



THEMATIC STUDY OF THE TASMANIAN FLOUR MILLING INDUSTRY

by Jill Cassidy and Keith Preston

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Front cover illustration of Calder's Mill:
George Francis Evans, Old Mill, New Town Creek, 1870s (QVMAG)

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NOTES

Quotations are given verbatim, except where measurements and money abbreviations are quoted. Thus 3'6" or "3 ft 6 in" is always rendered as "3 feet 6 inches", and "6/3" is always given as "six shillings and threepence".

Measurements are given as in the original, and then the approximate metric equivalents are given in brackets. However, as it is the custom for millstones to be measured in feet and inches, these are generally not converted to metric measurements in the text.

ABBREVIATIONS USED IN THE NOTES

ADB	<i>Australian Dictionary of Biography</i>
AONSW	Archives Office of New South Wales
AOT	Archives Office of Tasmania
CSO	Colonial Secretary's Office
DPIWE	Department of Primary Industry, Water and the Environment, Hobart
HA	House of Assembly <i>Papers and Proceedings</i>
HRA	<i>Historical Records of Australia</i>
JLC	McKay, Anne (ed), <i>Journals of the Land Commissioners for Van Diemen's Land</i> , Hobart, 1962.
LC	Legislative Council <i>Papers and Proceedings</i>
LCC	Launceston City Council
LRL, SLT	Launceston Reference Library, State Library of Tasmania
LSD	Lands & Surveys Department
LTAMC SLV	La Trobe Australian Manuscripts Collection, State Library of Victoria
ML	Mitchell Library, State Library of New South Wales
MMR	Mills and Manufacturing Returns (<i>Survey of Trades, Manufactories & Industries in Tasmania 1831-1904</i> , produced by the Engineering Heritage Committee of the Institute of Engineers Australia (Tasmanian Division), 1988.)
ms	manuscript
NL	National Library of Australia
QVMAG	Queen Victoria Museum & Art Gallery
PP	Parliamentary <i>Papers and Proceedings</i>
RD	Registry of Deeds, Hobart
Robson	Robson, Lloyd, <i>A History of Tasmania</i> , Vols I & II, Melbourne, 1983 & 1991.
Royal Comm	"Royal Commission on the Wheat, Flour & Bread Industry" in <i>Papers & Proceedings of the Commonwealth of Australia</i> , Session 1932-33-34, Vol IV, & Session 1934-35-36-37, Vol IV.
SLT	State Library of Tasmania
SLV	State Library of Victoria
Tas Cyc	<i>The Cyclopaedia of Tasmania</i> , Maitland and Krone, Hobart, 1900.
THRA P&P	Tasmanian Historical Research Association <i>Papers & Proceedings</i>
TMAG	Tasmanian Museum & Art Gallery
TPI	<i>Tasmanian Pioneers Index 1803-99</i>
UT	University of Tasmania Archives
VR	Valuation Rolls
Wedge diary	Crawford, the Hon Mr Justice, Ellis, W.F. & Stancombe, G.H. (eds), <i>The Diaries of John Helder Wedge 1824-1835</i> , [Hobart], 1962.

ABBREVIATIONS (con't)

Newspapers and Journals

Adv	<i>Advocate</i>
AM	<i>Australian Miller (later Australian Miller and Baker, and Millers' Journal of Australia)</i>
CC	<i>Cornwall Chronicle</i>
CT	<i>Colonial Times</i>
DT	<i>Daily Telegraph</i>
HTA	<i>Hobart Town Advertiser</i>
HTC	<i>Hobart Town Courier</i>
HTG	<i>Hobart Town Gazette</i>
ITN	<i>Illustrated Tasmanian News</i>
ITM	<i>Illustrated Tasmanian Mail</i>
LA	<i>Launceston Advertiser</i>
LE	<i>Launceston Examiner (later Examiner)</i>
LI	<i>Launceston Independent</i>
Merc	<i>Mercury</i>
NWP	<i>North-West Post</i>
SG	<i>Sydney Gazette</i>
TC	<i>True Colonist</i>
TM	<i>Tasmanian Mail</i>
TPDA	<i>Tasmanian & Port Dalrymple Advertiser</i>
WC	<i>Weekly Courier</i>

The page reference for newspapers is given thus: p.3/4. This means the reference can be found on page 3 column 4.

CHAPTER ONE

THE TASMANIAN FLOUR MILLING INDUSTRY: AN OVERVIEW

1.1 1803-1820

It is a truism that flour milling was the first manufacturing industry to be established in the Australian colonies. That this was so stems naturally from the fact that wheat was such a staple item in the diet. For example, Knopwood lists the weekly rations given out in Van Diemen's Land in April 1805 as six pounds [2.7kg] flour and six pounds wheat, along with three and a half pounds [1.58kg] of beef and six ounces [170gm] of sugar. From the beginning of settlement Bowen was instructed to prepare as much ground as possible for sowing wheat for the following year, and when Knopwood began his famous garden it was wheat he was "busey in sowing."¹

However, in order to be utilised wheat had to be ground into flour. In the early years of settlement, this was accomplished by means of either small millstones turned by hand, called hand mills, or more commonly steel mills, also turned by hand. In December 1805 Lieutenant-Governor Paterson at Port Dalrymple wrote to Governor King:

Two common Steel Mills is (sic) much wanted, and I understand there is a hand mill such as you purchased from Mr Palmer; and as a great part of our force will be up the River something of that kind will be absolutely necessary.

Even after the first mill buildings were established, these mills continued to be used whenever needed. In 1828 Lieutenant-Governor Arthur in a requisition for Garrison Stores requested that as many as twelve wheat mills be sent, and settlers who lived too far from a working mill continued to use them long after this.²

Steel mills were a problem. They deteriorated quickly, particularly in the early days when they were not maintained. But the chief objections to hand-operated mills of either kind were that, not only were they hard work but also they were capable of only low production rates. In 1846 Bartholomew "Bat" Thomas at Northdown, unable to procure any flour from his regular supplier, was forced to use the hand mill of his good neighbour Sams. He wrote in his diary: "Ground a Bll [bushel] wheat at Sams' Mill in abt 2 hours." As a comparison, twenty years earlier the Land Commissioners had written of the New Norfolk miller, John Terry, that with his mill "he grinds from seven to ten Bushels an hour" or up to twenty times more than Bat, and naturally with much less effort. Not all hand mills were as slow as Sams'. In 1825 John Walker advertised for sale "...a very excellent Hand Mill, with French Burr stones, capable of grinding Two Bushels of Wheat per hour", but this was obviously at the upper limit of performance. Following the building of the first windmill at Port Dalrymple in 1817 the *Hobart Town Gazette* voiced the relief of many when it reported that as a result "the steel-mills & hand-stones will have a respite from their laborious exercise." For those who preferred to pay someone else to grind, the expense would seem to be almost prohibitive. In

Sydney in September 1796 wheat was being quoted at 12 shillings a bushel, while in the form of flour it was worth 26 shillings & sixpence.*³

Lieutenant-Governor Collins was soon interested in getting a mill built in the fledgling colony. On 18 December 1805, less than two years after his party had arrived in Van Diemen's Land to join Bowen, he wrote to Earl Camden, the Secretary of State for the Colonies:

I also enclose a separate Demand for a set of materials for a Water Mill, the Stream which furnishes the settlement with water being perfectly equal to turning one of any Dimensions. I have two People here, one of them a Prisoner, who are capable of constructing it, & I need not point out the great advantages we should derive from being enabled to grind our own Flour.

Enclosure No.2. Demand for Materials for a Water Mill, to be executed at Hobart Town, V.D.L. Two pairs of French Stones, 4½ feet in Diameter, made complete, with Boxes, Spindles, Step, Brass etc, so as to be complete for work. Half a Ton of plaister (sic) of Paris to repair the Stones in case of Accident; 2 cwt [101kg] of Brass; six dozen of Cast Steel Mill Bills; etc.⁴

These two paragraphs are noteworthy in that Collins has listed the three main requisites for a mill. The first was power. He must have been delighted with the Hobart Town Rivulet, which could turn a mill "of any Dimensions". The settlements in New South Wales had so few streams with both a reliable flow and a steep enough gradient that, despite several attempts, the first water-powered mill was not built until 1804 at Parramatta. Even then, it was not successful as its water supply was too unreliable and it was not until 1812, 24 years after settlement, that the first successful water mill was built, at Barcom Glen near Rushcutter Bay. Hobart Town by contrast was much better provided for, with a second possible stream, the New Town Rivulet, nearby.⁵

Millstones were also a necessity. As will be seen, some local stone was later to be found and used for milling, although not particularly satisfactorily, but until then the stones had to be imported. French burr stones were the best quality stones for fine flour production. Quarried in France, they were constructed from pieces of quartzite cemented together by plaster of Paris and banded around the circumference. Solid Derbyshire Peak stones were preferred by many English millers (see Appendix A, Section 6.2). The cast steel mill bills Collins requested were for dressing the stones, a task undertaken by a skilled miller or millwright.

Collins was satisfied that he had the final requirement for building a mill, a person with the required knowledge: "I have two People here, one of them a Prisoner, who are capable of constructing it." This indeed was an essential part, one that was to be problem for the infant colonies. Erecting a mill required a skilled millwright, who was versed in the practices of carpentry, metal working and engineering. Many of the early mills were badly constructed, often requiring continual maintenance or even re-building, and the shortage of competent millwrights was a primary reason. In New South Wales similar problems had beset the early mills, both wind and water, and it had taken years for a satisfactory mill to be erected. Collins had brought with him from England several people able to help with milling,

* No attempt has been made to convert the currency of the times into modern equivalents, as these are for the most part meaningless. But for those who would like to do so, one pound (20 shillings) equates to two dollars. Each shilling was divided into twelve pence; thus six pence equals five cents.

including the convicts Thomas Pritchard, millwright, and William Bowers, miller. Unfortunately, Pritchard escaped while the party was at Port Phillip and was presumed to have died, and Bowers met a similar fate in 1807 in Van Diemen's Land after escaping into the bush. It is possible that Bowers was the prisoner Collins was alluding to above; the other was free settler Thomas Hayes.⁶

However, Collins' requested requirements were not forthcoming, at least for a while, and in the event the government, unlike in New South Wales, was not to be involved in the construction of the early mills. In Van Diemen's Land it was private enterprise which came quickly to the fore, building the first six mills in the colony. Moreover, the first three of these were the work of one man, Robert Nash. Within the space of seven years he built a mill on the New Town Rivulet, only to see it washed away by a flood; replaced it with a mill on the Hobart Town Rivulet which, long known as the Old Mill, was to be the longest-running water mill in the town; and then built a windmill on his farm at Sorell (see 3.1.1, 2.1 & 6.2.1). Nash was re-settled from Norfolk Island where he had also been involved with mills, and the importance of Norfolk Islanders to the early history of Van Diemen's Land is once again emphasised, as two sons of the millwright Nathaniel Lucas were responsible for the windmill which gave its name to Windmill Hill in Launceston (see 9.1.1), while a fourth, Daniel Stanfield jnr, built another of the very early windmills (at Rokeby—see 6.1.1). Thus five of the first six mills were erected by a tight-knit group who had developed their skills before being forced to leave their island home. Considering the small number of other free settlers in these early years, this is probably not surprising. The third water mill in the colony, the Waterloo Mill, also on the Hobart Town Rivulet, was built by the unsuccessful American entrepreneur Arnold Fisk (see 2.2.1), and it was largely his monopoly over milling in the town (as he also owned the Old Mill) which caused the government to finally build its own water mill so that it did not have to pay the high sums charged by Fisk. Almost nothing is known of the eighth mill built before 1820, Steale's windmill in Launceston (see 9.1.2).

It is clear from Collins' statement quoted above that the colonists were quick to appreciate the importance of the Hobart Town Rivulet as a source of power. Governor Bligh during his visit to the colony in 1809 noted that there was a "very fine rivulet, on which several Water Mills may be erected," and after two abortive attempts at New Town (see also 3.1.2), it was the Hobart Town stream which powered the first four water mills in the colony (including the Liverpool Street mill—see 2.4). In the event a considerable number of mills were erected on the stream; not only flour mills but also saw mills, distilleries, cloth factories and breweries. G.W. Evans reported to Commissioner Bigge in 1820 that there was a constant supply to the three mills then existing except in January, "when it is a little slack for a week or two." However, it is noteworthy that four of the first eight mills were windmills; two built on farms at Rokeby and Sorell where most of the free settlers were, and two built at Launceston. Windmills required somewhat less capital and were of course the preferred option where there was a shortage of suitable water sites.⁷

One other point needs to be made about these early mills: few of them survived very long. Steale's seems to have been a complete failure, and Nash's mill on the New Town Rivulet did not work at all well before it was washed away. His windmill at Sorell seems to have ceased operating following his death in 1819, while Stanfield's windmill was replaced by 1827. The Government Mill was rebuilt by 1825, the Old Mill was enlarged and repaired by a competent millwright a year or two later, and the Waterloo Mill's mill chutes created such a problem that the mill was closed down by 1830. The Windmill Hill mill was still working

into the 1830s but stopped by 1837. This was a story to be repeated many times in the first decades of the colony: poor construction techniques, probably due to inexperience on the builder's part, combined with the limitations of available materials and probably also capital meant that the early mills were not well engineered and were soon replaced or at least thoroughly overhauled when skilled millwrights and alternative materials became available.

1.2 1820-1840

The most significant factor in the history of milling during this period was the rapid increase in population, particularly of free settlers. This process had begun a few years earlier. The population of the southern half of the island had remained below 500 until 1808 when the arrival of the Norfolk Islanders had boosted numbers to 800. By about 1810 there were over 1000 inhabitants but thereafter there were only small increments; from 1814 to 1816 the southern population hovered around 1400, while in the north the figure was just under 500. Then in 1815 the Napoleonic wars ended, and Britain experienced a prolonged period of economic depression. Many who had fought in the wars, along with many others equally suffering from the depressed conditions at home, began to consider the possibility of starting a new life in the Antipodes, and boatloads of settlers began to arrive. Whereas in 1816 the total population for Van Diemen's Land was 1915, by 1817 the number had increased rapidly to 3114 and by 1820 there were over 5000 in the colony. Ten years later the population had soared over four-fold to 24 000, while by 1842 it had more than doubled again to 57 000.⁸

A large number of these immigrants were gentleman farmers, attracted by the system of free land grants to men of capital. These people had the necessary funds to build mills, and many arrived with the express purpose of doing so. Men like John Terry at New Norfolk, Richard Downward at Sorell and Andrew Gatenby at Barton, near Campbell Town, arrived with milling machinery and lost little time in erecting the required buildings (see 4.1.1, 6.2.2 & 11.4). Others may not have originally intended to become involved with milling, but as the rapid increase in population and especially its spread into new areas made the building of new mills essential, they had the means to accommodate the public. Although there were some emancipists who also erected mills (for example, Edward Yates—see 2.4 & 9.1.3), they were much less important than in New South Wales where ex-convicts had dominated early manufacturing and trading, including the production and distribution of flour. Both free settlers and emancipists were provided with very cheap convict labour to build mills and dams and cut mill races, often several kilometres long; had payment for this labour been required it could have made the erection of mills prohibitively expensive.⁹

This period saw the arrival in the colony of many of the people who were later to make their name as millowners or millwrights. In 1821-22 came Adam Amos, John Walker, George Meredith, Thomas Buxton and Edward Nicholas, to name but a few. Many arrived on a single ship: when the *Christiania* arrived in 1822 she brought Thomas Axford, soon to build a mill at Bothwell, Richard Downward (Sorell) and James Houghton (Longford), along with the millwright John Watts who was to build at least Downward's mill before building one for himself at Jericho (see 4.6.2, 6.2.2, 10.1.2 & 5.7). Another millwright, Peter Ferguson, arrived in 1824 and within ten years had helped erect the new Government water mill in Hobart Town, as well as mills at Tunbridge, Rokeby and Richmond (see 2.3, 11.1, 6.1.2 & 6.3.2). Later came some of the most important of the colony's millwrights: John Guillan who was to be involved in so many mills in the north (see Chapter 9); James Easby who, in

partnership with James Robertson, helped erect many mills including the second Barton mill near Campbell Town and the later Armytage mill at Bagdad (see 11.4 & 5.1.1); and Alexander Clark whose best-known mill was the Port Arthur water/tread mill (see 8.10.1). Clark arrived as an assisted settler in 1832, one of several millwrights helped by the Government immigration scheme at the time, and for a period he was in partnership with Henry Davidson. So important were these millwrights that when people advertised their mills they made a point of saying that the steam engine was supplied by Alexander Clark, or that the mill machinery had been erected by Easby & Robertson.¹⁰

As well as the millowners and millwrights the ships brought the millers. Most of these were men whose names have not made their way into the history books, but they were also essential to the historical development of milling. The particular skill often required of them was that they were able to dress the millstones; in other words, use mill bills to cut a regular pattern of radiating grooves over the millstone surface to facilitate the efficient grinding of the wheat berry and to maximise flour production. The dressing of stones was a regular requirement, and without a skilled miller a mill could even have to close for a time.

Milling was a peripatetic occupation, with millers habitually moving between neighbouring mills in the search for better working conditions, housing for his family, or of course a higher income. A miller might lease a mill for a period of years and then move on, or he might be employed on wages for only a limited period. They were not always reliable. They had a reputation for their drinking, brought on by the constantly dusty conditions in which they worked. "The Jolly Miller" and "The Dusty Miller" were popular names for hotels. It is no wonder that many of the advertisements for millers made it clear that the owner wished to hire only someone who was sober. An advertisement in 1852, for example, read: "A Miller who thoroughly understands his business, will be liberally treated with at the Hamilton Mill. No drunkard need apply." Even the millers with whom Monds worked at the Supply Mills, "all very decent men", occasionally indulged in a spree; this included the part-owner of the business, John Symes.¹¹

One such miller whose career can be traced between mills was John Cross. In May 1832 Thomas Axford at Thorpe advertised for a "steady man as a Miller," and it is possible that John Cross applied. Certainly in February of the following year Axford was at pains to make sure that "[t]he public are informed, that John Cross is no longer in my employ." And when he readvertised for a miller in 1834 he made his wishes clear: "To Millers. Wanted, a sober steady Miller, at moderate wages. None need apply who are given to drunkenness." Cross made his way north and in April 1835 was working for Thomas Fletcher. It is possible that he once again was in strife as he went that month to the nearby mill of Barton and asked successfully for work there. In September, however, George Gatenby wrote in his diary that: "John Cross & his dear went up to Barnards & came home gloriously drunk." The next day "Father paid off Mr & Mrs X (sic)" and George had to do the grinding.¹²

A more sober example of a miller regularly changing his place of employment is the case of John Grayson. Convicted in Northampton in 1829 at the age of 23 under the name of William Butterworth for "burglariously breaking into the banking-house of Messrs Percival...with intent to steal" he was initially sentenced to death but the judge recommended commutation. Described as a ploughman and miller, he arrived in Van Diemen's Land in 1830 and was assigned to the service of Richard Downward of Sorell where he not only looked after his two mills but also helped in the cultivation of his 40 acres. Butterworth stayed with Downward for eight years before being given his ticket of leave and going to live with and

work for John Walker, the Hobart Town miller. By 1841 he had saved £150 and was able to go into business for himself as partner with Henry Davidson in the new Commercial Steam Mill on the Old Wharf in Hobart. While Davidson concentrated on his business at the Derwent Foundry, Butterworth ran the mill on his own. In 1842 he wrote that "A millers (sic) wages here are very good. I could have a dozen places any day (if I was inclined) at the [wages of two pounds ten shillings a week] but I am doing a great deal better than that, I hope, being my own master so far."

At that time Butterworth was planning to go to a new mill Davidson was going to build in the country, but it is unclear whether he actually went. By the beginning of 1846 he was writing that, "I have been very unfortunate in business these last two years and have lost a deal of money. More than half of this colony has been insolvent in that time." He was by then manager of Turnbull's Davey Street mill. By the end of 1848 he was at the Old Mill, evidently leasing it and doing well, keeping two millers, a carter and a servant woman. However, he was already showing the signs of lung disease, a common affliction for millers who worked long hours in a dusty atmosphere. In 1850 he died, "leaving a widow and five young children to deplore his loss."¹³

Grayson/Butterworth is an example of a convict miller. Many such were employed as millers and this too helped the owners to make bigger profits. John Walker was one who used them extensively and Monds considered that this was one of the reasons why he had made his fortune (see 2.3). However, others preferred people who came free to the colony and advertised for them, and there were many free immigrants who arrived from the 1820s onwards who were so employed.

One last category of immigrant of importance to mills were those who established iron works and foundries. E. Whitehouse opened a small iron foundry as early as 1822, and William Harris was established by 1827. Alexander Clark and the Easby & Robertson partnership were foremost in establishing facilities in Hobart which included the erection of foundries for the manufacture of cast iron gearwork and steam engine components. The millwright Easby made the patterns and Harris cast the wheels for the first all-iron water wheel and other machinery for Armytage's later mill at Bagdad (see 5.1.1), opened in 1834.¹⁴

With the arrival of so many thousands of new settlers, settlement naturally spread away from the early settlements on the Tamar and the lower Derwent and Pittwater. Land was taken up along many of the major river systems, including the upper Derwent, the Jordan, the Tamar, the Coal and the South Esk valleys, as well as all through the Midlands and on the East Coast. Where settlement went, mills followed. By 1830 another 30 new mills had been built, 22 of them water mills.* Six were windmills, four of which were in the north of the state (two at Launceston and one each at George Town and Longford). In the decade that followed another 36 mills were built, several on the South Esk and along the Fingal Valley, with the majority (22) being water mills. Eight windmills were built in this decade, including the first large and well-engineered tower mills (at Richmond, Longford and Oatlands). All previously erected windmills had, by necessity, been post mills of wooden construction.

* The numbers quoted here are of the mills which have been found for this study. It is quite possible that other mills were in fact built. Moreover, the dates of the known mills are occasionally problematic. Neither of these facts, however, should detract from the main thrust of the argument which follows.

Most of the early mills were relatively small, with one or perhaps two pairs of stones, and frequently weatherboard structures. More than half in this period were built on farms, designed to mill grain for the farm and then provide commercial milling for neighbours as required, and these estate mills were generally built in the early years of the settlement of a district. If a customer brought wheat to the mill and returned home with the proceeds of the milling (flour, bran and pollard), this was called gristing. The customer might pay a set price per bushel ground, or the miller might take a proportion of the wheat as payment, referred to as taking a toll. Alternatively, of course, the miller could buy in wheat and process it for sale on the open market. In practice, most mills did both. For example, Downward's mills at Sorell were described as "doing a capital grist business, besides the manufacturing of flour for market." Occasionally, especially if the miller was short of cash, only gristing was carried on, as when the soon-to-be insolvent John Guillan announced that he was operating the Albion Mills* at Corra Linn for grist only (see 9.1.3).¹⁵

By the 1830s some of the mills built in the 1820s were already at the end of their working life, and replacement mills were beginning to be built. These mills were much better constructed and were able to function for many decades. Examples of such rebuilding include the Thorpe Mill, the Barton mill near Campbell Town and Armytage's mill at Bagdad (see 4.6.2, 11.4 & 5.1.1). At least the first of these worked into the twentieth century, while the Barton is still standing, although moved to Launceston. Fluctuations in the total number of operational mills with time are documented by government-compiled statistics, the Mills and Manufacturing Returns, which indicate a consistent rate of mill construction during the early decades of the colony's development (see Figure 1).¹⁶

The 1830s also saw some other important technological developments. The engineer Degraives fabricated the colony's first water turbine for his 1836 flour mill at the Cascades (see 2.9). Moreover, the erection of steam engines for mills began. The first steam engine was imported by John Walker and commenced operation in 1830, although it was evidently not very successful initially, but in June 1838 a steam mill at Windermere was producing flour, and within the next twelve months two existing water mills at Sorell and Colebrook Park had steam added (see 2.7, 9.4, 6.2.2 & 6.6.1). Moreover, the colony's first horse mills were built, one at Stanley and one at Hagley (see 12.17.1 & 11.8).

The government had become involved in more mills. Its initial decision to build the Government Mill in Hobart Town had been prompted by the necessity of providing competition for a local entrepreneur, but once other mills were operating in the vicinity it moved out of the milling business there (see 2.3). However, circumstances led to further mill construction at new towns or penal establishments. The windmill at George Town was necessary to grind wheat for the settlement, while that at Launceston could well have been built so that the Lucas windmill had competition (see 9.2 & 9.1.4). The isolated Sarah Island settlement required a milling capability for its inhabitants, a man-powered mill being erected, probably a capstan arrangement, while the treadmill at Hobart Town was primarily designed as a form of punishment with the considerable benefit of also producing flour (see 12.19 & 2.6). Towards the end of the 1830s a treadmill was built in Launceston as well (see 9.1.7).

* The plural "mills" was often used when the mill in question had more than one pair of mill stones; "Mill" and "Mills" were used interchangeably in the titles of such mills.

OPERATIONAL TASMANIAN FLOUR MILLS: ANNUAL TOTALS

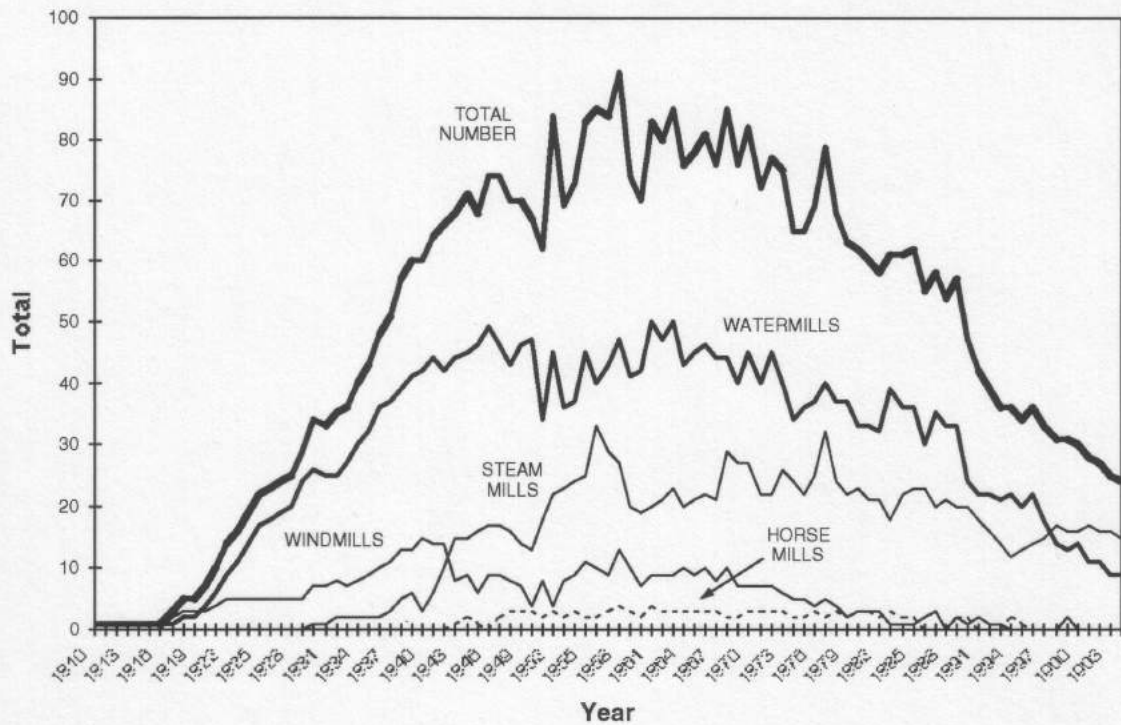


Figure 1

The proliferation of mills in this period resulted in substantial surpluses of flour being available for export for the first time. The first recorded overseas export occurred in 1827, and from then on large shipments were sent to the other colonies, particularly New South Wales and the developing settlements at Port Phillip and South Australia, with occasional cargoes further afield to Mauritius and even Britain. New Zealand was to become an importer of Tasmanian flour as well for a time. Through the 1830s flour as a proportion of Tasmanian exports rose from 1.2% to 6.7%. Launceston was to become the leading port for such exports; figures for the next decade show that four-fifths of the tonnage of wheat and flour was exported from that port. The increasing prospects for export led many millowners to enlarge their mills; for example Thomas Fletcher had the Lake Mills near Cressy operating by 1834 with one pair of stones, but just four years later enlarged the capacity to two pairs, while at the other end of the scale John Walker had seven pairs operating at what had been the Government Mill by the end of the 1830s (see 2.3).¹⁷

1.3 1840-1860

The early years of the 1840s saw one of the most severe depressions that the island colony experienced. It was felt Australia-wide, but was exacerbated in Van Diemen's Land by the replacement of the convict assignment system by the probation system. At a time of very low commodity prices and difficulty in paying bills, settlers now had to pay probationers for their labour whereas assigned convicts had been provided at minimal cost. Millers could be particularly vulnerable, especially if they had bought wheat at very high prices and then

found the price of wheat plummet almost overnight. Many millowners and millers became insolvent at this time, and mills changed hands regularly.

However, despite this the rate of mill building continued almost unabated, with another 30 erected during the decade. Three of these were horse mills, built in the south-east—at Ravensdale, Rheban and Buckland—where reliable rivers were not as readily available; these were the last of the horse mills known to have been built. Five of the new mills were windmills, of which three belonged to the government and were built at their convict settlements at Darlington and Long Point on Maria Island, and at Saltwater River; the other two were at Stanley and at Battery Point. The government also built the Port Arthur combined water and treadmill of massive proportions. No more government mills were to be erected. Just over half of the new mills were powered by water, but steam was becoming a viable alternative. Six steam mills were built this decade, but even more interestingly another ten were converted to steam. That this was possible was due partly to people like Alexander Clark (see 1.2), and partly to the increasing availability of good quality coal. The first coal from Port Arthur was sold to the public in 1834, although this was expensive and of inferior quality for steam raising purposes, but from 1846 advertisements for both imported coal from Newcastle and the Illawarra appear regularly in the newspapers.¹⁸

The addition of steam did not necessarily mean that the original power source was disconnected. Coal cost money, and nearly all millowners continued to use wind or water when this was feasible. Indeed Tasmania is unique for the continued use of water power into the twentieth century, whereas steam predominated in all the other colonies from the mid-nineteenth century onwards. For example, of 280 mills established in Victoria between 1840 and 1880, 237 of them were steam. However, Tasmania had a number of generally reliable streams available around the colony, and water power remained a viable—and cheaper—option. In 1859 Brown of the Liverpool Street mill was at pains to point out that his mill still operated with water even though he had also installed steam (see 2.4). The same held true for windmills, although to a lesser extent: when the Trafalgar Mill was offered for sale in 1853 it was specified that the fans [sails] of the windmill were in first class order (see 6.3.2). But the principal advantage of steam was that it ensured that mills could be operated on demand, this being important for the larger windmills, particularly those in the Midlands where winds were unreliable. It is hardly surprising that the Davey Street windmill had been replaced by a steam mill by 1843, and the two tower mills at Oatlands and Richmond had added steam by 1848. The Independent Mill at Longford and the Battery Point Mill followed suit in 1851 and 1861 respectively. The other major group of mills to add steam power in the 1840s were those on the Hobart Town Rivulet. Throughout the 1830s a shortage of water on several occasions led to crises for the many manufacturing industries depending on the stream for power (see Chapter 2), and by the middle of the 1840s the Sorell, Wilmot, Dynnyrne and Kent Mills had all added steam, with the Cascade Mills joining them by the end of the decade (see 2.5, 2.11, 2.12 & 2.9).¹⁹

Exports grew quite well in the second half of the 1840s, with 214 000 bushels of wheat being exported as flour, or about one-fifth of the crop, but the 1850s was to prove a boom time for the colony and for flour millers. The local population had reached 70 100 by 1851, and then the gold rushes in Victoria provided what appeared to be an insatiable market. John Stokell at the diggings wrote home to his sister that second class flour was selling for £25 a ton, a high figure; less than three weeks later it was £70 a ton. Those mills already built were able to make a killing. The ledger books of the Lake Mills at Tallentyre graphically tell the story.

For the second half of the 1840s the annual profit for the mills was around £200; in 1851 it had risen to £607, and the following year had soared to £2023. This was the peak year, but substantial profits continued to be made in the years that followed: £1059 in 1853, £574 in 1854 and £957 in 1855. Most mills able to export would have shown similar results, but some smaller mills were disadvantaged by a shortage of labour.²⁰

Sixteen mills were erected during the 1850s, but for the first time water mills were not predominant, with only six of them being built. By contrast, nine steam mills were built, plus another six had steam added. Two of these were the last two water mills on the Hobart Town Rivulet to be converted, the Old Mill and the Liverpool Street Mill. The majority of the new mills were in the north of the colony, and for the first time several mills were built to the west of Launceston, including two at Deloraine, and one each at Carrick, Westbury and Spreyton.

The 1840s and 1850s were a time of considerable advances in milling: larger and more powerful water wheels were constructed, and improved equipment was imported, including more efficient steam engine types; improved cleaning and dressing equipment (which respectively removed the dirt from the wheat, and sized the meal into bran, pollard and first and second grade flour); and labour-saving devices such as elevators.

1.4 1860-1880

After the boom times of the 1850s the two decades which followed must have been difficult to take for the colony and for millers. Stagnation set in in all areas, with emigration exceeding immigration and little occurring in the economy. The major problem was that Tasmania, as it was now known, had lost its position as one of the major grain growers of Australia. Victoria, which had imported wheat and flour in such quantities during the 1850s had become self-sufficient by 1860; moreover, South Australia had proved to be an excellent grower of wheat and was exporting in large quantities by the 1860s. Its wheat was harder as well, and preferred by bakers when making bread. To add insult to injury, there was always the prospect of cheap American wheat coming into the market. The result was that wheat dropped markedly in price; the *Cornwall Chronicle* in 1861 wrote that: “[t]here was not room for a single glimmer of hope in the price to be secured for Wheat paying actually the expense of its cultivation.”²¹

With less wheat being grown and little chance of export to the other colonies flour mills became far less profitable and indeed a liability. By the 1870s wheat was no longer being grown in the old Midlands areas, partly because the soil was impoverished, and farmers were turning to sheep. Rust in some of the wetter areas was also a problem. Population was falling in some of the older established areas such as Campbell Town, Longford and Westbury, while other towns such as New Norfolk, Oatlands, Perth and Richmond stagnated. The situation was exacerbated by the imposition of Victorian tariffs; in 1871 the neighbouring colony increased its tariff on flour to 100%.²²

1860 was the peak year for the number of mills operating in the state; from then on they began to close (see Figure 1). Some small scale post mills and water mills remained viable in isolated areas, but gradually the trend was towards larger-capacity mills sited near ports for the importation of better quality wheat. This trend was magnified with the development of railways in the 1870s, with Launceston at the hub. Increasingly, the mills that remained

operational were those located in large towns near the main railway routes, and some new mills, such as Brock's mill at Campania, were deliberately sited near the railways. Most millers campaigned to get the railway to come through their district, thinking of the opportunities it gave them to bring in wheat and send their flour out. They forgot that it also opened them to the competition of the bigger commercial mills in the main cities.

