

Anatomy of a Failed Miner – The Colonial Gold Company 1852 – 1857

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The gold rushes in California from 1849 and in eastern Australia in 1851 and 1852 were seen by the London financial establishment as an opportunity to make quick gains. Funds were raised from British investors to mine for gold and other minerals in these countries and a substantial number of joint stock companies were formed. Within a few years almost all these companies had failed to make profits and were wound up. One was the Colonial Gold Company (C.G.Co.) formed in London in 1852 to mine for gold in New South Wales and Victoria, which was liquidated voluntarily in 1857.¹ This paper analyses the activities of this company and discusses possible reasons for its failure. As a comparison, a brief outline is given of the early activities of the Port Phillip and Colonial Gold Mining Company (PP.Co.) formed at the same time as the C.G.Co., which failed to make a profit for some years but was ultimately successful.

Before discussing the fortunes of the C.G.Co. a review will be provided of the changes in mining law over the period of its existence, so as to enable the actions of its two superintendents to be considered in a legal and political context.

Changes in Mining Law 1852-1857

In January 1851 British mining law applied in the colony of New South Wales, which included the district of Port Phillip centred on Melbourne. Following Edward Hargraves discovery of gold at Ophir on a tributary of the Turon River in New South Wales in February 1851,² and in an attempt to control the rush of people from Sydney and elsewhere, Sir Charles Fitzroy, the Governor General of the Australian colonies, issued a proclamation that was valid in New South Wales. This required any person who wished to mine for gold on private property, or on land belonging to the crown, to apply for a licence to mine. Paying a monthly fee of thirty shillings³ entitled the holder of the licence to peg a claim and retain ownership of any gold found. The size of a claim was set initially on the spot by John Hardy, a magistrate, who had been appointed Gold Commissioner for the district, with the powers of a Commissioner of Crown Lands. This proclamation was a local departure from British mining law, which the government believed could be terminated when the rush petered out.⁴ British mining law at this time allowed mine leases of up to 320 acres in area but not claims. Following a slightly different proclamation made in Victoria there were to be unexpected consequences.

Victoria was declared a separate colony from New South Wales on 1 July 1851. Gold had already been discovered in Clunes, Victoria, in April and further discoveries were made at Anderson's Creek and Castlemaine in July, Ballarat in August, and Bendigo in September.⁵ The Lieutenant Governor, Charles La Trobe, issued a proclamation similar to that of Fitzroy,

except that the digging for gold applied only to un-alienated crown land.⁶ He appointed Francis Doveton Gold Commissioner with powers similar to those of a Crown Lands Commissioner, and sent him to Ballarat with a party of police, where the miners were forced to accept his ruling that each claim was to be eight feet square.⁷

Additional Gold Commissioners were appointed, and police recruited and sent to the goldfields to collect the licence fees and to keep order. On 1 December another proclamation was made decreeing that from 1st January 1852 the licence fee was to be doubled to £3 per month. A mass meeting attended by an estimated 15,000 miners assembled at Castlemaine on 15 December to protest this increase, which was seen by the protestors as an attempt to drive them from the goldfields. The proclamation was withdrawn.⁸ William Wright was soon afterwards appointed Chief Gold Commissioner, with headquarters initially at Castlemaine, and Joseph Panton was appointed Gold Commissioner at Bendigo.⁹

The winter of 1852 was wet in New South Wales with floods along the Turon. The miners moved to the hills at Tambaroora where shallow alluvial mining was available and formed an Association of Alluvial Miners which published two memorials, one rejecting monopoly mining by companies, the other asking for the right to elect members of Parliament. In December 1852, the New South Wales Parliament passed an act that required everyone on a goldfield to have a licence to mine. It also allowed leases on crown land or on private property.¹⁰ Protest meetings were held at Sofala. The government sent half of the 11th Regiment to the area and the agitation ceased. Many miners left the area for Victoria.¹¹

On 20 October 1852, the Victorian government published new regulations for the granting of leases on crown land. Each lease would have an upset price of £360 for each half acre per annum, the area could be up to ten acres for one year and was renewable on alluvial ground that had been dug over and abandoned. Leases were to be publicised in the newspapers and then auctioned.¹² This proved unworkable because as soon as the ground was advertised for auction the miners returned, on the premise that if it was worth leasing it still contained gold. In desperation the Legislative Council appointed a Select Committee to advise it on a better system of control. This Committee reported on 5 January 1853,¹³ and recommended continuation of the licence and a revised leasing system to encourage company mining. As the regulations in force at this time allowed an individual miner to peg out an area of eight feet square as his claim, companies bought licences for each miner employed. This small area of ground was soon worked out and each miner had to peg another claim elsewhere, but as the companies had substantial running costs they required larger areas where they could employ more men continuously at the one location, and where they could obtain sufficient gold to pay for their overheads.

