

The rehabilitation of returned servicemen through adult apprenticeship has been carried out, a large number of men being profitably redirected into industry under this scheme.

Regular maintenance and inspection of all general plant throughout the year has resulted in a gradual return to the high pre-war level of plant efficiency.

The value of the zoning system of plant has been further demonstrated during the year. The increased facility with which concentration of plant can be made where required from the total departmental resources, and at the same time control effected over plant repairs so as to ensure that all labour and spare parts are utilized on machines required on highest priority works is most gratifying. The zone control is producing the maximum machine-hours for all operational machines and consistently directing the flow of materials to maintain the present equipment in good operational condition.

DEFENCE WORKS

The cessation of hostilities has reduced the scope of construction work necessary for defence to such an extent that the completion of work at the Devonport Naval Base and on certain gun emplacements elsewhere are the only items worthy of mention.

The usual general maintenance on the grounds and buildings of remaining service camps, not disposed of by the War Assets Realization Board, the demolition of air-raided shelters, road-blocks, and general defence works, and the restoration of parks and school grounds, continues. General improvements have been effected at the Polish Children's Camp, Pahiātua.

At Devonport Naval Base the Department was called upon to undertake extensive additions to workshops, berthage, and oil-storage facilities.

A new reinforced-concrete breastwork, 800 ft. long and 28 ft. wide, with provision for a 10-ton travelling crane, is almost complete. The berthage has been dredged to give a depth at low water of 18 ft., the spoil being used for reclamation; as soon as the Stanley Bay Wharf has been rebuilt on a new site the approaches will be put in hand. Adjacent to the breastwork a new repair boiler-shop, 450 ft. by 80 ft. has been constructed to house modern machine tools required for major repairs and refits.

Considerations of space and vulnerability against enemy attack led to the adoption of an underground layout for the bulk fuel-storage extension. As far as this country is concerned the type of construction is unique, presenting new construction problems.

Based on an Admiralty design modified to suit local conditions, the layout consists, initially, of four underground concrete-lined storage tunnels, approximately 30 ft. in diameter 380 ft. long, and with a capacity of 24,000 tons of fuel oil.

To prevent the development of cracks due to cooling and shrinkage of concrete, elaborate precautions, when placing the unreinforced-concrete lining, were necessary. The effectiveness of the measures adopted was demonstrated when the first tunnel was put under a full test head of water, leakage being surprisingly small. The new works also included underground substation pumps for new tanks, tunnel access to Ngatarine Bay, and extensive store buildings.

The manufacture of furniture and concrete products at Featherston Prisoner of War Camp ceased when the Japanese prisoners were repatriated last December.

STAFF

I take this opportunity of expressing my appreciation of the loyal and efficient service rendered by the staff throughout the year.

The return of many who had been on service with the Armed Forces was a matter for gratification. With their services available to the Department, the execution of the large programme of work envisaged in the near future will be greatly facilitated.

I have, &c.,

F. LANGBEIN, A.M.Inst.C.E.,

Acting-Engineer-in-Chief.