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TASMANIA.

HOUSE OF ASSEMBLY.

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FINGAL GOLD FIELDS.

COMMISSIONER'S REPORT.

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Laid upon the Table by the Minister of Lands and Works, and ordered by the House to be printed, July 23, 1873.



## FINGAL GOLD FIELDS.

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*Tasmania,*  
*Commissioner's Office, Mathinna, 15th July, 1873.*

SIR,

IN compliance with your instructions of 18th ultimo, I continue my Report upon the Gold Fields under my charge from 6th November, 1871, up to the present date (July, 1873).

In so doing I shall have, to a very great extent, to repeat the information contained in my intermediate reports upon Gold Mining in this district, and will have the opportunity of consolidating and arranging in a more convenient form for reference the leading facts contained in previous Reports.

The District of Fingal, the whole of which has been proclaimed a Gold Field, contains an area of 1,152,000 acres; but out of this large extent of country only a small proportion is known to be gold-bearing; and, with the exception of some 1200 ounces of gold obtained from the Tower Hill Company's Claim and by a few alluvial miners around Mangana, the whole yield of gold in the Fingal District during the past three years has been obtained in the Parish of Fonthill.

In October, 1871, a party of miners prospecting for reefs made what they considered a valuable discovery some three miles to the north west of Mathinna, and applied for a gold-mining Lease of twenty-five acres of land described as north of the South Esk River and west of Dan's Rivulet and distant about half a mile from each of those streams.

A promising reef was opened by the discoverers and named the City of Melbourne Reef; and it was generally supposed that this discovery would lead to the opening up of a large extent of valuable reefing country. Several Claims were pegged off in the Parish of Fraser adjoining the City of Melbourne Claim, but no work was done except by the holders of the True Blue Claim; and they, after spending nearly three hundred pounds in testing their ground, abandoned the Claim before the issue of the lease.

The holders of the City of Melbourne Claim held their ground for some time longer, and did a considerable amount of work, but their capital failing them, and a trial crushing from their reef falling very far short of the estimated yield, they were reluctantly compelled to abandon operations.

There is a well-defined reef upon the claim which has been sunk upon to the depth of about ninety feet. The trial crushing gave the following result:—

Tons of quartz crushed, 43.  
Gold obtained, 10 ounces 5 pennyweights.  
Value, £40. Yield per ton, 4 dwts. 18 grains.

No mining has since been carried on in the locality, with the exception of a little alluvial digging near Dan's Rivulet, which did not give satisfactory results.

As far back as December, 1870, a reef of remarkable richness was reported to have been discovered near Cox's Creek, in the Parish of Evercreech, about six miles east of Mathinna, but, owing to the well-known tendencies of the discoverers to what may, at the least, be termed exaggeration, the discovery attracted little notice. The reef was reported to contain gold in enormous quantities, and a lease was applied for, but the holders of the claim were unable to excite the enthusiasm of the general public to the buying point, and the treasure remains undeveloped to this day.

Nearly twelve months afterwards, in November, 1871, a lease of a claim was applied for by some of those interested in the first discovery, and, the title of the "Poverty Reef" having proved unattractive, the new claim was christened the "Sultan." A lease was applied for, but, as in the former case, buyers were unappreciative, and the new venture, after making a final appeal under yet another title, as "The Empress," disappeared from the market.

The undaunted promoters, finding distance did not lend enchantment to the view, shifted the scene of their labours nearer the settlement at Mathinna, and the next discovery was the "Cambria Reef," between three and four miles distant from Mathinna, and situated on Cox's Creek. This claim has dragged on an existence until the present time, and various shareholders have bought in and sold out from it under its various titles of the "Cambria," the "Albion," and the "Enterprise." A battery on a new principle was at one time erected, but failed to give better results than the batteries in ordinary use, and the present paying shareholders, or more properly, shareholder, (for the prospectors have always contributed labour instead of capital, as their share of the concern), intend to work the claim with a wooden battery driven by water power. There is certainly a reef upon the claim, and some of the stone shows gold, but it yet remains to be proved whether the undertaking will remunerate the shareholders for their outlay.

The only other discovery at a distance from Mathinna that has attracted attention is the Britannia Reef, which has been opened near the banks of the South Esk River in the Parish of Gardiner, about six miles from Mathinna, and above the junction of the South Esk and Tyne Rivers at Fonthill.