A Board was appointed on 8 February 1853 to draw up new leasing regulations and these were published on 5 April.¹⁴ The short interval between the appointment of the Select Committee and the publishing of new regulations indicates the pressure applied on the government by mining companies. The early clauses clarified the issue of licences and increased the claim size to twelve square feet. Additional clauses dealt with larger leases of up to 160 acres, which could be worked for five years on alluvial ground and 25 years on quartz reefs. A royalty of five per cent was to be applied on gold extracted, and companies could

erect their machinery on land contiguous to the lease. Additionally, lessees would be granted sole and unrestricted use of water on the lease. The regulations were printed in the *Government Gazette*, and on weather resistant cloth, with many of these being pinned to trees on the various goldfields. This was probably the first time most miners in Victoria had been able to read a copy of the regulations and many would have been upset when they realised mining companies could now take up large areas and possibly deprive them of a livelihood. The first protest was a letter from the miners at Snake Gully, near Beechworth, to La Trobe, on 25th of April.¹⁵

Monster meetings held at Bendigo in August protested the licence fee and monopoly by companies, but agitation subsided after the Victorian government reduced the licence to £2 for three months. In October, the New South Wales government reduced the licence fee to ten shillings per month. In Victoria La Trobe resigned and left the colony in May 1854, to be replaced by Sir Charles Hotham, now with the title of governor, who arrived in June.¹⁶ Before Hotham left London he was told the Victorian government was extravagant, that expenditure exceeded revenue, and that the licence question was not likely to be settled without a fight.¹⁷ After his arrival he instructed the Gold Commissioners and the police to collect licence fees from all miners and businessmen on the goldfields. He deferred any decisions on the issue of leases until he had received the report of the Royal Commission that he set up to report on the conditions on the goldfields.

At this time Ballarat experienced an influx of miners, but gold was more difficult to find and shafts required deeper sinking. The miners held another ‘monster’ meeting to protest against the licence fee and then assembled in a rough stockade at Eureka. The military and police stormed the miner’s stockade at dawn on Sunday 3 December 1854, with loss of life on both sides.¹⁸ This galvanised the members of the Royal Commission into action and they toured the various goldfields collecting evidence. The commission reported in March 1855.

An Act, incorporating the recommendations was passed by the Victorian parliament on 5 June. It allowed claims of 12 feet square, to holders of a Miner’s Right. Alluvial leases could be up to 40 acres on previously unworked ground with an annual rent of £10 per acre, while quartz leases could be up to 220 yards along a reef with annual rent of £10 per yard. In a seemingly liberal move, miners in each district were authorised to elect members of a Local Court who were empowered to draft regulations for that district and also adjudicate on partnership disputes. Each Gold Commissioner, now called a Warden, was automatically appointed as chairman of the Local Court.¹⁹ While this act changed the way in which small miners were taxed, the support of government for mining companies and large leases remained unchanged.

On the same day as that Act was promulgated, a new mining company’s act was passed which copied the British law for joint stock mining companies working under the cost book system.²⁰ Both the British law and this law required the company to register, provide the capital structure and a list of shareholders, with addresses, to a government authority, but did not require it to submit an annual balance sheet.²¹ Small miner resistance to company mining and large leases continued until 1859, by which time alluvial mining had declined considerably and unemployed miners were looking for work.

Formation of the Colonial Gold Company

The news of the first discovery at Ophir in New South Wales was printed in London in *The Mining Journal* on 13 September 1851, followed soon by publication of the prospectuses of several mining companies intending to mine for gold and copper in Australia. One of these was the C.G.Co., chartered by Act of Parliament in England in March 1852 with a nominal capital of £500,000 in 100,000 shares. The capital structure was unusual as each share had a value of £5, but the prospectus allowed for two initial instalments of ten shillings each, which could be followed by additional calls of £1 at the discretion of the directors. Any further calls beyond this required the sanction of the shareholders.²² The objectives were stated as:

1. The working of gold and silver mines, and alluvial deposits of gold in the best parts of Australia in a systematic manner.
2. The erection of works in Australia near the mines where the ores produced by this company as well as those raised by other companies and by individual miners may be concentrated for shipment to England
3. The establishment of works in London for the economical reduction of the richer classes of gold and silver.

John Taylor & Sons were appointed managers. This firm of mining consultants, experienced in managing copper and tin mines in Cornwall, Lancashire iron mines and Pennine lead mines, would have known about the gold mines at Morro Vellho, in a high rainfall area in Brazil, where the ore extracted contained a high percentage of heavy metal sulphides (pyrites). Most of the gold was very fine and held in the pyrites, which was separated (concentrated) from the ore after crushing, and exposed to the air for a year using cheap slave labour.²³ The sulphides oxidised and liberated the fine gold, which was then recovered.

The C.G.Co. lost no time in recruiting staff and buying equipment. Edward J. Spence was appointed superintendent for New South Wales and sent by ship to look for suitable mining sites. He arrived in Sydney in June 1852, consulted with people knowledgeable about local mining, and soon left for the Bathurst area.²⁴ Miners and equipment followed soon after. Thomas Comer was appointed superintendent for Victoria and sailed with a party of miners, equipment and stores for Melbourne, where he berthed in June.²⁵ Both superintendents were given power of attorney to pay any expenditure incurred without reference to the directors. Another early decision of the board was to enter into an agreement with John Taylor and Sons to jointly build a smelter to process rich ore or concentrates from Australia, at Rotherhithe, a port on the Thames River below London. The joint venture was called The Australian Gold Amalgamation Company. This decision seems to have been made before Spence or Comer made any investigations of Australian conditions. No records can be found to show that any ores were actually sent to Rotherhithe by either the Victorian or New South Wales identities.²⁶

Operations in Victoria

To conduct operations in Victoria, Comer moved his party to Castlemaine to begin mining alluvial ground, paying his miners £6 10s per week, with rations provided, to try to prevent

them from absconding. Compared to £4 paid to other local miners, and to day labourers' wages of £2 10s per week, this was extremely generous. All gold they dug was to be owned by the company and foremen were appointed to control the miners. Meanwhile, Comer moved around the mining fields searching for areas suitable for company mining. Subsequently, he wrote to Chief Commissioner Wright requesting leases for quartz reefs and alluvial ground at Castlemaine, at California Gully and at Ironbark Gully, Bendigo. Wright forwarded his requests to the Colonial Secretary for final approval.²⁷

