Defence 1937; Deputy Director of Contracts, Department of Supply & Development 1939-41; Director of Contracts, Department of Supply & Shipping 1942-44; Assistant Secretary, Department of Supply & Shipping 1945-46 and

OLIVER. J.C. Oliver was Manager of the War-time Small-Arms <sup>Factory</sup> at Bathurst (N.S.W.) 1941-42; Works Manager of the Lithgow Factory 1942-44 before resigning to take up an industrial appointment.

✓ O'LOUGHLIN. M.M. O'Loughlin, A.M.I.E., born at Adelaide in 1887. Mechanical Engineer with Western Australian Railways & Public Works Department 1904-16; seconded for War work with Department of Defence 1916-18; studied 18-pdr. gun production at Woolwich Arsenal, England 1919-20; one of 3-man team responsible for planning and bringing into existence Ordnance Factory, Maribyrnong, in the 1920's. Assistant Manager, Ordnance Factory, Maribyrnong 1925-37; Manager 1937-41; Divisional Manager, Ordnance Factories and Manager of the Maribyrnong Factory 1941-46; General Manager, Ordnance Factories 1947-50; Controller-General, Munitions Supply from 1950 until his retirement in 1952.

O'SHEA. J.D. O'Shea, A.A.C.I., A.M.I.E. (Aust.), Superintendent of the Small-Arms Ammunition Section at Footscray in 1931. Was Brisbane Manager of the Ammunition Factory Group in 1941-42, transferring to Western Australia as Manager of the Ammunition Factory at Welshpool (W.A.) 1943-45 and becoming State Controller (W.A.) in 1945 when the Boards of Area Management were disbanded. In 1945-46 he was appointed Manager of the Ammunition Factory, Footscray (Vic.) which position he retained until his death in 1953.

✓ PARKER. V.C. Parker, born at Dapto (N.S.W.) in 1900; trained as Apprentice Toolmaker at Small-Arms Factory, Lithgow; Assistant Manager of the Ordnance Factory, Maribyrnong 1938-40; was sent to England to study production techniques for the 3.7" anti-aircraft gun. Assistant Manager 1941, and later in 1941 Manager of the Ordnance Factory being established at Bendigo, returning in 1946 as Manager of the Maribyrnong Ordnance Factory until appointed in 1950 as General Manager, Small-Arms Factories (later Small-Arms & Ammunition Factories) until his retirement in 1960.

PERCIVAL. A. Percival, I.S.O., F.C.I.V., F.V.I.S., M.U.I.E., A.M.I.E. (Aust.) & F.S.R. (Lond.) born at Dunedin (N.Z.) 1879 was Commonwealth Surveyor-General and Chief Property Officer of the Department of the Interior, Canberra, when

PERRY. Hon. Sir Frank Perry, M.B.E., born at Gawler (S.A.) in 1887, Chairman of Perry Engineering Co. Ltd. and Chairman and President of the Metal Industries Association of South Australia from 1940-48; was a Member of the Advisory Panel of Industrial Organisation of the Department of Defence until it was terminated in 1940. Chairman of the War-time Board of Area Management for South Australia in the Department of Munitions 1940-45.

PETHEBRIDGE. Commander S.A. Pethebridge, C.M.G., was born at Brisbane in 1862 and joined the Queensland Public Service in 1876 before transferring in 1901 from the position of Secretary of the Queensland Department of Defence to that of Chief Clerk of the Commonwealth Department of Defence. Secretary of the Department 1906-15.

PLAYFORD. M.E. Playford was Manager of the Munitions Filling Factory, St. Mary's (N.S.W.) 1942 until his death in 1943.

PLAYFORD. Thomas Playford, Minister for Defence in 1905, initiated the action which led to the decision to establish the Small-Arms Factory at Lithgow (N.S.W.)

RAMM. A.A.C. Ramm, born at Toowoomba (Q'land.) 1894, was Secretary of the War-time Board of Area Management for Western Australia 1940-45 and State Controller 1946 until his retirement.

RAMSDEN. G.S. Ramsden, B. Eng. Sc., Dip.Mech.Eng., Apprentice Fitter and Turner, Ammunition Factory, Footscray 1932; Draftsman, C.D.O. 1937-38; Cadet Engineer 1938; in charge of Ordnance Feeder Factory, Horsham 1943; Senior Engineer (later Assistant Manager,) Ball-Bearing Factory, Echuca 1944; Mechanical Engineering Representative, London 1954-56; Assistant Manager, Ammunition Factory, Footscray 1956-59; Technical Assistant to C.G.M.S. 1959-60; Assistant Manager, Ammunition Factory 1961-66; Manager since 1966.