About  $35\frac{1}{2}$  tons of quartz have been crushed from this reef,—yielding 11 ozs. 12 dwts. 5 grs. of gold, or at the rate of about  $6\frac{1}{2}$  pennyweights to the ton. Another lot of stone is shortly to be crushed; and, should the yield offer sufficient inducement, the lessees of the claim contemplate the erection of a small battery, to be worked by water-power, for which the situation of the claim offers great facilities.

There have been no other reefing discoveries of importance made since the date of my last Report, nor has any new alluvial ground been discovered.

The net results of mining during the year 1871 are pretty nearly as under:—

Yield of Alluvial Gold.....	3120 ozs.
Yield of Reef Gold .....	1282 ozs.
Total .....	<u>4402 ozs.</u>
Value .....	<u>£17,088</u>

An average number of 120 men were employed in alluvial mining, and about 70 men in quartz mining. The number of tons of quartz crushed was 2049,—giving an average yield of  $12\frac{1}{2}$  dwts. per ton. The average cost of crushing was about 9s. 6d. per ton. The Mining Plant was valued approximately at £7600.

Large additions were made to the population by fresh arrivals during the latter part of the year; and the total population on 31st December, 1871, on the Gold Fields, was estimated at 630 souls. These were thus classified:—miners and labourers on reefs 60, miners and labourers on alluvial diggings 250, storekeepers 5, butchers 2, bakers 2, publicans 2, shoemakers 2, carpenters 12, sawyers 6, splitters 2, servants 24, unenumerated 20. Total adult males at Mathinna 387. Adult males at Mangana, 30 miners and labourers. Women and children at Mangana and Mathinna, 213. Alluvial mining reached its most prosperous point at the end of the year 1871, when the average weekly yield at Mathinna reached nearly one hundred ounces; but from this time alluvial mining has gradually declined until at the present time (July, 1873,) it is almost extinct.

The year 1872 opened with a fair amount of activity in quartz mining, and a yield of about 70 ounces of gold per week from the alluvial diggings; but as the summer advanced the latter branch of industry gradually declined, not only from the increasing scarcity of water, but also from the gradual working out of the more easily worked alluvial deposits. No fresh alluvial ground was opened during the year, and that portion of the population which depended upon alluvial digging diminished considerably during the autumn, the yield of gold being scarcely more than a third of the alluvial yield of 1871.

The estimated yield was 1100 ounces, but it is difficult to make any reliable estimate of the amount of gold actually obtained; and as the average number of men employed was about 130, the inference is that some must have earned much larger sums than they would admit, as the value of the gold raised—£4375—would not give a very encouraging average rate of wages.

Quartz mining was pushed on with greater energy during 1872 than in former years,—the average number of men employed being about 90, whose wages ranged from £1 16s. per week for labourers to £2 5s. per week for skilled miners. These are the rates paid by the companies as a rule, but a large amount of work is done by contract, when of course the wages received depend greatly upon the correctness of the contractors' estimates as to the length of time in which a given piece of work can be performed. Engineers earn about £3 per week, and carpenters about the same amount.

3388 tons of quartz were crushed in this district during 1872, which yielded 2350 ounces of gold, valued at £9106. This gives an average yield of 13 dwts. 21 grs. of gold to the ton of quartz, the average value of the gold being £3 17s. 6d. per ounce. The average cost of crushing was about 8s. per ton. The total yield of gold, both from alluvial and reefs, during 1872 was estimated at 3450 ozs., value £13,451. Value of plant £10,250. No work of any importance was carried on at Mangana during the year; the Tower Hill Company, which was the only company at work, having suspended operations early in the year.

The results obtained by this company during the time it was at work were nearly as follows:—

1870. Tons of Quartz crushed.....	888		
1871. Ditto .....	1594		
	2482		
		Yield.	
		ozs. dwts. grs.	
		1015 12 6	

The gold was worth about £3 15s. per ounce, and the average yield per ton 8 dwts. 6 grains. About 65 ounces of gold were obtained in 1872. I do not know the number of tons of quartz from which this last yield was obtained, but the quantity was large, and I believe the last 200 tons of quartz put through the battery yielded little more than one pennyweight per ton.

The Company is now said to be undergoing re-organisation.