The overall picture for mills might have been worse, except for the development of settlements along the North-West Coast. The poor state of transport in this rapidly developing area, a problem until well into the twentieth century, demanded that each settlement have its own mill, so that while mills in the older areas were closing, a number of mills opened up in the north-west. In the 1860s, ten of the 17 recently erected mills were located to the west of Launceston—at Green's Creek, Hagley, Clayton's Rivulet, Westbury, Mole Creek, Sassafras, Latrobe, Devonport, Sheffield and Somerset. Another six opened in the same area in the 1870s, while only one steam mill commenced operation in both Launceston and Hobart (Ritchie's and Peet's). Water mills slightly outnumbered steam mills in this 20-year period, largely because the short rivers of the coast were suitable for the use of turbines. The state's last new windmill, at Bridgewater, was also probably erected at this time (see 5.3). The new mills were often the work of immigrants who had come under assisted passages in the 1850s. In fact the history of milling in the 1860s and 70s in the north-west echoes the history of milling in the older-established areas in the 1820s and 30s: new immigrants with the necessary skill or capital made the most of opportunities available to them as the first settlers in an area.

1.5 1880-1900

From 1880 the climate for milling started to improve somewhat, particularly in the north of the state which was able to benefit from the development of mining. Most of the mines, including the tin mountain at Mt Bischoff, were in the north-east or north-west, and it was northern mills which were set to profit from supplying the miners. This also applied when the West Coast mines opened up, with small trading vessels taking supplies from the north of the state. There was also some growth in urban markets, especially Sydney. However, this was also the time when the smaller mills began to feel the pinch as the larger commercial mills in urban centres began to compete ever more strongly. The smaller mill with one or two pairs of stones simply was not viable unless in a relatively isolated location.²³

This became particularly the case when some of the large capacity mills converted to rollers. The transfer of roller technology from Europe (Britain and Hungary) and North America to Tasmania commenced in the mid-1880s. It enabled cheaper, whiter flour to be produced, but it also cost twice as much per unit as a stone mill, due to the high initial capital expenditure, and therefore required a larger throughput. Mills had either to install them or risk losing their remaining custom. The miller Holman at Perth (see 10.2) put the case succinctly when he wrote to his landlord Scott: "We have been losing money for months past with(?) the roller flour having been brought into competition with us and to successfully hold our own with roller flour it is absolutely necessary to have additional machinery." The first miller to install rollers was Brock at Campania by December 1885 (see 6.5.2), but within the next few years most of the larger urban mills had been converted to rollers either completely or in part. These included Dossetor's and Gibson's in the south, and Ritchie, Affleck and Monds in the north. Later some of the smaller mills followed suit, such as Bowerbank and Harvey's at

Deloraine and Hope's at Sheffield (see relevant sections), but even so they found it difficult to compete with the larger urban mills. Most of the millowners bowed to the inevitable and simply closed their doors. The day of the small traditional mill serving a local clientele was almost over.²⁴

From 1890 onwards there was a sharp decline in the number of operating mills (see Figure 1), although this is not to say that no new mills started up. Most of the new mills continued to be erected in the north, although two were to the east—Bean's at Fingal and Morey's at Swansea. Bean's mill was to be the last of the small country mills to close, in the 1940s (see 10.7.2 & 8.3.2). Moreover, for the first time steam mills outnumbered water mills (see Figure 1), although water mills were still being built at Forth, Deloraine, Sheffield and Wynyard. The last estate mill, at Fenton Forest, was also erected at this time: the Bushy Park area basically became a town in the hop-picking season, and it was worthwhile for the Shoobridges to use the existing mill race on the farm and construct a mill so that they could grind their own wheat and bake their own bread for the workers (see 4.4.2).

1.6 Twentieth century milling

The federation of the states in 1901 caused still more upheaval in the Tasmanian milling world, largely because the absence of any tariffs allowed mainland flour to be imported into the state freely and thus compete with the local product. Some estate mills continued to grind their own and neighbours' wheat, including Millbrook, Thorpe and Egmont, and ancillary activities such as chaff-cutting, cracking wheat, cleaning wheat or grinding stock feed allowed these and others to remain viable for a little longer. But in general the closure of mills continued apace, particularly around the time of the First World War. A few rural mills held out, including Bean at Fingal, Holman at Perth, and Hope at Sheffield, but with the exception of the first, these had all stopped milling flour by 1930. By that time the three main mills were Gibson's in Hobart, with a 26¼-sack mill, Monds & Affleck in Launceston with a 15-sack mill and Ritchie's, also in Launceston, with a four-sack mill. (The numbers refer to the number of sacks of flour which could be ground in an hour.) These mills all converted to electricity early in the century.

Two new mills were built in the state in the early 1960s. Monds & Affleck built a new mill at Salamanca Place in Hobart, while Gibsons erected one at Devonport. However, a takeover by Pivot in the 1990s led to first Gibson's mill and then the mill at Devonport being closed. As this report is written, only one mill remains operational in the state, a fact which highlights the decline of an industry that was established almost two centuries ago.

* * *

Of the over 200 mills which have been erected in the state and are described in this report, many have disappeared without trace. Yet for many others something still endures. (See Chapter 13 for a detailed description of the remaining mill sites.) Some 34 former mills survive as virtually complete buildings, although the majority have been altered structurally or converted to other uses. Generally of two or more storeys, they are often particularly noteworthy in the small country towns which they continue to dominate. A surprising number of these, plus some others more or less in ruins, retain machinery of one sort or another (see 13.2.1, Table 5). Many have left only foundations to show where they once

existed. They may have been dismantled for their building materials, or destroyed by flood or fire, both an ever-present hazard for watermills and the later steam conversions. Alternatively, they may have left no discernible trace, a likely outcome for post mills in particular, or where urban mill sites have been re-developed. Even where foundations have gone, there can be some reminder of a water mill which once stood nearby: mill races can be located, and dams which were once erected for watermills often survive as popular swimming holes (for example, at St Leonards or Longford) or have been used for a town's water supply (for example, Perth or Longford again; Conara is still supplied using the Milford Mill's dam). And if all physical remains have gone, the names of mills and the millers who ran them survive in all areas. There are few areas of the state which cannot boast a Millbrook or Milford, a Windmill Point or Flour Mill Bay, while the millers and millowners have given their names to rivers, farms, streets, hills and gullies. And this is as it should be, considering the enormous impact these pioneers have had on the history of Tasmania.

¹ Nicholls, Mary (ed), *The Diary of the Reverend Robert Knopwood 1803-1838, First Chaplain of Van Diemen's Land*, Hobart, 1977, 26 April 1805, and 11 & 13 June 1805. Instructions: Robson, Lloyd, *A History of Tasmania*, Vols I & II, Melbourne, 1983, p.34.

² HRA III, I p.652. Arthur to Goderich 26 Feb 1828, HRA III, Vol VII, p.66.

³ Thomas: Thomas, B.W., *The Appledore Papers: The Farming Journals, Papers & Letters of Bartholomew (Bat) William Thomas 1845-1894*, a transcription by the Devon Historical Society, Devonport, 1988, entry for 11 March 1846. McKay, Anne (ed), *Journals of the Land Commissioners for Van Diemen's Land*, Hobart, 1962, p.13. Walker: HTG 18 February 1825, p.1 col 4. Deterioration, Sydney prices: Linge, G.J.R., *Industrial Awakening: A Geography of Australian Manufacturing 1788-1890*, Canberra, 1979, p.43. HTG 17 May 1817, p.2 col 1.

⁴ HRA III, Vol. 1, p.343.

⁵ Farrer, K.T.H., *A Settlement Amply Supplied: Food Technology in Nineteenth Century Australia*, Melbourne, 1980, p.13. Abbott, G.J. & Nairn, N.B., *Economic Growth of Australia 1788-1921*, Melbourne, 1969, p.248.

⁶ For New South Wales mills, see Collins, David, *An Account of the English Colony in New South Wales*, reprinted Sydney, 1975, pp.274, 305, 399 & footnote 2 on p.583, and Farrer, K.T.H., op.cit, pp.11-13. For Bowers, Pritchard and Hayes, see Tipping, Marjorie, *Convicts Unbound: The Story of the Calcutta Convicts and their Settlement in Australia*, Ringwood, 1988, pp. 124 (Hayes), 257 (Bowers) & 303 (Pritchard).

⁷ Bligh: HRA III, III p.129. For a survey of the various industries which used the Hobart Town Rivulet, see Button, John, "The Rise and Fall of the Hobart Town Rivulet: an historic preservation study", unpublished thesis, Department of Environmental Design, TCAE, Hobart, 1978; and Rayner, Tony, *The Hobart Rivulet Historical Study*, Hobart City Council, July, 1988. Evans: HRA III, III p.323.

⁸ Abbott & Nairn, op.cit., p.349. Linge, op.cit., p.118.

⁹ NSW: Ibid, p.135.

¹⁰ Tasmanian Pioneer Index. HTC 16 Feb 1844, p.1/4. GO3.

¹¹ E.g. CT 24 Sept 1852, p.1/4. Monds, T.W., *Autobiography of Thomas Wilkes Monds*, Launceston, 1907 (typescript in QVMAG), p.18.

¹² HTC 5 May 1832, p.1/1. HTC 8 Feb 1833, p.3/3. CT 7 Jan 1834, p.1/4. Gatenby diary, entries for 3 April, and 13, 14 & 16 September 1835.

¹³ Spencer, W.E., "John Grayson, Alias William Butterworth"; copy held in Tasmaniana Library.

¹⁴ HTG 30 Mar 1822, p.1/3. HTG 26 April 1827, p.3/3.

¹⁵ HTA 3 Jan 1851, p.3/6.

¹⁶ Preston, Keith, & Pearson, Warwick, "The Development of Animal, Wind, Water and Steam Powered Flour Mills in Australia: An Introduction", Transactions of the Ninth International Symposium on Molinology, The International Molinological Society (TIMS), Budapest, August 1997.

¹⁷ Linge, op.cit., pp.122, 123 & 129. HTC 4 Sept 1830, p.3/3.

¹⁸ Brand, Ian, *The Port Arthur Coal Mines 1833-1877*, Launceston, n.d., pp.6-7.

¹⁹ Jones, Lewis and Peggy, *The Flour Mills of Victoria 1840-1990: An Historical Record*, The Flour Millers' Council of Victoria, 1990, p.331.

²⁰ Linge, op.cit., p.128. Stokell's letters quoted in Mabel Hookey's history of the Stokell family, in the possession of Mary McKinlay. Lake Mills ledger books in the possession of Maureen Bayley.

²¹ Stokes, H.J.W., "North-West Tasmania 1858-1910: The Establishment of an Agricultural Community", unpublished thesis for ANU, March 1969, pp.65. CC 18 Dec 1861, p.4/4-5.

²² Stokes, op.cit., p.65, 69. Linge op.cit., p.642-3.

²³ Linge op.cit., p.640. Stokes, op.cit., 79.

²⁴ Linge op.cit., p.16. Holman to Scott, 19 Nov 1890, Thomas Scott papers, QVMAG.

CHAPTER TWO

HOBART

2.1 The Old Mill

The early history of the first mill to be erected on the Hobart Town Rivulet is somewhat unclear. It had many names in its long life, but that most frequently applied was the "Old Mill", used as early as January 1818. The most detailed information regarding its origins comes from a 1920 article in the *Critic* quoting an agreement to build the mill, and although the article was written over one hundred years after the mill was built, there is enough detail in the description to make it clear that the writer had the agreement in front of him as he wrote. It is worth quoting extensively.

...on the 3rd December 1810 an agreement for the erection of a mill in Hobart Town was executed between Robert Nash and John Clarke, of Sladden's Farm, co-partners and millers, on the one part, and William Hambly and John Duncombe, co-partners and carpenters on the other part. ... The carpenters agreed to erect a mill-house and shingle the same complete, together with every necessary and useful appendage to such a mill, to be erected on the rivulet at a point about 200 yards above Molle Street. The millers on their side agreed to furnish the timber etc., one Government carpenter, and such labourers as might necessarily be required; while the contractors undertook to erect the water corn-mill and mill-house so that it could grind corn within three calendar months from the date of agreement. The contract price was £100 sterling to be paid, by an order for £75 upon James Lord, who shall supply the contractors with such property as they may require, and £25 in sterling upon the completion of the job. The penalty for non-completion within the prescribed time was £50, while the millers, if they neglected to perform their part of the agreement, were to forfeit a similar sum.¹

The partners in this venture were well-known to each other. At least three of them had been on Norfolk Island, where Robert Nash had a mill and William Hambly and John Duncombe worked as carpenters. Hambly and Duncombe arrived in Van Diemen's Land on the *Porpoise* on 17 January 1808, and John Duncombe married William Hambly's daughter soon afterwards. Robert Nash arrived on the *City of Edinburgh* on 1 October in the same year, and probably had built a mill on the New Town Rivulet by April 1810 (see 3.1.1). One of the interesting parts of the agreement is that the mill was financed by the astute James Lord, who would later be involved with Mill Farm at New Town (see 3.1.1).²

The Old Mill was built of timber on the north-western side of the Rivulet between Liverpool and Macquarie Streets and about 200 metres above Molle Street. In its early days its address was usually given as Liverpool Street, but it also was described as being in Upper Collins Street (which occasionally causes confusion with the Government Mill—see 2.3) and later when it had access from Macquarie Street via Denison Lane and a bridge, it was often given a Macquarie Street address. Its mill race probably began above Elboden Street; just east of that street it crossed the rivulet to its northern side and then ran parallel and quite closely to the stream until it reached the mill.³

* The term "corn" was often used for what we would call wheat. What we would call corn, or maize, was usually called Indian corn.

Just what happened next with Nash's mill is unclear and it can only be assumed that it continued to function. Within a few years Nash determined to sell the mill. It is quite possible he had to sell in order to pay off Lord, but perhaps he had simply determined to settle at Pittwater, where in 1813 he had been granted 200 acres and where he was to later erect the colony's first windmill (see 6.2.1). In October 1814 he sold the mill to Thomas McNeelance, who took out a mortgage with James Lord to finance the purchase. McNeelance had earlier that year bought Mill Farm at New Town (see 3.1.1). On 25 May 1815 McNeelance sold all "his Right, Title and Interest in and to the Water Corn Mill together with all Lands, Houses and any thing appertaining thereunto, commonly called Nash's Mill" along with the lands of the Lower Mill (see 2.2.1) to Arnold Fisk for the sum of £2700.⁴

Arnold Fisk was a sailor who had been born in Rhode Island in 1777 and who, after a somewhat unsuccessful career as a ship's captain trading in the South Seas, had arrived in Van Diemen's Land about 1813. He acquired a Pittwater farm and mingled with the local "society," but lost goods said later by his daughter to be worth £2000 in a raid by bushrangers in February 1815. Somehow three months later he was able to raise enough money to buy the two mill sites. He continued to operate the Old Mill; in 1817 he advertised that "[in] consequence of the numerous Mistakes which constantly arise by Persons bringing Wheat to my Mill" they must have "the first two Letters of the Owners' name...legibly fixed on the Bag."⁵

But he evidently found the mill not entirely satisfactory. Possibly it had been poorly built and he could not get it to work properly; possibly the dam was still posing a problem; perhaps it was seen to be a little too far out of town. Whatever the reason, he concentrated much of his attention on building a new mill on the other site he had bought (see 2.2.1) and when it opened on 1 January 1818 he moved his residence there. It is not clear whether the Old Mill continued to function as a mill for the next few years. Fisk rented part of one of his establishments as a hospital for Aborigines in 1819-20, and it could well have been the Old Mill which was used in this way.⁶

Fisk was soon in financial trouble (for the reasons for this, see 2.2.1), and by June 1821 he had sold the Old Mill to the shipping agent Walter Crammond. J.A. Motton, the new miller, announced that "he has opened the Old Mill" which might indicate that the mill had not functioned for a while. The price of grinding was only one shilling and threepence per bushel, or eight pounds of wheat. Fisk had been charging one shilling and eightpence. In September Captain Heany announced that he had taken charge of the mill and had been "at a very heavy Expense in erecting a Dressing Machine, for the express purpose of giving satisfaction to those who may favour him with their Custom. His cart will go round the Town every Monday, Wednesday, and Saturday for the purpose of receiving Wheat and delivering Flour." This may well have been the first dressing machine in the colony. It was a means of separating the high quality flour from the bran, and would have given Heany an advantage over his competitors (see Appendix A, Section 6.3). The use of a cart indicates the disadvantage the mill had: because it was a little way out of town, it had to compete with the mills closer in.⁷

In October 1821 Lieutenant-Governor Sorell transmitted to Macquarie a memorial from Crammond asking for a grant of the Upper Mill which he said he held in succession to Nash "to whom originally that spot of Ten Acres is represented to have been located, with an assurance of a future Grant, as compensation for Mills given up by him at the evacuation of

Norfolk Island.” There is no way of knowing if Crammond was given what he asked for, or indeed if he was correct in thinking Nash was granted the land originally. There is certainly no evidence that Nash was granted any land other than two grants at Pittwater. Whatever the case, Crammond soon divested himself of the mill, as by January 1824 when the Provost Marshall announced the auction of the “Eleven Acres of Land...with a Water Mill, Dwelling House, Out-houses &c erected thereon...” it was owned by Espie and Clark.⁸

Espie’s role is unclear, but Clark was George Carr Clark who had arrived in Van Diemen’s Land in 1822, and after a visit to Sydney decided to establish himself in the junior colony. He bought both Fisk’s mill and the Old Mill, renaming the latter the Ellinthorpe Vale Mill after his family home in Yorkshire. By August 1824 Espie was not mentioned when Clark announced that his grinding rates for wheat at both mills were one shilling per bushel (a further reduction from Fisk’s rates), while dressing wheat would cost sixpence, as would cracking wheat, maize, barley or “pease”. He went on: “It is requested that all Persons bringing Wheat to be ground will see the same weighed and entered in the Mill Book, kept expressly for that purpose; and in order to prevent all Disputes, it is desired that the same may be weighed before taken away.”⁹

Clark was not a miller, and the mill was occupied in turn by Robert Lathrop Murray and Thomas Wright. By August 1825 Clark had sold the mill to Wright, who described himself as “late Partner of the Firm ‘G.C. Clark & Co’” and who at the same time leased the Waterloo Mill. He had difficulty with trespassers taking building materials, and his fence too was “repeatedly broken down and carried away.” In April 1826 the mill with one pair of stones was offered for lease, then two months later it was offered for sale “in very excellent condition, having recently undergone a thorough repair by a most experienced millwright.” The mill did not sell; instead it was leased for £300 a year to John Dean, “Miller, Corn-dealer and Ship Biscuit Baker,” who advertised grinding rates of ninepence per bushel, with dressing for threepence - a further reduction on Fisk’s rates of only a few years before. In July 1827 the “truly valuable and most commodious premises, the Ellin Thorpe Mills...at present let to a good tenant” were advertised for sale by auction. The mill now had two pairs of French burrs driven by separate water wheels; presumably the additions had been made the year previously. The mill was sold to George Frederick Read for £1025.¹⁰

Even Wright had usually used the name “Old Mill” rather than “Ellinthorpe”, and under Read’s ownership the latter name rapidly disappeared, the last example being in July 1828. Read continued to own the mill until at least 1831 when he offered it for lease again. Dean ran the mill at least until the end of 1829 and it was the redoubtable John Walker who was leasing it in 1831, although one Bethune (probably the merchant responsible for Millbrook at Ouse—see 4.7) was living at the mill. The newspapers do not mention Read again and from 1833 all advertising of the lease of the mill was initiated by Walker, so it appears he had bought the mill by then, thus giving him possession of three Hobart mills (the others being the Government Mill, see 2.3, and his steam mill on Old Wharf, see 2.7).¹¹

In August 1835 Walker advertised the mill for lease, referring to its “powerful water wheel.” This indicates that the two water wheels of the 1820s had been replaced, and the most likely explanation is that two wheels of small diameter and capable of turning only one pair of stones each had been replaced by a larger wheel driving the stones by a spur wheel arrangement. By the time the Sprent survey was completed in the 1840s the mill was the L-shaped building shown in later illustrations so it seems that Walker rebuilt the mill by 1835.

By 1833 there was a bridge over the rivulet and a road to Macquarie Street and after 1836 Walker never referred to it with a Collins Street address.¹²

In the early 1830s the miller was Alexander Bruford; in 1843 T.E. Mannington was there, while at the end of the decade William Butterworth (nee John Grayson—see 1.2) had the mill for a few years. It is not known exactly when Walker sold the mill to John Turner; it is quite possible that he disposed of the mill before he took a lengthy trip to England in 1854 (see 2.3). By the time the 1856 Electoral Rolls were compiled “Thomas” Turner was the freeholder of the “Collins-street flour mill” and by the 1858 Valuation Rolls he had renamed it the Somerset Mills. Turner and his sons were to work the mill for the rest of its working life, but they first had to cope with a disaster. On 22 July 1859 in the early hours of the morning, according to the *Cornwall Chronicle*:

the mill at the rear of the Denison Arms Hotel...formerly the property of Mr John Walker, but since purchased by Mr John Turner, the miller, was completely destroyed by fire. [A constable] perceived the place was in flames; and he hastily gave the alarm to Mr Turner, whose dwelling house in the vicinity was detached. An attempt was made to get out of the mill some...moveables, but in a few minutes, the flames had extended to the mill, counting house, &c.... By twenty five minutes after the first alarm, the fire had enveloped the whole of the mill, bakehouse &c.... The large steam engine used for driving the mill, when the water power was not sufficient, sustained but little damage; the machinery connecting the engine with the mill, was, however, irreparably damaged; as also the millstones which were broken to pieces. Fortunately Mr Turner's stock was low. Mr Turner was insured in the Derwent and Tamar office for £1200; the estimated damage is at least £2000.¹³

The fire was in the bakehouse, where a cauldron of potatoes for Turner's pigs had been left on a fire. It was conjectured that a log had fallen out of the fire on to the floor boards which eventually ignited. Although the newspaper report says that the mill was “destroyed,” the engine survived along with evidently the brick shell of the building which Turner used in rebuilding. While the rebuilding was in progress he continued operations, possibly only as a baker, in Liverpool Street next to Brown's Mill (see 2.4), and the Turners still used this as their office and probably bakehouse for many years. The Somerset mill was certainly back in operation by December 1862 when a miller was required; it may indeed have been then when it began operations after the rebuild, as the boiler is known to have been made in 1862. In 1865 the Turner Bros begged “to acquaint the trade that they have just completed the erection of a Silk Flour-dressing machine at their Mills....” The importance of this announcement can be gauged from the rest of the advertisement.

Merchants for export will find it to their advantage to patronise this establishment, as it is a fact well known that Tasmanian Wire-dressed Flour will not command the same ready sale as that manufactured in the adjoining Colonies, and any orders they may be favoured with will be guaranteed equal to First-Class Adelaide... Turner Bros would particularly remind the public that theirs is the only establishment in Hobart Town where silk-dressed Flour is manufactured.¹⁴

The mill was described in detail in the *Mercury* in 1873. At that stage the mill had been run by Henry Turner, son of John, for some fifteen years, so presumably from the time of the fire. The building was of brick, and the milling was carried on with a 20 horse-power beam engine made by John Clark and turning four pairs of three feet six inch millstones. There were two silk dressers, one very large, and the mill was capable of turning out about 30 tons of flour a week. Although there was a steam engine, it seems clear that the mill still continued to operate with water power when possible, and in 1884 a new overshot wheel was

installed, probably of iron construction by John Clark's New Wharf foundry. So the first Hobart Town mill was also the last mill to use water power.¹⁵

The mill was still functioning in 1892-3, but by 1894 it was empty and soon after its assessed annual value was reduced from £85 to £55. It was still standing in 1929 when sketched by Fleury, and was possibly still there as late as 1959.¹⁶

2.2.1 The First Waterloo Mill

It is not surprising that it was those indefatigable profiteers Edward Lord and William Collins who made the first definite moves to build a mill on the Hobart Town Rivulet. When Governor Bligh visited Hobart Town following his unseemly removal from office, he reported to Castlereagh on 10 June 1809 that there is "a very fine rivulet, on which several Water Mills may be erected; one only, however, is building, and belongs to Mr. Collins and Lieutenant Lord." There is no evidence that this mill was ever built, but a mill race which was almost certainly intended for the Lord/Collins mill appears on Meehan's map of Hobart Town made for Governor Macquarie between the 26th and 30th of November 1811. The race runs parallel to Liverpool Street, coming off the northern side of the Rivulet just below Harrington Street and, although in Meehan's time it came to an abrupt stop just past Murray Street, it was in the same position as the race for the later Waterloo Mill.¹⁷

Just why Lord and Collins did not proceed with the mill is not known. Perhaps they found they did not have the requisite machinery or that a suitable millwright was not available. The sudden death of Lieutenant-Governor Collins in March 1810 was followed soon afterwards by Lord requesting leave (granted by Macquarie on 16 June) and he returned to England for a period, so perhaps their plans were changed at that time.¹⁸

It seems certain that it was the Lord and Collins site referred to above (see 2.2.1) that Arnold Fisk purchased from Thomas McNeelance in May 1815: "all the Mill Lands and tenements called the Lower Mill with everything appertaining". This description is tantalising, but it has to be assumed that it was simply "Mill Lands" that Fisk bought, not a Mill *and* Lands. The "everything appertaining" would have covered the mill race. It is possible that Fisk did nothing on the lower mill site for some time, while he concentrated on running the Old Mill. But eventually he decided to develop the other site as well, building a new mill on the southern side of Liverpool Street to the west of its junction with Elizabeth Street. The mill race was carried over Murray Street on wooden fluming from a dam in the middle of Harrington Street. In March 1817 the *Hobart Town Gazette* commended him "for his indefatigable exertion, at an enormous expence (sic), in getting up his flour-mill, contiguous to Wellington Bridge...", but it was not until New Year's Day 1818 that the mill began to grind. Immediately he announced that his "late Residence...at the Old Mill", although not the mill itself, was for lease.¹⁹

Within a few months of the opening of Fisk's new mill, however, his monopoly position was fatally challenged by the government which built a new mill which commenced grinding in May 1818 (see 2.3). Fisk was outraged: "...at the time I built my Mill, I had not the most distant Idea that Government would, instead of assisting and encouraging such an undertaking, build a Mill for the very express purpose of Ruining me, which was Capt. Nairn's whole and Soul (sic) View when he first proposed that a Govt. Mill should be built...." But Fisk really had only himself to blame. He had been charging 20 pence per

bushel of wheat for flour required for the military, and refused to lower the price even when asked repeatedly to do so.²⁰

Fisk rapidly ran into financial difficulties; by November 1818 he was threatening his debtors with court action if they did not pay up. The following year he protested to Lieutenant-Governor Sorell that the Government Mill was grinding corn for private people contrary to regulation, but Superintendent Yates defended himself, saying that he had done so on only a few occasions in the summer at the direction of Sorell when there was a shortage of water at Fisk's mill. With the relatively small free population in Hobart Town, Fisk needed to get all the custom he could. However, it appears that the loss of his biggest customer, the government, was only part of the reason for his financial problems. In 1820 when, unable to pay the mortgage, he lost his "truly valuable" farm at Pittwater, the Deputy Assistant Commissary-General Hull gave his opinion that as Fisk was grinding up to 120 bushels a week, he should be able to make enough money. But Hull went on: "It is from habits of extravagance, I am informed, that Mr. Fisk is brought to this distress." Hull turned down Fisk's request to be allowed to sell 500 bushels of wheat to the government store.²¹

The end was not long in coming. By June 1821 he had sold the Old Mill (see 2.1). Although this removed one of his problems, it actually made his position worse as he now faced competition for the private sector, and the grinding rates at the Old Mill were noticeably cheaper than Fisk had been charging a few years previously. Finally in October 1822 the Provost Marshal's office announced the forced sale of Fisk's other mill, which was subject to a mortgage of £700. Fisk and his family went to Oatlands, and then left the colony in 1827. He gained a job as pilot and harbour master at Hunter's River, and died there in 1829.²²

By April 1823 the mill was in the hands of George Carr Clark (who also bought the Old Mill). Clark had paid £2114 for the mill and allotment, and later paid out £709 for machinery and repairs to the mill house and then a further £795 on a brick store. It was probably Clark who christened the mill Waterloo, presumably because of its proximity to the Wellington Bridge. It was certainly known by that name in August 1824 when he announced grinding rates for both the Waterloo and Ellinthorpe Mills (see 2.1). A store on the site was being used at least by October 1826, when "Mr Kerr moved the remainder of his stock of tea...from Bathurst-street, to the premises at the Waterloo Mill," but the new lessee Alexander Bruford also had a store. In December 1826 the following announcement appeared in the Hobart Town Gazette.

Waterloo Mill, Liverpool Street. A. Bruford, Miller and Cornfactor, begs leave to inform his Friends, and the Public that he has taken the above Premises; and having been brought up to the above Branches of Business in an extensive Concern in the Vicinity of London, will be enabled to give general Satisfaction, and will pay personal Attention to the Return of the same Article as shall be brought to his Mill for Manufacture. The Horse and Cart will be constantly at the Jetty, and may be obtained at the shortest notice. Shortly A.B. intends opening a store on the same Premises, when all kinds of Grain will be taken in pay for Goods, at the highest Market Prices.

In February 1827 Bruford informed his the public that "from his knowledge and personal attention to the...Business, he is enabled to Manufacture and Sell at the following reduced prices", viz ninepence per bushel, with dressing threepence extra. This was certainly very cheap; he does not mention that he was competing with (and bettering) the reduced prices announced by Walker at the Government Mill the week before (see 2.3). By August he had taken a partner, Anstice, and they were still selling general merchandise.²³

However, the days of the mill were numbered. Since very early in its history, the mill race carrying water across Murray Street had been a nuisance to people using the street. Before he sold the mill Fisk was planning to replace that part of the race with underground pipes, and the *Hobart Town Gazette* was pleased to announce that “the street in that part, which has always been wet and nearly impassable in consequence, will in future be perfectly dry and clean.” However, when the new owner Clark, with the support of the Superintendent of Carpenters, pointed out that the wooden trough made by Fisk was “wholly inadequate and would certainly burst”, he was given permission to carry a pipe across the street “provided it might be made quite Water tight, and that the Supports will not obstruct the Highway”. Clark also had to give a bond that he would remove the trough in 15 months if required.²⁴

The pipe was still there in 1828 and still an “abominable nuisance”, according to the *Hobart Town Courier*, but Clark had decided to erect a replacement mill. Originally planning to build on the corner of Murray and Liverpool Streets, Clark changed his mind, buying instead an allotment on Collins Street to the west of its junction with Murray Street. This meant that the mill race would leave the Hobart Town Rivulet at the same place as it always had, but now follow the northern bank of the stream, crossing it just before it arrived at the mill. As Clark was eager to point out, “all inconvenience across Murray-street or on the premises of several individuals through whose property it [the mill race] now runs, is at once removed.” Clark was given permission to build his new mill race and given another year or so before he had to remove the original race. In September 1830 he advertised the machinery of the old mill for sale, including a seven foot overshot water wheel, a pair of three foot colonial millstones, and a dressing machine. Bruford had already moved to Anstice’s stores in Elizabeth Street where he intended to grind wheat, and by May 1831 John Kerr & Co were operating a store in the old mill building. The building was still there at least in 1835, but its later history is unknown.²⁵

In February 1974 during extensions to Connor’s Department Stores near the corner of Harrington and Liverpool Streets, a brick and mortar race in almost perfect condition was uncovered two metres below the surface, and this was almost certainly the original race for the first Waterloo Mill. The race was photographed, samples of the broken brick were taken, and then the race was covered up again with concrete.²⁶

2.2.2 The Second Waterloo Mill

Clark evidently built his new Waterloo mill in 1830, as it was not mentioned in the 1830 *Ross Almanack* but was described as new in 1831. However, Clark rapidly divested himself of his milling interests. In 1824 he had married Hannah Davice, a teacher, and by 1827 they had moved to their estate of Ellinthorp Hall near Campbell Town where Hannah opened a school which was to become the most fashionable girls’ school in the colony. Clark continued to own much property in Hobart Town, including a “beautiful and uniform row of 10 shops” which he built on the allotment which also contained the original Waterloo Mill, but he was to play no further part in the history of Tasmanian mills, although his son Charles continued the family tradition by erecting the Ellinthorp Steam Flour Mills at Warwick in the Darling Downs in the 1860s.²⁷

The operator of the new Waterloo Mill was James Luckman. In 1830 he had been attempting to get a grant of an allotment on the Hobart Town Rivulet so that he could build a steam mill,

utilising a steam engine which he had purchased from Captain Friend(?) of a visiting ship. In his application for an allotment in Collins Street between Argyle and Campbell Streets near the hospital, Luckman said he already had four allotments on which he had made improvements totalling £1500. It is not known whether he was successful with his application, but by the end of 1830 there was no necessity as he was operating, and had perhaps bought, the already-built Waterloo Mill. Certainly he owned it by March 1833. In 1834 an irate correspondent to the *Colonial Times* complained that Luckman was covering over the top of his water race, thus preventing townspeople from obtaining fresh water. Obviously Luckman was hoping to prevent a decrease in the supply of water to his mill in this very dry year. It was likely to be an ongoing problem for him as he had the lowest flour mill on the rivulet, and therefore was always likely to suffer from a shortage if millers (and others) above him on the stream should take too much water.²⁸

He suffered even more two years later when his race and dam were carried away in a flood, and faced delays as his right to own land on the rivulet was brought into question. The editor of the *Hobart Town Courier* lamented the fact.

For independent of the millers' private interest, so large a regular means of supply being thus unexpectedly withdrawn from the market, must tend materially to affect the price of flour, and consequently of bread, to those who can ill afford it. It is much to be wished that the proper limits of the rivulet were duly defined all along its course through the town.

The problem was rectified with a grant dated 27 April 1838, which two years after the flood gave Luckman proper deeds to his land:

Together with the Use at all times hereafter of a sufficient quantity of water to work the mill now erected or any mill which may hereafter be erected on the said land to be conveyed from the town Rivulet to the said Mill by the present aqueduct or any other similar aqueduct hereafter to be constructed. And also the right to go upon the Banks of the said Rivulet for the purpose of clearing repairing re-constructing or rebuilding the present mill dam and aqueduct respectively. Provided that we our heirs and successors and the occupiers of land adjoining the said Rivulet have full liberty at all times hereafter to use the water running through or along such aqueduct for all reasonable and necessary purposes doing as little damage as may be to the said aqueduct.