RATCLIFFE. F.R. Ratcliffe, Engineer of the Pratt & Whitney Company of U.S.A. was engaged by the Commonwealth Department of Home Affairs in 1909 as Engineer Adviser to the Director-General of Works during the planning, lay-

RATCLIFFE (Contd.)

1912 and, during World War I, was promoted to Manager in July 1915. Engaged in Arsenal affairs in England, March-December 1917, and he resigned in 1930.

REID. S. McGregor Reid, F.C.A., born at Hindmarsh (S.A.) 1885, and an Adelaide Company Director, was Business Administrator (S.A.) 1942-44 as well as a Consultative Member of the Board of Factory Administration during that period.

REEVES. W.J. Reeves was Manager of the War-time Ammunition Feeder Factory at Goulburn (N.S.W.) 1943-44.

RICHARDS. W.J. Richards was Controller, Radio & Signals Supplies 1943-44.

RITCHIE. Sir T.M. Ritchie, M.I.E. (Aust.) A.C.A.A., born 1894 at Melbourne; Managing Director of Noyes Bros. (Syd.) Ltd.; was appointed in 1942-43 as Business Administrator (N.S.W.), continuing in that position until normal Departmental functioning was resumed in June 1945. He was also a Consultative Member of the Board of Factory Administration during that period.

ROBERTS. T.A. Roberts, B. Mech. Eng., B. Eng. Sc. was born at Footscray (Vic.) in 1921; had experience with H.V. McKay-Massey Harris at Sunshine (Vic.) before appointment as Cadet Engineer at Ammunition Factory, Footscray in 1942, rising to the position of Assistant Manager before transferring to Head Office as Assistant Director of the Defence Production Planning Branch. Manager, Central Drawing Office, Maribyrnong 1954-61; Manager, Commonwealth Government Engine Works, Port Melbourne since 1961.

ROWE. Lt. Colonel G.C. Rowe, born at Castlemaine (Vic.) in 1894, was a member of the 1st A.I.F. during World War I before becoming Munitions Representative in London 1919-25. After further Army service, he became Chief Executive Officer of the Australian Principal Supply Officers Committee in 1938; Executive Officer of the Defence Supply Planning Committee 1939-40, and Controller, Gun-Ammunition Production 1940-41, proceeding thence to London as Munitions Department Representative until August 1945.

SARGOOD. Major F.T. (later Sir Frederick) Sargood, an officer of the Volunteers in Victoria and a principal of a Melbourne soft-goods firm, arranged in 1882 for the supply from England of plans and specifications of a plant for production of Martini-Henry .45" military ammunition. Later, as Minister for Defence for Victoria, he was responsible for the arrangements under which the Colonial Ammunition Company's Factory was established at Footscray (Vic.)

SEALE. G.M. Seale was Manager of the War-time Ammunition Feeder Factory at Rutherford (N.S.W.) 1942-44.

SAYCE. E.L. Sace, B.Sc. born at Hawthorn (Vic.) in 1899. transferred from the Laboratory at the Footscray Factory of the Colonial Ammunition Company in 1922 to the Defence Laboratories at Maribyrnong, Victoria, and specialised in physical science in its application to munitions of war. In January 1939 he succeeded Esserman as Assistant Superintendent (Engineering) of the Laboratories.

SIMPSON. J.L. Simpson was <sup>Works</sup> Manager of the Ordnance Factory, Maribyrnong (Vic.) 1943-45.

SLADE. H.A. Slade was appointed in March 1911 as first Manager of the Government Clothing Factory, retiring in 1934.

SMAIL. James M. Smail arrived in Australia from England early in 1912 to establish a Commonwealth Factory at North Geelong, Victoria for the production of woollen cloth for Service uniforms, etc. He managed the Factory until 1920 when he resigned to accept a commercial appointment.

SMITH. A.V. Smith, born in Melbourne in 1893, joined the Defence Department in 1910; Contracts Officer-in-charge of the Equipment Section 1914-18; Executive Member, Contracts Board, and Secretary, Principal Supply Officers' Committee 1933-36; Assistant Secretary, Department of Defence, and Member, Munitions Supply Board 1937; Chairman, Contract Board 1939; Member of Factories Board, Department of Supply and of Aircraft Production Commission

SMITH (Contd.)

Development (later Supply & Shipping) 1940-41; Secretary, Department of Supply & Shipping 1941 until retirement in 1945 for health reasons.

SMITH. W.J. Smith, C.B.E., born in London in 1882, Managing Director, Australian Consolidated Industries, was War-time Director of Gun-Ammunition Production from 1940 until 1942.

SPILLER. F.C. Spiller was the Engineer-in-Charge of the planning and design of the original Ordnance Factory, Maribyrnong in 1922. He resigned in 1925.