The City of Hobart Quartz Mining Company at Mathinna, which appears to be generally looked upon as the representative gold-mining company of the Fingal District, made considerable progress during 1872, their mine having contributed about two-thirds of the reef gold of the year. The Company have erected a powerful ten-head battery, driven by a stationary engine of about 20 horse-power nominal. The battery buildings are extensive, and a large brick smoke stack has been erected adjoining the boiler. The battery engine also drives a pump connected with a reservoir on Reedy Marsh, but this water supply is only required when the water supply from Long Gully and from the mine fails to suffice for the requirements of the battery. A portable engine of 8 horse-power nominal is employed in winding at the main shaft, while a third engine of about 12 horse-power is employed in keeping the mine clear of water. The Company were large employers of labor during the year 1872, and crushed 2002 tons of quartz, from which 1565 ozs. 13 dwts. of gold were obtained, averaging 15 dwts. 15 grs. per ton, value £6115.

The Caledonian Company, who have erected a ten-head double discharge battery, formerly owned by the Union Company at Mangana, and who have also constructed a large dam and other works in Long Gully, have the next best return as regards value of gold obtained. The yield from 559 tons of quartz was 358 ozs. of gold, being at the rate of about 12 dwts. 20 grs. per ton, value £1386. The above returns appear, however, to have absorbed the whole or nearly the whole of the available stone. The Derby Company, which has nearly the same proprietary as the Caledonian, crushed 254 tons of quartz, yielding 99 ozs. 10 dwts. of gold, or 7 dwts. 20 grs. per ton, value £390.

This company's claim is connected with the Caledonian Battery by a tramway about  $1\frac{1}{2}$  miles long, and the stone is thus brought from the mine to the battery, at a cost of about sevenpence per ton. The Caledonian Company make a charge of ten shillings per ton for crushing.

Of the smaller crushings during the year the most noticeable is that of the White Boy Company who obtained 95 ounces of gold from 35 tons of quartz, being at the rate of 2 oz. 14 dwts. 7 grs. per ton. The average value of the reef-gold at Mathinna is £3 17s. 6d. per ounce; some of the City of Hobart and Derby gold has realised upwards of £4 per ounce. The population on the Mathinna or Black Boy Gold Field at the end of 1872 amounted to about 450 souls, of whom 270 were adult males, and 180 women and children. The male population may be thus classified:—quartz miners, 80; alluvial miners, 70; blacksmiths, splitters, wood-cutters, carters, and labourers employed in connection with reefing, 45; publicans, tradesmen, and servants, 35; unenumerated, 40; total adult males, 270. During the six months of the year 1873 which have just expired alluvial mining has dwindled down to little more than a name, and the wetness of the season has made the Returns still less than they would otherwise have been. I cannot safely estimate the yield of alluvial gold at Mathinna for the half-year ending 30th June, 1873, at more than 350 ounces. Very few men are now at work on alluvial ground, and I do not estimate that their earnings average much more than thirty shillings per week clear of expenses. There is consequently very little inducement for alluvial miners to remain on the field, and the demand for labour upon the main line

railway has absorbed a large proportion of the working population during the half-year. No fresh alluvial ground has been opened, and only one new locality has had any attention directed to it. A prospecting claim was applied for near the end of last month by two miners, and protection for about six weeks was granted by me, but the prospectors appear to have already abandoned the ground.

The claim is situated about three and a half miles south east of Mathinna, near a stream known as Little Sling Pot Creek. The prospectors have bottomed their shaft at a depth of nearly fifty feet, and got the "colour" of gold; but although they say they have not thoroughly bottomed, and there may be paying washdirt, they do not seem inclined to test the ground further, and no one else seems inclined to try the locality at all.

The apathy of the alluvial miners with regard to testing new and promising ground has always seemed very great in this district, and many content themselves with grumbling because they cannot work on private property where there may be gold, while they neglect Crown land, which is equally promising, if not more so.

