

frosts in winter. In the winter, however, during the severest frosts, it has been found, during the last two winters, that as long as we can keep the pipes running full there is no difficulty about crushing. We have a big boiler in the mill, and can keep the tables easily thawed with hot water, the only difficulty arises when there is not sufficient water in the creek to keep the pipes full. If the pipes are not full, ice forms during the early hours of the day round the edges of the water running in the pipes, and when the sun gets on the pipes later in the day this ice becomes detached and comes down, blocking the pipes near the mill. Then there is trouble. This has only happened once. Since then we watch the pressure-gauge during the night, and if we see the pressure falling we send up to the dam and turn the water off till 8 a.m., when it is quite safe to turn the water on again for the day. It has been observed that it is only for the few nights about the nights of greatest moonlight, in the months of June, July, and August, that any serious trouble occurs; but these observations are limited to the last two years, and it is possible that other seasons will yet give more trouble. There are at present employed by the company sixty-one men altogether, as follows: Prospecting in Sunrise Mine, 4; prospecting in high-level adit, 4; smithy (2), carpenters (2), 4; foreman (1), trucking, hauling (6), 7; mining stone for the mill, 42: total, 61.

"The cost of mining runs to about 17s. per ton—that is, stoping pure and simple. The incline costs us about £3 10s. a foot to drive and timber—the timber alone costing 10s. a foot, and candles, caps, fuse, and gelignite 5s. a foot. Good accommodation is now provided for the men in the shape of weatherboarded huts lined throughout with lining-boards. A small weekly rent is charged for the use of these.

"The following table shows result of mill crushing for 1897:—

—		Tons.	Yield.			Value.			Yield per Ton.	Value per Ounce.			Mill running.		
			Oz.	dwt.	gr.	£	s.	d.	Dwt.	gr.	£	s.	d.	Days	hr.
January	...	248	56	17	0	574	13	7	9	14	4	0	1½	14	19
February	...	180	86	9	6				9	14				13	14
March	...	250	144	10	10				11	11				15	11½
April	...	245	206	14	12	1,414	5	6	16	20	4	0	6	15	4
May	...	400	516	17	12				25	20				22	5
June	...	265	256	7	16				19	8				15	17
July	...	...	33	11	3	215	1	8	...		4	0	0½	13	21
August	...	500	155	18	18	629	8	3	8	5	4	0	8	21	0½
September	...	450	211	10	0	855	2	10	9	9	4	0	10	27	21
October	..	370	434	11	12	1,749	9	10	23	11	4	0	6	20	19
November	...	460	377	6	12	1,464	8	5	16	10	3	17	6	20	17½
December	...	480	321	6	12	1,298	4	10	13	9	4	0	9	26	10½
Total and averages		3,848	2,802	0	17	11,308	7	4	14	12 (average.)	4	0	1 (average.)	227	16

"Concentrates: 43 tons yielded by the cyanide process 67 oz. 12 dwt. 22 gr.; total value, £165 10s. 6d."

Sunrise Mine (Area, 55 acres 3 roods 12 perches).—This mine, situated on Advance Peak, at an altitude of 5,000 ft., is also owned by the Glenrock Consolidated (Limited), and the operations for the past year are thus described by Mr. Stanford:—

"Since last report a considerable amount of prospecting work has been done by means of cross-cuts to prospect the adjacent country. These have proved that there are two lines of reef running parallel, and about 50 ft. apart, both carrying gold wherever they have been struck, but nothing of value for milling purposes has yet been disclosed. The workings are very close to the cap of the reef, and the whole country is very much broken and disturbed. At the present time we have four men employed driving the lower level ahead westwards, and are constantly picking up patches of gold as we proceed. The former proprietors of this property—the Sunrise Lease Gold-mining Company (Limited)—succeeded in extracting 1,207 tons of golden quartz, which yielded in the mill 1,018½ oz. gold, value £3,909, and all the creeks below this reef have been sluiced with excellent results, and a great deal of the gold which was recovered in the ripples was found to be adhering to little bits of quartz. The Glenrock Company are at present considering the advisability of putting in a new low-level adit some 1,200 ft. below the present lower tunnel. The length of this proposed new tunnel will be 3,000 ft. The cost is estimated at £6,000. The line of this proposed tunnel crosses several other lines of reef, one of which, at any rate, shows gold freely on the surface."

Tipperary Mine (Area, 105 acres; owners, Westralia and New Zealand Gold Explorers, Limited).—Mr. Stanford, the general manager, gives the following account of the workings for the year ended the 31st March last:—

"An account of this company's operations during the past year will be of interest. At the date of your visit, 25th February last, there were two main works in progress—viz., driving on the line of reef westwards from the low-level adit, and the sinking of a shaft below the same level. There were also men employed driving No. 7 level westwards 66 ft. above the low-level adit, and also a few men taking a stope off a block of stone in the low-level adit. The west drive in the low-level adit measured 447 ft. on the 26th February, and the No. 7 level face is 76 ft. behind it. The shaft was down 76 ft. at that date. The result of last year's operations was most disappointing to the company's shareholders. Gold was obtained to the value of £3,689 13s. 8d. (being mill gold, 785½ oz. from 1,501 tons, and 206 oz. from 137½ tons concentrates), while the expenditure was