

ances needed to carry water to sluicing claims a long way from the rivers were constructed by gold-miners until the district had been covered with a network of small channels. Gradually the gold boom died; many of the miners, finding it hard to make a living, were forced to grow vegetables and similar produce to augment their supplies; and quickly realizing the futility of relying on rainfall for moisture they began using these water-races to carry water to their crops. In this way irrigation began in Otago Central. Since then it has been developed over the years, mostly by different Governments but also by individuals, companies, and local bodies.

Irrigation has increased the carrying-capacity of Otago Central land from one sheep to five acres (or even 10 acres) to four sheep (and even more) to one acre. Moreover, as soon as the land has become worth the expense, money has been made available to attack the rabbit pest, to reduce it, later to keep it under control: Brer Rabbit has had, in many districts, to lay his ears back and find fresh pastures. Sheep in Otago Central have increased from 53,000 in 1917 to 256,000 in 1936; and now they are classed as fats. The increase in cattle and pigs is in much the same proportion. Most of the constructional work—the building of dams, and channeling to the farm boundaries—has been financed by the Governments and the work carried out by the Public Works Department. Operational costs are more than covered by revenue (water charges, &c.); and, although there is not the usual return that could be expected from the capital outlay made, the indirect return—from railways revenue, the increase in the value of land, and the boost to our national economy—is tremendous. Water charges vary from 8s. to 14s. an acre a year, according to the district (the average is about 10s.).

On the farm we walked up to our knees through clover ready for not the first, not a second, but a third cutting. The farm of 160 acres carries 500 ewes—last year with Southdown rams they produced 700 crossbred lambs. The practice of the farmer is to buy five-year-old ewes, get two lambs from them, and then sell again. In this way his flock is renewed continually. In addition to the pasture paddocks, there are a large orchard and several acres used for lucerne. Rabbits were cleared years ago: in some of the drives more than four hundred of the pests were killed to the acre.

For the dry period of the year the quota allows for the distribution of water (costing 10s. an acre a year) for four days of each week, but because of the dangers of over-irrigation it is taken only every second week. Alongside is a farm which has been irrigated too thoroughly: giant rushes rear their heads, thistles are everywhere. "Can't be too careful," says the farmer.

Over the fence of the clover paddock, with its growth 18 in. high, is land which under the present scheme cannot be reached by irrigation water. It is as bare of growth of any sort as an apple is of buttons; acres of it; nothing, not a solitary—yes, there's a thistle, one lonely, spiky, thirsty thistle. A plague of caterpillars couldn't have left that paddock any emptier. Near the fence two hares lope about, waiting to return to the lushness of the clover—from the glint in the farmer's eye they had better mind their p's and q's. One day—the sooner is the better, says the farmer—that land, too, will be irrigated, and it will be just as productive as the rest of the farm.

We cycled back against the Prevailing Wind to catch the bus. We had a bag of peaches from the farmer's orchard. No, we hadn't room for a fat lamb. The dust made us, too, feel the need of irrigation.

