

NEW LANDS FOR OLD

Possibilities In The

Reclamation of

Dredge Tailings



The Barrytown Dredge.

AMONG the dozen or so gold dredges operating on the West Coast of the South Island are one or two, such as Barrytown and Snowy River, making some attempt to solve the problem of the ultimate utilisation of what in most cases are mere heaps of boulders. In these two cases the tailings are not stacked, but are left more or less level behind the dredge, and except in some swampy areas at Barrytown, consist of shingle with some admixture of coarse sand and small pockets of finer sand and silt where water accumulated.

In the lighter rainfall areas it would seem a hopeless proposition to induce any useful vegetation on such a medium, but where lack of moisture is not likely to be a limiting factor it was considered that regrassing might be attempted.

Experimental Areas

On the Snowy River tailings a small area has been sown in blue lupins to be fed off by stock as a preliminary measure to build up fertility to some extent before sowing to grass. At Barrytown, however, where there is a larger proportion of fine material, experiments on a small scale were laid down to determine the possibilities of grassing the tailings without any preliminary treatment apart from various fertilisers.

Fertilisers Used

The choice of fertilisers to be employed in the trial was determined by the known deficiency of lime and phosphate in the soils of the district and by the fact that the thorough washing of the material in the dredge was not likely to leave much avail-

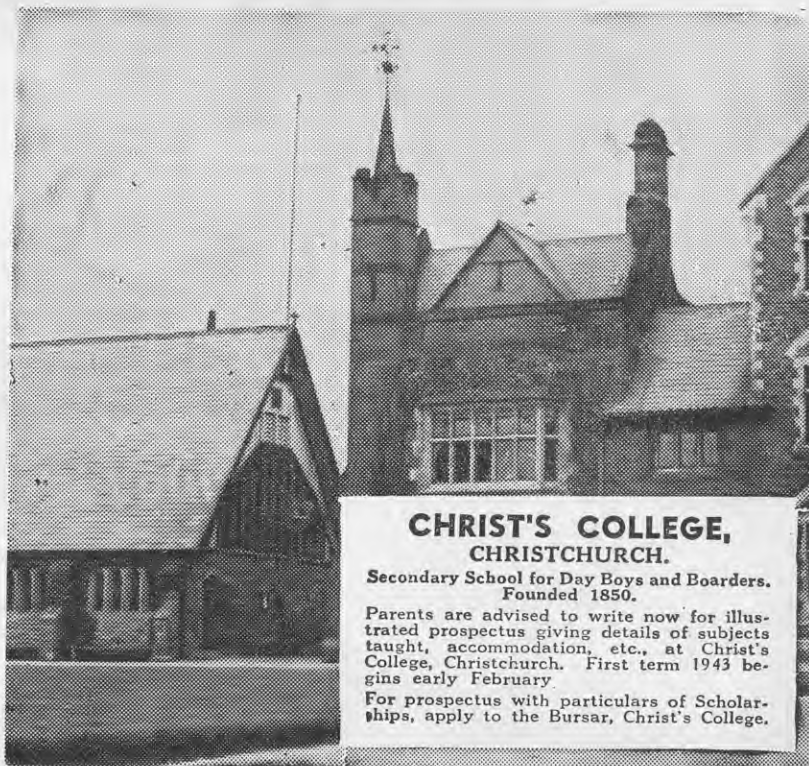
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able nitrogen in the tailings for the use of plants. In the spring of 1940 an area of a quarter-acre was cleared of small roots and timber lying on the surface and laid out as in the diagram, the surface harrowed and lime and fertilisers applied. All fertilisers were at the rate of 3 cwt. per acre and carbonate of lime at 1 ton.

No Manure.	Super.	Amm. Super.	Blood and Bone.
Lime	Super + Lime	Amm. Super + Lime	Blood and Bone + Lime

Six weeks later, in September, grass seed was sown over all plots at the rate of 36 lb. per acre, the mixture including perennial and Italian ryegrass, cocksfoot, timothy, crested dogs-



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