While agitation against the licence and the granting of leases to companies was increasing, Comer moved his miners, either in late in 1852 or early 1853, to Bendigo, where he had decided to concentrate his efforts by erecting a gold washing plant on a two acre site by the Bendigo Creek. This was located near the sixth of the white hills (now in the suburb of White Hills), the eroded remnants of an ancient riverbed that consisted of hard conglomerate rock cemented by iron oxide deposited from ground water. The miners called it cement, through which they blasted a shaft to the bedrock, and then tunnelled beneath the cement so they could chip away the lower layer which was rich in gold, as was the thin clay layer between the cement and the bedrock.²⁸ The bedrock was a white siltstone, which the miners lifted to the surface as they dug the tunnels. This was spread on the surface around each shaft, hence the 'White Hills'. After washing the clay in the creek, the miners crushed the chips of cement with simple hand operated devices, and then washed the crushed material to separate the gold.

William Howitt, the English author, camped with his sons in this area in August 1853. He incorrectly reported that a company had leased land on the creek on which it intended to erect a steam driven pump to wash alluvial sand for the miners who were digging shafts on the white hills (the lease had not been approved or granted). He predicted the company would fail because the miners could themselves cart and wash their gold more cheaply than the company could, and considered that opposition by the miners would prevent the government granting large leases to companies, because the time of company mining had not yet arrived.²⁹ Comer may have reached agreement with Panton before this to sanction a lease to wash gold at White Hills, but no record has been found of the application being forwarded to Melbourne. In the interim, he would have purchased licences to work on claims for the required area.

Late in 1853 the miners in Bendigo realised that the amount of alluvial gold was limited, and commenced looking for ways to crush the quartz reefs in which gold was visible.³⁰ Comer must have decided he could make more profit crushing quartz from the reef, as well as from the cement boulders that the miners had left behind on the surface of the White Hills, than from washing alluvial ground. In September 1854 he forwarded an application for a lease of two acres at White Hills proposing to erect a plant to crush conglomerate and reef quartz, using stamps driven by a steam engine.³¹ He assumed the lease would be granted, moved a part of the crusher from Melbourne, and in November bought several quarter acre blocks at the first land sales at White Hills on which to build barracks for his miners and stores to house rations and equipment.³² A wooden house was built for his family and later he added a large brick single room extension. With the intention of carting

additional ore to his crusher on the creek, he had a party of miners using licences to prospect a quartz claim at Sailors Gully in Eaglehawk, a few kilometres from White Hills.³³

After the April 1853 Proclamation, Panton had issued leases for both quartz and alluvial mining for parties and companies. Apparently, in the expectation the leases would be approved, the miners commenced working on these areas as soon as Panton forwarded the applications. In the interim no final decisions on leases were made because the alluvial miners continued to agitate strongly against them. The company's alluvial washing plant commenced operation in May 1854 after heavy rains filled the tank of 500 cubic yards capacity, while water from the creek was diverted into long toms (wooden troughs) in which the gold was washed out of the sand/clay. Similarly, the cement or quartz was washed after crushing with water pumped from the tank and the gold separated by amalgamation with mercury.³⁴

Following a tour of the goldfields in September 1854, Hotham appointed a Royal Commission in November to investigate the method of management. By this time Comer was so certain of his future in Bendigo that he advertised that he was agent for the Bank of New South Wales and would purchase gold. He also nominated for and was appointed as a trustee for the cemetery at White Hills.³⁵ In the meantime the many applications for leases were returned to Wright without any decisions being made.³⁶ Apparently Hotham had decided to wait until the new legislation was passed.

In January 1855 Panton gave evidence to the Royal Commission that the C.G.Co. had employed men to cart and treat washing stuff at a profit, but that Comer was preparing to erect his crusher, and intended to cart and crush gold ores. Panton also noted there was still strong prejudice among miners against companies monopolising auriferous ground. He also noted that a company could mine on the land it had purchased as long as it bought licences for its miners, and that quartz averaging 8 oz per ton from the oxidised reef zone was then being mined. He believed companies had received little support from the government and that they should be granted leases up to one quarter of a mile long on quartz veins.³⁷ He carefully avoided mentioning his support of Comer in the recent submissions he had made through Wright.

Early in 1855 Comer requested that the two acres of land on the creek that he wished to lease for crushing, should be put up for sale by auction. While Panton would have advised him that if he owned the land he could commence mining activities without regard to local regulations, local surveyor, Richard Larritt argued the sale would set a precedent as the area was much greater than areas allowed to holders of miners rights working alluvial ground. In April Comer began negotiations with the surveyor, arguing that the upset price of £1,117 should be reduced, but Larritt advised his superiors in Melbourne that the sale of two acres would set a bad precedent, as up to that time only blocks of one-quarter acre had been sold.³⁸ When visiting Bendigo with his technical adviser Bawden in May 1855, Spence reached agreement with Comer that he should attempt to buy at auction the land on which he had erected the crushing and washing plant, and that he should experiment with crushing the ore from the reefs.³⁹

Regulations under the Act of 5 June 1855 were issued on 13 June.⁴⁰ Panton was appointed Warden and Chairman of the Local Court at Bendigo. Elections for the first

Bendigo Local Court were conducted on 21 and 28 July,⁴¹ and a majority of the nine miners elected supported alluvial mining. The most vocal of these was Robert Benson, who had given evidence at the Royal Commission hearings in January.⁴² When asked for his views on allowing companies to mine, he replied that while water was in short supply, as it then was, he was opposed to companies being allowed to encroach on the industry and enterprise of the individual miner. This Local Court allowed quartz claims up to 20 yards along the reef. Panton continued to recommend leases but limited the size to about the same as claims. In August the Local Court asked Chairman Panton why he was still issuing leases; his reply was that the government had not ordered him to cease doing so.