STATTON. J.D. Statton was a member of the Australian technical team which studied production practices at the Pratt & Whitney works in U.S.A. in relation to the .303" Lee Enfield rifle for which that Company won the contract for plant, equipment and tooling to be installed at the Small-Arms Factory at Lithgow (N.S.W.); Assistant Manager 1916-35; Assistant Manager of the Ordnance Factory, Maribyrnong 1935-38; Sub-Manager 1938-39; Manager, Ammunition Factory, Footscray 1939-41; after service at the new Ammunition Factory, Rutherford (N.S.W.) <sup>was</sup> Divisional Manager (N.S.W.) for the Ammunition Factory Group (1941-45), covering Factories at Rutherford, Hay, Tamworth, Albury, Wagga and Goulburn.

STEWART. Sir Alexander Stewart, born Aberdeen (Scotland) in 1877, was a Consulting Engineer and a Director of Metal Manufactures Ltd. when appointed in 1938 as a Member of the Advisory Panel on Industrial Organisation of the Department of Defence. When that Panel was terminated in 1940, he became Chairman of the War-time Victorian Board of Area Management for the Department of Munitions until the War ended in 1945.

STUBBS. C.W.O. Stubbs, B.Sc., born at Sandhurst (Vic.) in 1891; proceeded to England as Chemist under War-Workers' Scheme during World War I; Chemist at Explosives Factory, Maribyrnong 1918; Senior Chemist prior to appointment in 1941 as Assistant Manager of the Factory. Manager of the new Villawood Explosives Factory 1942-44, as well as of the new Mulwala Explosives Factory 1943-51; Chief Chemical Engineer, 1951-55; General Manager, Explosives

SUMMERS. R.E. Summers was appointed in February 1914 as Chemical Assistant at the Government Laboratories at Victoria Barracks, Melbourne. As one of the first of those sent to England in 1915 under the Chemists & Munitions Workers' Schemes to assist production during the 1914-18 War, he was selected in England in mid-1918 for special training at the Leather Institute to gain experience preparatory to appointment to take charge of Explosives & Filling Factories at the Arsenal then being planned for production in Australia of munitions of war. His career was, however, destined to be with the Munitions Supply Laboratories.

SWINBURNE. Hon. George Swinburne, M. Inst. C.E., M. Inst. M.E., was born at Newcastle-on-Tyne, England in 1861. He was a Victorian M.L.A. 1902-13 and a Member of the State Electricity Commission (Vic.) 1919-26. In 1913, as an Interstate Commissioner, he was invited to conduct an independent enquiry into affairs at the Small-Arms/ Factory. In 1918-19, he was Chairman of the Board of Business Administration, Department of Defence and, in 1919, also Chairman of the "Special Committee on Matters of Defence Policy."

THOMAS. <sup>Thomas</sup> W.R. was Manager of the War-time Ammunition Feeder Factory at Moonta (S.A.) 1944-45.

THOMPSON. R.S. Thompson, B. Sc. (Eng.) A.M.I.E. (Aust.) M.I.P.E. was a Cadet Engineer at Ammunition Factory, Footscray, 1940; transferred as an Engineer to Small-Arms Factory, Lithgow, in 1953; Assistant Manager of that Factory, 1954-61; Manager 1961-64; Manager, Ammunition Factory, Footscray 1964; Controller (Munitions Supply) since 1967.

THORPE. Colonel Sir Fred Thorpe, M.C., E.D., M.I. Prod.Eng., A.M.I.E. (Aust.) born Macorna (Vic.) in 1893, Chief Engineer, Southern Command 1939-40; Director, McPherson's Ltd. and Associated Machine-Tools Aust. Pty.Ltd. 1939-53 was Adviser to the Munitions Supply Board on machine tools prior to the 1939-45 War and became War-time Director of Machine Tools & Gauges from 1940 to 1945.

TINDALE (Contd.)

Administration during that period.

TDPE. A.A. Topp, O.B.E., Assoc.W.M.C. (Met.); A.R.I.C., F.R.A.C.I., A.M. (Aust.) I.M.M., born at South Yarra (Vic.) in 1886, was appointed in 1911 as Chemist at the Commonwealth Government Cordite Factory being established at Maribyrnong Victoria. His earlier experience had been as Chemist with Mt. Lyell Mining Company, Victoria, and Chillagoe Mining & Railway Company of Queensland from 1906-08; Analyst with the Victorian Mines Department 1908-10; and Assayer at Cassilis Gold Mining Co., Victoria 1910-11. Assistant Manager of the Government Cordite Factory in 1915; Special studies in England 1917 for Arsenal project; Works Manager, Government Explosives Factory, Maribyrnong in 1926 and Manager in 1928; War-time Controller of Explosives Supply, Ministry of Munitions 1940-44; Director of Explosives Supply 1944-47; General Manager of all Government Explosives Factories 1947 to 1951 when he retired.

