

to the heavy nature of the wash necessitating alteration to the plant, and to the loss of time in removing buried timber, the returns so far from this dredge have not been payable. At the present time one of the Government Keystone drills is employed drilling immediately in front of the dredge, with a view of confining operations to that portion of the Arahura Valley in which the gold contents are highest.

The further testing of the Rimu Flat by Keystone drilling was completed by the late A. E. Gregory early in the year, and a company with headquarters in New York has now purchased the property from the Rimu Options and Rimu No. 1 Dredging Companies. Mr. R. E. Cranston has been appointed engineer, and a dredge of the Californian type—more powerful than anything ever before seen in the Dominion—is being built to work the claim. Particulars of this dredge are as follows:—Pontoons: Length, 116 ft.; width, 50 ft.; depth, 11 ft.; freeboard, 3 ft.; draught, 8 ft. Shafting: Upper tumbler shaft, 21 in. diameter; lower tumbler shaft, 14 in. in diameter; main-drive pulley shaft, 6½ in. in diameter. Buckets: There will be seventy-three buckets in the digging-line. These buckets are each one solid manganese-steel casting with a replaceable lip. They are 10 cubic feet capacity, and have a pitch of 36 in. The speed of the bucket-line will be about twenty buckets per minute. The bucket-pins are 6 in. in diameter. Horse-power: The horse-power of the dredge is 550, and power is supplied from a hydro-electric plant. Capacity: It is estimated that in the ground to be worked the dredge will handle a maximum of 200,000 cubic yards per month. Gold-saving tables: There is an area of 4,400 square feet of gold-saving tables on the dredge.

This is a most important event in the history of New Zealand mining, for, although the dredging industry was born here and was very successful in its early years, it has not kept pace, as regards the machinery used, with the developments in other countries. It will now be proved whether these developments applied here will lead to a revival of the industry. It is important also in that it is the first time a strong American company has acquired a mining property in New Zealand, and because the company is prepared to finance much more extensive undertakings if this one is profitable.

In Otago and Southland fifteen dredges were in commission, producing gold valued at £39,501, or an average of £2,633 per dredge. Compared with last year, when twenty-one dredges produced £63,698, or an average of £3,033, there is a marked shrinkage in the output of this class of mining.

The following is a statement showing the capacity, production, and profits of bucket gold-dredges during 1919. (NOTE.—The profits made by privately owned dredges are not obtainable for publication.)

Name of Dredge.	Locality.	Capacity of Dredge-buckets, in Cubic Feet.	Number of Buckets discharged per Minute.	Nominal Horse-power of Engines.	S = Steam. H = Hydraulic. E = Electrical. SG = Suction Gas.	Average Depth of Ground dredged.	Value of Bullion obtained during 1919.	Dividends declared.	
								During 1919.	Total.
<i>Otago and Southland.</i>									
Rise and Shine No. 1 ..	Cromwell ..	5½	10	20	S	Ft. 40	£ 4,210	}	£ 53,100
Rise and Shine No. 2 ..	" ..	5½	10	20	S	40	1,176		
Rising Sun ..	" ..	7	10	25	S	45	4,650	..	24,000
Ferry (private) ..	" ..	4½	11½	16	S	40	2,538	..	..
Electric No. 1 ..	" ..	5	10	16	S	35	2,835	..	..
Earnsclough No. 3 ..	Alexandra ..	7	12	150	E	50	5,053	}	£ 30,250
Earnsclough No. 5 ..	" ..	6	13	150	E	35	456		
Ngapara ..	" ..	5	10½	16	S	30	735	225	5,175
Lower Nevis ..	Nevis ..	4	11	12	S	10	792	..	2,970
Nevis Crossing (private) ..	" ..	3½	10	12	S	10	1,738	..	..
Otakau ..	Kyeburn ..	4½	12	70*	SG	16	2,630	300	3,225
Lady Florence (private) ..	Waikaka Valley ..	4½	11	12	S	16	1,603	..	..
McGeorge's Freehold No. 2 (private)	" ..	6½	9	16	S	14	1,380	..	..
McGeorge's Freehold No. 3 (private)	" ..	6½	9	20	S	35	3,705	..	..
Kura (private) ..	Waikaia ..	3½	9	16	S	30	6,000	1,820	6,347
<i>West Coast.</i>									
Kapitea ..	Kumara ..	5	10	16	S	20	4,355	500	2,000
Chambers Reward ..	Arahura Valley ..	8	15	20	S	15	3,465	..	..
Pactolus ..	Nelson Creek ..	..	..	..	S	..	215	..	..
Hessey, Cameron, and Tacon	Capleston ..	7	11	20	S	30	301	..	6,480
Totals, 1919 ..	..	..	..	..	..	..	47,838	2,845	Unknown
Totals, 1918 ..	..	..	..	..	..	..	63,691	4,925	"
Totals, 1917 ..	..	..	..	..	..	..	91,666	4,800	"

* Brake horse-power.