It is characteristic of the miner always to prize most highly what is beyond his reach, and if the coveted ground were thrown open to-morrow it is doubtful whether it would be more than superficially tested. As an instance of the characteristic I have alluded to I may mention that on one occasion I marked off a piece of ground in Long Gully as a reserve for Government use. Although the ground had been previously open, and no one had thought it worth testing, yet directly it was reserved men wanted to take it up. Had they been kept off there would have been continued complaints of ground being locked up from the miner, but they were allowed to overrun the ground, and the "rush" disappeared almost as rapidly as it formed,—the ground proving almost barren of gold wherever it was tried. Although there is plenty of alluvial ground in the valley of the Tyne, I do not think there has been any prospecting worth the name ever done in the locality. I have heard that 3 ounces of gold were got out of one hole on the Tyne some fourteen years ago, and I think the ground is well worth a trial. The "private property" difficulty is, I think, much exaggerated. Excepting the Malahide Estate, I think that all the properties in the district might be prospected not only with the consent but even with the assistance of the owners, provided these latter were satisfied with the applicants' respectability and good faith. Difficulties might arise in dealing with the Malahide property from the fact that the estate is entailed and in the hands of trustees, but as a company mining upon the Black Boy reef some years ago were allowed to erect their battery and conduct their crushing operations upon the Malahide Estate, I do not think that the difficulties of making an arrangement to mine would be insuperable.

Taking the private properties in the order of their position upon the south bank of the South Esk River, we have, firstly, Mr. Stevenson's, Fonthill, where prospecting has always been encouraged; secondly, the Malahide property, to which I have already referred; thirdly, the Evercreech Estate, where prospecting has gone on from time to time, and to work which the once famous Evercreech Freehold Company, or M'Kenzie's Freehold, was projected; and fourthly, the Tullochgorum Estate, upon which the proprietor has allowed companies to test both the quartz and alluvial deposits. The Tullochgorum Alluvial Company sunk a shaft upon the deep lead in the South Esk valley, and bottomed at a depth of 113 feet with a five foot wash containing gold in the borings, but the value of the deposit was never tested. The foregoing properties, with the Speyside Estate, which adjoins Tullochgorum, may be said to embrace the South Esk deep lead, which well deserves a trial; and I think what I have written tends to show that in making a thorough trial little difficulty would be found in making arrangements with the proprietors of the land. I have over and over again expressed my opinion that this deep lead deserves attention, and my regret that it has not been thoroughly tested ere now. Quartz mining has been carried on with a fair amount of activity during the current year 1873. The number of tons crushed to 30th June was 1912½, giving a yield of 1368 ozs. 17 dwts. 22 grs., or about an average of 14 dwts. 7½ grs. per ton, as compared with 13 dwts. 21 grs. per ton, the average yield of the year 1872. The increased yield per ton for 1873 is about 10½ grs. per ton.

The average yield in 1871 was 12½ dwts. per ton, and 8 dwts. 6 grs. in 1870. One crushing has taken place at Mangana during the half year. In addition to the 1912½ tons mentioned above, and which were all crushed at Mathinna, a crushing of 37 tons was taken from a reef on the ground formerly owned by the old Fingal Quartz Mining Company; but as the stone only yielded 8½ ozs. of gold, or at the rate of 4½ dwts. to the ton, no further work was done upon the claim, which is the private property of some three or four residents in Hobart Town.

The Derby Company have been the largest employers of labour during 1873, having had between 40 and 50 men employed almost continuously. A great deal of dead work is being done upon the claim, and a main shaft is being sunk to enable the mine to be worked more economically. 1212 tons of quartz have been crushed, yielding 688 ozs. 14 dwts. 10 grs. of gold, or at the rate of about 11 dwts. 8¼ grs. per ton.

The City of Hobart Company have employed between 20 and 30 men during the half year. The mine is now sufficiently opened up to allow of the employment of fewer men, but the Company

should continue to sink and drive upon their reef so as to obtain a good idea of the probable quantity of stone ahead and underfoot in a fresh level to be put in at a depth of 200 feet from the surface at the main shaft. Quartz-mining companies should never cease prospecting until they have thoroughly proved the extent of their ground as far as possible, and sinking and driving on the reef must be carried on if a regular supply of quartz is expected at the battery; and it should always be remembered that the more faces are opened the faster can quartz be obtained, or in other words, dividends and yields grow greater and expenses less. The City of Hobart Company have not yet declared a dividend, but have been paying off all liabilities for plant, wages, and other expenses, and it is estimated that the result of the crushing now going through the battery will leave the Company with funds in hand and clear of all liability for work and materials; and the mine and plant will have cleared themselves. The shareholders will then be in possession of a valuable mining property in full working order, and which has not cost them a sixpence.

This result will compare favourably with all but the very richest mining ventures in Victoria; and when it is considered that the City of Hobart Reef is the first and only reef in the district that has been fairly tried at a depth of more than a hundred feet, it is surely premature to say that there are no profitable gold deposits in Tasmania, or that reefing has even yet received anything like a proper trial.