TRACEY. F. Tracey was Controller, Radio & Signals Supplies 1944-45.

TRUMBLE. Thomas<sup>C.M.G.</sup> Trumble, C.B.E., born at Ararat (Vic.) 1872; Senior Clerk, Victorian Department of Defence 1900; Chief Clerk, Commonwealth Department of Defence 1910-14; Assistant Secretary 1914-18; Secretary for Defence from 1918-27; Official Secretary, London 1927 to retirement 1932.

WALTER. A.J.P. Walter was Controller, Radio & Signals Supplies 1942-43 and Controller of Technical Practice 1943-44.

WATSON. Col. W.D. Watson, O.B.E., Vice-President, Mechanisation Board, U.K. Ministry of Supply 1939-40, was seconded to Australia in 1941 to serve as Chief-of-Design with the Department of Army for the Australian Cruiser Tank project of the Directorate of Armoured Fighting Vehicles.

WEDDON. P.R. Weddon, F.R.I.C., A.A.C.I., joined the Munitions Supply Laboratories in 1919. Following service as Secretary of the Chemical Warfare (later

... was sent to England in 1927 to study that

WELDON (Contd.)

of the Experimental & Research Committee of the Board, he was closely concerned with the experimental activities conducted in the rain-forest areas around Proserpine, Queensland. He was Assistant Superintendent of the Laboratories before becoming Deputy Superintendent in 1947.

WEXMOUTH. H.P. Weymouth, C.B.E., B.E., C.Eng.F.I.C., Aust. M.I.Min.E., M.I.E.E.,

born in Melbourne in 1905, was Works Manager and General Manager, Clyde Engineering Company, Sydney before joining the Australian Shipbuilding Board in 1941 as Production Engineer; Deputy Chairman of the Board 1943-52; Chairman 1952-64; Vice-Chairman, Australian Coastal Shipping Commission.

WHITE. G.D. White, B.Eng.Sc., A.S.M.E., M.I.E. Aust. born at Ballarat (Vic.)

1921; Munitions Cadet Engineer 1941; at Ammunition Feeder Factory, Derwent Park (Tas.); Production Engineer, Ammunition Factory, Footscray 1944-56; Technical Assistant to C.G.M.S. 1956-58; Asst. Manager, Ammunition Factory, Footscray 1959-64; Manager, Small-Arms Factory, Lithgow since 1964.

WHITNEY. Capt. John Whitney as representative of Greenwood & Batley Ltd. of

Leeds, England in 1887, was conducting in New Zealand a Factory set up by him for the manufacture of small-arms ammunition and sporting cartridges. He conducted negotiations with the Government of the Colony of Victoria regarding production of small-arms ammunition in Victoria, leading to the Colonial Ammunition Company's factory at Footscray (Vic.) in 1888.

WICKS. H.R. Wicks, Engineer-in-charge of the Vickers Machine-gun Section at the

Small-Arms Factory, Lithgow, <sup>1923-42;</sup> Manager of the War-time Small-Arms Feeder Factory at Bathurst (N.S.W.) 1942-45.

WILSON. F. Wilson was Technical Assistant to Director-General of Munitions

Lewis 1943-44.

WITTEN. T.A. Witten, born at Barraba (N.S.W.) in 1892, was an Engineer with

Thompsons Ltd., Castlemaine (Vic.) in 1939, transferring to the Department of Munitions as war-time Controller of Machine Tools and Gauges (1940-44).

WRIGHT. A.C. Wright, Pratt & Whitney expert in the manufacture of small-arms, was retained by the Commonwealth in 1909 as Consultant for the contract placed with the Pratt & Whitney Company of U.S.A. for the supply, installation and bringing into production of the plant for the Government Small-Arms Factory to be established at Lithgow, N.S.W. He had served his apprenticeship at the Royal Small Arms Factory at Enfield, England. Appointed Manager of the Factory on August 11, 1912. Resigned 31.7.15 to take up management of a new Arms Factory in U.S.A. for New England Westinghouse Co.

WRIGLEY. J.H. Wrigley, B.E. (Q'land) A.M.I.E. (Aust.) went to England as an Engineer under War-Workers Scheme during 1914-18 War. Undertook special training in England for Arsenal project. He was Engineer-in-charge of the Gun-Ammunition Production Development Project at Ammunition Factory, Footscray from 1922. Manager of the Factory from 1928 until ill-health led to his retirement in 1938.