

wages was £2,517. Injury and Special Leave on account of occupational risks, was granted in 63 cases, the cost in wages being £320.

The Factory Canteen, conducted for the benefit of the employees, had another successful year. Following on the opening of the new Mess Room in July, 1938, a Committee was appointed by the employees to arrange for the provision of tea, milk, light refreshments, etc. Various social functions, arranged by the Mess-Room Committee and the Factory Cricket Club, have materially assisted in developing the social and recreational side of activities.

ORDNANCE FACTORY

Manager: M.M. O'Loughlin, A.M.I.E. (Aust.)

Capital Expenditure

The capital expenditure during the year was Buildings and Works £110,881, Machinery and Plant, £248,151. Amongst the works completed were the extensions to the Projectile Shop, Toolroom and Timber Shed and Annexe to Forge Shop, and provision was made for further increase in productive capacity of the factory by extensions to the Machine and Wood Shops. The requirements of the Service Boards for armament, equipment, ammunition and miscellaneous stores were increased considerably, and the demands on the present plant have been heavy, but provision had been made for purchase of additional plant. Funds have been allocated also for building a sheet-metal shop, an additional Projectile Shop, an additional Timber Shed and extensions to the General Store. Further details are noted under the respective sections.

Machine Shop

The building extensions have been completed and foundations for the large machines are being prepared. The area of the shop now exceeds 125,000 square feet of available floor space, and the layout is being modified to take advantage of the additional floor space and machines. In doing that, machines of similar type are being grouped to facilitate manufacture and supervision. A considerable amount of additional plant ordered in the preceding year was received and has been installed.

The manufactures outlined in the previous report were continued upon a more intensive scale, and the group of lighter type of anti-aircraft guns upon mobile mountings which have been in production for some years is now approaching completion. A commencement has been made with manufacture of medium type anti-aircraft guns which are to be mounted upon static carriages. Other manufactures included a wide range of Artillery requirements for the Defence Services and other Munitions Establishments.

Forge Shop

The principal activity during the year was the forging and heat treatment of light-type anti-aircraft Guns, and the manufacture of the mountings and travelling platforms. During the latter part of the year, work was commenced on the medium-type anti-aircraft guns, a number of Gun Jackets, Breech Blocks and other components being forged and heat-treated.

The 24ft. vertical electric furnace, and the 25ft. horizontal bogie electric furnace, were completed and proved very satisfactory in the heat-treatment of the guns. The whole of the steel work for these furnaces was fabricated and erected by the Factory Staff. Larger Oil Tanks had also to be provided for the heat-treatment section, and the Vertical Tank was lengthened to 31ft. and a new 4,500-gallon horizontal tank provided. The Tanks now have a capacity of 12,500 gallons of tempering oil.

The Works Department completed the foundations for the new Duisburg Hydraulic Shell Plant, and the erection of the presses, pumps, etc., as well as the oil-fired shell-billet furnace, is well under way.

Toolroom

Apart from internal factory requirements, orders for tools and gauges were received and executed to the amount of some tens of thousands of pounds from the Defence Services, the Inspection Branch and other Munitions Establishments. These included some complete sets of manufacturing equipment for Fuzes, Shell, etc. and a set for a minor type of Ordnance.

Projectile Shop

The Building extension was completed during December and immediately the production machines were moved into new positions. Other machines on order are expected in the near future.

The manufacturing was confined principally to Army and Navy requirements and supplies for the New Zealand Government. The Service Orders have increased considerably over previous

years, and further arrangements have been made to provide for production of armament stores not previously ~~been~~ made at the factory.

Raw materials for various stores have been ordered and will be placed in reserve to provide for immediate increase in production should they be required in emergency.

From time to time personnel from the Principal Supply Officer's Committee Staff have been stationed in the Projectile Shop to obtain experience in Shell Manufacture.

Sheet Metal

In the Sheet-Metal Shop hundreds of components were manufactured for the Royal Australian Air Force, including Cases Transit Detonator, Bulkheads for Wapiti and Avro Plans, Oleo Struts, Drums Film Drying, Petrol Tanks and Metal Fittings.