Comer's contract expired in May 1855 but Spence was forced to continue his employment, as Comer was the only person who knew about the land situation. On 5th and 6th July Comer arranged for an auction sale of the stores held by the company. The items sold included ironmongery, oilmen's stores (paint, glass, turpentine), groceries, wines and spirits, miner's tools, timber, furniture and 20 tons of Adelaide hay. Three acres of land in quarter acre blocks was advertised but not sold.⁴³

In July Panton wrote to the Colonial Secretary saying the upset price on the two acres Comer wished to buy was too high and should be reduced.⁴⁴ The Chief Surveyor finally agreed to 9 acres 2 roods 28 perches being sold with an upset price of £210. Comer bought this land, with improvements of some £10,000 for the upset price; it included the 2 acres, as well as another 7 acres of adjacent creek flats on which he had developed a garden, and built stores and workshops.⁴⁵ He immediately put all these land assets up for public auction as well as the 13-quarter acre blocks that had not been sold in July.⁴⁶ On the two acres, the washing and crushing plant had a five HP steam engine driving pumps, a saw mill, a crusher of 35 stamp heads driven by a 40 HP steam engine, two steam boilers, and a gold amalgamating plant. The wooden cottage and its brick drawing room with 14 feet high walls, was offered for private sale in March 1856.⁴⁷

On 26 October 1855, Lord Alfred Spencer Churchill chaired a meeting of the shareholders in London. He reported he had just returned from Australia, and that the company was a laughing stock in Victoria, as Comer had erected a plant on land to which the Company did not have a title. A committee appointed to consider winding up the company was told that John Taylor, the manager of the London management company, had written to Spence instructing him to sell the Victorian plant.⁴⁸

In November 1855 Robert Benson was elected to the Victorian Parliament with the support of holders of miners' rights who had gained the right to vote in this election, and their numbers ensured miners were elected from the goldfields.⁴⁹ Benson immediately set about giving the Local Court authority to recommend leases, thus moving to take away control from Panton. He successfully moved in the Council to set up a Select Committee on the Local Courts, and most of the members appointed were miners. The only witness examined was Panton. He said 804 applications for leases had been made at Bendigo, but not all were granted. The average size of quartz leases was 17 yards, similar in size to claims under miners' rights to parties, and similar in size to claims 20 yards along the reef to parties of four, granted by the Court.⁵⁰

The Local Court at Bendigo appears to have taken over the approval of leases for submission to the government, as when Panton wrote to the Colonial Secretary in September and November he reported that the Local Court was refusing to allow quartz leases to be approved and was thus altering the previous system of approvals.⁵¹ The government took no action and at his request, Panton's deputy, Jones, replaced him as chairman.

Elections to the Local Court were held at six monthly intervals and by the third election, in July 1856, the quartz miners in Bendigo had organised, resulting in a majority of miners elected to the Court being sympathetic to larger quartz claims and leases. Almost every lease for alluvial and quartz mining was then approved without discussion, but that was too late to help Comer.⁵²

As will be discussed, the directors decided in November 1856 to wind up the company. Comer who was sacked, left Bendigo and relocated to Melbourne where he was working as a stockbroker late in 1856.⁵³ He returned to London in 1858.⁵⁴

William Kelly, a globetrotting mining reporter, was in Bendigo in 1853 and 1857 and wrote a book on his Victorian experiences after the second visit.⁵⁵ He said he had visited the mine at Sailors Gully, being operated by Nicholas and Bassett, who had previously been on the staff of the C.G.Co. Nicholas showed him several cakes of gold and mercury amalgam that he kept under his bed, in his residence near the mine. The ore had been dug from the reef, crushed by a horse driven crusher at the mine and the gold extracted by amalgamation with mercury. In 1859 when new lease regulations were issued, three Bassett brothers registered this claim as a lease and worked it until 1870.⁵⁶

In 1857 Thomas Britt built a crushing plant on the Bendigo Creek at Epsom a few kilometres further along the creek from White Hills, and began to crush cement from the White Hills. From this plant he made sufficient profit to enable him to commence developing a series of deep lead mines along a system that extended further north along the Bendigo Creek, through Huntly to Bagshot.⁵⁷ This information indicates that Comer had solved the technical problems of crushing the cement from the White Hills and of separating the gold by amalgamating it with mercury.

The quartz reefs at Bendigo contained lumpy gold and a very low percentage of pyrites and he was able to use similar processing to treat the quartz ore from Sailors Gully. It appears that as Comer was about to make profits he was told by Spence to sell all the assets he had created and accumulated. Throughout the process he had faced both continual opposition from the mining parties and procrastination on the part of the governors and other officials. The only one to support his application for a lease had been Panton.

Operations in New South Wales

While Comer was dealing with his problems of obtaining leases to mine in Victoria and solving the technical problems of extracting the gold, Spence, in New South Wales, was having problems of a different kind. The mining legislation in New South Wales included clauses covering mining on private property and provision of large leases to companies, so Spence and other companies had no problem obtaining large leases.

