xi D.—1.

Pihama Section.—Preparatory work for future operations has been commenced, workmen's huts have been erected, and a few culverts built.

Manaia Section.—Earthwork in the Manaia Station yard has been completed by the contractor. The only unfinished cutting and embankment on this section has been steadily worked and is very nearly completed. As soon as rails and sleepers now on order arrive it will be possible to proceed uninterruptedly with platelaying and ballasting from Te Roti to Manaia.

Sufficient formation work towards Opunake to absorb the unemployed will

be opened up.

# MIDLAND.

### Nelson End.

Kawatiri Section.—Work was commenced on this section in January last with the tunnel at 62 miles 53 chains. The excavation has been carried into the hillside for a distance of 200 ft. An air-compressing plant has been provided for drilling purposes. The Hope River has been diverted, the erection of the bridge at 62 miles 54 chains commenced, and concrete blocks for tunnel-lining are being manufactured.

# Otira-Bealey.

Arthur's Pass Tunnel. — Otira End. — Day-labour principle of employment obtained while some particularly bad ground was being encountered. About the middle of September the ground improved and the co-operative contract system was reverted to;  $21\frac{2}{3}$  chains of lining was completed, and the top-heading finished early in June.

Bealey End.—With the exception of about two weeks, work has continued uninterruptedly till July, when the co-operative contract was terminated to allow the workers on the opposite end room to work through. The total advance of

lining in this end was 18 chains.

The contractors for the electrification have commenced with the erection of

the 6,000 cable-racks in the tunnel.

The manufacture of machinery in England was much delayed by the coal strike.

It is expected that the cleaning-up of the bottom will be completed in December, 1921, the platelaying in February, 1922, and ballasting in March, 1922.

#### GREYMOUTH - POINT ELIZABETH.

All felling, clearing, stumping, creek-diversions, and culverts have been completed. Of the formation only about 3,600 yards remain unfinished. Only 35 chains of fencing remain to be erected, and about 5 chains of ditches to be cut, to complete these two classes of work.

The construction of two temporary bridges is in hand. Rails have been laid to 4 miles 75 chains. In a very short time transport of coal can be undertaken.

# WAIMATE BRANCH EXTENSION.

Serpentine Section.—Operations on this section consisted of earthwork only, a half-mile of formation being carried out, which leaves about 55 chains to complete. Difficulty was experienced with the bank between 1 mile 13 chains and 1 mile 22 chains. It is probable a deviation will eventually be necessary to avoid a large slip. No more than maintenance is anticipated this year.

Kelcher's Section.—Only about 60 chains of formation had been completed when work was temporarily suspended. It will not be possible to resume operations

this year.

### OTAGO CENTRAL.

Cromwell Section.—Seven concrete flood-channels under road and railway were completed. These were found necessary in order to cope with flood-water from cloud-bursts. Concrete or stone-pitched channels were constructed from all existing culverts on this section, and five additional culverts were placed. Six road-bridges were built over the newly constructed flood-channels, and one railway-bridge was erected. The final lift of ballast was laid, and the line finally trimmed throughout. A goods-and-passenger service was maintained until the section was handed over to the New Zealand Railways early in July of this year.