Hopefully with all parties catered for, calm could return. It is not known whether Luckman had to wait two years for this piece of paper before rebuilding his dam and race; if so, he must have been severely out of pocket. As he was at the same time building the tower windmill in Battery Point (see 2.14) finances must have been fairly stretched.²⁹

Luckman offered both mills for lease or sale in December 1841, at a time when conditions in the colony were depressed, but they were not sold. In March 1845 he went to court, claiming damages through the building of the Harrington Street bridge and in particular two walls, one on each side of the rivulet, which had led to his dam being so affected that his mill had stood still through lack of water. He alleged that before the bridge was built he could grind 10 to 12 bushels of wheat an hour with two pairs of stones, but afterwards when he could get water it was only possible to grind from seven to eight bushels with one pair of stones. The Solicitor-General in defence made much of Luckman's grant which gave him merely the right to a sufficient quantity of water to work his mill, but no right to dam the water or anything else. It was shown that water was still going into Luckman's old troughs, although they were leaky, while the new ones were supported by bearers inserted into the new wall on the Liverpool

Street side of the bridge. After it was shown to the satisfaction of the jury that there had been no undue interference, Luckman lost his case.³⁰

Within four months Luckman's finances were so bad that the Waterloo mill was ordered by the mortgagee to be sold. Two months later the assignee to his estate ordered all of Luckman's other properties sold as well, including the Derwent Hotel, the property formerly known as the Britannia Inn, the Bull's Head public house, the Battery Point windmill and seven other lots. Just what happened next is unclear, as Luckman was still in possession of the Waterloo mill in the 1850s. People who leased the mill from him in the 1840s included Thomas Frederick Vigar, a name associated with many mills, and William Titley whose career as a miller in Tasmania was to span some 30 years. During the major flood of 1854 Luckman's chutes were washed away, and he petitioned the municipal corporation for permission to open up the road in Harrington Street so that he could reconstruct them. This was granted on the condition that any damage to the road be made good, and that Luckman comply with the terms of the original grant. In a later corporation meeting it was revealed that Luckman had had to alter the height of his troughs and substitute a fifteen foot water wheel for a sixteen foot wheel because of changes to the Harrington Street bridge. With the permission of the corporation, he wished to change the troughs back so that he could utilise his new sixteen foot wheel. Permission was granted, but the following year residents were petitioning for the height of Luckman's dam to be lowered.³¹

By June 1860 Luckman had died and Mrs Rosina Luckman was trying to find a tenant, but in 1865 she too died. In 1864 Richard Willcox of the Waterloo Mills was advertising jam tins for sale, and it is difficult to know whether it was ever used again as a flour mill. Jam tin solderers were required in 1869. The mill was offered for lease many times in 1871, but was empty for long periods during the decade, although leased in 1873 and again in 1880 by William Smith who in the latter year called tenders for a masonry dam and wooden troughs to take water to the mill which indicates a renewed period of milling. Although the dam and race were damaged by flooding in 1881, the mill was reported as unaffected, but in 1885 it was a "house and stores" and the mill is not mentioned further in the Valuation Rolls.³²

The mouth to the race for the Waterloo Mill is still visible in the Liverpool Street side of the stone wall lining the Hobart Town Rivulet immediately above the Harrington Street bridge.

2.3 Government Mill

In May 1817 Sorell, unhappy with the high prices Arnold Fisk was charging at the Old Mill (see 2.2.1) wrote to Macquarie that it "would be a great benefit if a Mill could be erected here by Government", and, as there is a Man competent to the purpose, no obstacle exists but the want of Mill Stones, which cannot be procured here." He then asked for a pair to be sent. The work was proceeded with and in May 1818 the *Hobart Town Gazette* announced that the "Government Water Corn-Mill, which has been constructed...under the direction of Captain Nairn...and the immediate superintendence of Edward Yates, a crown servant possessing

* An anomaly occurs here, as according to a Return of Buildings and works undertaken...since 1 February 1810 by Government (HRA III, III p.558), the first work was a "Water Mill", completed in 1816. There seems no way to reconcile that with the other information, unless it was a sawmill or a means of pumping water, either of which is unlikely.

considerable talents as engineer, commenced grinding on Thursday, and we are happy to be enabled to state, with perfect success."³³

The mill was built on the south-west corner of Barrack and Collins Street, with a mill race about 400 metres long beginning immediately after the fall from the Old Mill. The only illustration known of it is in a view of Hobart Town published in G.W. Evans' 1822 book, *Description of Van Diemen's Land*, which shows from a considerable distance a small, evidently one-storey building. It was presumably wooden. The mill was initially used to grind wheat for the troops only, while the addition of two rooms was made "for the Accommodation of sifting the Flour and for the Miller" and several alterations were made to the watercourse. These were expected to be completed in September and a Superintendent for the mill was appointed in December. The man chosen was Edward Yates, the convict builder of the mill (who had lost an eye while using explosives to remove rocks for the race) and Macquarie approved of him being given a salary of £50 a year from the Police Fund. The following month the *Hobart Town Gazette* announced that Yates and his friend William Lindsay had been emancipated "in reward for their intelligence and industry when employed...in the construction of the Government corn mill, water course, etc."³⁴

The mill was operated under strict guidelines, with weekly reports required from the Superintendent, and he was allowed a miller and two labourers to help him. From then on the government issued flour instead of wheat to all those "on the store": military and civil officers, convicts employed in government works and free settlers still being victualled. The mill was capable of grinding 100 bushels a day and thus should have been able easily to feed everybody, although when Deputy Assistant Commissary General Hull arrived he found that the supply of flour was sometimes deficient due to Yates' negligence. As a result he stopped Yates' allowance of rum and insisted that the mill be used exclusively for government purposes, after which there were no problems. The government also gained from being able to use the bran and other siftings from the mill for feeding the government horses and bullocks.³⁵

In January 1821, after Yates resigned as Government Miller to look after his own mill in Liverpool Street (see 2.4) his job was taken by the baker William Rayner snr, but on 21 September of the following year the latter too resigned and was replaced by John Walker who had arrived in the colony just eleven days previously. Walker had been given the job as a result of the good offices of his fellow-Scot Assistant-Commissary Moodie. By July 1823—and possibly from the time of his appointment—he was on a salary of £100, double that of Yates five years earlier. With one brief exception, he or a member of his family was to run the mill until the 1880s. He had evidently not been long in the job when he suggested that the mill was in such a dilapidated condition that it should be replaced with a new building according to a design he supplied. His arguments must have been persuasive, as the new mill was built under his supervision, with the help of millwright Peter Ferguson who had arrived in the colony in 1824 on the *Jupiter*.³⁶

The new mill was a much more impressive structure than the old. Built of brick, it was 80 feet long, 35 wide and four storeys high. At the Barrack Street end it had six good rooms for the miller and family, and at the other end was the machinery for two pairs of French burr stones. The mill also had a bolting* and smut machine. The new Government Mill was referred to as early as February 1825, and Assistant Commissary Moodie advised the new

* A bolter was an early form of flour dressing machine.

Lieutenant-Governor, Arthur, that Walker should be given some remuneration for his work with the new building, as the work had been done so well and in half the time it would otherwise have taken. He recommended that Walker be allowed to grind for the public for 1825 provided that the Commissariat stores were kept supplied and this was allowed, although it elicited some surprise from the *Hobart Town Gazette*.³⁷

The experiment must have proved to the government that with four other mills (Old, Waterloo, Liverpool Street and Sorell) now operating in Hobart it was no longer necessary to control the price for grinding, and in 1826 it stopped the practice of employing a government miller and instead offered the mill for lease. Walker won the lease and announced that "...he Grinds for the Public at the usual Prices; and he trusts, from the superiority of the Machinery, and from his experience in the Business, to give every satisfaction..." His price for cleaning smutty wheat was threepence per bushel. Later that year he had the bolting machine repaired and offered to grind and dress quantities of wheat above ten bushels at one shilling and three pence a bushel. In June he showed his business acumen when he won the tender to supply flour to the government stations at Bagdad, Brighton, Glenorchy, Richmond, Sorell and Birch's Bay. There was only one other successful tenderer for flour, James Reid, who was to supply the Punt and Ross Bridge stations. In August Walker asked to be relieved of his lease as his tender was based on being paid in sterling to grind at ninepence a bushel whereas he had "always been paid in currency which makes a very material difference." It is likely that the government changed the means of payment rather than let Walker go.³⁸

At the end of 1826, having ascertained that the Commissariat would require about 15 000 bushels of wheat ground in the coming year, the government called tenders for the lease of the mill for 1827, Moodie deposing that the "price at present paid to the Miller is in my opinion reasonable, but I beg to recommend that in any future contract the transport to and from the mill may be included - the existing agreement for which is ...one penny and a third p/bushel." Arnold Fisk, ex-Waterloo Mill, tried to re-enter the milling game by offering to lease the Government Mill for £400 sterling, despite knowing that this was less than Walker had paid for the lease in 1826. He expected that there would be less demand for flour with the government having considerable stock and a new treadmill (see 2.6) coming into operation. Thomas Mannington of the Liverpool Street mill (see 2.4) offered £480 with wheat ground for the government at tenpence a bushel, while Walker did not apply. Three weeks later Mannington submitted a new tender, this time offering to lease the mill for three years for £250, including grinding the government's wheat for any amount up to 30 000 bushels. This new idea of a three year lease must have appealed to the government, as one week later in January 1827 it called for new tenders for hiring the mill for three years. Walker, surprised to find that although he had made arrangements to leave the mill there was no-one to take over, then submitted a tender of £420, proposing to grind, dress and cart wheat for the government for tenpence a bushel and to keep the mill machinery in repair. Cheekily, he had another specification as well: "If the above offer is excepted (sic) I will require a quantity of pine boards with a carpenter to fix them in the mill..." The previous year he had applied for 2000 feet of pine boards to make a flour bin, but had been refused. Finally in February he was able to announce that his offer had been successful. Arthur cautioned his officers from revealing the competing tenders as he felt Walker would be dissatisfied if he realised how much better his was.³⁹

Walker announced that "as he is anxious to encourage the Exportation of Flour, he has reduced the Price of Grinding as low as possible." His price for grinding was ninepence per bushel, and he could supply fine flour for sixteen shillings per hundredweight. But a week

later Bruford at the Waterloo Mills matched him for grinding, and offered fine flour for the even lower price of fourteen shillings a hundredweight. The government was right in thinking that competition amongst millers would in future keep the flour price low. In 1827 the Engineer's Office offered to sell the materials of the old mill (except for a pair of millstones in case they were required in future) to the winning tenderer for erecting stables at the Government Mill, and the old mill was sold for £5. By January 1828 the land where the old mill had stood adjacent to the new one was vacant.⁴⁰

Although the new mill building was in very good order, there was still a problem. In 1826 it was stated that the "only thing wanting is a good stone dam the existing one being very frequently out of repair and impossible of being made efficient," and by the end of the year tenders were called to build one. Walker eventually offered to build a 100-foot [30m] dam with a stone base surmounted by timber filled with strong clay, in return for payment of £380. After the dam was constructed a Board of Survey expressed doubt about whether it was strong enough and John Lee Archer, the government's civil engineer, recommended that Walker be paid 25% less as the dam was only three quarters of the planned length. When Walker volunteered to keep the dam in perfect order for three years, Archer recommended he be paid the extra £95.⁴¹

By 1829 the mill itself was in need of some repair, as a large quantity of earth placed against the wall of the mill had caused water to continually run through the basement. An inspection further revealed that, although the machinery was in good repair with Walker having recently added a new crown wheel, there were several other problems. Occupiers of allotments on either side of the mill race had encroached on what was supposed to be an easement twelve-foot wide on each side, to allow it to be cleared and repaired when necessary. In addition, water to the mill was sometimes deficient as there was another trough from the race, taking water to Dudgeon and Bell's brewery, and although this was done with permission there needed to be some control over it. Moreover, several of the main timbers were affected with rot and the masonry of the race which supported the wooden trough near the mill had collapsed and required repair. Presumably repairs were effected, although towards the end of the year part of the wall under the trough gave way again.⁴²

Walker's lease expired at the end of 1829, but as his work on his new steam mill on the Old Wharf (see 2.7) had not progressed as quickly as he had hoped, he asked if the government would allow him to extend the lease for one year. "I will feel obliged by an answer as early as possible," he wrote, "as I must hire a mill from Capt Reid should this not be acceded to." Reid's mill was probably a portable mill. But in the event the tender was won by William Rayner (of the Sorell Mills—see 2.5) once Thomas Lucas had given a surety for £455, the first year's rent. Taking possession on New Year's Day 1830, Rayner was shocked to find that the mill machinery was not in working order. Averring that he had been "subjected to a very serious loss from the transfer of the business elsewhere," he asked for his bond to be returned and the "premises received back by the Gov." He must eventually have been satisfied as he continued on until February 1831 when, failing to win a Commissariat contract, he found he could not work the mill economically and the mill was taken from him.⁴³

Once again tenders were called, for three or five years, and once again Mannington applied. But Walker had other ideas. He wrote to the Colonial Secretary's Office:

I have carefully inspected the premises and find the whole in a state of great dilapidation and feel convinced that if a considerable sum of money is not immediately expended in repairs and improvement the property will decrease in value at least one half in a very short time. It is also my opinion that no responsible person will offer an adequate rent for the premises in their present state.... I therefore offer to purchase the premises for the sum of Three Thousand Pounds.

The fact that he offered to pay half the amount in cash shows how well he had been doing with his various enterprises. When the Superintendent of Carpenters, John Anderson Brown, valued the mill at £2281, George Frankland and John Lee Archer recommended the acceptance of Walker's offer, with the proviso that government access be retained to the stone quarry on which the mill race abutted.⁴⁴

Mannington was outraged, and wrote in strong terms that the government was not honouring its tender process for the lease of the mill. He went on:

If however it is the determination of His Majesty's Government to sell the mill I am prepared and willing to buy it and as Mr Walker is already possessed of the mill, Steam Engine Mill, and also the Old Mill, I submit that a monopoly ought not to be permitted to the exclusion of all other Millers, but that it should be thrown open to a public bidding, as is usual with all public property, and will produce a much larger sum to the public than any private sale.

But he was too late. Walker had already been informed of his success.⁴⁵

Mannington was not the only person upset by this decision over the next few years. There were occasional references in the paper to the "imprudence" of the government in disposing of the mill, with the implication that Walker's possession of several mills allowed him to dictate the price of bread. An article in the *Colonial Times* in January 1834 went further.

Look at the Great Government Mill—look at the Government contracting miller. You can only have flour ground at his price. He dams up all the water, in violation of the Darling Police Act, and every other Christianlike Act, until he thinks proper. He then lets loose his floodgates, and the water issues with such force, that no Mill but his own, the "Government Mill" can operate, and thereby he drowns all the other Millers; for neither will Luckman or Mannington's (the latter he has smothered altogether) bear such a force of water. Then people send to Sydney for flour, and that is instantly bought up by forestallers, regraters, monopolizers, and Government Contractors. [Luckman and Mannington had the other two lower mills at this time—see 2.2.2 and 2.4.]⁴⁶

If Walker was bemused by all the venom, he does not seem to have retaliated in print. Perhaps he could afford to be magnanimous, as there is no doubt that the purchase of this mill and the block of land between Collins, Barrack and Macquarie Streets on which it stood was the foundation of his great wealth. In 1836, for example, his total from cash sales was £2653. He operated as a corn merchant and from 1834 also employed a baker. By 1841 he had seven pairs of millstones, one of the highest number known to have been in use in any Tasmanian mill at any time (the Scone Mill at Perth had eight—see 10.2.3). Walker's control over the price of bread can be gauged from an advertisement he placed in 1840:

To Bakers. To Let, a Bakehouse with large Oven, in a good part of the Town. The tenant will be supplied with flour of such quality, and at such prices, as will enable him to compete with, if not undersell, any in the trade.

In 1848 he was charged with using defective weights in the selling of bread, and had the charge dismissed on the technicality that he was a retailer not a wholesaler.⁴⁷

In 1836 he moved the steam engine from the Old Wharf to what was still called the Government Mill, thus allowing him to grind even when water in the rivulet was low. The *Hobart Town Courier* was most impressed with the “lofty chimney” he constructed for it. “It is 110 feet high, and from its great height will be a considerable saving of fuel as well as a great safeguard from fire, the flame being exhausted long before it can reach the top.” According to a *Mercury* article of 1872 it was at this time that Walker added a brewery to the complex, although a descendant, Waldemar Wolfhagen, thought it was begun in 1845. In 1850 Walker bought the old Derwent Brewery across the rivulet in Collins Street which had been operated by Dudgeon & Bell. This brewery had used water from the Government Mill’s race, by permission initially. In 1852 it was replaced with a new building erected partly on the wall of the old brewery.⁴⁸

Walker of course employed a number of millers. Even Thomas Monds, who spent most of his time in the north of the state, took a job as foreman in Walker’s mill for six months just after he completed his apprenticeship about 1849, and his description is worth repeating as it indicates Walker’s style. Monds was about twenty-two at the time.

I did not care much for this situation. It was a very responsible one, and the men I had under me were nearly all probationers, that is, men who had been prisoners and were now allowed to work for private people at a low rate of wages—about £9 per annum and their board. Mr Walker had always had the benefit of this kind of labour in the early days of the colony, and no doubt it helped him to build up his fortune, for he was a rich man; but I did not like the associations, although the men were very obedient to me, and some of them were really first-class men. Moreover, the pay I received was no great inducement for me to remain in such a responsible position, so after six months had expired I left Walker’s mill and Hobart....⁴⁹

As early as 1842 the lists of government tenders for providing flour listed “J. & R. Walker” as the often-successful tenderers. From at least 1854 Walker took his son Robert (who was born in 1828) into partnership with him, and when John Walker went to Europe 1854-5 and again for some years in the 1860s, it was Robert who ran the mill and brewery. While he was away the first time Walker snr took a sample of his flour to the Paris Exhibition and was awarded a medal. He returned to Australia on the *Schomberg* which was wrecked off Cape Otway. During his second trip he supervised the building of a new iron water wheel, 22 feet in diameter, made by J Key & Co of Kirkcaldy which was in place at Barrack Street by 1872. On his return in 1870 (despite being shipwrecked *twice* more), he once again took over the management of the mill while his son Robert and his family paid a visit to England.⁵⁰

By the 1870s the name Walker had been associated with milling in Hobart for fifty years, but the end was in sight. Walker snr died on 27 February 1874, and Robert who had returned in time to continue with the business died just two years later at the age of 48. John Whitehead suggested the cause was “to (sic) much brandy”, and felt the estate would not be very good, “Old John Walker having dip’d his property so heavily before he died.” Robert’s widow continued to run the business, employing as manager John Toan who had been the Walker’s miller at the Cataract Mill in Launceston (see 9.1.6). By 1885 the Valuation Roll was valuing the mill at only £65 compared with £380 in 1881, so it would appear that operations were considerably scaled back and in fact may have ceased, with the building being used merely for stores. By 1885 William Gibson jnr of the City Mill (see 2.16) was leasing the mill, and he continued to do so until 1896. In 1897 the mill was occupied by Charles Gran and Henry Nickolls, but the following year it was empty. In 1935 there were still Walkers living in the

house at 20 Barrack Street which John Walker had built by 1852, and the mill itself was still standing though surrounded by many other buildings. But following a fire about 1948, the house and mill were demolished in 1954. Meanwhile, the brewery was sold to the newly-formed Cascade Brewery Co. Ltd in 1883 and it was later used for the brewing of cider until cider and cordial operations moved to the present site at Cascades in 1923. At least some of Walker's 1852 brewery building is still surviving in Collins Street.⁵¹

2.4 Liverpool Street mill

The fourth mill to be built in Hobart Town was that in Liverpool Street. The owner was James Tedder, who went into partnership with Edward Yates, ex-Superintendent of the Government Mill (see 2.3) and presumably the millwright. In September 1820 an announcement in the *Hobart Town Gazette* proclaimed that "their New Flour Mill in Liverpool-street will commence Grinding on Monday next, the 4th Sept." The price of grinding was one shilling and twopence per bushel, or eight pounds of wheat (about a fifth of the cost of the wheat). Arnold Fisk had been charging one shilling and eightpence two years previously (see 2.2.1). Three weeks later the newspaper commented on the mill, and announced a significant breakthrough:

We are happy to hear that the new flour mill lately erected in Liverpool-street grinds remarkably well. The mill-stones of this mill were procured from a quarry which was recently discovered a few miles from town. They prove to be exceedingly good, and, in every respect, equal to the French burrs; and are the first yet used in this Settlement the production of Van Diemen's Land.

Just how "equal to French burrs" the stones were would be revealed within the next few years.⁵²

The mill was built between the rivulet and Liverpool Street, about halfway between Harrington and Barrack Streets. The water for the race must have been taken off just below the Government Mill. In April the following year Yates sold his share of the mill to Tedder and went off to the north of the colony to build yet another mill, on the North Esk at Corra Linn (see 9.1.3). Tedder continued to run the mill, employing a horse and cart to carry wheat and flour to and from the mill, but not for long, as in September the *Gazette* had the following notice:

Deaths - This morning at his mill in Liverpool-street, Mr James Tedder, many years a respectable and industrious inhabitant of Hobart Town, in which he had erected several houses, and a corn mill.

His widow Catherine later married James Blay jnr who carried on the mill, announcing in 1824 a grinding rate of just one shilling. James Blay jnr was the miller by the time of the 1826 *Hobart Town Almanack*, but later that year the mill was leased by Thomas Mannington, who renamed it the Hounslow Mill and ground wheat for tenpence a bushel. Mannington had been operating the New Wellington Stores, nearly opposite the mill, and had already been quick to capitalise on the interest in mills, importing and selling French burr stones, steel mill bills, machine wire and the like. He announced that the mill had been put in good repair, but also intended to erect a windmill although it is not clear whether this was intended for the same site or not.⁵³

In 1827 Mannington, "intending to remove to Sydney," offered the lease for one to three years of the premises of the Hounslow Mill:

comprising the water mill, bakehouse, with a new erected oven 7 feet by 9 feet [2m x 2.7m] in the clear, a drying kiln above the dwelling house, and an outhouse fitted up for the purpose of manufacturing candles.... The mill runs one pair of colonial stones 3 feet 6 inches diameter and one pair of French burrs the same size, nearly all the tackle on the mill is new, a dressing machine is nearly completed and will be put to work before possession is given; the water troughs have undergone a thorough repair lately from the dam to the wheel. The geers (sic), French burrs and dressing machine may be taken at a valuation, likewise the copper and other utensils in the manufactory and bakehouse, or the whole will be let together.... Only a moderate rent will be required of a respectable tenant.

It appears that no respectable tenant surfaced, as Mannington continued in possession of the mill. It is interesting that by the time of this advertisement the colonial stones had proved to be not quite the equal of French burrs, as a pair of the latter had been added. Indeed by 1843 it contained two pairs, with no colonial stones. Mannington also continued to import and sell milling equipment, and in 1829 he showed his ingenuity when he announced the completion of his machinery for "effectually separating from the pure Wheat all kinds of soil, and it is allowed to be the most effectual method ever invented."⁵⁴

Mannington lost out to Walker in the battle to lease and later own the Government Mill. According to a piece in the newspapers he may have been put temporarily out of business by Walker, as a newspaper article said that Mannington had been "smothered altogether" by Walker's practices (see 2.3), but he seems to have continued milling in Liverpool Street through the 1830s. However, the depression of the 1840s took its toll as the trustees to his estate offered the mill for auction in 1843 and Mannington went off to become the miller at Port Arthur (see 8.10.1). Although it was still called the Mannington Mills in 1851 (see below) it would seem that Edward Dixon bought it in 1843; he was mentioned in connection with the mill in January 1845 and seems to have owned it by the time of the 1853 Valuation Roll (although called "J" Dixon).⁵⁵

Matthew Jackson leased the mill from November 1843 when he "re-opened those premises known as Mannington's Mill...." Perhaps the mill had not been working for a while. Jackson may have been the same person who was advertising a bakehouse to let from the Government Mill in 1825. He ran it until he became insolvent in 1847. By 1849 John Turner (later of the Old Mill) was leasing the mill and bakehouse, but the following year he offered to "a Person with a Small Capital" the remaining three years lease and goodwill of the "Liverpool Street Flour Mill and Baking Establishment, now doing one of the best ready money businesses in Hobart Town."⁵⁶

In 1851 it was Thomas Brown, miller and baker, who as lessee announced "that he has put in complete repair, the Mannington Mills, Liverpool-street where he produces the best ground flour...." The problem with Hobart Town water was highlighted by the additional information that, so that the bread he baked would be "free from all impurities from the creek water...he has a cart constantly employed, providing his Establishment with a supply from the fountains." Brown suffered "very heavy losses" from the 1854 floods which carried away the rear of his mill, but the following year he was back in business. By 1859 Brown was advertising from the "Steam Flour Mills", but a few months later the lease of the mill was to be auctioned, and Brown disappears from the records. According to the notice, there was a

14-horse-power engine, although the "Mill can also be worked with water-power; that advantage having been secured at a great outlay." It seems very likely that the original water wheel was destroyed in the floods, but just when steam was installed is unknown.⁵⁷

After his own mill, the Old Mill, was gutted by fire in July 1859 (see 2.1), John Turner advised that he had moved to "No.198 Liverpool Street, next door to Mr. Brown's Mill, where he will continue the same line of business, at the lowest possible prices...." It is difficult to determine whether it was the milling or the baking business he continued, although it seems likely to have been only the baking line. The following year he notified that he had taken the Liverpool Street Flour Mills "and newly erected Premises adjoining, which he intends opening ...as Wholesale and Retail Corn and Flour Store, in connexion (sic) with his Mill in Collins Street...." In 1872 architect Edward Rowntree called tenders for the renovation of the "Old Flour Mill" in Liverpool Street and Turner continued to operate it along with the rebuilt Old Mill until 1878 when the Valuation Roll lists it as empty and there is a sudden drop in rateable value from £70-100 to £20. Turner continued to occupy the bakehouse and adjoining premises, using the latter as offices. The mill wheel survived floods of 1881, but it is unknown when the mill was finally pulled down. In 1932 it was said that "even for those people who could recall it" the mill had been "mossy with age and neglect." According to Rayner, the site is now occupied by a building erected for a grain and produce merchant before the turn of the century.⁵⁸

2.5 Sorell/Wilmot Mills

The fifth mill to be built in Hobart Town was the Sorell Mill, built by William Rayner jnr, son of a baker and ex-convict who had briefly been superintendent of the Government Mill (see 2.3) and whose conviction and fine for selling underweight bread was reported on the very day the mill was first mentioned in the *Gazette*. "A very superior water-mill, which will drive 2 pair of large stones (the produce of this Colony)...will shortly begin to grind." One month later in November 1822, Rayner himself announced that the Sorell Mill had commenced grinding, but corrected the earlier notice by noting that the mill "will drive two pair of French burr stones". His price for grinding was one shilling (twelve pence), or seven pounds of wheat per bushel. The wooden 2-storey mill was built on the southern bank of the rivulet, about 200m above Gore Street and relatively low down.⁵⁹

Rayner ground some wheat for the government in 1824, perhaps when the Government Mill was unable to cope while it was being rebuilt. By the time de Sainson recorded the scene during the visit of Dumont D'Urville from December 1827 to January 1828, Rayner had built another larger watermill high on the bank above the first wooden mill. The position of the race for the first mill is unknown, but certainly for the second the race came from above Darcy Street, as it would need to in order to obtain the required fall. This second mill was almost certainly brick or stone, but the money required to build this must have created hardship for Rayner, as in 1829 he advertised for a novel form of help.

To Bakers, Distillers, Corn-chandlers and others. To be let for twelve months, from the 1st of February next, in ten shares, to be paid by monthly instalments, the whole of the capability, work and performance of two Water Mills, (situate at the upper end of Macquarie Street,) the property of W. Rayner, who will keep the whole machinery in repair and action at his own expense, for the benefit of the shareholders, and provide a cart to draw their stuff to and from the mill at the rate of one penny per bushel. The proprietor flatters himself that this arrangement will afford a desirable opportunity for bakers and others to get a sufficient quantity of grain ground at a cheap rate, in the dry season, besides the advantage they may have in grinding for the public.

It would be interesting to know if Rayner had any takers for this scheme. He was still operating the mills in 1832, but by 1835 Robert Murray was asking for "all communications relative to the Sorell Mills" to be directed to him. In 1836 the mills were put up for auction, to be sold separately "to meet the views of several individuals intending to purchase," but the "several individuals" evidently failed to materialise as shortly thereafter the mills, "dwelling house, bakehouse, store and premises" were offered for sale by private contract. By the end of the year the Sheriff's Office announced a forced sale in the case of Learmonth etc v. Rayner.⁶⁰

Just what happened next is problematical. The mills had a series of tenants. Anthony Mann of the Davey Street windmill (see 2.10) seems to have been the first; he suffered from somebody cutting through his mill dam one midnight thus depriving the mill of water, although he was able to repair it "at considerable labour and expence (sic)." He was still in occupation when the mill was put up for sale again in March 1838. "The premises are most substantially built," ran the glowing advertisement, "the machinery in excellent repair, the supply of water constant and abundant, and it is well known to be the most profitable mill in the island." Despite such praise, it failed to sell, being offered again for sale in October. William McRobie was leasing it in 1839, followed by David Barton the next year.⁶¹

In March 1842 William James Rayner, son of William jnr, in partnership with George Farnfield informed the public that they were working the "Sorell Steam and Water Mills." This therefore announces the beginning of major changes at the mill complex, as shown by a comparison of the 1827-8 lithograph with a sketch by Morton Allport in 1848. The lower wooden mill, probably the original mill, has been replaced by a two-storey building with a larger diameter high breastshot wheel and a second steam mill has been erected between the watermills. Judah Solomon owned the mills in 1843 and it is most likely that this successful businessman had bought them earlier and financed the rebuilding. Rayner and Farnfield were grinding and dressing wheat at sixpence a bushel, the low price being caused no doubt by the depressed economic times, but by August 1842 the partnership was dissolved and by December John Gittins Winter who had spent some years at the Glenorchy mills (see 3.2.1 & 3.2.2) had taken the mills. He called "particular attention...to his having a Steam Engine attached to the above mills...."⁶²

It appears that Solomon was pleased with the addition of steam to the lower building, because he employed the highly regarded firm of Davidon & Clark to add a steam engine to the upper mill and then re-opened it in February 1844 under the new name of "Wilmot Mills." A. Mannington was employed as manager. For the next decade or more the mills were operated separately, with the lower water and steam mills referred to as the Sorell and the upper the Wilmot Mills.⁶³

In July 1844 George Farnfield had returned to the Sorell Mill and was requesting all those indebted to him to pay without delay, but by February 1845 he was insolvent. Others leasing the Sorell Mill in the years following were Richard Pescodd and William McRobie, while Mr Cowgill was in the Wilmot Mills. In 1854 the whole was to be disposed of by auction, in one or two lots:

Lot I. The Sorell Mills and Premises, situate in Macquarie-street, now in the occupation of Mr. McRobie, with extensive stores, buildings, bins, &c., dressing and smutting machines.

Lot II. The lease of the Wilmot Steam and Water Mills, with right to purchase at any time during the next five years; has a very extensive frontage on Macquarie-street.

From now on the mills seem to have operated together. In 1855 McRobie was the lessee, while William Searle had them for three years to 1858, when thanking merchants, bakers and others "for the liberal support with which he has been favoured for the last 6 years," he removed to the Commercial Steam Mills on the Old Wharf (see 2.15). William Fulton leased the Wilmot Mills in 1859 but the following year the mills, listed separately, are both empty and by the end of the year the mill is given as "out of order." In 1862 the Wilmot Mill was offered for lease for the last time.⁶⁴

By January 1863 the mills were owned by William Searle and were described as "empty and dilapidated" in the Valuation Roll for 1865. In 1870 all the building material of the mill, the machinery, plus the allotment of land abutting on the creek was offered for auction. In 1881 the property, still containing an old mill with other outbuildings, was auctioned. It is possible that the mill was demolished soon afterwards. According to Rayner, a photograph taken either before or about the time of the First World War shows only a couple of ruined stone walls, and there were still ruins there in 1936. The cottages which remain behind all Saints Church, often called mill cottages, were not built before the 1860s and may have been built out of mill materials; if this date is correct they could not have been built to house mill employees. Rayner describes a wooden fence on the raised section of the millrace alongside a short section of roadway off Wynyard Street, marking the only remains of this mill complex.⁶⁵

2.6 Campbell Street Treadmill

The practice of building treadmills in prisons which combined useful work with the need for punishment of prisoners had become popular in Britain around 1818. So it is not surprising that, although the general needs of the population were taken care of with the building of several mills in the town, the government should still decide to build a treadmill at the Campbell Street prisoner barracks. The first moves were made in 1825, but it was not until July 1827 that the *Colonial Times* was able to announce:

The Tread Mill—on Wednesday [4th], this regulator for the unruly...was put in motion for the first time in the presence of the Acting and Assistant Engineer, Principal Superintendent, and some other Public Officers.... The machinery, which has been got up under the superintendence of that able Civil Engineer, Mr J Reeves, of Murray-street, promises, when properly adjusted, to turn out well, and with the new Government Mill, proves that machinery can be got up in Tasmania in good style.

The ubiquitous John Walker also had a role in planning and erecting the mill, while the actual building was done by convicts employed in the Engineers Department.⁶⁶

The mill was used to grind the Commissariat corn at the rate of 3½ bushels of wheat an hour, but its chief function was to punish recalcitrant prisoners. Sentences could range from 48 hours for insolence to a master, to 60 days for desertion from a whaling station. The *Hobart Town Courier* was not in favour of the device, partly because labour was in great demand and it felt chain gangs were of greater benefit for the colony, and partly because it was in favour of solitary punishment “and a treadmill, or any other means of punishment which will give opportunity for the communication of the thoughts, or even significant looks of the prisoners, falls short of our ideas of what it ought to be.”⁶⁷

In 1831 the *Colonial Times* pointed out another problem:

We have had some complaints respecting the system of punishment by the tread-mill. The sentences awarded by the Magistrates, are invariably for so many days labour; but as it frequently happens that a very large body of men are undergoing the punishment at the same time, and as only a certain portion can find room on the wheel, it naturally follows that some must remain idle. On the contrary, if the number undergoing their punishment be small, a much greater portion of hard labour is awarded to the unfortunate creatures, sometimes requiring every man under such sentence, to be on the wheel for very lengthened periods.