The main shaft of the Company is down 150 feet, and a level has been carried 300 feet westerly and south-westerly into the hill, and is still being driven along the course of the reef at an estimated depth of nearly 250 feet from the surface. The upper workings are now connected with this level, and all the quartz and rubble is thus sent up the main shaft, the trucks being lifted to the surface by steam power. The Company have crushed 438 tons of quartz during the past half year from their main reef, yielding 600 ozs. 5 dwts. of gold, or at the rate of rather more than 1 oz. 7 dwts. 9 grs. of gold to the ton. They also crushed 50 tons from the north reef, which yielded 6 ozs. of gold, or about 2 dwts. 10 grs. per ton, and 55 tons of tailings yielding 7 ozs. 2 dwts. of gold, or at the rate of about 2 dwts. 14 grs. per ton. The only stone crushed for the public by the City of Hobart Company this year was 41 tons from the Champion and other claims—a mixed lot—yielding 20 ozs. 15 dwt. of gold, and 17 tons from the Yellow Boy claim yielding 9 ozs. 15 dwts. of gold. From the foregoing figures it will be seen that, as far as they have been tested, the reefs at and near Mathinna have given very fair results and hold out good promise for the future.

The population of Mathinna now comprises 326 persons, of whom there are 142 men, 72 women, and 112 children. The people are as a rule quiet and well behaved, and the general health of the community is very good. During the three years that I have had charge of the Fingal Gold Fields there have been only two deaths of adults among the mining population. One of these adults was an old woman, an invalid for 25 years; the other was a man of 65 who died suddenly last Sunday night while at work, the cause of death being long standing disease of the heart. Three children have also died from infantile complaints, the eldest being six months old.

I append a table to this return showing the general results of mining in the district from January 1st, 1870, to June 30th, 1873, as far as can be ascertained. The value of gold raised in that period is about £41,110, of which amount alluvial mining has contributed £20,248, and reefing £20,862; and to this latter amount may be added some £32 worth of gold obtained at Mangana by the Fingal Company, as before stated. I should have mentioned that the Caledonian Company obtained 10 ozs. 3 dwts. of gold from 22 tons of quartz during the past half year, and the Golden Gate Company obtained 14 ozs. 18 dwts. of gold from 42 tons of quartz. Both these last crushings are included in the return. They took place at the Caledonian battery. In conclusion I may state that I should be glad to see an early revision of the Gold Fields Act and Regulations, by which the duties of the Commissioner may be facilitated and the tenure of residents simplified and improved. I am of opinion that in all cases except those of easily worked quartz and alluvial claims the mining population and the Government should stand to one another in relations as nearly as possible assimilated to the ordinary relations of tenants to their landlords; and I shall have the honor of directing your attention more fully to these matters at another time.

I am, Sir,

Yours obediently,

A. K. CHAPMAN, *Commissioner.*

*The Hon. the Minister of Lands and Works.*

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*RETURN relative to Gold Mining Operations in the District of Fingal, 1870 to 1873, June 30th.*

YEAR.	AVERAGE NUMBER OF PERSONS EMPLOYED.			APPROXIMATE VALUE OF MINING PLANT.	ALLUVIAL DIGGINGS.		QUARTZ MINING.						
	<i>In Alluvial Mining.</i>	<i>In Quartz Mining.</i>	<i>Total.</i>		<i>Gold produced.</i>	<i>Value.</i>	<i>No. of Tons of Quartz crushed.</i>	<i>Amount of Gold produced.</i>	<i>Value.</i>	<i>Average yield of Gold per Ton of Quartz.</i>		<i>Average Cost of Crushing per Ton.</i>	
				£	<i>ozs.</i>	£		<i>ozs.</i>	£	<i>dwt.</i>	<i>grs.</i>	<i>s.</i>	<i>d.</i>
1870 .....	50	60	110	6000	600	2340	884	364	1360	8	6	13	6
1871 .....	120	70	190	7600	3120	12,168	2049	1282	4920	12	10	9	6
1872 .....	130	90	220	10,250	1100	4375	3388	2350	9106	13	21	8	0
1873 (6 months to 30th June)	40	80	120	10,000	350	1365	1912½	1369	5476	14	7½	8	0
3 years 6 mths.	85	75	160	8462	5170	20,248	8233½	5365	20,862	12	5	9	9