In June 1851 a large nugget had been found on the surface of the pastoral station owned by Dr Kerr near Louisa Creek (now called Hargraves), north of Bathurst. In the press it was variously called the Kerr Nugget or the Great Nugget. The Great Nugget Vein Gold Mining Company (G.N.V.Co.) was formed in Sydney in September that year to develop the reef that had shed the Kerr nugget. The company was incorporated by Act of the New South Wales Parliament in 1852 with an authorised capital of £200,000 in shares of £2 each, paid to either £1 or 10 shillings. The shareholders were local businessmen, and Gideon Scott Lang, a grazier, was appointed manager.⁵⁸

The company used a puddling machine to separate the gold from the soil near the surface and sank shafts on the reef to test the grade of ore. A poorly designed crushing plant capable of crushing one ton of quartz each day was also erected.⁵⁹ Lang had no experience of gold mining and as the company was not making a profit, Spence's offer to erect and operate a new plant on the site in late 1852 was accepted. In return for accepting all the risk of extracting and crushing the ore and separating the gold, Spence was to receive a percentage of the gold, although he was allowed to test the reef before signing the agreement.⁶⁰ The agreement stipulated that the C.G.Co. should crush 100 tons of quartz ore and wash 100 tons of soil per day (later reduced to 50 tons per day). The percentage to be received by Spence was 20 per cent of gold recovered up to two ounces per tonne, 30 per cent for two to four ounces, and 50 per cent if over four ounces.⁶¹ At a later date, this was changed to 1,000 tons per year and 10 per cent.⁶²

Spence moved equipment from Sydney, continued puddling the surface dirt and erected a new crusher. In the interim he developed the shafts on the reef, sank a very large dam, and erected kilns for roasting the ore. Roasting gold in quartz was common in eastern Australia at this period as it was assumed that it would oxidise any pyrites in the ore and change the fine gold into globules that could then be amalgamated with mercury after crushing. It was also believed that roasting would make the quartz more friable and cheaper to crush.⁶³ The crusher he installed used steel balls rolling in an annular steel cylinder (Berdan pan) to crush the ore after roasting but the abrasive ore caused rapid wear.⁶⁴ Progress in setting up the plant was delayed when transport of the main beam of the steam engine took eight months to reach Louisa Creek from Sydney.⁶⁵

The first year's gold production from washing 1,184 tons of surface soil was 686 ounces, while crushing 86 tons of quartz gave 92 ounces of gold. However, production failed to meet the agreed rate of 50 tons of surface soil and 50 tons of quartz per day. In 24 days during June 1854, 374 tons of ore were crushed for 174 ounces of gold but the total production of gold for the six months ending in June was only 371 ounces.⁶⁶ The price of gold was £3 17s per ounce in Australia at this time. Spence continued to visit other fields, leaving a manager to control the day-to-day operations.

In 1853 he negotiated for alluvial sites on the Peel River, and at Burrandong, and in 1854 he bought the Dirt Holes quartz mine from two miners. This lay on a reef at Fighting Ground, Tambaroora, four kilometres north of Hill End, where a second treatment plant was erected. It was, apparently, of the same design as the plant at Louisa Creek, except that 40 stampers, driven by a 16 HP steam engine, replaced the Berdan pans. Hargraves criticised the

methods being used by Spence at Louisa Creek as inefficient but Spence rebutted this, saying Hargraves knew nothing about the crushing and amalgamating plant and its operation.⁶⁷

Spence also built a large dam to store water for dry spells at Tambaroora, plus several roasting furnaces and accommodation for his 30 workmen. High wages of thirty shillings a day were paid and rations provided to keep his workmen from defecting to work on their own behalf. This plant was working by February 1855.⁶⁸

As previously noted, Spence had visited London during 1854 to discuss the situation with the directors and John Taylor. He returned early in 1855,⁶⁹ went to Bendigo, had discussions with Comer and agreed to allow him to buy nine acres of land on the creek on which he had erected buildings and equipment, and continue his experiments. He then moved to the Hill End area and sacked his mine manager on the grounds that he was unequal to the task of managing and had not reduced the wages of the miners along with other employers in the area. Both the Louisa Creek and the Tambaroora plants were subsequently closed, while the Burrandong plant was flooded during Spence's absence overseas. Apparently little work was done on the Peel River alluvial sites.⁷⁰

The amount of gold recovered from Louisa Creek and Tambaroora had decreased rapidly, for gold ores above the water table contained heavy metal oxides, including lead, which when roasted covered the gold particles with a fine coating that prevented it from amalgamating with mercury. Spence and probably his staff were not equipped to properly analyse the situation.⁷¹ Whether he experimented with separating out these heavy metals is not known but he concluded the amount of gold in the ore at depth would not be profitable and therefore informed the G.N.V.Co. of this situation in 1856.

Spence decided to close the operation because he believed all the alluvial ground of greatest promise had been exhausted and returns from the quartz had gradually diminished as the lode opened in depth.⁷² Thus, taking his advice, the G.N.V.Co. met in July 1856, terminated the agreement and decided to wind up voluntarily.⁷³

A special meeting of the C.G.Co held in London in November 1856 also decided to wind up the company voluntarily, as the shareholders were no longer prepared to pay calls on the shares.⁷⁴ Slightly more than two-fifths of the authorised capital had been called up. The Company was placed in liquidation in January 1857.