It is possible that similar complaints were the reason for building a new treadmill in 1834. Tenders were called for three pairs of colonial millstones, four feet in diameter, and the required drive mechanism—a conventional spur wheel on an upright shaft. According to Norman, the old wheel was transported to Launceston and erected in the old Police Court building, and a larger one with a cylinder 50 feet [15m] long was built at Hobart Town. The making of the central shaft for this was described as the first engineering task of importance in the colony.⁶⁸

The new treadmill continued to function, although it suffered from breakdowns from time to time. It had a narrow escape on Christmas Day 1838 when a fire in its roof, caused by a spark from the chimney, was discovered in time to prevent the whole building from burning down. In 1843 the engineer Alexander Clark wrote that it drove only one pair of stones, not at the proper speed, and it had various breakdowns, but it was still operating in 1847 when its miller was paid £54 15 shillings and its overseer £100.⁶⁹

In 1847 the newly-appointed Superintendent Boyd gave an unfavourable report on the treadmill:

The tread-wheel room, in which more than 150 prisoners have been frequently confined during the day, is 68 feet in length by 15 feet wide, a space totally inadequate for so large a number of men, or indeed for the average strength, which, for the last three months, has been about 70.... No separation, whatever, either on or off the wheel exists; the prisoners associating and communicating together under little or no restraint....

Boyd suggested that the treadwheel be partitioned off into small separate compartments, and that the room too be subdivided with separate stalls containing folding tables and chairs and a book so that the prisoners would not mingle with each other. Plans Boyd enclosed with his report show the diameter of the wheel to have been 8 feet 2 inches [approximately 2.4m] and the width of the steps seven inches [17½ cm].⁷⁰

The wheels of approval must have ground slowly, as when the new Superintendent replaced Boyd in November 1853 and sent his first report, he described the new arrangement as if it

had only just been brought to fruition. The wheel had been partitioned off into 30 separate compartments to prevent the prisoners communicating with or even seeing each other. As well:

Ranged along the wall side of this apartment, and immediately opposite the wheel, are 26 separate resting stalls...containing a seat, a hook for the cap, and a moral or religious book. To these the men enter as they respectively descend from labour, and when the relief bell gives notice the warned prisoners appear at their stall doors in readiness to ascend the wheel, and vacate the boxes for those being relieved.... The period of time the prisoners stay on the wheel is defined by machinery. When the wheel has made three evolutions it is signified by the striking of the dial bell, at which event each man ascends to or descends from the wheel; and in connexion with this is the dial notifying the progression of a prisoner's labour and the number of feet in ascension which he makes daily.

It has not been determined when the treadmill stopped working.⁷¹

2.7 Walker's steam mill on the Old Wharf

It is probably not surprising that the first person in Van Diemen's Land to use steam power in mills was John Walker. In 1826 he and John Dean, lessee of the Old Mill, applied to the government for permission to erect a steam engine on the wharf (later called the Old Wharf or Hunter Street) to grind wheat for biscuit making. Water for the steam was to be drawn from the rivulet, although the government stipulated from no higher than Campbell Street. In 1827, just after Walker had renewed his lease of the Government Mill for three years, the order for a 15 horse-power engine was sent to England; it is probably not coincidental that previously to this Walker let a farm of 500 acres and asked for debts outstanding from 1826 to be paid: he was no doubt looking for funds for his new venture. The mill was to be built of stone and able to hold 12 000 bushels of wheat. It was located right next to the water opposite the Australian Company's store (later itself to be a flour mill—see 2.18— and now the Drunken Admiral restaurant).⁷²

The mill took a considerable time to develop. It was not until March 1828 that Dean and Walker for the Steam Engine Company called for materials including 1500 loads of stone to be delivered at the wharf “opposite the Australian Company's store”, and asked for eight good stonemasons and six good carpenters. Another twelve months passed before Walker announced that the building was “in rapid progress” and would be ready to receive wheat in six weeks. However, it was a further five months before Walker was able to announce in July that his store was completed and that flour, pollard and bran could be obtained; “also wheat meal, for the purpose of exchanging with the settlers, so that they may not have to wait until their wheat is ground.” (It is noteworthy that from 1829 only Walker is mentioned in connection with the mill; presumably Dean and any other partners had withdrawn by this time.)⁷³

The *Colonial Times* looked forward to the day when wheat could be ground regularly even when the rivulet was low, so that the price of a two-pound loaf could be fourpence halfpenny, rather than the current sixpence. The completion of the store, however, did not mean the completion of the mill, and there were even more delays before it could begin to grind wheat. It was half-way through 1830 before the steam engine arrived on the *Norval*, and then it had sustained such damage on the voyage through the leaking of the vessel that

almost every part of the iron work was rusted and corroded and there were fears it would not work. Finally, however, Walker was able to organise repairs, after arbitration which presumably awarded him compensation, and the engine was installed. Even then, though, there was still work to be done bringing water to the mill via a row of three underground iron pipes from the top of the Market place (Collins Street), then along the bottom of the harbour to the mill. Finally in October the *Tasmanian and Austral-Asiatic Review* was able to “congratulate the Colony that Mr Walker’s Steam Engine upon the Wharf, was put in motion yesterday, and is found to perform in the most admirable manner.” By the end of the year the mill was in work with two pairs of stones and was capable of grinding 1500 bushels a week, even with an allowance for stoppages. The *Ross Almanack* felt that “Mr Walker is entitled to great praise, for being the first successfully to introduce and put in profitable operation this specimen of the grandest discovery of modern times.” The whole undertaking had cost Walker £5000.⁷⁴

Walker was very proud of his steam engine. In Melville’s 1832 *Almanack* his entry was given as: “John Walker, miller, steam engine, Wharf.” However, the steam mill was not to last very long, and the *Almanack* may give us a clue why: “The quantity of fire-wood required for producing the steam to set the machinery in motion is about 3 tons a day....” The trouble with a steam mill was that it cost more money to operate because of the expense of fuel. The outlay was worth it when the water level of the rivulet precluded the other millers from operating, but in general the steam mill was probably too expensive. Walker had hoped that the location of the mill would compensate for the cost, as the *Almanack* makes clear: “the great saving and convenience arising from bringing the boats immediately under the mill, and loading or discharging them without delay, nearly counterbalances the expense,” but evidently “nearly” was not good enough. Moreover, regular coal supplies from Tasmanian and New South Wales mines were not available until the mid-1840s. Contributing factors to the mill’s short survival may have been the difficulty Walker faced in getting a house built on an adjoining allotment, as well as his decision to purchase the Government Mill in 1831 and later the Old Mill (see 2.1 and 2.3). The exceedingly dry summer of 1834-35 during which all millers were asked to remove their dams so that the inhabitants could get enough water would have demonstrated the advisability of having another source of power at the Government Mill. Whatever the reason, within a few years Walker gave up milling on the wharf. He may have waited until he was granted the allotment, which was in May 1834. Alexander Bruford was his miller on the Old Wharf in 1835, but one of the first duties in 1836 of Walker’s new engineer and millwright Alexander Clark was to move the steam engine from the Old Wharf to the Barrack Street mill (see 2.3). The engine was still on the premises in 1894, and it was presumably this engine that was still there in the 1940s when a fire broke out just before the engine was due to be removed to the Folk Museum, “Narryna”, at Battery Point.⁷⁵

In 1843 a soap manufactory was established in the old steam mill, Richard Cleburne taking over from one Kirk as the owner in 1846, but when in 1849 Cleburne moved to a different location Walker advertised the building for lease. By the time of the 1858 Valuation Roll it was dilapidated. The building was finally demolished about 1891 during work on the Victoria Dock, which now covers the area once occupied by the steam mill.⁷⁶

2.8 Campbell Street windmill

After the erection of seven watermills and one steam mill in Hobart Town, it is interesting to find that around 1835-36 moves were made to build no less than three windmills in different areas of the town. This was almost certainly due to the exceedingly dry summer of 1834-5 which left the millers unable to use their water mills. The first windmill was built by William McRobie between Campbell Street and Park Street (now Brooker Avenue) near Burnett Street. (For the other windmills, see 2.10 and 2.14.) In 1830 McRobie, with the support of John Walker and James Scott, had applied for a piece of land in Campbell Street next to the burial ground to build a two-storey stone house and this may have been where he built his mill, although initially it was said to be on Dr Scott's allotment. Scott had a residence in Campbell Street, and perhaps McRobie bought a piece of the land for the mill. In June 1835 the *Hobart Town Courier* mentioned it was to be built, and by March 1836 the post mill was erected. The *Courier* was delighted with this new development:

The beautiful landscapes which Hobart town affords from the different hills around, are much enlivened by the windmills and other buildings lately erected. Besides the several water mills we have now three windmills.... That of Mr. McRobie, in Campbell street, is on the construction usual in England, by which the entire mill and vanes move by means of a tail piece or lever.⁷⁷

The photograph of it taken in 1857 shows an impressive structure, but it appears not to have been very successful, and considering its position low down in the valley this is perhaps not surprising. In December 1836 McRobie advertised it in the *Colonial Times*:

To be Sold or Let. The Campbell-street Windmill, in excellent working order, drives two pair stones, dressing machine, and sack tackle. Also a neat brick cottage adjoining the mill, containing four rooms, kitchen, two pantries and large store room with stable and large garden, in a high state of cultivation. The above will be let or sold, together or separately; if sold, the greater part of the purchase money may remain secured on the premises, and immediate possession can be given. Also, to be sold, the shop, bakehouse and oven adjoining the above, at present let to a good tenant at £62 a year.

Two months later the whole was put up for sale, but at the end of 1838 it was still called McRobie's. In April 1839 the partnership between McRobie and John Thomson "carrying on business as Millers and Dealers in Grain" was dissolved, with the former carrying on alone. Finally, in the mid-1840s the mill, although "lately at work" had stopped working due to "its bad situation and the uncertainty of wind." By this time McRobie had owned the Dynnyrne Mill for some years (see 2.11) and with the recent installation of a steam engine there he had adequately protected himself from low water levels in the Hobart Town Rivulet.⁷⁸

In February 1846 the whole of McRobie's allotments in Campbell Street were put up for sale, including the cottage and windmill along with a large piece of land rented for £35 a year. There are no further newspaper references to the mill working after this, but in 1853 the house, shop and windmill were owned and occupied by John Turner of Old Mill fame (see 2.1). Valuation Rolls indicate that milling ceased in 1856 when its rateable value dropped sharply from £85 to £25 and by 1860 the mill was described as "dilapidated." Turner was still the occupant in 1858 but another well-known miller, William Searle (see 2.5 and 2.15) was the owner, and he was still there in 1871. By 1858 William Green of the Commercial Mills (see 2.15) was in Windmill Cottage, while George Arnold was offering Windmill Cottage for lease in 1865. In 1871 the land next to the mill was occupied by the George Arnold biscuit manufactory. The house Glenora was later built on the site. Nothing remains of the mill.⁷⁹

2.9 Degraves' Cascade Mills

At the same time as three windmills were being planned for Hobart Town, Peter Degraves of the Cascade Sawmill was deciding to build a flour mill on his premises. As the person who had second call on the water of the Hobart Town Rivulet (after Barrett—see 2.13), he was in a very good position to profit from a mill which could work when mills lower down were not able to because of the lack of water. Of course, Degraves was a man of considerable talents and diversification into flour milling would have been a fairly logical step at any time.

Born in 1778, Peter Degraves trained as a civil engineer and owned three large textile mills in Britain before losing considerably at the time of the Napoleonic War and deciding to emigrate to Van Diemen's Land. In his own ship, the *Hope*, he put to sea on November 1821, but a violent storm caused such damage that the ship was forced to seek shelter at Ramsgate. When allegations of overloading were levelled, the ship was seized and Degraves forced to defend the charges. Eventually he was allowed to leave, with some compensation for his detention. Meanwhile, another ship was found for the passengers, who included the miller John Walker and Lieutenant Steele (whose brother was to attempt to found a mill at Falmouth—see 8.2). It was September 1823 before Degraves was able to set forth with another ship for his party of 23 people, including Hugh McIntosh, his partner and brother-in-law, along with the machinery for a sawmill. Arriving in Hobart Town in April 1824, they applied for a land grant at the Cascade for a sawmill and a town allotment for a steam-powered flour mill and timber yard. On being allocated 2000 acres at the Cascade, they began immediately to build a sawmill which was operating by July 1825.⁸⁰

Arthur approved the wharf allotment for the flour mill, but shortly afterwards Degraves was arrested for debt in relation to the problems with the *Hope* and he was not released until July 1831. The following year he built a brewery near his sawmill and hoped to proceed with the wharf mill, but as by this time Walker had built his steam mill there (see 2.7) and Arthur refused another allotment, Degraves decided to build a mill at the Cascades. Although this was another water-powered mill, it was quite different from those already built and was to arouse much wonder in the colony: Degraves used his engineering skill to build a turbine.⁸¹

Since 1831, when the government in an attempt to improve the town water supply built an aqueduct to take water from the rivulet above the dam which supplied his sawmill race, Degraves had been facing considerable trouble in getting enough water to power the water wheel for his sawmill. (McIntosh had died in 1834, leaving his half of the business to his partner.) At the beginning of 1835 when all millers were asked to remove their dams from the rivulet, Degraves was the only one not to comply and after ignoring warning letters from the Town Surveyor, Alexander Murray, he found his dam broken up by a party of men under the charge of Constable Wright acting on Murray's instructions. The case was a celebrated one, leading to several court cases as a result of which Degraves was eventually awarded £600 damages, partly to cover the loss of earning power as his mill was out of action for four months. The other damage he suffered was to the water wheel and his description of the problem is of interest in showing what injury could occur. Wright's men had torn up the flood gate of his dam:

...so that the first rains flowing into the Dam, and from thence uncontrolled by any flood gate on to the water wheel, caused it to spin round with such velocity, so as to strip all the cogs off the wheels, broke the iron pit wheel, and the water wheel shaft; and the water wheel being left in the sun for so many months, became entirely loose in all its fastenings, and the joints shrunk so much that a man's hand could be thrust through them, in short the wheel speaks for itself, and a new one has been erected at a distance of about 20 paces.⁸²

The problems Degraives had had and would continue to have for some years with the water supply for his sawmill, even when the dam and flood gates were in place, were probably the reason for his novel plans for his flour mill. He announced his plan for using a 60-horse power turbine in January 1835 soon after the incident with Wright, and he made the point that the inhabitants would benefit from the new mill, "seeing that Van Diemen's Land wheat has been bought up at low prices from the settlers by the agents of Sydney monopolists for years past, and returned to us as flour at their own prices." Gilbert Robertson supported this view, deposing that as a farmer he was frequently unable to find a mill to grind his wheat. Degraives' plan was to use the water *before* it was taken for the town supply, and by using a turbine he would require a lower volume of water. He constructed a dam much higher up the rivulet, and brought the water round to a reservoir so that he could utilise a fall of 274 feet [82m] onto his turbine; the water then entered the town reservoir. It was mid-1836 before the mill with its "cold water engine" was announced as almost ready for work. It was described as "of great power, being capable of grinding more flour than all the other mills in Hobart town, together except Mr Walker's."⁸³

The turbine was highly regarded and was often specifically mentioned for its ingenuity. The editor of the *Hobart Town Courier* was one who praised it.

Mr Degraives has constructed an hydraulic engine—which reflects the highest credit upon his skill and industry—having, as he had, to contend with the greatest difficulties in the construction of the machinery in a new colony. It is indeed highly creditable to his enterprise, particularly when we reflect how few have ever succeeded in England.

There is no doubt that it was quite an amazing feat for the early years of the colony. The first turbine had been constructed only a few years previously in Europe and Degraives' skill was quite remarkable. Alexander Murray complained in December 1835 that "by some operation connected with your Hydraulic Machine, the water of the Hobart Town Rivulet has become so mudded (sic) as to be unfit for use..." but in the court case of 1838 it was stated that the purity of the water was not in any way affected by the "Hydraulic engine."⁸⁴

The mill continued to operate for many years, with Degraives claiming to be making £15 a day from its operation in 1841, but just how long the turbine worked is unknown. In 1840 Degraives' son, Henry, was the lessee of the Hydraulic Flour Mill when heavy rains caused a flood to come down the old water supply tunnel and into the current tunnel which passed under the turbine, and as well as causing injury to flour stored in the mill almost carried away the mill. Henry was usually the person who advertised for millers or apprentices for the mill, until 1852 when it was the firm of H. & C. Degraives & Co. which advertised for an experienced miller. At some stage in the 1840s Degraives added a steam mill to the complex, although just when this occurred is difficult to determine. It was certainly there by 1849, and was probably established soon after June 1844 when the *Colonial Times* reported that "at the present time, Mr. Degraives's corn mills grind half a ton of flour per hour, and...in a short time the machinery and power will be increased so as to be able to perform double that

amount.” The same article mentioned that he would be able to introduce “any degree of heat or cold” into his brewing and milling, so this would seem to indicate steam. As in Degraives’ will of 1852 the steam mill was described as adjoining the house, this may have been in the original flour mill building (although see below).⁸⁵

Visiting engineer Edward Snell was shown a “Swiss Tourbine” in 1858, but said it had a fall of 373 feet [101m] so it may have been used in a different building, and it may indeed have been Swiss and therefore not Degraives’ original. Degraives remained a controversial figure all through the 1840s, as the rights of the Hobart Town inhabitants to a pure water supply came into conflict with Degraives’ requirements. By the end of the decade the dispute seems to have been resolved. At some time the upper flour mill was joined by a wooden water flour mill close to the rivulet powered (in connection with a sawmill) by a 42-foot overshot water wheel, with water coming from the reservoir up on the hill which had once powered the turbine. The mill is shown on a plan of the complex drawn by the Town Surveyor Joseph Ring in 1844. In 1872 this mill was driving four pairs of stones, as well as a malt crusher for the brewery. The water was also used to power a hydraulic lift in the brewery.⁸⁶

Following Peter’s death in 1853 and Henry’s the following year, the Hobart business—which included shipbuilding as well as the brewery and sawmill—was run by the brothers Charles and John, although from 1858 to 1872 the brewery, and possibly the other enterprises on the site, was leased by their brother-in-law James Wilson, later Sir James and Premier 1869-72. Wilson had earlier studied engineering under Easby & Robertson. A fourth Degraives son, William, had gone to Victoria in 1849 and with Charles as a partner built a steam flour mill fronting on Flinders Lane and Degraives Street said to have cost £10 000. They later owned three more flour mills at Sandhurst, Malmsbury and Kyneton. At one time William was said to be the Rothschild of Australia, but he lost much of his wealth and returned to Hobart about 1875, soon after the death of Charles. When John died in 1880 reports suggested he was worth £400 000. The final Degraives brother William died in 1883 with no Degraives to succeed him.⁸⁷

A syndicate under the leadership of J.W. Syme took over the brewery and all other Hobart breweries and formed the Cascade Brewery Co. as the second biggest joint-stock company in the island (after the Main Line Co.), utilising Walker’s old brewery for the bottling establishment. In 1884 when the *Mercury* described the business in detail, the wooden Cascade flour mill building with its large four-foot wide water wheel was still being used by the new company for grinding malt, but the *Mercury* article does not say whether flour was still ground there. It is more than likely that the new company concentrated solely on making beer: about 1885 the wheel was said to be being used for brewing. Three reservoirs, including one 300 feet [90m] above the yard which was almost completed, supplied water to the complex. The old flour mill further up the hill is also mentioned, but was obviously not functioning as a mill.⁸⁸

Just when the lower wooden flour mill was demolished is not clear. In 1932 the mill had gone although the wheel was still there. But the remains of the steam mill still exist as part of the present cordial factory, with brick additions to each end and also an added stone section but without a third floor. It is possible that this mill was built utilising the original hydraulic mill building as it is in the same approximate location with respect to the house, but it would be difficult to be sure. If it could be shown that this was the original 1836 hydraulic mill the building would be of outstanding significance. However, as we can date this building to at

least as early as the 1840s it is in any case highly significant, being predated by only one other (the Davey Street steam mill) and being associated with a man of considerable importance in the history of Hobart.⁸⁹

2.10 Davey Street Mills

At the time that McRobie's Campbell Street mill was built in June 1835, the *Hobart Town Courier* was "glad to learn, that a second mill of the same description is also to be speedily put up in the upper part of Davey street, contiguous to [Fitzroy] Crescent...." This mill was built by baker Anthony Mann and was constructed initially as a horizontal windmill, a type being experimented with in Britain around the turn of the century. The *Courier* described it thus: "...the wind [is] admitted by vertical orifices into a cylindrical chamber in which the sails attached to the ends of horizontal levers are placed." Unfortunately, less than two months later the same newspaper was "sorry to observe that Mr. Mann's horizontal wind-mill has not answered the purpose of its spirited proprietor and is about to be converted into a store." However, the "spirited proprietor" then built a conventional windmill on the same site. From the later illustration of this mill it appears that on the solid masonry base he constructed a fixed six-sided wooden upper structure in line with smock mill construction principles. As the circular base was considerably larger in diameter than the wooden tower, the length of the sails that could be fitted would have been restricted which probably ensured that the smock mill was also incapable of working effectively, and plans to operate three pairs of millstones must be regarded as very optimistic.⁹⁰

Just when it began operations is unclear, although it was certainly functioning by July 1837, and probably by November 1836 when Mann was supplying flour to the government. However, by 1840 he was insolvent and the mill, as well as other properties owned by Mann including a baker's shop in Lower Goulburn Street, was offered for auction. The windmill was described as:

The valuable stone windmill together with the two-story Brick Residence, Bakehouse (with large Oven), stone Stable, Wash-house, and Premises, and Allotment of Ground extending from Davey to Macquarie street, now in the occupation of Mr. Mann. The Windmill is built in the most substantial manner, the walls from the foundation being three feet thick of solid masonry—it drives three pair of French Burrs, and is fitted up with dressing machines and every requisite equal to new, and on the most improved principles.

The following year Mann announced he was selling flour from his warehouse in Bathurst Street, and about 1843 he moved to a New Norfolk flour mill (see 4.1.2). Meanwhile, two months after the auction John Fisher offered the mill for lease or sale. The windmill features in the background of several paintings, including one by de Wesselow in 1845, and in an 1858 Frith photograph, but in none of these are the sails of the windmill to be seen. This indicates that it was powered by wind for only a very few years.⁹¹

However, from quite an early time there was a chimney next door which indicates it became a steam mill. In 1843 J.S. Turnbull offered the "steam mill and extensive premises" for lease, and it is more than likely that he had bought the windmill in 1840 after Mann's insolvency and added the steam engine. In 1846 the mill was managed by William Butterworth who wrote: "I am managing for a gentleman who has a large steam mill, a Scotchman and a very good man. I have £100 per annum which is very good wages in these times." A Mr Fulton

who later ran the Commodore Hotel was also said to have been head miller at one time. In 1853 Turnbull owned and occupied the mill at 84 Macquarie Street but that year it was offered for sale. It was described as being of five “stores” (storeys) of stone and timber with a lead roof, and with a “symmetrical lofty brick chimney of splendid workmanship.” It is evident that the auctioneer did not expect it to be used as a flour mill as he was at pains to point out the “many uses to which such premises could be profitably appropriated.” Despite the fact that the mill had cost nearly £2000 when it was built “in cheap times”, it was sold at auction for only £700. In 1855 the Valuation Roll described it as an “old mill,” and although George Luckman offered it for lease in 1860 it never functioned again as a mill.⁹²

The windmill was still standing, although looking derelict when it was painted about 1897 by Julia Swan. It was demolished soon afterwards. The two-storey steam mill and chimney, however, is still standing at 205 Davey Street attached to the residence. As it can be certainly dated to 1843 it is probably the oldest mill building surviving in Hobart; the only older remains would be the remnants of Degraives’ mill if they could be shown to be part of his hydraulic mill (see 2.9).⁹³

2.11 Dynnyrne Mill

It is difficult to ascertain the early history of both the Dynnyrne Mill and its partner the Kent Mill (see 2.12). Certainly the Dynnyrne Mill was at work before January 1837, so it appears likely that it was yet another mill built as a result of the dry conditions experienced in preceding years. Both mills were built on land granted to Robert Lathrop Murray by the Caveat Board in 1836, but the land was already being subdivided in August 1835, presumably for sale. In 1839 it was William Procter who owned them and offered them for sale, so probably he was the person who had them erected.⁹⁴

The Dynnyrne Mill was built between Factory Road (now called Apsley Street) and the Hobart Town Rivulet, and was immediately upstream of the earlier Sorell Distillery, later called Dynnyrne. The first notification of its working was when Thomas Garrett of the Cascade Flour Mills announced in 13 January 1837 that he was giving up business in favour of Thomas Vigar (presumably father of Frederick Vigar of the second Waterloo Mill—see 2.2.2). Garrett had been a miller in Macquarie Street in 1833 and 1835, presumably at the Old Mill, so it can be assumed that he had been at work at this new mill only in 1836. In 1839 property of William Procter, including his quarries, was put up for sale and the notice included the following:

The Flour Mills, which will be sold separate, are recent erections, and were put up under the superintendence of able practical men, and from the advantageous locality of these Mills, commanding “the first of the water” they are enabled to work in dry seasons, when the other mills are at a stand.

The reference to the first of the water is noteworthy, showing how important this was judged to be. Earlier the same year the “right of water over two mills, paying a rent of £300 per annum” was put up for auction; this could indeed have been referring to the Dynnyrne and Kent Mills, but certainly shows the value of water rights. Vigar bought both mills, but in 1841 he was insolvent and they were again put up for auction. Lot 1 was the Kent Mill (see 2.12). The rest of the notice followed:

Lot 2. The Upper Mill, with a valuable piece of bottom land, extending along the mill race to the dam, bounded on the other side by the rivulet.

Lot 3. That capacious Family Residence, coach-house, stables, and numerous out-offices, with spacious garden and premises, all enclosed by a substantial stone wall...extending from Macquarie-street, on which it has a considerable frontage, to the creek below.

Lot 3 was what was known as the Dynnyrne Estate and included the house erected by Murray.⁹⁵

It is at this time that the two mills start to have a separate history. Lot 2 was bought by William McRobie of the Campbell Street windmill for £1375, subject to the purchaser of the lower mill having the use of the mill race passing through his land. It was under McRobie's ownership that the mill started to be called Dynnyrne, no doubt to differentiate it from Degraives' Cascade Mill. (The Cascade was a general name given to quite a long section of the rivulet.) Even having the first of the water did not guarantee that the mill could always grind: in 1874 there was said to be enough water to power the water wheel for only nine months each year. By April 1845 McRobie had added a steam engine, and it was shortly afterwards that he put his Campbell Street windmill up for sale (see 2.8), obviously no longer requiring this insurance against dry seasons. In 1854 he was also leasing the Sorell Mill (see 2.5). In 1856 the house, mills, garden and paddock were valued at £250, and the following year McRobie offered it all for sale. The auctioneer described the spacious house, and then followed with:

The Steam and Water Flour and Saw Mill, with the adjacent land. The Mill contains three pairs of French burr stones, which can be driven either by water or steam, or by both; the steam-engine is of ten-horse power, works very easy, and capable of driving both flour and saw mill.

It is not known when the sawmill had been added. From the Valuation Rolls it appears that McRobie continued to own the mill until 1860 when he sold it to James Peet.⁹⁶

However, the mill and Peet's new residence (which had been partly built when the auction was announced) were burnt to the ground in October 1861, with no evidence to show why. Peet was fully insured and it is possible that he eventually rebuilt as in 1865 one Joseph Bedford was injured while "erecting a new mill wheel at McRobie's Mill." Presumably the newspaper gave the wrong name as McRobie does not seem to have been involved there again. In 1870 R.R. Burt & Bros advertised firewood for sale from the "newly erected Dynnyrne Saw Mills", and two years later James Peet of the Houghton Mills (see 3.2.1) advertised for sale the property "where Mr McRobie's mills formerly stood." The saw mill was "driven by a large water wheel, quite new." This wheel was utilised by the Hobart Town Woollen Factory which rented the five acres, stone cottage, wheel and existing shutes for £50 and built a 2-storey stone factory. The water wheel was still there in 1878 when George Wilson advertised the auction of the site, and again in the 1880s when the wheel was described as not in use. McRobie's name lives on in the area with McRobie's Road and McRobie's Gully. A small stone cottage still exists on site at 40 Macfarlane Street but it would be very difficult to say whether it belonged to the original mill or was a later addition in the site's history. Several large sandstone blocks and the remains of a steam engine lie nearby.⁹⁷

2.12 Kent Mill

The early history of this mill has been referred to in the previous section. It was built right on the rivulet between Macquarie Road (now Macfarlane Street) and c.100m to the west of Excell Street. Just when it was erected, presumably by William Procter, is also unclear, but it was certainly built after what came to be known as the Dynnyrne Mill, as when it was auctioned in 1841 as Lot 1 it was called the "New Mill." It was to be sold "with all its appurtenances as it now stands, together with the detached premises...." The mill had been run by George Shelverton, and several of the insolvency notices for Thomas Vigar also refer to Shelverton's insolvency as if they were partners, at least in this mill. But after the mill was bought by Cornelius Driscoll for £2000 Shelverton continued on until he too became insolvent in December 1845.⁹⁸

Driscoll offered the mill for sale or lease the same year, and described it as following:

The Flour Mill commonly known as Shelverton's, in Macquarie-street, has a new and beautiful ten-horse power steam engine, with water power combined, rendering it one of the most powerful and efficient Mills in the Colony. It is in perfect working order. The diameter of the water wheel is 28 feet, with penstock for laying on the water. It has two pair of French burr stones, four feet six inches, with iron boxes and brasses, and two flour machines all complete.

In 1848 when it was again offered for auction John Gittins Winter (ex-Kensington and Sorell Mills) was renting the mill for £170 per annum, and the recently erected steam engine was said to have been built by Easby & Robertson. Winter continued in possession and began to call the establishment the Kent Mills. The following year he offered to clean exporters' wheat with his "first-rate Cleaning and Smut" machine, cart it to and from wharf or store, and sewn in bags for the "low charge" of threepence per bushel.⁹⁹

By the beginning of 1851 Winter had added bone mills to the complex, and he added another in 1853. In December 1855 he announced that his price for grinding and dressing wheat would be one shilling per bushel, but the following year he was insolvent and the lease was taken over by John George Winter, presumably his son, until at least 1862. The mills were put up for sale in 1860 under the will of the late Cornelius Driscoll because of a default in payment by a purchaser, and then again two years later. By 1865 the mills were in the possession of Henry Newman, and by 1875 Newman was the owner. By 1879 there were hop grounds and a kiln on the site.¹⁰⁰

Until about 1996 there were huge stone foundations in front of 3 Macfarlane Street which could well have been from the Kent Mill, but these have now gone. The stone house at 3 Macfarlane Street could well be the miller's cottage.¹⁰¹

2.13 Upper Sawmill, Cascade

The flourmilling history of this mill is extremely vague. It was originally built as a sawmill by Thomas Stace on a grant of 1000 acres. Rayner has located the site as about 330 metres upstream from the sharp bend of Strickland Avenue just before Lawley Avenue. Stace had trouble with the mill as in 1826 his unfinished sawmill was the subject of a forced sale from the Sheriff's Office, and although he continued in possession he had still not begun to work it by August 1827 when he asked to be relieved of most of his acreage as it was useless for

farming. The government obliged, but the following year it was George Stokell who offered the sawmill for sale. The remaining land was eventually granted to Henry Degraes.¹⁰²

At some time the mill came into the hands of John Barrett, and when the trustees to his estate put the mill up for auction in 1843, this was their description:

The property is situated at the Cascade, and known as the Upper Saw Mill, consisting of about 9 acres of land, with the mill and machinery, comprising two pairs French burr stones, dressing machine, and smut machine, all complete, and in working order. The mill possesses the right of the whole of the water.

Just when the sawmill was converted to a flour mill is not known. No other references have been found in the newspapers and it may not have been running for long, but it might have been converted in the mid-30s to take advantage of its position with regard to the water supply. The mill was bought by Peter Degraes and according to a correspondent to the *Hobart Town Courier* was pulled down to ensure the supply of water to the hydraulic mill, although another correspondent two years later refers to Barrett's establishment, unfortunately without making it clear whether it was operating as a sawmill or flour mill.¹⁰³

2.14 Battery Point windmill

The third Hobart Town windmill, while probably successful for only about ten years, was at least more long-lasting than either of its two predecessors. This is almost certainly due to its position on the top of the hill at Battery Point which exposed it much more to the wind than either of the other two. As early as 1834 James Luckman of the Waterloo Mill (see 2.2.2) was planning to build a mill and by March 1836 the *Hobart Town Courier* could describe it as:

“a very handsome brick circular building or round turret...in which the circular roof and sails balance and adjust themselves to the wind by means of a fan wheel on the opposite side. It is about 50 or 55 feet high, and forms a striking object to vessels coming up the river.”

The *Colonial Times* was quick to ridicule its rival by pointing out that the mill was not yet built. “To be sure Mr Luckman has commenced the brick work, and carried it sufficiently high to point out that a mill is intended—but that is all!” Nevertheless the *Courier* was correct in one thing at least: the mill from then on remained a most prominent landmark for shipping. It was eventually 104 feet [31m] high to the tip of the vertical sail, or approximately 75 feet [22.5m] to the top of the finial on the ogee-shaped cap, and was the tallest and most powerful windmill ever built in the colony or indeed anywhere in Australia.* Built on a stone foundation, the mill's walls were two feet six inches [75cm] thick at the bottom gradually thinning to be two feet [60cm] thick at the top.¹⁰⁴

It was built on the eastern corner of De Witt and Cromwell Street, but just when it was first working is a matter of conjecture. In the 1830s Luckman was having problems with floods and his title to land at the Waterloo Mill (see 2.2.2) and there seems to have been considerable delay before he finally finished the windmill, as in December 1841 when both mills were offered for lease or sale the mill at Battery Point was described as “newly erected.” It is possibly significant that Frankland's map of 1839 shows sails on the mill

* The tallest windmills in England and Holland only reached 100 feet to the top of the cap.

which may indicate that it was functioning, but this cannot be regarded as proof. The sails were 80 feet [24m] long from tip to tip and with all the machinery and gear attached weighed ten tons. Although there was general approval of the mill's profile which gave "an old-fashioned and English appearance to the place," there was a disadvantage to living nearby as Hugh Munro Hull found when he took a house in Wellington (now Waterloo) Crescent in 1864-5. He wrote in his reminiscences that "the fans...were very noisy and created a great draught," and he consequently moved to a new house in Macquarie Street.¹⁰⁵

Luckman continued to own the mill until 1845 when he became insolvent and the mills and all his other property were auctioned without reserve. The mill passed into the hands of the engineer Robert Robertson and when he auctioned it in 1848 it was bought by James Cowgill for £700. Cowgill, the lessee of the Wilmot Mill (see 2.5), remained at Battery Point for some years, so benefiting from the gold rushes. Amy Rowntree refers to a story that the Cowgills had no faith in banks and kept their savings in a strong box disguised as a footstool. "When Mrs. Cowgill took a drive she travelled with her feet placed firmly, but comfortably, on the family fortune." In 1855 Cowgill put the mill up for auction, "having realised an independence [and deciding] to return to his native land." The mill was described fulsomely:

That Magnificent Mill Property, the Battery Point Windmill, which for solidity of construction, completeness of manufacturing power, and situation, stands unrivalled. It is fitted with two pairs of 4-feet 6-inch French burr stones, smut and dressing machines; has bins to contain upwards of 3000 bushels of grain; fans with patent sails; winds herself, and will grind from 600 to 700 bushels per week.... This property, built a few years since, was much admired for the excellence of its workmanship while in course of erection; the reported cost in those days is said to have been between £5000 and £6000.