Metal fittings for Ammunition Boxes, etc., were made for the woodworking shop, and the urgent orders from the Ammunition Factory for the tin-plate linings for the packing of small-arms ammunition, necessitated in April the establishment of a night-shift.

Woodworking

Extensive additions to the existing woodworking shop were carried out and, at the 30th June, the work was nearing completion. The increased floor area will provide space for benches for the assembly of ammunition boxes, which at present is carried out in temporary quarters some distance from the main shop.

All branding, dipping, painting and inspection of finished products will take place in the new shop, in addition to which it will be used for carpenter's benches, handle making, leather work, locker accommodation and the stacking of all machined parts prior to assembly.

Production during the year greatly exceeded that of previous years, and it was facilitated by the purchase and installation of some twelve new machines in addition to those already installed during 1937/38, by the working of overtime, and introduction of a second shift of woodmachinists and boxmakers.

Orders received during the financial year 1938-39 amounted to £44,000, and they covered not only woodworking, but leather and canvas goods, wickerwork, painting and lacquering, etc. The timber used amounted to 719,601 feet super., more than double the expenditure of 1938-39.

Electrical

The Electrical section provides appropriate services for the whole of the Departmental activities in the Melbourne area, and the Electrical Engineer-in-charge also advises in respect of Departmental establishments in other States. In the performance of these duties it must be explained that the responsibility for Electric Supply under the Government of the Commonwealth rests with the Department of the Interior, and that all Departmental installations are undertaken subject to the authority of that Department and the oversight of its Principal Electrical Engineer. It is by arrangement, therefore, between the two Departments that electrical installations and maintenance of the Munitions Establishments are conducted by

During the financial year 1938-39, the requirements of the building programme have necessitated the staff of the electrical section being trebled as compared with the previous year, but there has been difficulty in the engagement of tradesmen with suitable qualifications. The consequence has been a considerable amount of overtime and the introduction of shift work.

Extensive electrical installations have been necessary in the large new workshops erected during the year and wiring up in association with the many new machines being installed is now proceeding.

The transformer capacity in the several sub-stations has been doubled, from 2600 K.Va. to 5250 K.Va., and four (4) more transformers have been ordered to provide for increases at Ordnance, Ammunition and Explosives No.1 Sub-stations, and also for a Sub-station to be incorporated in the building of a new Case Shop at the Ammunition Factory. The special sub-station in the Forge Shop has been completed, and the two new Electric Gun-Furnaces installed are operating satisfactorily. The high and low tension equipment has been transferred from Building No.209, Explosives Factory, to a new building erected close to the road, thus obviating a further sub-station on the Remount Hill site.

During 1938-39 the consumption of electric energy increased from 4,023,900 to 5,756,400 units, and the maximum demand has advanced from 1870 Kw. to 2740 Kw. It is anticipated that this figure will be increased as the programme develops, and arrangements have been made with the State Electricity

additions to their equipment. Spare high tension gear has been ordered sufficient to enable one sub-station to be erected, and equipped in an emergency.

Staff Changes

Towards the close of the period under review there were certain administrative changes in other Munitions Factories which affected the professional staff of the Ordnance Factory and appreciably hampered the technical direction at a time when the demands upon the limited staffs were becoming ever more insistent. The Sub-Manager, Mr. J.D. Statton, was transferred temporarily on 11th May, 1939, to the Ammunition Factory at Footscray to be Acting Manager there. Mr. R.H. Doyle, Assistant Manager of the Small-Arms Factory at Lithgow, who had been acting at the Ammunition Factory for an interim period, succeeded Mr. Statton, but on 29th June, 1939, he left for England by air to undertake some important enquiries for the newly-formed Department of Supply and Development in relation to aero-engine manufacture. Mr. V.C. Parker, senior engineer, who had returned from England on 5th February, 1939, after a course of study in anti-aircraft gun manufacture, was appointed to act as Assistant Manager during the absence of Mr. Doyle.

Casualties

There were 207 cases of casualties to employees, of injury sustained during duty, and the expenditure involved for leave, hospital attendance and compensation, amounted to £2,469. Included was £991 paid as compensation.