Table 1: *Statement of Income and Expenditure January 1857*

Income £		Expenditure £	
To Capital	100,000	By New South Wales	49,825
To profit on gold purchases	10,875	By Victoria	42,216
To loans	9,000	By Rotherhithe	8,905
To liabilities	790	By ditto reduction account	1,620
		By div., votes to directors	9,040
		By goods in store	1,880
		By prelim expenses	2,738
		By home management	3,605
	120,665		120,665

Source: *The Sydney Morning Herald*, 15 February 1856. This was an incomplete statement, as the total expenditure does not add to £120,665 as stated.

A complete balance sheet of the operations of the company has not been found, but at the meeting of shareholders on 16 November 1855, at which Lord Alfred Churchill, the son of the Duke of Marlborough presided, a statement of receipts and expenditure since its formation to that date, was given by the officers (Table 1).

The Duke held 3,000 shares and his son held 1,000.⁷⁵ This report does not make clear that a dividend of one shilling and sixpence per share was paid in June 1855, being profit on trading in gold, nor that after this meeting a call was made that raised £11,796.⁷⁶ Comer had also incurred an additional amount of £3,516 of expenses while arranging the sales of land.

Probable Reasons for the Failure

A contributing reason for the failure was that the directors had little knowledge of gold mining and relied on the advice of John Taylor and Sons.⁷⁷ Taylor and the C.G.Co wasted capital in setting up the Australian Gold Amalgamation Company at Rotherhithe to treat Australian ores and concentrates, apparently before Spence or Comer had reported back about the nature of these ores. Taylor seems to have assumed that Australian gold ores would be similar to Brazilian ores which included a substantial percentage of pyrites containing fine gold that could be smelted at a profit after concentration. Ironically, Bendigo ore had almost no contained pyrites and Comer's staff developed a successful process of crushing and amalgamating just as he was forced to sell. Small parties with low overheads then used his methods at a substantial profit.

There was not sufficient control over finance by the directors, who delegated power of attorney to both Spence and Comer, neither of whom had to refer any expenditure back to them before incurring debts. No records of the finances of the company on winding up have been found in the National Archives, but newspaper reports of the time indicate that all the money raised by the share issue, income from gold sales, and calls on shares, was spent.

High wages were paid to the miners from the time of embarkation in 1852 until the plant was sold. Spence and Comer were each paid £1,000 per year, about twice the salary paid to Gold Commissioner Panton. The numbers employed at any one time are unknown but the amount of rations listed for sale indicates it was probably in the order of tens of miners. It was considered necessary to do this so as to keep the miners from leaving the company to mine on their own behalf.

The failure to obtain leases of sufficient area to support the large overheads appears to have been the main cause of failure of the company in Victoria, and this was the argument used by Churchill to force the liquidation of the company. The very strong resistance of the overwhelming majority of alluvial miners to companies forced the Victorian government to defer the granting of leases in the period under consideration. Consequently, it was not able to grant large leases until 1859 when alluvial mining had declined and miners began seeking employment with companies.⁷⁸ This was not, however, a factor in New South Wales where Spence had access to large leases at Louisa Creek and Tambaroora.

Spence roasted the Louisa Creek and Tambaroora ores before crushing. These ores which were oxidised above the water table, due to the dry climate in eastern Australia, are

now known to contain heavy metal impurities, which after roasting would have made the separation of gold after crushing by amalgamation with mercury unsuccessful, and much gold would have been lost in the tailings. Spence believing the problem lay with lower grades at depth abandoned the mines. This appears to be the major reason for failure in New South Wales. He also took all the risk in working the lease of the G.N.V.Co.

In both colonies, stores, barracks and equipment were erected before the ore grades were proved; shortages of water in summer resulted in the plant being idle for months; and the cost of transport from the coast to the mines was high, especially in winter.

The Port Phillip and Colonial Gold Mining Company

It is interesting to compare the failure of the C.G.Co. with the early failures and eventual success of the P.P.Co. The chairman of the latter company, J. Powles, was also chairman of the St John d'el Ray Mining Company at Morro Vellho in Brazil and he and his directors had considerable experience in managing a mine.⁷⁹

In 1852 the P.P.Co. had miners digging for gold at Bendigo and Castlemaine. The then manager, Evan Hopkins, wrote to La Trobe asking for large leases to be granted⁸⁰ before Rivett Bland took over as the local director in July 1852.⁸¹ However, the company's appeal to be granted a lease of 42 acres was opposed by 850 miners who signed a petition at a 'monster' rally at Fryers Creek, near Castlemaine, on 17 October 1853. The lease was not granted.⁸² The company also mined alluvial ground at Beechworth, using licences, but this was not profitable.⁸³

In 1856 the company attempted to crush quartz ores from a small mine at Ballarat using miners' rights, also without profit. Some shareholders tried to wind up the company in 1857,⁸⁴ when most of the capital had been spent, but the London directors supported Rivett Bland until the company started to make a profit in 1858 at which juncture the attempt to wind-up the company ceased.⁸⁵ In 1856 Bland signed an agreement with the owners of 160 acres of private land at Clunes, on which the company was able to develop both substantial quartz reefs and later alluvial ground, from which large profits were made over many years.⁸⁶ The crucial difference between success and failure was that Bland succeeded when negotiating the lease of private land containing both alluvial and reef gold, whereas Comer was restricted by lease regulations. By 1857, the Colonial Gold Company was defunct.