The reference "winds herself" refers to the provision of a fantail mounted at the rear of the cap, to ensure that once the miller had set its sails would automatically rotate into the oncoming wind (see Appendix A, Section 4.2). The excellence of the workmanship is supported by Leslie Norman, who wrote that the floors, stairways and cupboards were of beautifully polished wood. Unfortunately the mill was not sold and Cowgill was forced to remain.¹⁰⁶

It is likely that from then on the mill became slowly more and more uneconomic, as the colony moved into a depressed state. In 1861, presumably to remain competitive with the newer steam mills closer to the wharfs, J. Cowgill & Son announced the addition of a steam mill to the newly-christened Derwent Steam and Wind Mills, with water for the boiler coming from a cement underground tank. The steam mill was right next to the windmill on its eastern side; the two mills remained separate but connected by a small passage. The partnership between Cowgill and his son James was dissolved in 1864 and shortly afterwards, hoping to retire from the business, Cowgill snr offered the mill for lease. The mills were described as having almost new gearing and being capable of grinding 4000-5000 bushels a week, but there were no takers and the following year he had lowered the price of grinding to fivepence a bushel, down from ninepence in 1861. He was still in residence when he died at the age of 59 in 1866. The property was offered for lease again in 1867, and a complete description was given:

The Derwent Steam Mills, Battery Point, with a 9-roomed Dwelling House, Stable, Coach house and Cart-sheds. The Steam Mill consists of an 18 horse-power engine, 2 pairs of 4 feet French burr stones, a flour machine, smut machine, and hoisting gear. The Windmill has 2 pairs of 4 feet 6 inch French burr stones, a flour machine, a smut machine, and hoisting gear. The whole is in first rate working order for carrying on an extensive trade.¹⁰⁷

It may have been in “first rate working order,” but the lack of elevators in the steam mill may have helped to put millers off. G. Farnfield jnr, presumably son of the man who had been at the Sorell Mills in 1842 (see 2.5), took a lease but offered it for a low rent in 1868. H. Green, evidently also a son of the older Farnfield (perhaps stepson?) then occupied the mills for a few months before Stephen Henry Grueber snr took them for five years. Grueber had arrived in the colony in 1839 and farmed at several properties including Rheban (see 8.7). His son Stephen married the widow of Charles Fletcher whose family had the Lake Mill (see 11.6). Despite having the Derwent Mills at “almost a nominal rental”, Grueber found he could not make a living because of “excessive competition amongst the small millers and the Derwent Mills not being advantageously situated” and he did not renew the lease. He then went to his son’s property Ormley at Fingal, where he was to be warden for eleven years.¹⁰⁸

The mills were put up for auction by the trustees of Cowgill’s estate in 1875 at which time they were occupied by a Mr Hurst; the Messrs Cowgill were still in the house. According to the Mills and Manufacturing Returns the windmill was operating until 1878, although when they were rented in that year the mills were said to have been unoccupied for some years. They were leased by William Howard of Melbourne and Thomas Millhouse, fitted out with machinery including silk dressers they had made themselves, and opened once again for business as the Union Mills. It is intriguing that the pair relied only on steam, feeling that the use of wind would entail additional expense—presumably from the necessity of repairing the sails. The owner at this time was F.J. Pike, reputedly a nephew of Cowgill.¹⁰⁹

However, the venture was not a success. In 1883 the mill had been empty for a long time when it was bought by Grubb Bros who wanted to use the bricks, at that time hard to obtain, for building purposes. The editor of the *Mercury* wrote a heartfelt and modern-sounding plea for the government to buy the structure and so save “an old familiar land mark from destruction,” but demolition began on 2 March 1885. Leslie Norman spoke for many when he wrote:

And so, in the 80’s those from all around who had been wont to rest their eyes on its bright red dome, its pure white balcony about half-way up, and its glistening white wings, saw the spoilers at work like ants on its topmost structure, and soon this beautiful landmark was no more. There is bold water and good anchorage right up to Battery Point, and what happened to the charts the world over, on which were marked ‘make for the red mill’ is not known.

The city also lost a lookout; numbers of people used to go up the mill each year to take in the view.¹¹⁰

The bump marking the foundation of the windmill was still visible some 30 years ago, and the miller’s brick cottage (with additions) still stands on an internal block accessed by a public laneway. Tradition says that the pair of houses opposite St George’s church in Cromwell Street were built with the bricks from the mill.¹¹¹

2.15 Commercial Steam Mill

During the 1840s a number of water and wind mills in Hobart Town added steam engines to ensure a continuity in grinding: the Dynnyrne Mill, Sorell Mill, Kent Mill, the Davey Street mill and Degraives' mill all had steam added this decade, and thus joined John Walker who had added steam to the Government Mill in 1836. However, the Commercial Steam Mill was the first successful mill to be built in Hobart without utilising any other form of motive power, and indeed its success may have prompted the other millers to add a steam engine in order to remain competitive.

In June 1840 a meeting was called of the subscribers to the "Steam Flour Mill Company," and this was probably the beginnings of this mill. According to Alexander Clark's obituary, the mill was designed and erected by Clark for his firm, Davidson & Clark, but perhaps the original intention had been to form a company to provide finance. The mill was built on the Old Wharf (Hunter Street) approximately where Davey Street now goes through, so not far from where Walker had had the first steam mill in the colony. With three pairs of millstones it was functioning by July 1841 when William Butterworth wrote to a friend in England to tell him he had leased the mill for £270 per year. "We have plenty of work and a good trade...[and] my partner has plenty of money and is a good miller as well." His partner and the owner of the mill was Henry Davidson and in a later letter Butterworth contradicted himself by writing that: "He has a large foundry and it takes him his time to superintend that, and not knowing anything about milling does not meddle." He added: "He is a very good upright man...."¹¹²

Butterworth throws more light on the operations at the mill in a subsequent letter in October 1842.

For every bushel of wheat we grind and dress we get one shilling and we grind about 200 bushels in 16 hours every day, about half for others and the rest ourselves....It is ten o'clock at night when I am writing this and I have two pairs of millstones going and no one is here but myself and a man to fire the engine. Mr Davison (sic) is about to put another corn mill up in the country and he wants me to have it myself and he will let this next year; he has so much business on hand.

From 1844 William Green was employed as a miller there. He could well have been the brother of Henry Green and son of George Farnfield (see 2.14). In 1846 he announced that he had commenced business "at the New Steam Mill, at the rear of the Commercial Steam Mill....Entrance through the gateway next to Burns and White's store, Old Wharf." This is very confusing as it is the only reference to another mill on the wharf. It seems probable that the new mill rapidly became part of the Commercial Mill complex, as the 1847 roll mentions only one mill on the Old Wharf. Later Valuation Rolls mention a warehouse at 67 Old Wharf and a steam flour mill at No.65, both part of the property then owned by Green, and the warehouse could well be the second mill. Green's advertisements are from the "Old Wharf Steam Mills" until the mid-1850s when he uses the name "Commercial" again. The 1847 roll indicates that the mill had an annual value of £290, compared with £150 for the Sorell Mill and the Dynnyrne Mill; only Walker's mill and brewery was worth more, at £350. Intriguingly, the Commercial Mill was leased by Her Majesty's Government. It would be interesting to know why.¹¹³

From July 1847 Green, who had been the manager, leased the mill himself and he was to be the operator for some years. In 1853 the mill was owned by Mrs Clark but by 1856 Green

had bought it, and two years later in August 1858 he leased it to William Searle (ex-Wilmot Mill - see 2.5) for seven years at £800 per year. In 1863 he put up for auction "one of the most complete properties in Tasmania." The advertisement continued:

This property is one of the most perfect and economically arranged in the colony, having a very large manufacturing power at a small cost; the engine is one of McNaught's patent compound double cylinder engines of 40-horse power, with a boiler of a superior quality, and of a construction believed to be unsurpassed in the world; to which is fitted one of Gifford's patent injectors, this effects a great saving in fuel by rendering it unnecessary to use an engine pump. There are five pairs of mill stones, of which three pairs work with spur gear, and two pairs with belts; also a Smith's patent flour machine; Ashby's patent smut machine, elevators and creeper's (sic) to everything in the mill, which now turns out 50 tons of flour per week, driving fourteen hours per day. The mill is a substantial well finished stone building, including a dwelling house of six rooms. It comprises a good area, has a considerable frontage on the creek; there are extensive outbuildings, offices, and every convenience for carrying on an extensive and lucrative business.¹¹⁴

The mill did not sell and when Searle's lease expired in 1865 he announced his retirement from business, "thanking the public of Tasmania for the liberal support he has received during the past 12 years," and William Green took over again. Although he also had the Kensington Mill at Glenorchy (see 3.2.2), he was still in charge on the Old Wharf in 1872 when the *Mercury* gave a detailed account of the business. Green had been given special permission when Denison was governor to lay a 6-inch [15cm] pipe from the rivulet close to the Argyle Street bridge to a tank 12 ft by 140 ft by 6 ft deep [3.5m by 42m by 1.8m] and mostly underground. The McNaught engine had been made by A. & W. Smith of Glasgow especially for Green, and the now-seven pairs of four foot stones were driven off a layshaft. Dust-extractors were fitted, to improve the atmosphere in the mill. By 1885 the McNaught engine had been replaced by a compound horizontal engine made by John Clark.¹¹⁵

By 1873 the Dossetor Brothers, John and Daniel, were leasing the mill, but by 1881 only the latter was there, still advertising the mill as "late Green's." In February 1886 he advertised for sale four pairs of French burrs and some other machinery because he had installed rollers. As he still had three pairs of stones he must have been operating rollers in conjunction with stones, possibly using smooth roller mills for reduction. They would have been Ganz rollers. He had a very lucky escape during the great fire on the Old Wharf in November 1890, as the fire originated in Ikin's store which was separated from the mill by just a narrow alley. When a mill window caught fire, according to the *Mercury*, "[b]ags of wheat were piled against the window, and when the flames burst in the wheat poured out, and had some effect in abating the conflagration. An application of the hose did the rest." Although a considerable portion of the roof also caught fire, this was also eventually extinguished. "It was well that those exertions were successful," continued the *Mercury*, "as had the mill fairly caught, in all probability the devouring element would have swept the street."¹¹⁶

But the mill which had lasted so long was to continue for only a few more years, as by the time of the 1893 Valuation Roll it was empty. At exactly the same time Murdoch's mill began operations further along on the Old Wharf (see 2.18), and it would be interesting to know if there was some connection between the two. It is possible that, knowing the mill was threatened by the plans to extend Davey Street, Green and Dossetor decided to call it a day. Dossetor may have also been caught out by the economic depression of the nineties. By 1900 the Commercial Mill was in ruins and in 1903 it was demolished. Norman was probably not the only resident who missed "the pretty white flour mill" on the Old Wharf.¹¹⁷

2.16 City Mill - Gibson's

When the Commercial Mill was built in 1841 it was perhaps the seventeenth mill which had been erected in Hobart Town in some thirty years. (Some of the dates of erection are still unknown.) Only two of these—Walker's steam mill on the Old Wharf and the first Waterloo Mill—had stopped working, although even these were really relocations rather than closures. However, the fortunes of milling were about to undergo a change. During the 1840s many of the millers became insolvent, almost certainly as a result of the severe depression of the early 1840s. Barrett's was the only mill to actually close at this time, but the following decade saw the demise of two more—those in Campbell Street and Davey Street. Others may have been economical only because they had been bought cheaply from bankrupt millers, and then the good times of the fifties would have extended their lives. But during the economic stagnation of the sixties, more mills closed. While the Dynnyrne Mill burnt down in 1861, the Sorell/Wilmot mills just stopped working, while it seems likely that the Waterloo Mill and the Kent mill also stopped at this time.

So when a new mill was built in 1864, the first in 23 years, it was going against the trend and may have been expected not to have lasted long. However, the site for the City Mill was chosen with care: it was erected on the waterfront to take advantage of the proximity to the wharf for importing and exporting. As steam engines became more efficient and therefore cheaper to run there was no longer the imperative to build by a stream or on a hill, and the central location—also close to the later railway station—gave this mill the edge which led it, as Gibson's, to become the longest lasting of all Hobart's mills.

William Gibson had arrived in the colony in 1854, his wife and family of six children following him on the *Ocean Chief* the next year. After spending some years at the Riversdale Mill at Swansea (see 8.8.1), he came to Hobart and in 1864 from the City Steam Flour Mills "beg[ged] to inform the public...that he has erected the above Mills on the premises lately occupied by A. Rheuben, regardless of cost, combined with all the most modern improvements..." The mill was in Morrison Street next to the Telegraph Hotel and Gibson had bought the property from Rheuban in November 1863. He continued to run the business until December 1871 when, while supervising the construction of new machinery, his leg was fractured. According to the *Launceston Examiner*:

It appears the workmen were occupied in turning the outer edge of a circular pulley about 3 inches in diameter, which was being made of kauri pine, and which, while the turning process was being performed, was rotating at a speed of about 1,400 revolutions per minute. The speed was so great the centrifugal force overcame the cohesive power of the pine, and the pulley flew into about half-a-dozen pieces, one of which struck Mr. Gibson on the leg, and caused the fracture...."

Less than three weeks later Gibson died from the injury at the age of 49.¹¹⁸

He was succeeded in the business by his son William George, then only 23. In 1872 when described by the *Mercury*, the mill had three pairs of four foot stones and was equipped with elevators, a dust extractor and a hoisting apparatus which Gibson had himself designed for lifting sacks of grain. The *Mercury* reporter was most impressed that "a great deal of work is done, with very little manual labour, in an exceedingly small space. A very large business is done at the City Mill, and the noise of the machinery can be heard constantly day and night."¹¹⁹

Coming through unscathed from a fire in 1878 which destroyed the nearby Risby steam sawmills and other businesses, Gibson's Mill continued to flourish and in 1889 was considerably refurbished with the erection of roller mills and the installation of a new 30-horsepower compound steam engine made by Robinson & Son in England, at a total cost of £3100. (The old millstones were bought by Robert Bean for his Fingal mill—see 10.7.2). By this time there were very few mills still operating in the city. The Battery Point and Liverpool Street mills had definitely stopped working around 1880 and the Degraives mill had probably stopped about the same time. Now the combination of Gibson's rollers plus the 1890s depression was enough to cause the closure of nearly all the other remaining mills. By 1893 the Commercial Mill had closed for good, to be joined the following year by the oldest mill of them all—the Old Mill. For a period of ten years around this time Gibson also leased Walker's old mill, probably as a store, but when he let this go in 1896 it was only another year before it too shut its doors for the last time. Murdoch's was to provide some competition for a while (see 2.18) but Gibson's was to be the main miller for Hobart for another 100 years.¹²⁰

Gibson expanded still further later in the nineties. At the beginning of 1896 he was installing some more machinery which he had bought from T. Robinson & Son while on a trip to England. According to the Valuation Rolls, the annual value of his mill in 1892 was £250; by 1898 it was £350 and just two years later it was £500 (with a capital value of £12 000). The building on the corner of Brooke and Despard Streets was bought by Gibson in 1895, and this was added to the two buildings in Morrison Street. Just when the small building on Morrison Street which can be seen in early photos was replaced by the much more imposing several-storey building now there is difficult to determine, although it would presumably have taken place during one of the upgrades, probably the first.¹²¹

William George Gibson died in 1905, and his son William James then took over to be followed in his turn by his son Roy Gibson who was manager and a director. Other Gibsons worked in the mill from time to time. In 1915 Gibsons amalgamated with its only Hobart rival, Murdoch's, and they traded for some years as Gibson & Murdoch. Between 1917 and 1923 the firm had two steamers, the *Kiltobanks* and the *Musgrave*, which were used to bring wheat into Hobart and usually take timber to Melbourne or Adelaide on the return voyage. The company reverted to the name Gibson's Ltd, probably after John Hugh Germain Murdoch died in 1923, and in 1834 there were 16 shareholders. Almost all flour produced was for local consumption: during a ten-year period from 1924-34 the most flour exported in any one year was only 0.5% of total production. The business continued to expand. Whereas in 1901 it was a 10-sack mill—that is, it could make ten 200-pound [90kg] sacks of flour an hour—by 1933 it was a 26¼-sack mill and almost twice the size of its main Tasmanian competitor, the Launceston-based Monds & Affleck Pty. Ltd. It is not known whether this capacity followed alterations to the Morrison Street building prepared by the architects Walker and Johnston in 1933.¹²²

However, in 1972 Monds & Affleck acquired 51% of Gibsons, and about 1979 they closed the Morrison Street mill after 125 years on the same site and moved the business to the mill Monds & Affleck had built at Salamanca Place (see 2.19). The three buildings which made up the City Mill were sold and developed into offices. The two Morrison Street buildings still have several pieces of flour-milling equipment on display, including the wooden spiral chute which goes through several floors to deliver sacks to ground level, and several of the wooden

grain storage bins have been retained. The association of these late-nineteenth century buildings with the important Gibson family increases their significance.¹²³

2.17 Peet's Mill

Some thirteen years after Gibson opened his mill in Morrison Street, James Peet determined on opening a new steam mill in the city. Peet had been the owner of the Dynnyrne Mill when it burnt down in 1861 (see 2.11) and had then been manager of the Kensington Mill at Glenorchy for sixteen years, acquiring it following Hewer's insolvency. In 1877 he took possession of the stone building in 3 George Street (now Gladstone Street) and converted it to a mill capable of turning out five tons of flour a day. The mill had three pairs of French burr stones, each 3 feet 6 inches in diameter, and the machinery was worked by a new horizontal engine supplied by Robinson Bros in Melbourne. A square chimney stack 50 feet [15m] high was built by one Reynolds, and the millwright was P. Gellie. The mill was opened for business in December.¹²⁴

Unfortunately for Peet, he was to suffer yet another loss by fire. On January 14 1888 a fire broke out about midnight, and although the alarm was quickly given the mill sustained damage amounting to an estimated £4000-5000 with insurance covering only about £3000. Although Peet was the owner of the mill proper, Joseph Solomon owned the part of the complex which was used as a store. There was a fear that the boiler would explode until the weights from the valves were removed to let the steam escape. Fortunately the engine and boiler escaped serious damage as they were in a shed at the back of the mill, but the walls were blackened and the machinery broken and misshapen. Some wheat and flour was saved by carrying it across the road to another building, but the rest was lost. Norman recalled that it burnt for days, "emitting an abominable smell." By the time of the fire Peet had handed over the business to his son who ran the mill in partnership with Charles Webb as Webb, Peet & Co., and they did not continue. Soon afterwards the Lennox steam laundry was in the premises and later Johnstone Bros & Co.¹²⁵

The building is still there in Gladstone Street, but much altered.

2.18 Murdochs' Victoria Mill

The name of Murdoch was prominent in Hobart business circles for most of the nineteenth century. In 1840 John Murdoch had established a corn-chandling business and rapidly became prosperous. After his death in 1878 his son John Hugh Germain took over the business, and later went into partnership with his brother James to form the firm of Murdoch Brothers which traded in produce. Milling would have been regarded as an extension of their interests in foodstuffs, so it is perhaps not surprising that in the early 1890s, when other flour mills were closing down, they decided to open a mill of their own. Perhaps what is surprising is the time they chose to do it, although the *Tasmanian Mail* was full of praise: "In the present times of almost universal depression it is a relief to record an important addition to our local industries.... [The owners] are to be complimented on the enterprise which prompted them to lay in this new, extensive, and costly machinery."

The new mill was erected in their warehouse in Hunter Street, just down the road from the Commercial Mill (see 2.15). The building had been erected in 1825 as the Scottish-Australian store and had had a chequered history since then. It came into the Murdoch family's hands when the first John Murdoch married the daughter of Mary Germain who owned the store at that stage, and had been used by him for storage as early as the late 1850s. The building was ideally placed for a mill, being close to both the port and the railway station, although another floor had to be added along with exterior offices and a chimney stack. The firm of Robinson and Son supplied the 12 pairs of rollers, the compound tandem steam engine and other required machinery, and the mill was operational by November 1892. Initially the brothers were in partnership with Fred Turner, presumably related to the Turners of the Old Mill (see 2.1) and able to provide the milling expertise, but by 1896 he is no longer mentioned in the Valuation Rolls.¹²⁶

When J.H.G. Murdoch gave evidence to the Select Committee on Interstate Shipping in 1912 he threw some light on the operations of the business. The firm imported its wheat, principally from South Australia but with some from New South Wales and a little from Victoria. Interestingly, Murdoch preferred using sailing ships to steam; not only was it more economical, but "wheat is always handled better on a sailing ship, and there is not the hurry to unload it and knock it about." The firm exported offal and other mill produce and oats.¹²⁷

However, by 1915 the firm had decided to amalgamate with its only rival Gibson's, and shortly afterwards all milling was confined to the Morrison Street mill. The Murdochs had already sold the rest of their Old Wharf properties to Henry Jones and, following losses in 1923, they also sold the mill building to him. He converted the mill into staff facilities. In 1978 the building was sold by Jones-IXL and shortly afterwards the ground floor became the Drunken Admiral restaurant. During renovations seven 44-gallon drums of old grain were removed between the first floor and the restaurant ceiling. There is nothing else in the building to show its flour-milling history.¹²⁸

2.19 Monds & Affleck

After confining itself to northern Tasmania for most of its history, Monds & Affleck in about 1962 decided to make a move to Hobart and provide direct competition to Gibsons. Explaining that Hobart biscuit makers were using an increasing amount of Tasmanian flour, they spent more than £200 000 building a new mill on Salamanca Place directly opposite the already-built grain silos which could provide storage. Opened in 1962, it was the only mill in Australia where ships could dock and unload straight into grain silos from where the wheat was conveyed pneumatically into the mill. The existing tin shed next door was used for the production of stock feed for a few years in the late 1970s, but was closed because of the smell. Having earlier acquired a controlling interest in Gibsons, Monds & Affleck moved Gibson's flourmilling operations to the Salamanca Place building about 1979. In 1995 the Victorian-based Pivot Nutrition took over HMA Ltd (Holyman Monds Affleck—see 9.1.15) and thus gained control of Gibsons too. After warning that the state's flourmilling industry was seriously over-capitalised, the new owners closed the Hobart mill on 18 April 1997, so bringing to an end the history of flourmilling in Hobart. At the time of its closure the mill had eight Robinson roller mills and could produce two tons of flour an hour, or roughly the same as Gibson's had in 1933. The machinery has since been dispersed.¹²⁹

2.20 Another Hobart mill?

There is one other place where a flour mill may have operated in Hobart, but for which the evidence is so poor it is impossible to be definite. When Bruford left the first Waterloo Mill in 1830 he announced “that he has removed from the Waterloo Mill to the Stores of Mr E Anstice, Elizabeth-street, where he intends to receive Corn and to grind, as heretofore....” Was this just a hand-mill, or was there something more substantial? Several millers also later had an Elizabeth Street address, including John Dean. He was a baker, so it is quite possible that the premises were mainly a baker’s shop. Similarly, in 1858 John Barrett of 163 Elizabeth Street advised that he was retiring and that his business had been bought by John Turner. Both of these men were millers (see 2.13 & 2.1) but also bakers, so it is impossible to be sure just what changed hands. Certainly there is no mention in the Almanacs or other sources of a mill in Elizabeth Street, so if Bruford did start a mill there it most likely lasted for only a very brief period. He was lessee at the Old Mill in 1833.¹³⁰

¹ Referred to as Old Mill in HTG 3 Jan 1818, p.2/1. *Critic* 3 Dec 1920 p.2/3.

² For Hambly and Duncombe, see Wood, Trish, & Snell, Rick (ed), *The Convict and the Carpenter: The History of Mary Springham and William Hambly and their Descendants*, North Hobart, 1990. Nash: AOT Correspondence file on Nash. Lord: ADB, Vol. 2.

³ Spent survey map showing the location of the mill is reproduced on p.49 of Button, John, “The Rise and Fall of the Hobart Town Rivulet: an historic preservation study”, unpublished thesis, Department of Environmental Design, TCAE, Hobart, 1978. Liverpool Street: HTG 3 Jan 1818, p.2/1. Upper Collins Street: CT 28 April 1826, p.1/2. Access from Macquarie Street: CT 12 Nov 1833, p.1/1. Race: Map reproduced in Moore, *Hobart Town General Directory*, 1847.

⁴ Nash selling: AOT CSO 1/107/2597, pp. 66-68. McNeelance selling to Fisk: AONSW 4/433 p.56.

⁵ Cobcroft, M.D., *Brought to this Distress: The Life of Captain Arnold Fiske, A Colonial Loser*, Ipswich, 1987, p. 3, 119-120, & passim. Advertisement re bags: HTG 8 June 1817, p.1/2.

⁶ Residence: HTG 3 Jan 1818 p.2/1. Hospital: HRA III, Vol III, pp.741, 751 & 754.

⁷ Calling in debts: HTG 28 Nov 1818, p.2/3. Crammond as agent: HTG 5 May 1821, p.2/1. As owner, and Motton: HTG 23 June 1821 Supp, p.1/1. Heany: HTG 29 Sept 1821 Supp, p.1/1.

⁸ Memorial: HRA III, IV, p.33. Espie & Clark: HTG 2 Jan 1824, p.4/2.

⁹ Grinding rates: HTG 6 Aug 1824, p.4/3. For information on Clark (although some of the milling details are incorrect), see G.T. Stilwell, “Mr & Mrs George Carr Clark of Ellinthorpe Hall”, *THRA*, April 1963, Vol 11, No.3, and his article on Clark in the ADB Vol. 1.

¹⁰ Murray & Wright, trespassers: HTG 29 Oct 1824, p.4/4. Mill sold to Wright: HTG 11 Aug 1825, p.3/2, and AOT CSO 1/107/2597 pp.66-8. Broken fences: HTG 17 June 1825, p.4/4. Offered for lease: CT 28 April 1826, p.1/2. For sale: CT 9 June 1826, p.1/3. Dean’s grinding rates: HTG 24 February 1827, p.8/2. For auction: HTG 14 July 1827, p.8/1. Sold: CT 27 July 1827, p.3/2

¹¹ Last Ellinthorpe: HTC 5 July 1828, p.2/2. Dean: Ross Almanack for 1829 & 1830. Read owns, Walker leasing: HTC 12 Nov 1831, p.3/3. Bethune: Ross *Almanack* 1831, p.72. Walker adverts: CT 12 Nov 1833, p.1/1; HTC 8 July 1836, p.3/4; HTC 28 July 1843, p.1/4.

¹² Powerful water wheel: HTC 14 Aug 1835, p.3/5. Last reference to Collins Street: HTC 17 June 1836, p.3/5.

¹³ Bruford: *Ibid*, & CT 12 Nov 1833, p.1/1. Mannington: HTC 28 July 1843, p.1/4. Butterworth: Spencer, W.E., “John Grayson, Alias William Butterworth”; copy held in Tasmaniana Library, pp.95 & 98; & HTC 8 May 1850, p.2/2. Walker owned 1857: Rayner, Tony, *The Hobart Rivulet Historical Study*, Hobart City Council, July, 1988, p.21. Also VR 1853. Fire: CC 23 July 1859, p.5/5.

¹⁴ Shell: *Critic* 3 Dec 1920. Moving to Brown’s Mill: Merc 24 Aug 1859, p.3/7. Liverpool Street bakehouse: e.g. Merc 25 Feb 1865, p.1/7. 1862: Merc 10 Dec 1862, p.1/6. Boiler: AOT AC 705, No.29. Silk-dressing: Merc 12 April 1865, p.1/5.

¹⁵ Merc 28 May 1873, p.5/5. New wheel: AOT AC 705, No.29.

¹⁶ Working 1892: Merc 6 Feb 1935. Empty, etc: VR 1894, 1896.

- ¹⁷ Bligh to Castlereagh HRA I, Vol 7, p.129. Meehan's Map DPIWE 90403; it is also printed in Stone, Carolyn R. & Tyson, Pamela, *Old Hobart Town & Environs 1802-1855*, Lilydale, 1978, p.45. For an account of the careers of Lord and Collins, see ADB, Vols. 1 & 2.
- ¹⁸ Collins' death: Robson, p.61. Lord: HRA III, Vol I, p.453.
- ¹⁹ HTG 8 Mar 1817 p.1/2. HTG 3 Jan 1818 p.2/1-2. The plan of the Waterloo Mill and its mill race from AOT CSO1/293/7119 has been reproduced on p.39 of Button, John, op.cit.
- ²⁰ Outrage: HRA III, III p.644. Fisk's prices: HRA III, II p.344, and III, III p.643.
- ²¹ Court action: HTG 28 Nov 1818, p.2/3. Protest and defence: HRA III, II pp.708-709. Hull: III, III p.643-4.
- ²² Forced sale: HTG 19 Oct 1822, p.1/2; & 2 Nov 1822, p.2/2. Left colony: Cobcroft, M.D., op.cit., p.163. Hunter's River: CT 9 Oct 1829, p.3/1.
- ²³ Clark owns: HRA III, IV p.465. His expenses: AOT CSO 1/151/3675 p.38. Kerr: HTG 28 Oct 1826, p.3/1. Bruford: HTG 4 Nov 1826, p.2/3, & 16 Dec p.3/1. Reduced charges: CT 16 Feb 1827, p.4/4. Anstice: HTG 25 Aug 1827, p.3/2.
- ²⁴ Fisk's pipes: HTG 6 April 1822, p.2/1. Clark: HRA III, IV pp.465-6.
- ²⁵ 1828: HTC 19 July 1828, p.2/4. Clark's plan: AOT CSO 1/293/7119, pp.159-62. Machinery: HTC 4 Sept 1830, p.3/3. Kerr: HTC 21 May 1831, p.3/3. 1835: CT 17 Mar 1835, p.81/2.
- ²⁶ Merc 6 Mar 1974, p.3, and TMAG Q5860-64.
- ²⁷ Clark & wife, and son Charles: ADB Vol 1. Row of shops: G.T. Stilwell, op.cit., p.91. Warwick mill: also LE 20 July 1865, p.2/4-5.
- ²⁸ Luckman's plans: AOT LSD 1/103 pp.329-336. Owned by 1833: AOT CSO 1/293/167-8. Correspondent: CT 4 Feb 1834, p.37/4.
- ²⁹ Flood: HTC 18 Mar 1836, p.2/3. AOT SC 304/1/Folio 59: Grant dated 27 April, enrolled 18 July 1838 No.1093.
- ³⁰ HTC 17 Dec 1841, p.1/1. CT 18 Mar 1845, p.3/2-4.
- ³¹ Waterloo mill to be sold: HTC 2 July 1845, p.3/5. Other properties: HTC 27 Sept 1845, p.3/5. Vigar: 1847 VR, & HTA 1 Oct 1850, p.1/7. Titley: CT 7 June 1842, p.1/2. Flood: HTC 27 Feb 1854, p.3/1-2. Council: CT 29 June 1854, p.2/6. Water wheels: HTC 4 July 1855, p.3/2. (Note that there is a misprint in this newspaper article - Collins Street should read Harrington Street.) Petition: HTC 2 Sept 1856, p.2/6.
- ³² Rosina Luckman: Merc 27 June 1860, p.4/4, and 1860 VR. Death: Merc 21 April 1865, p.2/5. Willcox: Merc 26 Oct 1864, p.1/6. Solderers: Merc 9 Jan 1869, p.1/7. Offered for lease: Merc 3 June 1871, p.1/7; also 22 July, 12 & 26 Aug, 16 Sept and 7 & 28 Oct. Empty 1870s: VRs for 1871, 1873, 1876, 1880. Smith: VR 1873, and Merc 13 April 1880, p.3/6. Flooding: Merc 18 Nov 1881, p.3/3.
- ³³ Sorell: HRA III, II p.234. HTG 30 May 1818, p.2/1.
- ³⁴ Position of mill: AOT CSO 1/20 p.142. Mill race: HRA III, III p.323. See also map reproduced in Moore, *Hobart Town General Directory*, 1847. Troops only, completion expected in September: Sorell to Macquarie, HRA III, II p.344. Alterations: HRA III, III p.560. Yates superintendent: HTG 12 Dec 1818, p.1/1. Macquarie: HRA III, II p.354. Losing an eye: Jane Yates application for a land grant, in collection of Carol Scott. Emancipation: HTG 9 Jan 1819, Supp, p.1/2.
- ³⁵ Guidelines: HTG 12 Dec 1818, p.1/1. Government mill: HRA III, III p.293.
- ³⁶ Yates replaced by Rayner: HTG 9 May 1821, Supp. p.4/2. Walker: HTG 21 Sept 1822, p.1/1. Moodie: Merc 23 Mar 1874, p.2/5. Salary: HTG 13 Feb 1824, p.1/1-2, & CSO 50/2 p.45. Suggestion to rebuild: AOT NP 52/66, p.6. Ferguson: AOT CSO 1/496/10872 pp.82-3.
- ³⁷ Description: AOT CSO 1/107/2597, pp.200-201. First reference: HTG 4 Feb 1825, p.1/3. Moodie: AOT NP 52/66, p.6. Surprise: HTG 24 June 1825, p.2/3.
- ³⁸ Offered for lease: CT 27 Jan 1826, p.1/1. Walker: CT 17 Mar 1826, p.1/3. Bolting: CT 30 June 1826, p.1/4. Tenders for flour: CT 30 June 1826, p.1/1.
- ³⁹ 15 000 bushels & Moodie: AOT CSO 1/20 p.4. Tenders called for 1 year: HTG 25 Nov 1826, p.1/1. Tenders: AOT CSO 1/20 Fisk pp.6-8, Mannington pp.10 & 15-16. New call for tenders: *The Tasmanian*, 6 Jan 1827, p.1/2. Walker surprised, new tender: AOT CSO 1/20 pp.22-3, 26-8. Earlier request for boards: AOT CSO 1/79/1758, p.120. Successful: CT 9 Feb 1827, p.1/2.
- ⁴⁰ Walker: *ibid.* Bruford: CT 16 Feb 1827, p.4/4. Old mill: CT 1 June 1827, p.1/1. Millstones reserved: AOT CSO 1/20 p.44. Sold for £5: *Ibid.*, p.46. Vacant: AOT LSD 1/103 p.472.
- ⁴¹ Dam a problem: AOT CSO 1/107/2597, pp.200-201. Tenders for dam: HTG 2 Dec 1826, p.1/3. Walker's plan: AOT CSO 1/79/1758 pp.122-7. Later doubts: *Ibid.*, pp.128, 130-2, 138-42.
- ⁴² Inspection: AOT CSO 1/420, pp.64, 67-70. Later problem: AOT CSO 1/20 p.79.
- ⁴³ Extending lease: AOT CSO 1/20 p.89. Rayner: op.cit., pp.101-5, 114-6, 154-7.

