

DEVELOPMENT OF MINING.

Of the £2,153 expended under this head last year the major portion was in connection with the purchase of drills for prospecting purposes.

IRRIGATION AND WATER-SUPPLY.

IDA VALLEY SCHEME.

Syndicate Race.—This has been extended nearly 2 miles and is completed, with the exception of a few culverts, to 11 miles 76 chains.

German Hill Race.—The work of completing this race, which had been previously partially constructed, was commenced in the spring of last year, and is still in progress. A deviation to avoid a flume at Kirk's Creek has been made. The only works now remaining to be done to link up this section are a flume at Moa Creek and a weir at Poolburn.

Drainage.—The scheme for drainage of portion of the valley was extended by clearing 20 chains of Moa Creek, and the erection of one private-crossing bridge and one public-road bridge.

Irrigation.—About 40 miles of races were maintained for the supply of water during the season 1920–21. Over 4,400 acres were irrigated.

GALLOWAY FLAT.

Dip Creek Weir.—A concrete diverting-weir and measuring-device at the intake were completed.

Main Race.—The main race, $7\frac{1}{2}$ miles in length, together with necessary flumes and gauge-boxes, has been completed with the exception of a few minor details. Water was used from it towards the end of the irrigation season.

Irrigation.—The previously constructed race which supplies water on the north side of the railway was cleaned out. A limited quantity of water was supplied by temporary means. About 160 acres were irrigated.

OLRIG TERRACE SCHEME.

No construction was undertaken during the year. About 75 acres were irrigated, the water being supplied through an old existing race.

MANUHERIKIA SCHEME.

Intake Tunnel.—The remaining 1.22 chains of tunnel was driven. Lining, where necessary, over a distance of $4\frac{1}{3}$ chains, is completed. Of the remainder about 4 chains require lining. Excavation for an inlet from the Manuherikia River to the tunnel is in progress and about three-fourths complete. Excavation for the gravel-trap at tunnel-outlet is ready for concreting.

Main Race.—Excavation of the main race has been extended to its terminus. Three deviations to avoid flumes have been made.

Chatto Creek Siphon.—A double line of 1,800 ft. of piping (22 in. to 26 in. diameter) is on the site ready for setting when the necessary Australian hardwood arrives.

ARDGOUR SETTLEMENT SCHEME.

This is a new scheme, commenced in June last, and when completed will supply water for the irrigation of about 2,000 acres of good settled land.

EARNSCLEUGH SCHEME.

Water rights and races from the Fraser River have been purchased from the Sandy Point Gold-mining Company, and plans and estimates for a comprehensive scheme to irrigate Earnsclough Flat with water therefrom have been completed. Water will be available for irrigators during the coming season.

After personally inspecting the arid areas proposed to be irrigated and those already irrigated I am satisfied that in irrigation will be found the salvation of Central Otago. Really wonderful results have already been achieved: 1,700 sheep carried on 300 acres, not all irrigated, is an example, while £20 clear per acre is being taken from lucerne after allowing for water rates, rent, labour, &c. While the area irrigated is still only a small proportion of that commanded, the work is