Endnotes

¹ *The Mining Journal, Railway and Share Gazette*, later called *The Mining Journal, Railway and Commercial Gazette* [hereafter *Mining Journal*] reported on the goldrushes in California from 1848 and on the Australian rushes from 1851.

² E. Hargraves, *Australia and its Goldfields*, H. Ingram & Co., London, 1855, pp. 114-16. Gold had been discovered in small amounts elsewhere in N.S.W. before this date but no large-scale mining had resulted.

³ Despatches, Sir Charles Fitzroy in *British Parliamentary Papers*, Irish University Press, Shannon, 1969, no. 14, despatch no. 3, enclosure 1, Proclamation 22 May 1851.

⁴ *Ibid.*, no. 101, 11 June 1851.

⁵ J. Flett, *The History of Gold discovery in Victoria*, The Hawthorne Press, Melbourne, 1970, p. 7.

⁶ *Victorian Government Gazette*, Government printer, Melbourne, 16 August 1851, p. 209.

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- ⁷ H. J. Stacpoole, *Gold At Ballarat*, Lowden, Kilmore, 1971, pp. 49-50. Note: Units used in this paper: 1 acre = 0.4047 hectares; 1 foot = 0.3048 m; 1 yard = 0.9144 m.
- ⁸ G. Serle, *The Golden Age*, Melbourne University Press, Carlton, 1968, pp. 25-29.
- ⁹ *Ibid.*, pp. 33, 35.
- ¹⁰ *Act 16 Vict No. 43*, NSW. The size of a lease was not specified but a royalty of ten percent was levied.
- ¹¹ R.W. Birrell, 'The Development of Mining Technology in Australia', PhD thesis, University of Melbourne, 2006, p. 60.
- ¹² *Victorian Government Gazette*, 20 October 1852, p. 1170.
- ¹³ *Votes and Proceedings of the Legislative Council* [hereafter VPRS], vol. 2, no. 11, 1852-3, January 1853.
- ¹⁴ W. Lonsdale, *Gold Regulations*, 5 April 1853. Copy held by the author.
- ¹⁵ Letter 14 May 1853, Public Records Office, Victoria, VPRS 1189/84.
- ¹⁶ Serle, pp. 152-56.
- ¹⁷ *Ibid.*, p. 159. The income for the first half of 1854 was £919,000 against an estimated income of £1,470,000.
- ¹⁸ *Ibid.*, pp. 168-87.
- ¹⁹ *Act 18 Victoria*, no. 37.
- ²⁰ *Act 18 Victoria*, no. 42.
- ²¹ See R.W. Birrell, *Staking a Claim*, MUP, Carlton, 1998, Chps 1-4, for more detail of the changes to mining law in Victoria and the reactions of the miners to them. As the mining companies were not required to submit annual financial reports, the only source of information on company finances is from newspaper reports of shareholders meetings and these reports seldom contain complete financial statements. The English Joint Stock Companies Act of 1856 also had no requirement for a company to submit yearly financial statements. See J. Phillips and J. Darlington, 'Joint Stock Companies Act 1856', in *Records of Mining and Metallurgy*, E. & P.N. Spon, London, 1857.
- ²² Copies of the charter documents have not been found in the National Archives in England. This information has been collated from an advertisement in the *Argus*, 15 October 1852. No records of the company have been found in the State Libraries of NSW or Victoria.
- ²³ J. Woodland, 'R. H. Bland and the Port Phillip and Colonial Gold Mining Company', MA thesis La Trobe University, 2002, pp. 3-7, 113.
- ²⁴ *Mining Journal*, 30 April 1853.
- ²⁵ *Bathurst Free Press*, 23 June 1852, quoted in *The Maitland Mercury and Hunter River General Advertiser*, 30 June 1852.
- ²⁶ *The Sydney Morning Herald*, 15 February 1856.
- ²⁷ Letter 8 December 1852, VPRS 1189/84.
- ²⁸ Hargraves, *Australia and Its Goldfields*, pp. 135-6.
- ²⁹ W. Howitt, *Land, Labour and Gold*, Lowden Publishing Co., Kilmore, 1972, p. 207.
- ³⁰ J. Panton, Unpublished Memoirs, p. 62. Copy held by the author.
- ³¹ Letter G 54/10502, 23 September 1854, VPRS 1189/91.
- ³² Records of the auction of Crown Lands, November 1854, held by the Bendigo Historical Society.
- ³³ W. Kelly, *Life in Victoria*, Lowden Publishing Co., Kilmore, 1977, vol. 2, pp. 199-203.
- ³⁴ *The Times*, 19 July 1854.
- ³⁵ *The Bendigo Advertiser*, 18 April, 24 November 1854.
- ³⁶ For example, the letter of note 31 above was annotated to be returned to Wright during April 1855.
- ³⁷ *Report of the Royal Commission Enquiring into Conditions on the Goldfields: Record of Evidence*, pp. 236-43.
- ³⁸ Letters 55/75, 55/87, 55/134, 55/140, 55/165 from April to July 1855 filed in copies of correspondence between R. Larritt, District Surveyor at Bendigo and the Victorian Surveyor General.
- ³⁹ *Mining Journal*, 15 March 1856.
- ⁴⁰ *Victorian Government Gazette*, 13 June 1855, pp. 1419-21.
- ⁴¹ *The Bendigo Advertiser*, 25 July, 1 August 1855.
- ⁴² *Report of Royal Commission 1855*, pp. 187-196.
- ⁴³ Advertisement, *The Bendigo Advertiser*, 23 June 1855.
- ⁴⁴ Letter 55/8745, Panton to Colonial Secretary, VPRS 1189/99.
- ⁴⁵ Records of Crown Land sales, 9 October 1855.
- ⁴⁶ Advertisement, *The Bendigo Advertiser*, 6 December 1855.
- ⁴⁷ *Ibid.*, 15 March 1856.
- ⁴⁸ *Mining Journal*, 27 October 1855.
- ⁴⁹ Birrell, *Staking a Claim*, pp. 48-50.
- ⁵⁰ *Report of Select Committee on Operation of the Local Courts*, 14 February 1856.