- ⁴⁴ AOT CSO 1/20 pp.132-142, 146-7.
- ⁴⁵ Mannington: Ibid, pp.148-9. Walker informed: Ibid, pp.146-7. See also for enrolment of grant.
- ⁴⁶ HTC 20 Dec 1833, p.2/3. CT 21 Jan 1834, p.21/3. Ibid, 28 Jan 1834, p.30/3.
- ⁴⁷ Land: AOT SC 304/1/Folio 59, Book 1 p.148. Sales 1836: Royal Society papers, RS 20/2. Corn merchant: CT 21 Mar 1832, p.1/2. Baker: Ibid, 15 April 1834, p.113/3. 7 pairs: Spencer, W.E., "John Grayson, Alias William Butterworth," op.cit., p.91. Bakehouse: CT 30 June 1840, p.2/4. Weights: CT 21 April 1848, p.3/5.
- ⁴⁸ Steam engine: HTC 18 Mar 1836, p.2/3. "Government Mill": CT 4 Jan 1842, p.1/4. Brewery: Merc 2 Oct 1872, p.2/6, & AOT NP 52/66, p.8. Derwent Brewery: Rayner, op.cit., p.10, CT 7 June 1850, p.4/4. Using Government Mill race: AOT CSO 1/420 pp.67-70, 1/20 pp.151-2. New brewery: Allport & Roberts to Pritchard, 23 Mar 1854, Royal Society papers RS 60/11. The date is on the building.
- ⁴⁹ Examples of advertising for millers: CT 3 May 1842, p.1/3, & HTC 8 Sept 1856, p.3/6. Monds, T.W., *Autobiography of Thomas Wilkes Monds*, Launceston, 1907, p.29.
- ⁵⁰ Tenders: HTC 4 Mar 1842, p.2/1-2. Partnership: HTC 28 Sept 1854, p.3/4. John Walker to England: HTC 14 Jan 1854, p.3/4. Paris Exhibition, & Robert's trip: AOT NP 52/66, pp.7 & 16. New wheel: Merc 2 Oct 1872, p.2/6. Shipwrecks: AOT NP 52/66, pp.12, 14-16. Walker's passage on both the *Royal Standard* and the *Schomberg* were reported in LE 1 Jan 1870, p.3.
- ⁵¹ Walker snr: Merc 23 Mar 1874, p.2/5. Walker jnr: Ibid, 2 Oct 1876 Supp, p.3/7. Whitehead: Vernon, F.A. & Sprod, M.N., *The Whitehead Letters: Tasmanian Society and Politics 1872-1882*, Tasmanian Historical Research Association, 1991, p.107 & 110. Widow: Merc 21 Sept 1876, p.1/2 & 5 Mar 1877 p.1/3. Toan: QVMAG Walker papers (unsorted). Later lessees: VRs. 1935: Merc 11 Jan 1936, p.5/3. House built 1852: AOT NP 52/66, p.9. Fire: Dallas to Linge 2 Aug 1966, in Dallas Papers, UT 516/1-3. Demolished: Merc 20 Mar 1954, p.16. Cascade: McConnell, Anne, & Servant, Nathalie, *The History and Heritage of the Tasmanian Apple Industry: A Profile*, Queen Victoria Museum & Art Gallery, 1999.
- ⁵² New Mill: HTG 2 Sept 1820, p.1/1. Local stones: HTG 23 Sept 1820, p.4/1.
- ⁵³ Location: The site survey is printed in Button, op.cit, plate 5. Yates selling: AOT SC 285/Report 50 - testimony of Catherine Blay, p.6. Tedder continues: HTG 26 May 1821, p.1/3. Catherine Tedder: HTG 5 Oct 1822, Supp p.1/2, & AOT SC 285/Report 50 p.6. Blay: HTG 20 Aug 1824, p.4/2. Mannington: HTG 17 June 1825, p.4/4; HTC 19 Aug 1826, Supp p.2/3. Windmill: HTG 2 Dec 1826, p.1/4.
- ⁵⁴ Mill: HTG 11 Aug 1827, p.2/2. Dressing machine completed: HTG 15 Sept 1827, p.4/1. Selling equipment: HTC 12 Jan 1828, p.2/3; ibid 5 June 1830, p.1/2. New machinery: HTC 24 Jan 1829, p.1/2.
- ⁵⁵ 1834 & 35: Melville's *Van Diemen's Land Almanacks*. For auction: HTC 6 Oct 1843, p.3/4. Dixon: CT 25 Jan 1845, p.1/4.
- ⁵⁶ Jackson: HTG 4 Feb 1825, p.1/3. CT 7 Nov 1843, p.1/3; 5 June 1844, p.1/2; 25 Jan 1845, p.1/4; 30 April 1847, p.1/1. Turner: Ibid 17 Aug 1849, p.1/3; ibid 31 Dec 1850, p.1/6.
- ⁵⁷ Brown: CT 7 Oct 1851, p.4/1. Floods: HTC 23 Mar 1854, p.2/4-5; Merc 23 May 1855, p.1/3-4. Steam: Merc 21 May 1859, p.3/3. Auction: Merc 27 Aug 1859, p.3/8.
- ⁵⁸ Turner to 198: Merc 24 Aug 1859, p.3/7. Leasing the mills: Merc 1 Sept 1860, p.4/2. Example of Turner advertising: Merc 1 April 1874, p.1/7. Rowntree: Merc 9 Nov 1872, p.1/3. Offices: Maning's Post Office Directory 1881-2. Floods: Merc 18 Nov 1881, p.2/6. 1932: *Illustrated Tasmanian Mail*, 1 Dec 1932. Rayner, op.cit., p.8.
- ⁵⁹ First mention: HTG 17 Aug 1822, p.2/2. Rayner's announcement: Ibid, 23 Nov 1822, p.1/3. Wooden: AOT CSO 1/101/2433 p.45. Position deduced from de Sainson, and Allport photo of mills c.1858, reproduced in Button, op.cit., plate 7.
- ⁶⁰ Gov't: HTG 29 April 1825, p.2/1-2. Race: map of allotments of Birch's estate, in possession of Kevin Green. 1829 notice: HTC 17 Jan 1829, p.1/1. 1832: CT 7 Aug 1832, p.3/5. Auction: CT 12 Jan 1836, p.10/4, & HTC 26 Feb 1836, p.3/3. Private sale: HTC 18 Mar 1836, p.3/1. Sheriff: 2 Dec 1836, p.2/1.
- ⁶¹ Mann: CT 10 Jan 1837, p.11/3. Sale 1838: HTC 30 Mar 1838, p.3/6. Oct: 5 October 1838, p.3/6. McRobie: CT 20 Aug 1839, p.266/3. Barton: CT 7 July 1840, p.1/4.
- ⁶² Rayner & Farnfield: HTC 11 Mar 1842, p.3/3. Solomon: CT 29 Aug 1843, p.1/5. Dissolved: HTC 2 Sept 1842, p.1/1. Winter: HTC 23 Dec 1842, p.1/6.
- ⁶³ HTC 16 Feb 1844, p.1/4.
- ⁶⁴ Farnfield: HTC 12 July 1844, p.1/2; CC 1 Feb 1845, p.3/6. Pescodd: HTC 31 Mar 1847, p.3/3; CT 20 Nov 1849, p.4/5; ibid, 13 June 1851, p.1/6. Cowgill: VR 1847, & CT 24 Jan 1851, p.1/5. McRobie, and sale: CT 4 Feb 1854, p.3/5. Searle leaving: Merc 7 Aug 1858, p.1/7. 1862 lease: M17 Jan 1862, p.8/4. Remainder: VRs. Fulton, 1865: VRs 1860, 65.

- ⁶⁵ VR 1865, 1872. 1870: Merc 2 April 1870, p.4/7. 1881: Ibid, 5 Feb 1881, p.1/6. 1936: Merc 11 Jan 1936, p.8. Remainder: Rayner, op.cit., p.24.
- ⁶⁶ Britain: Bennett, R., & Elton, J., *History of Corn Milling Vol.1 - Handstones, Slave & Cattle Mills*, London, 1899, reprinted Wakefield, Yorkshire, 1973, pp.225-230. First moves: CT 25 Nov 1825, p.4/1-2. Also HTC 2 Feb 1827, p.3/4. First time: Ibid 6 July 1827, p.3/4. Walker: AOT CSO 1/105 pp.48-50. Convicts employed: HRA III, VII p.300.
- ⁶⁷ Commissariat: Burn, David, *A Picture of Van Diemen's Land*, Hobart, 1973, first published in the *Colonial Magazine* 1840-41, p.46. Sentences: CT 3 May 1836, p.152/2; 17 Nov 1840, p.7/3. 3½ bushels and not in favour: HTC 16 Feb 1828.
- ⁶⁸ Complaints: CT 3 Aug 1831, p.3/2. Tenders called: HTC 17 Oct 1834, p.2/1, & 14 Nov 1834, p.2/1.
- ⁶⁹ Breakdowns: AOT CSO 50/10 pp.44-45, & Clark *Letterbook*, 9 July 1843. Fire: True Colonist, 4 Jan 1839, p.7. 1847: AOT CON 103/3 p.7.
- ⁷⁰ Superintendent's Report in Sir W. Denison's despatch 30 April 1847.
- ⁷¹ Report of the Superintendent of the Convict Establishment, Hobart Town, 19 Jan 1854.
- ⁷² Application to government: Van Diemen's Land Interest Group, *Hobart Excursion* 1992, 26th July 1992, p.2. A map showing Walker's grant on the wharf is also reproduced in this book. Order for engine, building plans: CT 18 May 1827, p.3/2 & 25 May, p.3/3. Farm to let: HTG 17 Feb 1827, p.1/4. Outstanding debts: CT 6 April 1827, p.1/2.
- ⁷³ Materials: HTC 1 Mar 1828, p.2/4. Rapid progress: HTC 14 Feb 1829, p.4/2. Completed: HTC 18 July 1829, p.3/4.
- ⁷⁴ Colonial Times: 27 Feb 1829, p.3/2. Arrival: CT 11 June 1830, p.3/1. Arbitration, Norval: HTC 3 July 1830, p.2/2. Engine in motion: 8 Oct 1830, p.727/1. Leaking, and remainder: Ross *Almanack* for 1831, pp.89-90. Cost: NS 52/65, 7 Jan 1831.
- ⁷⁵ House: see NS 52/65, passim. Dry summer: CT 25 Sept 1838, p.311/1. Grant: AOT RD 1/1, p.147. Clark, engine 1894: Merc 12 Sept 1894, p.3/6. Fire: McLaren, Alex, "Alexander Clark (1809-1894): Colonial Engineer", in Winter, Gillian (ed), *Tasmanian Insights: Essays in Honour of Geoffrey Thomas Stilwell*, Hobart, 1992, p.139.
- ⁷⁶ Soap: CC 10 June 1843, p.3 col 6. Cleburne: HTC 17 Oct 1846, p.1/2, & CT 14 Aug 1849, p.3 col 3. 1858, 1891: Hudspeth, A., & Scripps, L., *Sullivan's Cove Historical Research: Hunter St.* 1988, pp. 9, 11, 16.
- ⁷⁷ Application for land: AOT LSD 1/103 p.372. Scott's residence: CT 27 Oct 1840, p.2/2. Announced: HTC 19 June 1835, p.2/5. Erected: Ibid, 18 Mar 1836, p.2/3.
- ⁷⁸ 1836: CT 27 December: CT 2 April 1839, p.112/3. Mid-40s: Clark to CRE, 17 April 1845, in Brand, Ian (ed), "Letterbook of Alexander Clark", held at Port Arthur Historic Site. The original is in AOT.
- ⁷⁹ 1846: HTC 18 Feb 1846, p.3/5. Green: CC 25 Sept 1858, p.7/2. Arnold: Merc 14 Oct 1865, p.1/7. Glenora: Reid: *The Illustrated Tasmanian Mail*, 1 Dec 1932. Remainder: VRs.
- ⁸⁰ Hooper, Beverley J., "Peter Degraives: Pioneer Tasmanian Industrialist (1821-1852)", unpublished BA (Hons) thesis, University of Tasmania, 1969, pp.1-2, 7-9. The *Hope*: AOT NP 52/66. Brother-in-law: Merc 11 Jan 1936, p.8/1.
- ⁸¹ Hooper, op.cit., pp.11, 15, 19, 21, 24.
- ⁸² For the building of the aqueduct, death of McIntosh & the case of Wright, see AOT CSO 5/113/2541, pp.61-83. Warning letters & wheel damage: Ibid, pp.50-55. Court cases: CT 22 Dec 1835, p.408/4 & 29 Dec p.415/4; 9 Feb 1836, p.56/1; and 25 Sept 1838, pp.310-311.
- ⁸³ Turbine announced & Robertson: CT 27 Jan 1835, pp.30-31. Dam and reservoir: plan in AOT CSO 5/113/2541, pp.61-73. Mid-1836: HTC 13 May 1836, p.2/4.
- ⁸⁴ HTC 29 Jan 1841, p.2/2-3. Murray: AOT CSO 5/113/2541, p.107. 1838: CT 25 Sept 1838, p.310/4.
- ⁸⁵ £15: Hooper, op.cit., p.37. Flood: AOT CSO 8/9/147 pp.237-43. Henry advertising: e.g. CT 3 Dec 1839, p.385/4.; 7 Nov 1848, p.3/3. H&C Degraives: Ibid, 23 July 1852, Supp p.2/6. Steam mill: HTC 12 Dec 1849, p.2/5; CT 26 June 1844, p.3/4. Peter Degraives' will dated 26 April 1852.
- ⁸⁶ Snell: Griffiths, Tom (ed), *The Life and Adventures of Edward Snell*, 1988, p.377. Controversy in 1840s: HTC 19 Nov 1844, p.3/1-4; and 26 Nov 1844, p.3/2-3. CT 3 Mar 1848, p.4/1-4; 15 Sept 1848, pp.2-3. Wooden mill: Merc 1 Oct 1872, p.2/6-7. Ring's plan is in LC Journal 1845, Paper No.6.
- ⁸⁷ Peter's death: HTC 3 Jan 1853, p.2/4. Henry's: CT 16 May 1854, p.3/2. Wilson: Merc 1 Oct 1872, p.2/6, & Bennett, Scott & Bennett, Barbara, *Biographical Register of the Tasmanian Parliament 1851-1960*, Canberra, 1960, p.169. William: ADB, Vol.4. Charles' death: Merc 30 Nov 1874, Supp p.3/4. John, & no Degraives sons: Vernon, F.A & Sprod, M.N., op.cit., p.174.
- ⁸⁸ Syndicate, 1884: Merc 1 Jan 1884, Supp. 1885: AOT AC 705, No.63.

- ⁸⁹ 1932: *Illustrated Tasmanian Mail*, 1 Dec 1932. Steam mill: comparison of surviving building with an 1870 lithograph of the mill, reproduced as Plate 60 in Craig, Clifford, *More Old Tasmanian Prints*, Launceston, 1984.
- ⁹⁰ Second mill: HTC 19 June 1835, p.2/5. Baker: CT 20 Oct 1840, p.2/4. Britain: See Hills, Richard L., *Power from Wind: A History of Windmill Technology*, Cambridge University press, pp.11-24. Horizontal: HTC, 18 Mar 1836, p.2/3. Failure, new mill planned: Ibid, 13 May 1836, p.2/4.
- ⁹¹ 1837: CT 18 July 1837, p.212/2. Supplying flour: Ibid, 29 Nov 1836, p.409-410. Insolvent, auction: CT 22 Sept 1840, p.2/3. Bathurst St: Ibid, 21 Sept 1841, p.1/4. Fisher: Ibid, 24 Nov 1840, p.1/4. Frith photo: TMAG Q1996.81.3. De Wesselow: Angus, Max, op.cit., p. 121.
- ⁹² For lease: CT 24 Jan 1843, p.3/6. Butterworth: Spencer, W.E., "John Grayson, Alias William Butterworth," op.cit., p.95. 84 Macquarie: VR 1853, cf CT 18 July 1837, p.212/2. Fulton: Hand-written note on the reverse of AOT 30/3701. Auction: HTC 15 July 1853, p.3/5, & 4 Aug, p.2/1. Luckman: Merc 24 July 1860, p.3/7. Scripps, Lindy, *The Industrial Heritage of Hobart: 1. Historical Study*, (draft), Hobart City Council, 1995, p.24. Never worked again: VRs.
- ⁹³ Demolished: On back of AOT 30/3701.
- ⁹⁴ Subdivision: AOT LSD 1/80/345.
- ⁹⁵ Location & Murray: Deposited deed No.713, 1841, Registry of Deeds, Hobart. Distillery site: Rayner, op.cit., p.29. Garrett leaving: CT 17 Jan 1837, p.19/2. 1833 & 1835: Ross *Almanacks*. Sale: HTC 24 May 1839, p.3/3. Water rights: HTC 22 Feb 1839, p.3/3. Vigar bought: Deed 713. Insolvency & auction: HTC 28 May 1841, p.3/4. Murray's house at Dynnyrne: CT 14 Nov 1855, p.1/2.
- ⁹⁶ Deed 713. First reference to Dynnyrne Mill: CT 27 Oct 1846, p.2/1. 1874: Merc 22 May 1874, p.2/4. Steam: Clark to CRE, 17 April 1845, in Brand, Ian (ed), "Letterbook of Alexander Clark", held at Port Arthur Historic Site. Auction: HTC 2 May 1857, p.3/5. 1856: HTC 14 April 1856, Supp. 1860: VR.
- ⁹⁷ Fire: LE 12 Oct 1861, p.5/2, & 17 Oct, p.5/1. Bedford: CC 20 May 1865, Supp p.4/3. Burt: Merc 28 May 1870, p.1/6. For sale: Merc 22 Jan 1872, p.4/6. Woollen factory: Merc 22 May 1874, p.2/4. Wilson: Ibid, 8 May 1878, p.4/3. Not in use: AOT AC 705 No.345.
- ⁹⁸ Auction: HTC 28 May 1841, p.3/4. First insolvency: e.g. HTC 16 Feb 1841, p.3/4. Driscoll: Deposited deed no.713, Registry of Deeds. 2nd insolvency: HTC 10 Dec 1845, p.3/4.
- ⁹⁹ For sale: CT 6 May 1845, p.1/1. 1848: HTC 4 Mar 1848, p.3/5. Clean: CT 6 Nov 1849, p.4/5.
- ¹⁰⁰ Bone mill: CT 17 Jan 1851, Supp p.2/4. Another: Ibid, 19 May 1853, p.3/5. Price: Merc 24 Dec 1855, p.3/3. Insolvent: HTC 16 Oct 1856, p.3/5. J. George Winter: VRs. For sale: Merc 21 Nov 1860, p.4/6; 19 Nov 1862, p.8/4. Newman: Ibid, 22 Feb 1865, p.1/6. 1870s: VRs.
- ¹⁰¹ Sandstone blocks: Kevin Green pers. com. 8 April 1999.
- ¹⁰² Grant & 1827: AOT LSD 1/10/298-99. Rayner, op.cit., p.37. Forced sale: CT 4 Aug 1826, p.1/4. Stokell: Ibid, 17 Oct 1828, p.1/4. Degraives: Map in AOT CSO 5/113/2541, p.68.
- ¹⁰³ HTC 18 Aug 1843, p.3/5; 19 Nov 1844, p.3/3, & 28 Oct 1846, p.4/3.
- ¹⁰⁴ 1834: CT 16 Dec 1834, p.398/2. Description: HTC 18 Mar 1836, p.2/3. CT 22 Mar 1836, p.103/1. Height and thickness: Merc. 28 May 1873, p.3/2-3. English windmills: Dolman, Peter, "Bygone Mills: High Mill, Southtown, Great Yarmouth," in *Mill News: The Newsletter of the Mills Section of the Society for the Protection of Ancient Buildings*, Jan 1999, pp.12-14.
- ¹⁰⁵ Newly erected: HTC 17 Dec 1841, p.1/1. Frankland: QVM 1984 M 731. Sails & old-fashioned: Merc. 28 May 1873, p.3/2-3. Hull: Andel, Lucille V., *Clerk of the House: the reminiscences of Hugh Munro Hull*, 1984, p.50.
- ¹⁰⁶ Insolvent: HTC 30 Aug 1845, p.3/5. Conveyances dated 5 June 1846 & 23 July 1849, cited in Rowntree, Amy, *Battery Point Today and Yesterday*, published by the Adult Education Board of Tasmania, 1968, p.59. Hewitt conveyance: HTC 26 July 1845, p.3/5. Cowgill: Ibid, & HTC 23 Sept 1848, p.3/5. Description: LE 15 Sept 1855, p.5/6-7. Norman, L, *Pioneer Shipping of Tasmania*, Hobart, 1938, p.105. Not sold: HTC 24 Sept 1855, p.1/1.
- ¹⁰⁷ Steam: Merc 29 Oct 1861, p.3/7. Tank & passage: Merc. 28 May 1873, p.3/2. Position: *Australasian Sketcher*, 10 May 1879. Partnership dissolved: Merc 15 June 1864, p.1/7. Lease: Ibid, 10 Nov 1864, p.1/6. Grinding: Ibid, 30 Aug 1865, p.1/2, & 29 Oct 1861, p.3/7. Died: Ibid, 25 Aug 1866, p.2/6. Description: Ibid, 27 Mar 1867, p.1/7.
- ¹⁰⁸ Farnfield: Ibid, 6 Feb 1868, p.1/7. See also his printed grinding rates in papers at the Swansea Bark Mill. Green: Merc. 11 April 1868, p.1/1. Green as Farnfield's son: HTC 12 July 1844, p.1/2. Grueber: Ibid, 30 Nov 1868, p.1/2; and his memoirs in UT DX19/F 218.

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- ¹⁰⁹ 1875: Merc 26 Nov 1875, p.4/6. 1878: Ibid, 5 Mar 1878, pp. 1/2 & 2/6. Pike: Hudspeth, A., & Scripps, L., *Battery Point Historical Research*, National Estate Grants program, 1990, p.46. Nephew: *The Illustrated Tasmanian Mail* 1 Dec 1932.
- ¹¹⁰ Grubb & plea: Merc 5 Oct 1883. Demolition: Rowntree, Amy, op.cit., p.60. Norman, L., *Pioneer Shipping of Tasmania*, Hobart, 1938, pp.105-6. View: Merc 28 May 1873, p.3/3.
- ¹¹¹ 2 houses: *The Illustrated Tasmanian Mail*, 1 Dec 1932. Bill Foster pers.comm. 1 April 2000.
- ¹¹² Meeting: CT 30 June 1840, p.3/3. Obituary: Merc 12 Sept 1894, p.3/6. Butterworth: Spencer, W.E., "John Grayson, Alias William Butterworth," op.cit., pp.91 & 93.
- ¹¹³ Ibid, p.94. Green, new mill: CT 14 Aug 1846, p.2/1. VR for 1891. Green's advertisements: e.g. CT 18 June 1847, p.2/3. "Commercial": HTC 10 Feb 1855, p.2/6.
- ¹¹⁴ July 1847: CT 18 June 1847, p.2/3. Mrs Clark: 1853 VR. Owner: HTC 5 April 1856, p.3/2. Searle: Merc 7 Aug 1858, p.1/7. Remainder: CC 9 Sept 1863, p.7/5.
- ¹¹⁵ Retired: Merc 3 July 1865, p.2/2. Mercury: 9 Dec 1872, p.2/7. Clark: AOT AC 705, no.3.
- ¹¹⁶ 1873: VR. 1881: Maning's *Post Office Directory*. Fire: Merc 22 Nov 1890, Supp. p.1/5.
- ¹¹⁷ 1900, 1903: VRs. Norman, L., *Haunts of the Blue Whale*, Hobart, 1978, p.54.
- ¹¹⁸ Gibson history: *Tasmanian News*, 29 Nov 1905, & Bryan Gibson pers.com 11 Dec 1996. 1864: Merc 21 June 1864, p.1/3. Bought from Rheuban: deeds in possession of Greg Hinde. Accident: LE 7 Dec 1871, p.2/3. Death: Ibid, 26 Dec, p.2/5.
- ¹¹⁹ 1872: Merc 9 Dec 1872, p.2/7.
- ¹²⁰ Fire: LE 11 Mar 1878, p.3/2, & Merc 16 Mar 1878, p.10. Rollers etc: AOT AC 705, No.137.
- ¹²¹ New machinery: AM Jan 1896, p.12. 1895 bought building: deeds in possession of Greg Hinde.
- ¹²² Gibson family: pers.comm. Bryan Gibson 11 Dec 1996. Shipping: O'May, D. G., *Song of Steam*, Tas, 1976, p.172. Murdoch died: von Stieglitz files, Queen Victoria Museum & Art Gallery. Statistics: Royal Comm pp.519 & 527. 10-sack mill: QVMAG 1987 MS 5. Alterations: Sketch in possession of Gibson's.
- ¹²³ Monds and Affleck: Russell Fyfe pers.comm. 12 Feb 1999. 24 silos: Rupert Bell pers.comm. 8 May 1998.
- ¹²⁴ Tas Mail 6 Oct 1877, p.9. Opened: Merc 12 Dec 1877, p.3/5.
- ¹²⁵ Fire: Ex 16 Jan 1888, p.2/7; Merc 16 Jan 1888, p.2/9; ibid, 19 Jan 1888. Later occupants: AOT AC 705, No.64. Norman, Leslie, *Haunts of the Blue Whale*, op.cit., p.35.
- ¹²⁶ Hudspeth, A., & Scripps, L., *Sullivans Cove Historical Research: Hunter St*, 1988, pp.29-32. *Tasmanian Mail*, 26 Nov 1892, p.34/3-4.
- ¹²⁷ Select Committee on Interstate Shipping, Paper 32 in PP 1912.
- ¹²⁸ Hudspeth, A., & Scripps, L., op.cit., p.32. Old grain: pamphlet issued by the Drunken Admiral.
- ¹²⁹ Ex Supp. 14 Aug 1962. Alan Long pers.com 11 Feb 1999. Russell Fyfe pers.comm. 12 Feb 1999. LE 31 Aug 1995.
- ¹³⁰ Bruford: CT 11 June 1830, p.1/2; ibid 12 Nov 1833, p.1/1. Barrett: HTC 12 Mar 1858, p.3/4.

CHAPTER THREE

NEW TOWN AND GLENORCHY

3.1 New Town Rivulet

3.1.1 Nash's Mill

Very little is known of this mill. One of the key accounts is in Bent's *Tasmanian Almanack* for 1829 where, in describing events in 1816, he writes: "Great fall of rain (similar to the one experienced in 1809, when Nash's mill at New-town was carried away)...." Robert Nash had been involved with milling on Norfolk Island, and after that initial settlement was abandoned he arrived in Van Diemen's Land in October 1808, and apparently got quickly to work. New Town was the area where free settlers had been granted the first farms and where many of the Norfolk Islanders had land so it would have seemed a good idea to have a mill there. However, Bent must have made a mistake with the date as the mill was certainly still there in early 1810. In January 1810 Lieutenant-Governor Collins wrote:

The Bearer Robert Nash has since his arrival at this Settlement from Norfolk Island uniformly conducted himself with Propriety and has been an assiduous and diligent Settler, constantly employed in Agriculture, and has lately incurred very heavy expenses and contracted many Debts in order to erect a Mill which when completed, will be of infinite Service to this Settlement.¹

Fortunately some details of the operation of this mill are found in a letter his friend William Maum wrote to Nash in April 1810 while the latter was in Sydney. As this is the key source it is worth quoting at length:

I am sorry to inform you that the Mill project does not seem to answer all the expectations formed of it, as at present they grind but little having no head of Water.... Whether the dam leaks or not you will be best able to determine on your Return. Mr Clarke has drawn from J. Lord upwards of £250 on his Share of the Mill, and no person but himself knows the expenditure of a Shilling of it - and likewise the Toll of what is ground, which should go to pay Mr. Lord, is generally expended. Mr. Lord has not as yet received a Shilling, but your account with Government for work - therefore you may plainly see, that I acted right in not attending on any account to the Mill, as my presence on your behalf might countenance Clarke's proceedings.... I have drawn out and have ready your acct (sic) against the Mill which amounts to £290 independent of your own Labour, Iem's(?) or the work you performed before you joined with Clarke - and your £290 is upon any just calculation equal to 800£ (sic) issued by Lord for Clarke.

From this it is clear that Nash had begun a mill on his own, but had then joined with John Clarke who was now operating the mill while Nash was in Sydney. The mill was being financed by James Lord, the emancipist who was later to finance the Old Mill for Nash on Hobart Town Rivulet (see 2.1). Clarke had arrived on the *Calcutta* with Collins, and sentenced for life. It is unlikely that Nash found any problems with him as they were still partners when they contracted to build the Old Mill.²

The location of Nash's mill is of interest but difficult to determine exactly. However, a clue is given in a letter from the Reverend Knopwood to Nash written in February. He wrote that one Nichols had complained that Nash had taken in some of his land, but after a meeting

agreed to “give up all claims to the Mill and the Water being permitted to pass through his ground.” Nichols is William Nichols, one time Superintendent of Carpenters, who had arrived with Collins and been given a grant of 100 acres on and to the south of New Town Rivulet. There were four similar grants made in December 1805 and from east to west they were given to Thomas Issel (whose land was bounded on the east by the Derwent River), Thomas Hayes, Henry Hayes and William Nichols. Nash had presumably bought Henry Hayes’ land and cut a mill race through Nichols’ allotment, which would mean it was quite a bit upstream from the main road which ran through Thomas Hayes’ land. However, it is possible that the mill race continued on to Thomas Hayes’ land. Hayes was a millwright who later built at least two mills at Bagdad (see 5.1.2), and planned to have a mill on his New Town property as he called it Mill Farm. In 1807 a road was made through Hayes’ farm, with a bridge over the rivulet, so this would be a convenient place for a mill. Interestingly, Nichols’ daughter Margaret married Thomas Hayes jnr, although not until 1814. (It is also an intriguing coincidence that Hayes’ Mill Farm was granted to him on the very day Collins requested millstones and other equipment for a mill - see 1.1).³

Nash’s first mill was not a success. As well as the problem with the dam mentioned by Maum, it is clear that the debt to Lord was worrying, at least as far as Maum was concerned. “Respecting your bullocks working for Government at Norfolk [Island],” he wrote, “I would advise you to memorial the Governor on that head, and if you could get paid for the mill at Norfolk it would clear you with Mr. Lord, who I very much wish was paid.” Finally, the mill was destroyed in a flood, presumably in winter 1810. Nash and Clarke gave up the site as a bad job and moved to build the Old Mill in Hobart Town (see 2.1).

There is a later series of tantalising land transfers for Mill Farm. On 30 June 1813 John Murray sold to Thomas Kent for £600 the property “commonly called by the name of Mill Farm...granted ...to Tho Hayes...together with every description of building erected thereon...” Six months later Kent transferred the land to Edward Lord and William Collins for £700, and just one day later they sold it to Thomas McNeelance for the same price. Both McNeelance and the partnership of Lord and Collins were interested in mills (see 2.1) and they may have been interested in some milling equipment on the site, or perhaps in starting up a mill there. Nothing further is known, except for the fact that in June 1815 Thomas Kent again owned the land and took out a mortgage with James Lord and his partner Thomas Clarke, using Mill Farm as security. The significance of all these transactions is impossible to determine at this stage.⁴

There is one other possible reference to this mill. In the 1862 Valuation Roll Frederick Vigar, owner of the Albion Mill (Calder’s - see 3.1.3), is also listed as owning “part of old mill” on one acre with an annual value of £6, and this might have been the remains of Nash’s mill—or it might have been the first mill built by Calder.

3.1.2 Nichols’ mill

The only reference to this mill is the following sentence from Maum’s letter to Nash:

Nichols is erecting a Mill, and his dam is completely finished, Mr. Loane advancing £300, which when finished will injure you most materially, as many people grumble which would not be the Case had you been here.

This letter was written on 30 April 1810. It is possible that Nichols did not get much further before the flood destroyed his dam and any mill building he had been able to erect. He was later to move to Clarence Plains and build a windmill (see 6.1.2).

3.1.3 Gatehouse's Mill

It was probably another fifteen years before the next mill was built on the New Town Rivulet, although the exact date is difficult to determine. It was part of a complex of buildings erected by George Gatehouse, an emancipist who had served his sentence in New South Wales and returned to England before emigrating to Van Diemen's Land in 1815. After a successful foray into mercantile business in association with A.F. Kemp he retired to a property, variously called New Farm or Greenleas, he had bought on the northern side of the New Town Rivulet and established a house and brewery, both of which are still there at 15 Hamel Street. The brewery was not successful, as by the end of the decade he claimed to have spent £12 000 with only low returns.⁵

At some stage Gatehouse decided to build a flour mill between his house and the rivulet. The dam was built on the western side of the Main Road probably just below Moss Park Drive. The race then came under the Main Road and into a large rectangular millpond at the western end and southern side of what is now Hamel Street. The mill was certainly there in 1829, the date of publication of Widowsen's account which referred to Gatehouse as "an extensive miller and brewer," but could well have been in existence some years earlier. A store book belonging to Gatehouse begins in February 1826 and contains such items as: amounts of wheat or meal supplied by or to clients; amounts of wheat credited, dressed and stored; quantities of meal on hand; number of bushels of wheat added or taken from store; and supply of bran or rubble to the grooms, stockkeepers or clients. These items could well belong to a miller, but also to someone keeping goods to provide to his workforce.⁶

In 1831 Gatehouse was one of several landowners who noticed with alarm that Arthur had authorised a water scheme for Hobart which involved diverting water from New Town Rivulet. Work had already begun on the diversion when Gatehouse and the others protested that there would not be enough water in summer to operate the mill and brewery, or provide water for agriculture. In early 1832 Arthur finally called off the plan as it was obvious that during that summer the rivulet had had too poor a supply.⁷

Gatehouse died in 1838, aged 60. A few years later his lawyer, Robert Pitcairn, wrote to Roderic O'Connor:

Few persons could be more generally regretted than Mr G. was, as an old & respected merchant, and a kind-hearted worthy man. Immediately after his death, all kinds of unpleasant reports were circulated respecting the state of his affairs. But these I think are succeeded by others of a more favourable character, and although there must be some difficulty and delay in winding up business, the result I have little doubt will be much more favourable than was at first supposed.

The property remained with his widow Edith, although it was her nephew G.F. Read (who had earlier owned the Old Mill—see 2.1) who administered it. In early 1839 the property was advertised for let with the mill being described as being "in a most excellent situation for business; the whole of the machinery is in good repair, but the building requires some repairs, which the tenant would be expected to do." The mill dam was several times referred

to, as providing water for irrigation to the orchard and extensive garden, and to the brewery and malthouse.⁸

The property was let to Captain Richard Jacomb R.N. who in February 1840 advertised for a miller, and then in March announced that the New Town Flour Mill was ready for grinding. That same year a new bridge was built over the creek and the approaches had to include an arch to go over the mill race. Cheyne, the Director of Public Works, optimistically presumed that "the Road was in existence before the Race, if so it appears to me the work must fall on Mr. Jacomb." However, the decision was made that the Government must pay. But from then on Jacomb had a series of difficulties. In 1841 his water supply was interrupted and the man responsible was John Dunn, who owned the land on the western side of the Main Road through which the mill race flowed. The following year Jacomb's beer was of such poor quality that he sued Alexander Calder who was building a flour mill further up the creek (see 3.1.3). Jacomb claimed damages of £2000, but he lost the case when it was shown that the maltster should not have attempted to make malt in January. The Attorney -General, on behalf of Calder, felt that "Mr. Jacomb having been brought up to the sea, it was a pity that he should leave his profession to dive into a mode of making money with which he was not thoroughly acquainted, and must therefore leave the responsibility to his underlings." A crucial witness was:

[a]n eccentric little man...who announced himself as "dearly loving" a glass of *good* beer [and who] stated that he had several times tried to drink Mr Jacomb's, but had found it so bad that he determined on brewing for himself...and invariably used the water coming from Mr. Calder's premises, and had always been successful in his malt achievements.

In 1845 Jacomb asked unsuccessfully for the rent of £269 to be reduced.⁹

After Jacomb moved to Geelong in 1848 the property was several times offered for lease and finally sale. In May 1848 the property was bought by John Mezger, the wealthy publican from the Bird-in Hand Hotel in Argyle Street, and the *Hobart Town Gazette* considered that the £3800 he had paid was a bargain price. Mezger employed Jonathon Watson as miller, but in August he advertised the whole of the property for let. The very detailed description included the following:

The mill-wheel, which is 25 feet in diameter, is supplied from the stream with an abundance of water at all seasons, driving two pairs of first class burr stones, in excellent order for work,—a malt-mill, and a flour dresser.

The first floor of the malt-house, 120 feet [36m] by 28 feet [8.5m], was used as the granary. A steam engine on the premises apparently was used only for the brewery.¹⁰

It appears that Mezger was unable to let the property; certainly the flour mill which had "been put in complete repair" was advertised many times. Finally he took a partner in the Bird-in Hand, and built a bone mill at New Town which he opened at the end of 1849. After Mezger's death in 1854, the estate was offered for let and the bone mill at least continued to work. From 1862 the flour mill was working and perhaps had been reopened by John Mezger jnr, who announced that "his flour mill is in first rate working order, and that he is *now* prepared to undertake grist work, and to supply flour, bran and sharps of the best quality.... The charge for grinding and dressing wheat will be sixpence per bushel [our italics]...." It is impossible to determine how long the flour mill continued to work after this. An 1874 advertisement for bone dust does give buyers the option of paying in wheat, which may

indicate that the flour mill was still working. No further references to it have been found in the newspapers, although Mezger continued to advertise the bone mill up to at least 1880.¹¹

The mill looks dilapidated in the several paintings of the mill made around the turn of the century, including ones by A. Henry Fullwood and Frederick McCubbin. From these paintings it is clear that the mill was built largely of brick. Its subsequent history is unknown. The house was badly burnt about 1908, and it is possible that the mill was so badly damaged at that time that it was pulled down. A wall remains near the creek which could well be part of the mill, as some years ago there was a very deep hole in front of it, possibly from the wheel pit. The millpond continued in existence for many years and was used for the local market gardens at least until the 1920s. Traces of the line of the millrace can be found on the western side of the Main Road.¹²

3.1.4 Calder's Albion Mill

Alexander Calder's mill was built in 1841-3 on the northern side of the rivulet at what is now 80 Creek Road. Before it was even operating, however, Calder was in strife over his dam. In March 1842 Jacomb sued him for £2000, charging that the water backed up behind the dam as far as Regan's tannery (which was about the location of the present Gerrard Street) and thus polluted the supply of water to Jacomb's brewery further downstream (see 3.1.3). Although Calder won the case, his lawyer describing him as an "honest, industrious and ...persecuted" man, the dam and a bridge were destroyed anyway as they were built on government land—the Orphan School property—without permission. It was another 21 months before Calder's mill was operating; no doubt there was some difficulty in organising another site for the dam. It is quite possible that at his second attempt Calder dammed the creek *above* the tannery, as the traces of the race still to be seen high on the hill above the mill site would have required a dam considerably higher up the rivulet. It may have been necessary to begin a new mill building too. When the mill was auctioned in 1851 (see below) the mill was on 7½ acres, but by 1862 the new owner had the mill on 6½ acres, plus one acre with "part of Old Mill." It is possible that this latter was the remains of Calder's first attempt, although it might also refer to Nash's mill (see 3.1.1).¹³

Finally in December 1843 Calder was able to advertise:

Albion Mill, New Town Creek—The public are respectfully informed that the above Mill is now open to Grind and Dress Flour for the accommodation of the neighbourhood, or any other grain that may be required to be cracked; the proprietor having at great expense furnished superior French burr stones, and every other requisite of the best and most substantial materials, and an experienced miller.

By 1846 an Albion Mills Store had been established at the Old Wharf in Hobart Town to sell flour, but by October 1847 R. Walker was advertising the mills for let.¹⁴

In 1851 they were put up for auction and described in some detail in the advertisement, which was headed "Calder's Water-mill, New Town Rivulet, with about 7½ Acres of Land" and which mentioned as well the "Dwelling-house and extensive Premises" on the land which was bounded by the estates of W. Rout, John Regan and S. Blackwell:

The mill machinery consists of—A large water-wheel, with cast iron axle; Two pair of millstones; Dressing and smutting machines, nearly new; Cast iron pit wheel and wollower (sic), with iron upright shaft; Crown wheel, with pinion and drum for driving the dressing machines. The inside machinery is in good repair; the waterfall (sic) upwards of 20 feet. A machine for grinding bones might be attached at a very trifling cost.

The mill was bought by Frederick Vigar who had been leasing the Waterloo Mill (see 2.2.2). No further newspaper reference to the mill has been found and it seems likely that it did not function as a mill for very long. In 1854 Vigar was given permission to construct a dam on the rivulet “to form a mill race on the Orphan School [now St John’s Park] land on condition of his paying annually in advance the sum of £1.” This was on the southern side of the rivulet, and it may indicate that like Nash he was having trouble with his dam or mill race. No further references to the mill’s working have been found and by 1862 Vigar was living at Brown’s River (Kingston).¹⁵

The two mill buildings of stone with some timber were to survive for several more decades and become a favourite subject for artists, with each new painting documenting the slow decay of the buildings and particularly the water wheel. By the time of a photograph dated 1900, the timber roof of the easterly building had almost entirely fallen in and the wheel was broken, although still surviving propped up against the wall. However, in 1963 Hilda Bridges told “Peregrine” of the *Mercury* (Michael Sharland) that in 1889 she had had a picnic on the site on her birthday—sitting on one millstone and eating her food off another—and by that time the wheel had gone, the walls were wrecked by floods, a fire had burnt the works and only the foundations were left. She also claimed that the mill had belonged to her ancestor Robert Nash, although this is unlikely (see 3.1.1).¹⁶

Stone foundations about two metres high remain in the creek bed. From their position in relation to the bridge which crosses the creek below and from which the various paintings would probably have been done, it is likely that they are the remains of the second building rather than the mill building itself.

3.2 Glenorchy

3.2.1 Houghton Mill

The first flour mill at O’Brien’s Bridge on Humphrey’s Rivulet was established by William Bowden on land granted to his surgeon father Matthew in 1804. According to his headstone Matthew Bowden had in the early part of his life been surgeon in the King’s Own Regiment under Sir H. Houghton, although it is also said that he was born at Houghton-le-Spring near Durham. Either of these explanations would account for the name “Houghton” which his son gave to the mill. It was June 1834 when Bowden announced that “his Mill at O’Brien’s Bridge, has commenced grinding....” It was built a little distance from the eastern side of the rivulet at the southerly end of what is still called Mill Lane. The dam for the head race was roughly in the vicinity of Massey Street, and the tail race debouched into the rivulet just above O’Brien’s Bridge itself.¹⁷

Unfortunately the water supply in the rivulet had been gradually decreasing since the early 1820s, and when for two summers running there was not enough water to operate the mill,

Bowden was forced to dig a water course of about a kilometre in length to bring water from a large lagoon on the mountain into the rivulet, thus doubling the quantity of water. However, worries that this may lead to excessive damage in the O'Brien's Bridge area in flood times led Cheyne and Frankland to contemplate ordering Bowden to break up the water course, although it is not known if he did.¹⁸

In 1840, deciding to emigrate to Port Philip, Bowden offered the estate known as "The Houghton Mills" at Kensington for auction. By that time there were two mills, as the advertisement makes clear.

The first lot will be the front mill, dwelling house, and extensive premises.... The mill, extensive granary, and stores, are fitted up with every convenience; the mill stones are first-rate, and the machinery complete in the requisite appendages for dressing, cleaning, &c.... The lease, for thirteen years, of the new stone mill, with a wheel of extraordinary power, machinery complete, and an abundant supply of water throughout the year, will be put up the second lot.

However, the Houghton Mills which were expected to bring £4000 were bought in at £3150. They were immediately offered again for sale and the three acres of land together with the mill and dwelling house were bought by George Sutherland who took over the running of Houghton. Bowden had in 1839 opened a retail flour store "adjoining Captain Sutherland's Old Wharf," and there was perhaps some relationship between the two men. Bowden moved to Victoria and worked at a flour mill at Geelong, while J.G. Winter who had been Houghton miller for four years relocated to the new mill, called Kensington Mill (see 3.2.2 for further details). Meanwhile Sutherland announced that wheat would be ground at ninepence a bushel, which included cartage to and from town, and grain intended for the mill would be received at the store on the Old Wharf, but a month later he was insolvent. Evidently the tanners and curriers Robert Grant and John White had bought some of the estate in 1840, and it seems they bought the flour mill as well after Sutherland's insolvency.¹⁹

Following Grant's death in 1850, the Kensington Tannery and Houghton Mills were offered for sale, with the mills described as "in excellent order, commanding a never-failing supply of water, will work two pair of stones, has dressing and smut machines, a chaff-cutting machine is also attached and turned by the stream, and extensive storage...." A plan held by the Archives of Tasmania probably dates from this time. The flour mill adjoining the dwelling house was shown in two sections, with the half closest to the house made of wood, and a brick half closest to the mill race (and rivulet). The tannery was bought by Isaac Wright and the mill by its old owner W.H. Bowden for £1275. There is some confusion about what happened next, as Bowden was operating a tannery less than a year later but it is unclear whether he bought Wright's premises or established a new business himself. In any event he chose a good time to buy, with the effect of the gold rushes making themselves felt. When in 1857 he sold all his property, it brought £6119 16 shillings, including the "flour and steam mill, tannery and fellmongery establishment with the homestead of 16 rooms, 3 cottages for servants...and about 7 acres of land" which sold for £3000. Just when Bowden added the steam engine is unknown. In 1858 he returned to Victoria and built the Belmont Mill on the Barwon River.²⁰

In the 1858 Valuation Roll the mill and tannery were owned and occupied by Thomas Bowden, William's half-brother, but by 1860 he was a tenant only and William Murray of Murrayfield was the owner. James Peet, whose Dynnyrne Mill had just burnt down, came in to manage the mill for the next sixteen years before moving to set up his new mill in

Gladstone Street (see 2.11 & 2.17). In 1872 the mill was described as a three storey wooden building with two pairs of three feet eight inch millstones, which could be driven by either the overshot 17-feet [5m] water wheel estimated to produce 12 hp, or an engine also of 12 hp. Machinery was of the old style as there was only a wire dresser and no elevators. Because much water used to be lost due to the porous nature of the ground, a relatively new water race brought water through 800 feet [240m] of wooden troughing three feet six inches [1m] wide. The mills were offered for lease in 1881, but no further newspaper references have been found.²¹

The mill is commemorated in "Mill Lane" and its original owner in "Bowden Street". No doubt the various millers also made good use of the long-running hotel, the Dusty Miller, which used to be on the south-west corner of Tolosa Street and the Main Road.

3.2.2 Kensington Mill

William Bowden evidently felt that he should take advantage of having a long frontage on Humphrey's Rivulet and by January 1840 he had built a new stone mill, named Kensington after the parish it was in. The mill seems to have been upstream of the Houghton Mill. Unfortunately he probably overstretched himself as by July 1841 he was insolvent. John Gittins Winter left Houghton to open the new mill, offering cartage within five miles and promising that, "[t]he Mill being well supplied with water at all times, regular customers will always receive the preference during the short water season." He appointed Alexander Bruford of the Old Wharf his agent for the reception of grain and sale of flour. In November 1842 he left for the Sorell Mills (see 2.5) and was replaced by Frederick George Hull who assured the public that he would content himself with "the smallest profits to enable him to carry [the business] on consistently." Even he must have been shocked to discover how small these profits would be as Van Diemen's Land moved ever deeper into depression, and in 1844 he halved the price for grinding and dressing to a mere sixpence a bushel.²²

It was probably the poor profits that enticed Hull to diversify into starch manufacturing, appealing as he did so to patriotic fervour.

Mr Frederick Hull having completed his Starch Manufactory, in which neither time, trouble, nor expense has been spared, to enable him to bring into the market and article infinitely *superior* to the best *London* made; the public are invited to make one trial, and those who have the *interest* of the colony at heart ought to do so, when they remember upwards of 5,000 bushels of wheat is annually consumed in England in making Starch for *Van Diemen's Land*.

Both mill and starch factory were put up for auction in 1846, the proprietor living at Tolosa. By 1848 it had been bought by Charles Hewer who put the mill in thorough repair and operated it for seventeen years. He survived the loss of his dam by flood in February 1854 and then another major flood in August 1858 which damaged only his mill race, though even then the damage was estimated to be £200-300, but in 1864 the mill was put up for auction as Hewer had defaulted on mortgage repayments. The mortgagee was William Green of the Commercial Mill (see 2.15), and he seems to have acquired the mill at this time, so probably there were no buyers at the auction. Hewer was declared insolvent in 1865 and Green employed a competent miller and advertised grinding and dressing at sixpence a bushel. By 1868 the mill was sold to that other well-known miller, James Peet, who at the time was manager at Houghton.²³

Hewer returned as lessee in 1868 but he had been replaced by William Morrisby in 1872 when yet another flood washed away the mill's race and private bridge. The *Mercury* described the 3-storey mill in 1872. The overshot water wheel, 35 feet [10m] in diameter, drove two pairs of three feet six inch burr stones from the extremity rather than the shaft. About 84 feet [25m] of troughing brought the water from the dam "and the dam enables the work to be carried on there when there is not water enough to drive the mills lower down the creek." The mill must have stopped working for a little while as in 1877 Peet announced he had "reopened" the mill, with grinding and dressing once again at sixpence a bushel. However, soon afterwards he opened a new steam mill in town (see 2.17) and the Kensington Mill was converted into a hat factory by Benjamin Dunkerley. This factory was still operating at least in 1885, and it is unclear when it stopped working altogether. According to a local resident in 1962, the wheel was dismantled about 1908 at a time when the mill was leased by Sydney Shoobridge of Clydesdale.²⁴

3.2.3 Ravensdale

Very little is known of this mill. The earliest reference to it seems to be in 1865 when an auction was announced of an "Old Mill at O'Brien's Bridge situated on Captain Smith's Farm known as Ravensdale.... An Old Mill containing some thousands of feet of cut Freestone together with all the large quantity of timber thereunto belonging.... Three months will be allowed for its removal." Ravensdale was a property adjoining Clydesdale on the Rivulet. The following year the "valuable farm at O'Brien's Bridge, known as Ravensdale...bounded by the properties of Mr. Shoobridge and others" was offered for sale. The advertisement included the information that: "There is on the property a wind mill, substantially built of stone, and only requiring a small outlay for machinery, &c, to make it a most useful and lucrative part of the farm."²⁵

This second description indicates that the mill was unable to work as it did not contain the necessary machinery, but as it was an "old mill" in the first advertisement it may well have worked many years previously.

3.2.4 Another O'Brien's Bridge Mill?

In 1850 a notice in the *Hobart Town Courier* mentioned another possible mill on Humphrey's Rivulet when it advertised an auction under the instructions of John Walker, the manager of the Derwent Bank, of an estate of 42 acres close to O'Briens's Bridge and on the Main Road. The property, in the occupation of Edward Abbott and adjoining the properties of Grant, Hull and Steel, had "a cut-stone ashlar building of 40 x 20 [feet: 12m x 6m] erected for a mill, intended to work a wheel 30 feet [9m] in diameter, and is 3 stories high, affording extensive store room." The building was said to be easily converted into "a woollen manufactory, brewery, distillery, tannery, cloth or starch manufactory." Nothing further is known of this and it is most likely that the mill was not completed and was converted to other uses.²⁶

¹ Milling on Norfolk Island: "Notes by the Way," in *The Critic*, 26 Nov 1920. Norfolk Islanders: Schaffer, Irene, *Bridges and early buildings Hobart to Broadmarsh: excursion 1st November 1992*, p.9. Collins testimonial: MS 10913, Calder Collection,

- ² MS 10913, Calder Collection, Maum to Nash, LTAMC, SLV. HT muster 1818.
- ³ MS 10913, Calder Collection, Knopwood to Nash, LTAMC, SLV. Nichols: Wright, Reg, *The Forgotten Generation of Norfolk Island and Van Diemens Land*, Sydney, 1986, p.92. AOT LSD 354/1 pp.5-7. Hayes a millwright: Tipping, Marjorie, *Convicts Unbound: The Story of the Calcutta Convicts and their Settlement in Australia*, Ringwood, 1988, p.124. HRA III, I, p.552. Pioneers Index.
- ⁴ AONSW 4/433 pp.35-7 & 72-4.
- ⁵ ADB Vol.1.
- ⁶ Dam, race & millpond: conveyance from Gatehouse to Mezger 1848, Recorder of Titles. Pond: Also plan of Mezger's Estate, in possession of Jane Maconochie. Widowson: Quoted in Scripps, Lindy, *The New Town Rivulet Historical Study*, Hobart City Council, July 1993, p.10. Store book: Notes made by Mary Taylor.
- ⁷ Scripps, op.cit., pp.21-22.
- ⁸ Pitcairn to O'Connor, 10 Nov 1843, in Connorville Papers, Correspondence and Accounts c.1825-60. Read: Mary Taylor's notes. For let: CT 19 Feb 1839, p.59/1.
- ⁹ Leased May 1839, problems with Dunn & rent: Mrs Gatehouse's account with Pitcairn, in possession of Mary Taylor. Miller: CT 4 Feb 1840, p.3/2. Ready: Ibid, 17 Mar 1840, p.1/4. Arch & court case: Scripps, op.cit., p.22-3, and HTC 25 Mar 1842, p.4/3-4.
- ¹⁰ Geelong: HTC 13 Sept 1848, p.2/4. Lease: CT 21 Mar 1848, p.2/5. Selling: HTC 12 April 1848, p.3/5. £3800: HTC 17 May 1848, p.2/4. Watson: CT 27 June 1848, p.1/6, & 14 July, p.2/3. Description: Ibid, 29 Aug 1848, p.1/5.
- ¹¹ Flour mill: e.g. CT 23 Mar 1849, p.3/4. Partner: Ibid, 7 Sept 1849, p.1/3-4. Bone mill: Ibid, 23 Nov 1849, p.1/1 & 18 Dec, p.1/6. Flour: Merc 23 Aug 1862, p.7/6. 1874: Ibid, 22 July 1874, p.1/7. 1880: Ibid, 21 Aug 1880, p.1/7.
- ¹² Paintings: See e.g. Kolenberg, Hendrik & Julianna, *Tasmanian Vision: The art of nineteenth century Tasmania*, TMAG, 1988, p.93; also NLA R5565. Remainder: pers.comm. Helen Ockendon, Clive Ockendon & Jane Maconochie, 11 Mar 1998.
- ¹³ HTC 25 Mar 1842, p.4/3-4. See also Scripps, op.cit. pp.50 & 56. Mill race: Barry Taylor, pers.comm. 11 Mar 1998. 1862 Valuation Roll.
- ¹⁴ HTC 22 Dec 1843, p.1/4. Store: Ibid, 29 April 1846, p.1/1 & 28 Oct, p.3/3. Walker: CT 8 Oct 1847, p.4/5.
- ¹⁵ Auction: CT 1 April 1851, p.1/4. Vigar: deeds in possession of Barry Taylor. See also HTC 11 Feb 1854, p.4/2. New race: AOT CSO 24/246, No. 9872, p.206. VR Dec 1861.
- ¹⁶ Photo: TMAG Q12474. "Peregrine": Merc 5 Feb 1963.
- ¹⁷ Grant: AOT LSD 354/1 p.1. Headstone for Mathew (sic) Bowden in Lord, Richard, *Inscriptions in Stone: Street David's burial ground, 1804-1872*, Battery Point, 1976, p.28. Houghton-le-Spring: Geoff Bowden, pers comm. 31 May 1999. Position: Plan AOT NS 1305/1. Commenced: CT 17 June 1834, p.117/2
- ¹⁸ AOT LSD 1/5, pp.643-48.
- ¹⁹ Auction: HTC 31 Jan 1840, p.3/4. Bought in: Ibid, 14 Feb 1840, p.2/5. Offered for sale: Ibid, 28 Feb 1840, p.3/6. Sutherland: Ibid, 4 Dec 1840, p.3/5, CT 6 Oct 1840, p.1/2, & 9 Oct p.1/2. Victoria: Jones, Lewis and Peggy, *The Flour Mills of Victoria 1840-1990: An Historical Record*, The Flour Millers' Council of Victoria, 1990, p.123. Retail: HTC, 29 Oct 1839, p.347/1. Insolvent: HTC 24 Nov 1840, p.3/4. Grant & White: Ibid, 4 Dec 1840, p.3/5, & 23 July 1841, p.1/4.
- ²⁰ Grant: HTC 22 May 1850, p.2/1. Sale: Ibid, 7 Sept 1850, p.3/1. Plan: AOT NS 1305/1. Tannery: CT 28 Nov 1851, p.3/5. Jones, Lewis and Peggy, op.cit., p.123.
- ²¹ Thomas: Schaffer, Irene, *Bridges and Early Buildings*, op.cit., p.10a. Peet: Merc 3 Oct 1877, p.2/6. Ibid 26 Oct 1872, p.3/3-4. For lease: Ibid 26 Mar 1881, p.1/7.
- ²² Bowden: HTC 31 Jan 1840, p.3/4. Upstream: see CT 2 Mar 1854, p.2/5. Insolvent: CC 24 July 1841, p.3/6. Winter: CT 23 June 1840, p.3/1. Bruford: HTC 17 June 1842, p.1/1. Hull: Ibid, 18 Nov 1842, p.4/6. Sixpence: Ibid 12 April 1844, p.1/2.
- ²³ Starch: HTC 21 June 1845, p.3/5. Auction: Ibid, 28 Nov 1846, p.3/3. Hewer: CT 2 June 1848, p.1/1. Floods: CT 2 Mar 1854, p.2/5, & CC 18 Aug 1858, p.3/5-7. Default: Merc 9 Jan 1864, p.3/7. Insolvent: CC 8 July 1865, p.5/6. Green: Merc 26 Aug 1865, p.1/2. Peet: Merc 8 May 1867, p.4/6, & VR 1868.
- ²⁴ Hewer: Merc 25 April 1868, p.1/2. Flood: Ibid, 6 June 1872, p.2/5-6. Description: Ibid, 26 Oct 1872, p.3/4. Reopened: Merc 3 Mar 1877, p.3/6. Overshot, & working 1885: AOT AC 705, No.58. Dismantled: Butterworth to Lamb 15 Dec 1962, in Dallas Papers, UT 516/1-3.
- ²⁵ Old Mill: Merc 9 Dec 1865, p.4/4. Ravensdale: Brammall, Eileen (ed), *The Shoobridges in Australia: A History*, 1985, p.11. Farm: Ibid, 8 May 1866, p.4/7.
- ²⁶ HTC 13 Mar 1850, p.3/4.

CHAPTER FOUR

NEW NORFOLK AND THE UPPER DERWENT VALLEY

4.1 New Norfolk

4.1.1 Terry's Lachlan Mill

In December 1819 the *Hobart Town Gazette* announced that: "Mr Terry brings in the Prince Leopold a pair of mill-stones and a variety of utensils for the purpose of erecting a water-mill at this Settlement; and the place fixed upon for that undertaking, we are informed, is at New Norfolk." His arrival was certainly worthy of mention. Few free settlers had arrived in the colony by this date, and even fewer had arrived with the materials for setting up a mill. Indeed, Terry's mill was just the eleventh to be built in the colony and the first watermill to be built outside Hobart Town.¹

Terry came from a milling family in Yorkshire. David Burn who wrote about the colony in the 1830s said he was a brother of the "millionaire" Samuel Terry, but he was more likely to be a cousin or perhaps half-brother. That they were close is indicated by the fact that when John sold property in Sydney particulars could be obtained from Samuel, while both Samuel and John had mills which they named "Lachlan." Family notes state that when John decided to emigrate he sold cotton and flour mills at Redmire and Askrigg, so he had considerable means at his disposal on arrival. He and George Borrodaile Wilson, his future son-in-law, are said to have taken turns on the voyage out guarding his money. It was also reported of him that he had placed his money in small kegs and when on unloading one of them fell overboard, he remarked with cool Yorkshire aplomb that it was: "only a keg of nails; get them out by and by, but they may be a bit rusty." With his wife and eleven children Terry disembarked in Sydney and bought a Liverpool windmill which had been partially completed by Nathaniel Lucas (see 9.1.1), only later discovering that the land was leased and would after 21 years become part of the Barrack ground, so he gave up the windmill and moved to Van Diemen's Land.²

Governor Macquarie had granted Terry 1500 acres of which he took 1400 at Macquarie Plains, calling the property Askrigg. The remaining 100 acres he elected to take where the Lachlan (or Thames) meets the Derwent and near the village of New Norfolk (known as Elizabeth Town for some years). This was a wise choice: the road from Hobart Town had been built in 1819, the Derwent River gave excellent access, and settlement by first the Norfolk Islanders and then a steady line of other free settlers both in the village and further up the Derwent valley would have provided the necessary clientele. The Lachlan River supplied the water power.³

Terry built first a house and then the mill, particulars of which are detailed in a letter he wrote home on 10 April 1822 to a cousin, Miles Parker. The letter, as well as giving useful details about the mill itself, also describes some of the difficulties faced by those wishing to build mills in a new colony.

I received your kind and welcome letter in June 1821.... My reason for not writing sooner was that ...I wished to defer it till I had finished the mill.... I received two grants

of land one of which is 100 acres at this place, on which I have built a capital spur-gear mill. As yet I have only one pair of French stones and neither bolting mill nor machine. It now earns at the rate of £600 per year, or thereabouts.... We have cut a basin, that boats come in, within 20 yards [20m] of the mill....

In the spring, I intend building a granary adjoining the mill. This will be necessary for toll alone, but by a little business in this, I think, will double the advantage. The mill is 19 feet [6m] high at the casings. It is a very powerful mill. We have water in the very driest season, that we can grind 7 bushels an hour when business pushes. We have a peck for every 2 bushels or one-eighth part, which is now equal to two shillings and sixpence. We have some days taken 10 bushels multure* without candlelight.

...I contrived to have another fall of same water just below the mill, so that I can erect another mill if necessary; and work the water twice over....I had to cut the water-course about 2000 yards [1.8k], 200 yards [180m] of which was through rock, no part less than 7 feet [2.1m], but most of it 9 feet [2.7m] deep; and among other places rock to blow up. I let the race to five different parties of men, and they would not complete it, so I prepared proper tools for drilling stone. Thomas Moore [Terry's nephew] and I set to work and completed it. I did at least half the blacksmith's work, and the frame shell of the mill and all the millwright work, except a labouring man to lift anything and do trifling work. The mill was ready for seven months before we got water to it. It is allowed to be complete master of all the mills here. We have corn brought as far as 60 miles [96k] to grind, and from very near the town of Hobart.⁴

From the evidence of the letter we can assume that the mill was completed by the energetic and skilled Terry either towards the end of 1821 or in early 1822. Once it was working it was obviously a boon for the local —and not so local—settlers; the fact that they were prepared to come as far as 100 kilometres demonstrates its value, as does Terry's healthy yearly profit. Indeed Macquarie thought it of such significance that he made sure to inspect "Mr Terry's new water-mill" in June 1821.⁵

Terry did not rest on his laurels. By 1826 when the Land Commissioners visited he was able to grind up to ten bushels an hour which may indicate that he had enlarged the mill, probably by adding the second water wheel he had planned, along with extra millstones. Even so he was able to grind only 3½ bushels an hour in summer, and it was his use of all the water for six months every year which helped Murdoch and O'Connor to decide against recommending New Norfolk as the new capital, as "any abstraction of water would deprive him of the power of grinding to the extent he has done." In 1830 he built a new cut for his race, and when James Backhouse visited in February 1834 there were three water wheels one above the other. Despite the fact that it was the height of summer, "[t]he mill is now working night and day; notwithstanding most of the mills to the northward and westward are stopped from want of water." Settlers were still sending their grain from 50 miles [80k] away, although the greater fertility of soil around New Norfolk compared with elsewhere had already been noted and most of his custom would presumably have come from nearby farms. In 1831 the produce of wheat in the New Norfolk district was estimated at 32 000 bushels.⁶

In 1828 Terry applied for an additional grant of land, at which time he valued his mill at £4000. Although both Murdoch and O'Connor supported him as a "useful, bona fide, improving settler," Arthur was not so sure:

* "Multure" is a Yorkshire word for the charge or toll made by a miller for grinding grain.

“Mr Terry is I believe as the Land Comm[issioners] represent a very sagacious settler and one who has pursued his own interest to great advantage. Considering the means which Mr Terry brought into the colony and the most liberal support which he has received from the Government, I should not however deem Mr Terry entitled to any augmentation of land....

The application was rejected.⁷

Terry also developed his property at Askrigg, but floods in the Derwent caused him to abandon a plan to build a mill there as well, although the mill race he cut was later used for a water wheel installed by his granddaughter and her husband for pumping water to the house. Terry's children married into several families with milling connections, with Grace marrying George Borrodaile Wilson (see 4.2), Margaret marrying George Frederick Read of the Old Mill (see 2.1) and “Redlands” and Mary marrying Robert Walker son of John (see 2.3). When he died in 1844, mourned for his “sterling honesty of character,” the Lachlan Mills passed to his youngest son Ralph who continued to operate the mills, with the help of his son from at least 1879 until 1881 when Ralph jnr moved to Macquarie Plains. When hops became widely grown in the latter part of the century, the mill race was also used for irrigation at both Lachlan Mills and the nearby Millbrook, a property which passed to James Turnbull after he married yet another Terry daughter.⁸

The mill seems to have still been operating in the 1890s even after the death of Ralph in 1892. In 1897 when the property was put on the market by Ralph's children the advertisement announced that “[t]he mill, driven by the never failing Lachlan has been recently reconstructed and extended by the addition of the Bridgewater Milling Company's modern machinery, and is in good working order....” However, after it was bought by William Moore, originally from the Moore & Quiggan sawmill in Wynyard but by then a prominent politician, the mill seems to have stopped working. He renamed the property Tynwald and used the water wheel to provide electricity to the extensively-renovated house. Moore was involved in a minor scandal in 1901 when it was shown that as Chief Secretary he had stopped government negotiations to buy the water rights of the upper mill (see 4.1.3) for the use of the asylum, while hoping to sell his own water rights. His race left the Lachlan c.150m upstream of Millbrook Road.⁹

Although there was a fire in the mill around the turn of the century which destroyed all the wooden interior, remains of the stone mill can still be seen in front of the house at Tynwald (map location New Norfolk 062639) although it is impossible to be sure whether what remains is the original mill building. Terry certainly had the means to build such a solid structure right from the beginning. The mill race can still be traced to the west of the road into Tynwald, while the upper reaches were used quite recently to water the Royal Derwent Hospital vegetable gardens. Over the past century any remains of machinery have been gradually removed, including most of the millstones which since 1970 have been outside St Matthew's church in Bathurst Street in New Norfolk. All that is left on site are an uncut millstone and the metal screw or worm from a dressing machine.¹⁰

Although it is impossible to be certain that the remains of the mill date from 1822, this is the site of the earliest mill in the state for which there are any remains. As such, the site is of great significance.