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- ⁵¹ Letter 55/11887, Panton to Colonial Secretary on behalf of leaseholders, 17 September 1855, VPRS 1189/101; letter 15440, Panton to Colonial Secretary, 24 November 1855, VPRS 1189/105.
- ⁵² Birrell, *Staking a Claim*, p. 44.
- ⁵³ *Victorian Government Gazette*, 23 December 1856, p. 2187.
- ⁵⁴ Passenger List, Roxburgh Castle, Index to Outward Passengers, www.prov.gov.au/indexes, VPRS.
- ⁵⁵ Kelly, *Life in Victoria*, 1977, pp. 199-203.
- ⁵⁶ *Register of Leases*, Lease no 103, 24 August 1859, VPRS 7842. The applicants had been working the ground for two years.
- ⁵⁷ J. Lerk, *Bendigo's Mining History 1851-1954*, J. Lerk, Bendigo, 1991, pp. 20-21; *Register of Leases*, Lease no. 2, 8 April 1859. Britt had been working on this ground since 1857.
- ⁵⁸ S. Salisbury and K. Sweeney, *The Bull, the Bear and the Kangaroo*, Allen and Unwin, Sydney, 1988, p. 26; The Great Nugget Vein Co., 'Deed of Settlement', ref. CY Reel 1093, Mitchell Library, Sydney; New South Wales Act to incorporate the Great Nugget Vein Gold Mining Co., 28 December 1852.
- ⁵⁹ A. Mackay, *The Great Goldfield*, W.R. Piddington, Sydney, 1853, pp. 1-19.
- ⁶⁰ *The Maitland Mercury*, 22 December 1852.
- ⁶¹ *The New York Times*, 29 March 1853; *The Sydney Morning Herald*, 16 January 1855.
- ⁶² *The Sydney Morning Herald*, 1 September 1855.
- ⁶³ NSW National Parks and Wildlife Service, Division of Cultural Services, 'Hill End Historic Site – Quartz Roasting Pits', pp. 17-19.
- ⁶⁴ *Mining Journal*, 22 September 1855. The crusher consisted of one or more Berdan pans. For a description of this machine see Birrell, 'The development of Mining technology', p. 81.
- ⁶⁵ No details of the cost of transporting this machine have been found but comparative transport charges in Victoria in the winter of 1852 were £162 per ton for a distance of 70 miles.
- ⁶⁶ *The Sydney Morning Herald*, 19 July 1854; *The Hobart Courier*, 30 January 1854.
- ⁶⁷ *The Sydney Morning Herald*, 4 August 1853; 7 March 1856; 23 February 1855; 25 March 1854.
- ⁶⁸ New South Wales National Parks and Wild Life Service, 'Hill End Historic Site – Quartz Roasting Pits', p. 21.
- ⁶⁹ *The Sydney Morning Herald*, 14 August 1855.
- ⁷⁰ *Ibid.*, 7 March 1856.
- ⁷¹ P.M. Downes and P.K. Secombe, *A Review of the Hill End Mineral System*, Geological Survey of New South Wales, 2003. For a discussion of the treatment of these ores see R.W. Birrell 'The Extraction of Gold by Amalgamation and Chlorination', in *Journal of Australian Mining History*, vol. 2, 2004, pp. 17-34.
- ⁷² *The Sydney Morning Herald*, 23 July 1856.
- ⁷³ *Ibid.*, 22 July 1856. The company returned 7shillings 6pence on every £1 share.
- ⁷⁴ *The Mining Journal*, 27 November, 27 December 1856.
- ⁷⁵ *Ibid.*, 27 October 1855.
- ⁷⁶ *Ibid.*, 2 June 1855, 13 December 1856.
- ⁷⁷ A. Buckley, *The Story of Mining in Cornwall*, Cornwall Editions Limited, Fowey, 2005, p. 148.
- ⁷⁸ Registers of Mining Leases, VPRS 7842.
- ⁷⁹ Woodland, 'R. H. Bland and the Port Phillip and Colonial Gold Mining Company', p. 4.
- ⁸⁰ Letter Hopkins to La Trobe, 5 August 1852, VPRS 1198/81.
- ⁸¹ Woodland, 'R. H. Bland and the Port Phillip and Colonial Gold Mining Company', pp. 27-8.
- ⁸² Letter 14 May 1853, VPRS 1184/84; file of letters from R. Bland to La Trobe in 1853 relating to the issue of leases, VPRS 1189/87, D53, 1143.
- ⁸³ Woodland, 'R. H. Bland and the Port Phillip and Colonial Gold Mining Company', p. 35.
- ⁸⁴ *Mining Journal*, 14 August 1858.
- ⁸⁵ Woodland, 'R. H. Bland and the Port Phillip and Colonial Gold Mining Company', pp. 45-50.
- ⁸⁶ *History of the Port Phillip and Colonial Gold Mining Company*, F.W. Niven, Ballarat, no date, reproduced by the Clunes Museum 1993, p. 7.