4.1.2 Belfast or Upper Mill

As New Norfolk progressed there appears to have been a need for a mill in town; Terry's mill would have been a little far away for some residents. In 1834 Niels Basstian of New Norfolk advertised for a millwright, and by the end of the year William Rayner the younger of Rayner's Mill, New Norfolk "beg[ged] to inform his friends and the public, that he has now on Sale first and second Flour of the best quality, at a very reasonable rate." The mill was erected on five acres of land originally located to James Tedder (of the Liverpool Street mill - see 2.4) and was on the western side of Blair Street which at that time went down to the Lachlan River. The following year Rayner announced that he was about to leave the Sorell Mills (see 2.5) for his new mill on the Lachlan where wheat would be ground for sixpence, with dressing threepence extra. Unfortunately Rayner had difficulties as at the end of 1836 both mills were the subject of an enforced sale, and although Rayner advertised the lease of the New Norfolk mill it appears to have passed out of his hands at this time.¹¹

The mill became the property of Felix McCabe Murray[†] although quite how this occurred is difficult to pin down. The original location to Tedder passed into the hands of James Blay when he married Catherine, Tedder's widow. Her daughter Margaret married William Blay while her other daughter Sarah married Felix Murray. Murray and William Blay claimed the land in 1837, although at least most of it was eventually granted to David Bush. Either Murray was granted the block of land on which the mill was built, or he bought it when it was offered for sale. He was certainly operating the Belfast Mills by July 1840.¹²

By May 1843 the mill was being leased by Anthony Mann (ex-Davey Street and Sorell Mills—see 2.10 and 2.5), who also opened a store at his warehouse in Bathurst Street, Hobart Town, to sell flour, bran etc. Mann became insolvent—for the second time—by the end of 1843 and the unexpired part of his lease (fourteen years) was offered for sale, with the purchaser also acquiring ownership of a pair of French burrs plus dressing and smut machines. Just what happened next is impossible to determine. Mann was in possession of the mill when in 1849 he announced he wished to leave the colony and offered the remaining five years of his lease for sale. The discrepancies in the terms of the leases might indicate that someone else had operated the mill for a while. By 1849 the establishment included a fellmongery and a brewery with malthouse. Despite much advertising and the fact that the mill had a "never-failing supply of water," Mann was still at the Upper Mills in 1852 when he advertised—jointly with Ralph Terry—grinding rates of one shilling a bushel.¹³

In 1855 Mann tried one more time to make his fortune, leaving the Upper Mill and building his own just one block down on the Lachlan (see 4.1.3), and George Allwright commenced leasing what he called the Union Mill. Felix Murray protested when the narrow reserve next to the river was offered for sale, ostensibly because the purchaser could dam up the water of his tail race and stop his water wheel. However, although the government withdrew the block from sale, investigations showed that the tail race of Murray's mill joined the Lachlan at the foot of Blair Street and not on the ground applied for, and that "the complaint has arisen from professional jealousy." The block was put back on the market and eventually sold to Mann whose mill race ran through it. Nevertheless the Upper Mill continued to function. In 1858 William Green was the tenant, possibly the same Green who had the Commercial Mill

[†] Murray is often referred to as McMurray, because of his habit of signing his letters "Felix Mc Murray."

(see 2.15). About 1864 the mill was bought by William Falls Davis, and by 1883 it was in the hands of Ebenezer Shoobridge.¹⁴

The site of the mill is now so overgrown that it has not been found possible to see if there are any remains.

4.1.3 Mann's Mill

Having moved from the Upper Mills (see 4.1.2), Anthony Mann built his mill and brewery in 1855 on the western side of the Lachlan River just upstream of where it is crossed by Humphrey Street, initially leasing and eventually buying the narrow stretch of land adjacent to the river for his mill race. Mann appears to be one of those people for whom nothing goes right. Having failed with his horizontal windmill in Davey Street, become insolvent with its successor the conventional windmill in 1840 (see 2.10), then bankrupt again with the Upper Mill in New Norfolk in 1843, he managed quite notably to be insolvent for a third time in 1860. His death in February 1862 finally put the poor man out of his misery. His wife Mary Ann advertised she would continue "the business of brewing, milling etc.," but not surprisingly did not advertise that she also had a still on the premises for which she was fined £25 in 1867.¹⁵

However, after Davis bought the Upper Mill Mary Ann Mann ran into trouble which she laid squarely at the feet of Davis.

[S]ince his occupation...every effort has been made, taking advantage of my widowed condition, to injure my mill in various ways, such as cutting the mill wear (sic) etc. On the night of the 2nd April 1867 the Mill dam was completely cut away and destroyed - and being restored it was again destroyed in the middle of the day on the 7 June 1867.

She twice requested to lease the reserve on the other side of the river so that she could repair her dam, but this was disallowed as it would disadvantage the person who had a garden there. Eventually in 1869 Mann gave up and offered for sale the "Malthouse, Flour Mill, Brewery, Inn, Dwelling House [formerly known as the Bridge Inn] and Buildings, known as Mann's Brewery." By April 1870 the property was owned by the trustees of W Lindsay, and in the decade following there was a series of tenants before the trustees sold the mill and brewery in 1878 to Thomas Allwright (son of George?—see 4.1.2). In 1880 the mill machinery was offered for sale: "consisting of—Water wheel and iron working gear, a pair of French Burr Stones (nearly new), silk dressing machine, hoppers, malt crusher, etc." The water wheel was certainly not sold as a later photograph still shows it.¹⁶

At the turn of the century the government entered negotiations with the owner, G. Leatham, to purchase for £600 the land and water race for the use of the asylum. When the Chief Secretary Moore intervened, hoping to sell his own race to the government, Leatham protested that he had had a chance to sell the land to another but had foregone the opportunity as he believed that the government would buy it. The new government agreed that Leatham should be compensated and he was awarded £60.¹⁷

Although the mill in the photograph is not identified as Mann's, it is almost certain to be his. In 1960 Dallas saw parts of the foundation of Mann's mill (although he did not know who owned it) and residents told him that they remembered the wheel still standing. There are a

few stone blocks remaining in the area (map reference New Norfolk 051624) which may be all that remains of the mill.¹⁸

4.2 Clarendon Mill, Gretna

The property eventually called Clarendon was initially located to William Borrodaile Wilson who became John Terry's son-in-law in 1821. Presumably it was this family connection which encouraged him to use the water of the Derwent River to build a flour mill, which he claimed he was doing in 1825. In 1831 he stated that he intended to erect a woollen manufactory. However, there is no evidence that either of these was ever built. When the property was offered for sale in 1842 following Wilson's insolvency, the advertisement mentioned only that there was "a water-course cut, which secures a fall of about fifteen feet, sufficient to turn any power of machinery." F.C. Wolfhagen, great-grandson of John Walker who eventually built the Clarendon mill, confirmed the existence of the race when he wrote in 1972 that:

"[b]elow the Walker Mill and extending about half a mile parallel to the river was a deep trench known as the old mill race, which extended to excavations on the river bank known as the old mill. This was no doubt Wilson's Mill, whether completed or not, I don't know, but the original grant shows by a dotted line a roadway passing the house and ending at a point where these excavations stand.¹⁹

The property was bought by John Walker of Hobart milling fame who proceeded to erect his mill. In July 1844 he was able to announce that the mill was operating, "and as it was erected for the express purpose of grinding for the settlers, every attention will be paid; and as the machinery is very powerful a cart will not be detained above four hours with a load of forty bushels." Two months later, when announcing grinding and dressing rates of sixpence a bushel, he pointed out that the use of the mill would enable a saving of 25% in cartage for nearby settlers who otherwise sent their wheat to Hobart Town, and they would also have the bran and pollard for their animals.²⁰

A lithograph of the homestead appears in Clifford Craig's *Old Tasmanian Prints* on page 275. Geoffrey Stilwell believed that it showed the mill building as well, but this is not correct. Walker's undershot mill was built right next to the river (map reference Bushy Park 916752), with a 500m mill race 3m wide and 1.2m deep coming from a stone weir (marked as rapids on the Bushy Park map at 911757). According to Wolfhagen, the stones in the weir had to be renewed every February when the water was low. The mill was made very solidly of stone, including a stone wheel house. The great power of the mill was noted at the time by observers and was partly explained by the fact that the wheel was also used to pump water 84m up to a reservoir for use in irrigation. Thomas Brown (later of the Liverpool Street mill—see 2.4) was the lessee in 1845, but from 1851 the mill was run by Walker's second son, John Fletcher Walker, a trained miller. By 1874 the water wheel had been supplemented by a Procter portable steam engine of 10hp and towards the end of the century a resident miller was employed. Just when the mill stopped working is impossible to say; it was still working in 1885 when visited by the Special Correspondent for the *Mercury* but in 1903 a description of the water wheel mentioned only its use in irrigation. It is believed that it stopped in the 1890s.²¹

Much of the ground floor stonework of this mill survives, together with the pit wheel—complete with millers' marks—and an almost-new 54-inch monolithic (i.e. not built

from segments) quartz runner stone; the bedstone has been removed to Thorpe (see 4.6.2). Both the weir and the mill race are also easily seen. The double compartment wheel survived until about 1960 when it was accidentally burnt in a fire, but part of the massive shaft still remains. The significance of this site stems not just from the physical remains but also from the fact that the mill was built by the most important milling figure of the first half of the nineteenth century, responsible for building a number of mills. It gives great insight into Walker's milling practices.²²

4.3 Bushy Park

The estate of Bushy Park was initially granted to the mineralogist Adolarus William Henry Humphrey who arrived with Collins in 1804. He called his property Humphreyville, but according to the Land Commissioners, "being occupied as Superintendent of Police, Member of the Executive Council, [he] devoted little or none of his time to his Estate, but, under Mrs. Humphrey's management, every thing is carried on in superior Style." Harriet Humphrey had been a convict in Sydney who Humphrey had taken to Van Diemen's Land and then married rather than obey Macquarie's request to return her to her father in Sydney. Savery visited Bushy Park in 1829 soon after Humphrey's death and gave his usual amusing description of the household, with Mrs Kerr in deep mourning and saying to the accompanying doctor "such sentences...as 'dreadfully low spirits,' 'place so lonely,' 'can't sleep at nights,' 'I am sure, dear man, I shall never be happy again—first love, you know Doctor, is never forgotten,'" while the Hermit tried to draw her "bumpkin companion" into conversation "but it was all to no purpose...and he stood, gaping at me, like a great Suffolk calf." Harriet continued in residence and by the end of 1830 had erected a flour mill. The 1831 *Ross Almanack* which announced it said it was at "Russel's falls", now the Tyenna River, but this is incorrect as the land on the other side of the Styx River never belonged to Humphrey (see 4.4).²³

In 1831 Humphrey had sufficiently recovered from her loss to marry John Kerr who had the adjoining grant to the west. It was probably then that the name changed to "Bushy Park," perhaps to signify the incorporation of the two properties. No doubt Kerr did not wish to live at "Humphreyville" anyway, and it is possible that he had used the name for his own land. Certainly it was "Bushy Park Estate" when in 1838 he advertised a stack of wheat for sale on Salter's farm evidently newly purchased by Kerr on the eastern side of the Styx River, adding that it was only half a mile from the mill. By at least 1850 she was no longer in residence at Bushy Park and the property was leased to John Haines. It was probably Haines who advertised for a miller for the Bushy Park mill in 1851.²⁴

William Gore Elliston, as agent for Mrs Harriet Palmer in England, advertised 1000 acres including the mill and homestead for let in 1859, at which time William Blyth was renting at least part of the property. Michael Middleton, Humphrey's nephew and set to inherit when Harriet Palmer died, cautioned people from entering a lease which he was not a party to as he would not recognise the lease when he took possession on her death. According to the Shoobridge family history John Kerr jnr bought Bushy Park in 1860 and Ebenezer Shoobridge bought the property from him in 1863, but the *Cyclopedia of Tasmania* says that Shoobridge bought Bushy Park from Middleton in 1865. Either way, the mill does not seem to have been worked after that time, and indeed it probably had not worked for some years as when it was bought by Shoobridge the farm was dilapidated and the irrigation works (which

used the mill race) had fallen into disrepair. No later descriptions of the property mention the mill and in 1873 the race was used only for irrigation.²⁵

Although it is known that the mill race came from the Styx, it is impossible to say exactly where the mill was. The 1000 acres referred to above which contained the mill was described as “bounded by the Rivers Styx and Derwent on the north and east” (which is difficult to understand even allowing for the fact that the Shoobridges significantly straightened the course of the Styx) “and by the main road and mill race on the west and south.” According to Beatrice Blyth who lived on the estate and then from 1859 on the next door property Coombe (now Roslyn), the mill was on Cloverlea which confirms that it was to the east and north of the main road. As there is hardly any fall there, it is possible that the mill was right at the corner of Glenora Road and Gordon River Road. Jim Shoobridge remembers some old water works there in his childhood, and a photograph (Q1993.56.134) at the Tasmanian Museum & Art Gallery shows two buildings close together near the race, one of which could well be the mill. This would also fit in with the description of Salter’s farm being 1k from the mill (see above). The race comes very close at this point and it is quite conceivable that the race carried over the road to a mill. There is still a live mill race bringing water from the Styx to the hop kiln in Glenora Road, but as the Shoobridges built this and it is known to be both bigger and on a higher level than the original mill race, it is unlikely that much of this is original. The water wheel at the kiln is not from the mill either, as this was brought from Ballarat.²⁶

4.4 Glenora (Fenton Forest)

4.4.1 Fenton’s Mill

Land on the Russell’s Falls (now Tyenna) River was initially granted in 1831 to the millwright Peter Ferguson “for the express purpose of erecting a water mill,” but when his construction of the Trafalgar Mill at Richmond for Buscombe (see 6.3.2) delayed him from occupying the land it was resumed and located to the newly arrived Captain Michael Fenton in 1832. He called the estate Fenton Forest and the first reference to a mill there seems to be that of David Burn who in 1840 wrote that “Captain Fenton...has formed a water-course, whereby he drives a threshing machine and flour-mill, supplies his house, and then irrigates an extended flat of the richest soil.” A number of families were tenants on his estate and in 1832 he brought out 76 men, women and children as his indentured servants, so presumably the mill was to provide them with flour and an outlet for their produce. As the Mills and Manufacturing Returns in 1840 notes an increase in the number of mills in the New Norfolk district from three to four, it would appear that the mill was built about 1839.²⁷

The estate of 3000 acres together with the mill were advertised for sale in 1843, but no further information about the mill is known until 1858 when Fenton offered Fenton Forest, for sale or lease, and gave a detailed description of the mill:

[There is] a stone mill, with three floors, for storing grain, within which there are two water wheels, one under the other, so as to be turned by the same water; the upper one, 20 feet diameter, turns a pair of French Burr Stones 4½ feet in diameter; also a dressing and smut machine, and on the opposite side a threshing machine, with a double winnower under, which delivers the grain, thus cleaned, into elevators, that carry it to the upper story and deliver it into a third winnowing machine, which delivers it into bags in

the mill ready for sale or grinding. Attached to the threshing machine is a large Stone Barn, with iron slate roof; the under wheel, of 23 feet diameter, turns two pairs of French Burr Stones, and to which any other machinery can be readily attached. There is a fall of 90 feet [27m] at the mill, and the water course is two miles [3.2k] long (on the side of a hill) and capable of turning a hundred mills....

At this time the property contained 19 667 acres on both sides of the Tyenna River.²⁸

There is an interesting reference from Beatrice Blyth (see 4.3) that the “ferry at Clarendon was used to bring wheat from Fenton Forest to the mill at Clarendon. The procedure was that every two weeks the wheat was ferried across and the flour taken back.” If this is so, it may indicate a time when the mill was being re-built or perhaps Fenton could not find a miller. The only miller known to have worked there was a Mr Bright who in 1876 escaped from the Campbell Street jail. Louis Shoobridge writing to his wife said that: “He knows this locality very well too as he lived at Fenton Forest, was millar (sic) there for a time, his wife is living on the place now.”²⁹

Fenton still owned the property at his death in 1874 and his obituary mentions the “extensive water mill.” Fenton Forest was offered for sale the following year, and again in 1878 when it was bought by Ebenezer Shoobridge. According to Rupert Shoobridge whose account was followed by von Stieglitz, the Fenton Forest mill was “very roughly constructed & was used only a few days when it almost shook to pieces.” This is obviously wrong for Fenton’s time as it had lasted at least 35 years, so it must mean that by the time Shoobridge bought it the mill was on its last legs. It was not used again.³⁰

The mill was up the hill from the Tyenna River to the south-east of the bridge on Meadowbank Road (map reference Bushy Park 887747), with the race coming 4km from the dam (map reference Bushy Park 864748). According to Jim Shoobridge, the flow from the race was quite poor as the water had to be saved for a day to enable an hour’s milling to be done. When Louis Shoobridge started to irrigate for hops and an orchard he increased the size of the fluming to 75cm wide and 30cm deep. In 1916 the race was widened again to 1.2m. Concrete was used for the first time in the 1930s for the fluming (which begins after the race crosses Meadowbank Road), while when the chock and log dam was washed away for the second time in a flood in 1947 this too was replaced by concrete. Thus while both dam and fluming are still used only the siting can be considered original. The site of the mill is marked by a few sandstone blocks and the tail race.³¹

4.4.2 Shoobridge’s Mill

After Ebenezer Shoobridge bought Fenton Forest in 1878, it was managed by his youngest son Louis Manton and underwent considerable development. The property was variously called “Glenora Estate” or “The Forest” but its old name continued to be used anyway and finally the family bowed to the inevitable and reverted to “Fenton Forest.” After the demise of the old mill the family bought their flour from Gibson in Hobart and the accounts for a twelve-month period show that this cost them £443. The cost of flour was particularly high in the hop-picking season when as many as 280 hop-pickers could be at work on Fenton Forest with another 400 at Bushy Park. It is therefore no wonder that in 1882 the decision was made to build a new mill at Fenton Forest (interestingly the name used in the ledger book).³²

The old race was extended and the mill was built down on the flats to the east of where the current homestead is (map reference Bushy Park approximately 894743), with millstones brought from the old Fenton mill. In 1885 it had an overshot wheel and could grind 40-50 bushels a day. A deal was made whereby Louis grew wheat and provided the resultant flour to his brother William Ebenezer who had the bread baked in the large bakehouse at Bushy Park. The arrangement stopped in 1893 although Louis then struck a similar deal with Rumly, the storekeeper at Bushy Park, under which he received 130 loaves of bread for every bag of flour.³³

Just when the mill stopped grinding flour is not known, although an article in the *Weekly Courier* in 1901 mentions only that it was used for chaff-cutting. The mill continued to be used for this purpose, and a new pit wheel was fitted in 1908. In 1928 the wheel was replaced by a 7 h.p. turbine from Mayfield on the East Coast (see 8.7). When tractors replaced the turbine for chaff-cutting about 1950 the mill fell into disuse. By the mid-50s the wooden building was in such poor condition it had to be pulled down, although the mill wheel still stands. Rupert Shoobridge, Louis' son, took one of the millstones and made a stand for a sundial for his garden.³⁴

As one of the last watermills to be built in the state (four were built in the north-west during the next decade), this site is of some significance, and the water wheel is one of the few remaining to indicate this form of technology.

4.5 Hamilton

The rapid movement of settlement up the Derwent Valley to the Clyde River combined with the area's distance from the nearest flour mill—Terry's at New Norfolk—led to an early move to build a flour mill in the district. In June 1824 Thomas Roadknight on behalf of his brother William wrote to Lieutenant-Governor Sorell requesting a grant of land to erect a flour mill, saying they had selected an "eligible spot," purchased the machinery and "were fully prepared to commence...operations immediately." The Roadknights, particularly William, had had an unfortunate time in the colony up to this time, starting with the death of their father just before their ship arrived at the Derwent. With capital of £1730 William Roadknight was granted land near New Norfolk and had prospered. However, in 1822 he shot at and wounded an assigned convict, believing erroneously that he was an escapee. His seven-year sentence, to be served at Macquarie Harbour, had horrified other free settlers, but he had been freed after six months and his seven-year sentence finally remitted in 1826 following a petition signed by all the magistrates in the colony. However, by 1824 his farm was in ruins and he had to sell it to pay debts. No wonder Savery described him as "a darkish, down-cast looking man." The mill was to be a new beginning.³⁵

In March 1825 William wrote to Lieutenant-Governor Arthur asking for a correction to be made in his land grant. He wrote that:

I have been at very considerable expense in making a cut of a mile in length and erecting the Mill which I have now very near ready to work. In this state of forwardness when I fondly looked with confidence to it as a support for my Family I find the grant is by mistake made to my brother, he having neglected to explain in his letter to Your Excellency that it was for me. ...should my unfortunate situation prevent me from holding a Town allotment I trust no objection will be urged to its being made to Mrs. R.

No doubt Thomas had written the original application in case there was any prejudice against William, who still felt that his “unfortunate situation” might work against him. It was Thomas who also wrote to Montague requesting two assigned servants for the mill. It has not been determined to whom the grant was made out eventually.³⁶

The mill was built about 100m nor-nor-east of the bridge over the Clyde (map reference Hamilton 857877) with the mill race running right through the town on public land from a dam at approximately map reference 860890. The biggest problem William faced was the water supply. In 1831 he wrote that “[t]he sudden and tremendous Floods common to this river (Clyde) [have] frequently damaged my Mill Weir.... It is annually subject to flood, and some seasons, many times in the same year.” However, even worse for his small mill was the opposite problem. Shortage of water in summer led him in 1833 to join with the two Bothwell millers, Nicholas and Axford, to direct water from Lake Crescent into the Clyde to keep up the supply in the driest months (see 4.6.1).³⁷

In 1838 Roadknight decided to move to Port Phillip and offered for sale or lease his “substantial well built Corn Mill”—perhaps he had enlarged the mill he had described as “small” at the beginning of the decade. The mill had a “powerful overshot water wheel, two pair of excellent French burs (sic), smutting and dressing machines, set of extra Farmers improved hoisting tackle, and a never failing supply of water.” He asked £300 for rent, but J.F. Kerr agreed to purchase the mill and employed a miller, although the mill was closed for a month soon afterwards for repairs. By the time Burn visited it about 1840 he thought it “a first-rate flour mill.” Kerr let the mill in 1840 and 1841, but at least one local was not impressed with the way the mill was run. Farmer and builder William Sibley advertised in 1841:

Hamilton Mill—The inhabitants of the District are informed that Bank Cheques are not considered legal payment at Mr Kerr’s Mill; as a proof, a cheque on the Derwent Bank for three pounds, signed John Tod, which I had sent in payment for grinding, was refused last week, and my cart sent home again, a distance of nine miles empty.³⁸

Despite (or perhaps because of) this unhappy experience Sibley eventually decided to buy the mill, although it was probably not until the 1850s. Robert Tyrrell had the mill in 1848 and Sibley’s presence can only be affirmed in 1853 when he advertised that as he was going to Port Phillip “no Book Accounts will be opened this year....” It is probable that he bought the mill at this time: he certainly owned it by the time of the 1858 Valuation Roll. The influence of the gold rushes can be noticed. In 1852 the grinding and dressing rates were increased to one shilling a bushel while just two years later “[i]n consequence of the High Prices of Labour and the advanced charges in all other matters” Sibley was “reluctantly compelled” to increase his grinding and dressing rates to one shilling and sixpence. Although he put the mill up for sale in 1861 there were evidently no buyers as he held it until his death in 1871; his obituary stated that “[h]e was not a man of brilliant parts, but had many friends.”³⁹

The mill passed in turn to his children William jnr, Anne and Charles. Charles lived at the mill and ran it for at least part of its life, while other members of the family were also involved later on. These included Robert Spencer whose mother Maria Plumb was William Sibley snr’s second wife, and James Tolland who married Charles’ daughter Ada. By 1885 a bark mill was established nearby but it used a steam engine and was run by Frank Bond, whereas the flour mill was run by William Shelverton (ex-Kempton steam mill—see 5.6) until his death later that year and there is no evidence that there was ever a steam engine there. Mrs Shelverton continued to lease the mill until at least 1888. The 1894-5 *Post Office*

Directory has no reference to the mill, but according to the 1900 edition it was again operational. Soon afterwards the interior was destroyed by fire and the mill never worked again.⁴⁰

The mill property has been owned by the Booth family since the 1920s, and the mill building—2 storeys and a bin floor—was used as a barn, although it looks somewhat derelict in two sketches by Eirene Mort dated 1933. The back of the mill and even hay stored in the first floor were washed away in the 1960 floods, and the building was demolished. Many of the stones were used for building culverts at Ross for the new road, while others were used locally for building purposes.⁴¹

4.6 Bothwell

4.6.1 Nant

As with New Norfolk and Hamilton, settlement in the Bothwell (initially Upper Clyde) area led quickly to the establishment of flour mills. The first was built by Edward Nicholas, who had chartered a ship to bring him and his family to Van Diemen's Land. Following his arrival in August 1821 with money, seeds and agricultural equipment to the value of £1800 he was granted 1800 acres on the banks of the Fat Doe River (later the Clyde) and became the first settler in the area. He named the property "Nant," the Welsh word for valley and the name of his property in Wales. No doubt the distance from milling facilities encouraged him to build his own and by June 1825 was able to announce that he had completed a "Corn Grist Mill" which was capable of grinding four bushels an hour. He charged tenpence a bushel, or eight pounds [3.6kg] toll. He was probably his own millwright as the Land Commissioners wrote that "...he is a most ingenious man - has built his own house, has finished a good Corn Mill, and is very industrious...." The mill was built 200m to the west of the Clyde River (map reference Dennistoun 014107).⁴²

One of the big problems for all the mills on the Clyde River was the unreliability of the water supply. Archibald McDowall later deposed that: "[w]hen I first saw the Clyde, in 1825, I could walk across it dryshod, except in places. It was really a chain of waterholes." No doubt this was in summer, when there was perhaps the greatest call on the mills. McDowall continued that the inhabitants of the area often had to send to other parts of the colony for dressed flour. In 1833 Nicholas joined with William Roadknight of Hamilton and Thomas Axford of the other Bothwell mill at Thorpe to improve the supply. Roadknight wrote to the government "...to solicit permission in conjunction with Mr T. Axford and Nicholas the other millers upon this river to erect such dams and sluices at the Lake Crescent and Sorell as may be necessary...." There is then a discrepancy in the sources: McDowall said—in 1888—that the only work done at this time was the deepening of the channel to enable water to be drawn from Lake Crescent, but a newspaper report in 1857 says that a dam was also constructed (but see below). Whatever happened it seems to have improved the situation considerably, as when Henry Anderson rented Thorpe in 1836 he assured his customers that: "[f]rom the cut that was made from Lake Present (sic)...the Undersigned is enabled to insure (sic) a sufficient supply of water in the driest season, to keep his mill in constant work."⁴³

The water supply for the Bothwell and Hamilton mills became a contentious issue in 1856, when Robert Quayle Kermode came into conflict with the millers. The problem for Kermode

was that as a result of the cut removing water at Lake Crescent some marsh land next to the lake had gradually dried out and had become a favourite feeding ground for sheep. Moves by the millers to dam the lake and thus raise it to its old level meant that he would lose this pasture, so Kermode removed the dam. According to the *Hobart Town Courier* the dam had been there from 1832, but if this were so the marsh would not have dried out so this seems unlikely. It is more likely that the dam was erected early in 1856. Probably following its removal, George Nicholas and Thomas Axford, landowners, and A. McDowall, miller, amongst others, petitioned the House of Assembly:

Petitioners are deeply interested in the preservation of a pure and sufficient supply of Water in the River Clyde, for the purpose not only of turning their Flour Mills, but also of their households; and they believe that this can be fully and cheaply secured by a Dam at the Lake Crescent...so that the waters of the Lake may be raised to their original height; and they pray that a Bill may be brought into your Honourable House for the purpose of enabling them to erect such a Dam as may be required, and to protect it from damage or destruction.⁴⁴

In 1857 a bill was passed through parliament to set up the Clyde Water Trust, superseded in 1869 by the Clyde Water Act which gave the water trustees the power to erect sluice gates (and a dam) at Lake Crescent. The channel between Lakes Sorell and Crescent was also deepened so that water from Sorell could more readily pass through to Crescent. However, Kermode threatened the Trust with legal action and initially the water was allowed to go to waste in the winter, although eventually it was conserved. Emotions ran high during the 30-year dispute: the writer in the *Hobart Town Courier* claimed that unless the water was kept high, the river “would be the fruitful source of dysentery and death to all the dwellers on the banks of the Clyde, in its 60 miles [96km] of length;” while a correspondent for the *Mercury* wrote that the Clyde Trust had ruined 500 acres at Interlaken that Kermode had spent £10 an acre reclaiming and laying down with grasses, and “[i]t seems inequitable that, for the benefit of a few acres at Sherwood, and to supply water for a mill near Bothwell, Mr. Kermode’s 500 acres should be sacrificed....” In 1888 the millers were forced to fight another battle when a proposal was made to take water from Lake Sorell in the direction of Tunbridge.⁴⁵

Meanwhile, the Nant mill continued to function, although it is difficult to follow its history as for most of its operation it seems to have provided flour more for the family rather than as a commercial operation. Certainly this was so in 1888, and the paucity of newspaper advertisements for the mill indicate that it was often the case. The Nicholas family eventually owned considerable property and their employees would have required a great deal of flour. Following the death of the pioneer Edward in 1837 his son George advertised that the mill was “thoroughly repaired,” while in 1853 George Clarence Nicholas (a nephew of the original George?) advised that he would take possession of the mill, with grinding and dressing costing one shilling a bushel, and cracking of wheat sixpence. It was very likely in 1857 that the original mill was replaced by a new one. The second ashlar mill, still extant, seems to date from the same period as the similar wing of the house with the date “1857” in its gabled end. This was also the year when the Clyde Water Trust was established, and perhaps the certainty of a reasonable supply encouraged George to erect a new mill.⁴⁶

In 1870 George’s brother Henric advertised for a miller, and the following year the trustees of the late George put the property including the watermill up for auction. However, in 1881-2 the mill was owned by William Nicholas who advertised himself in Maning’s Post Office Directory as a miller. Following his death in 1889 the property was let, firstly to Thomas Headlam and then Thomas Newman and finally to the Campbell brothers. John Campbell

bought Nant in 1926. It is most unlikely that the mill was ever used for grinding after William's death. John Campbell does not appear to have even used it for chaff-cutting, a common use for old mills (see e.g. 4.6.2). However, he did use the wheel for pumping. Nant was sold in 1976 to Ted Archer.¹⁷

The second stone Nant Mill, probably dating from 1857, still stands in original condition with a live mill race from the Clyde. The iron breastshot wheel designed and made by R. Kennedy & Sons is a later replacement, as the Kennedys did not arrive in Tasmania until 1883 to become owners of the Derwent Ironworks and Engineering Co. The cast iron crank-driven pumps seem to date from the same time. The interior drive mechanism to two sets of millstones is largely complete. On an interior wall is writing from 1884 tallying up the amount of flour, rolled [oats?] and bran in the mill; this may indicate the last time the mill was used. An attached brick building seems to be older than the mill and may be a later addition to the first wooden mill, but there is no way of verifying this. Because of its excellent condition and the presence of a Tasmanian-made water wheel, this mill ranks as one of the most important in the state.¹⁸

4.6.2 Thorpe

The second flour mill in the Bothwell area was built at Thorpe, the property settled by Thomas Axford of Berkshire and named after the family farm of his wife Martha Slade. Axford and family arrived in 1822 on the *Christiana* with the millwright John Watts and it is tempting to think that Watts was the millwright employed for Thorpe. In 1829 he claimed to have erected several mills in the colony. The mill was built to the south of the Clyde River and to the west of what is now Dennistoun Road (map reference 009096). Evidence given to the parliamentary Select Committee by Archibald McDowall refers to one flour mill operating when he first arrived at the Clyde in 1825, so that this would indicate that Thorpe had not been working before 1 April 1826 when Axford announced grinding rates of one shilling. Although he added that he did not give credit he evidently had difficulty making people understand this as in November he was forced to reiterate that "he cannot, under any pretence whatever, allow credit."¹⁹

Despite the severity of the tone of this advertisement, Axford had "an affable good humoured manner" and was of "respectable appearance and pleasing address," according to Savery. He made a success of his mill, Ross in his *Almanack* of 1831 explaining how:

Owing to the remoteness of the greater part of this district from the market of Hobart-town, corn and other colonial produce that must be transported by land carriage are of comparatively less value on the farms than in the New Norfolk and Richmond districts, great part of both which (sic) possess convenient water carriage. There is however one advantage which the back farms of this district enjoy over them, in being able more conveniently to supply the numerous huts of the stockkeepers on the grazing farms, still beyond on the higher parts of the Shannon and Ouse and round the lakes....

According to William Clark of Cluny in 1834, "no-one except the millers in this district have made anything by farming."²⁰

In 1828 Axford attempted to sell or lease the mill and farm but without success, and the following year began building a new brick mill next to the old (timber?) one. Family tradition holds that the clay for the bricks was dug from the tail race, while the lime for the

mortar probably came from the local lime kilns 5km away. The millwright could well have been Edward Nicholas of Nant's eldest son, also Edward, an engineer and architect who had arrived in 1834 with his wife and five children and a few months later advertised his ability to provide plans and specifications for "any gentleman who may be about erecting any public or private buildings..." It was 1836 before the mill was completed and part of the reason for the delay could well have been the necessity of securing a better water supply (see 4.6.1).⁵¹

Henry Anderson rented the mill and farm in 1836, although he was probably not pleased later in the year when his obligation there prevented him from becoming the manager of the Clyde Company at Port Phillip. Thomas Axford returned to the mill in 1845 following the insolvency of Alexander Anderson who had been leasing since at least 1842.⁵²

In 1855 just before the furore over the water supply erupted, the builder of Thorpe mill was on his way to a sale at Lackey's mill at Bagdad (see 5.1.3) when he was robbed and murdered by the notorious Rocky Whelan at Constitution Hill. He was succeeded at Thorpe by his son Thomas Axford jnr and John Topham leased the mill in that year, although it is quite possible that A. McDowall leased it in 1856. The mill was let to James Taylor during the 1870s; he reduced the grinding rates to ninepence a bushel in 1871 but raised them again to one shilling the following year. Taylor was still the lessee when the estate was put up for auction in 1879 by "the late Thomas Axford's trustees" (presumably Axford junior). The estate included the "large mill built of brick, containing one pair of stones, with all necessary machinery, and residence for the miller. There is a never-failing supply of water for driving the mill..." The mill was bought by Henry Chamberlen, married to Thoma Axford jnr's sister, and in 1888 was "constantly used by the public." Following Henry Chamberlen's death in 1899, the estate was sold to Frederick McDowall, grandson of the original Archibald, for £3250.⁵³

Although other mills around the state were closing down Thorpe continued to be worked following Federation, and in 1903 the machinery was overhauled by Kennedy & Sons of Hobart. It was probably at this time that a set of Carter and Turner's Patent rollers was added to the single set of millstones in an attempt to compete with the large commercial mills. (The present owner who reconstructed the mill believes that there was a second set of stones which the rollers replaced, although there is no written evidence of this.) According to his journal, McDowall employed professional millers but he often helped with grain handling, raising and dressing the millstones and cleaning out the water races. His daughters in recent times were able to recall the miller "Ducky" Brown perpetually covered in flour and surrounded by ducks cleaning up the spilt grain and flour. The mill stopped grinding wheat in 1907 but continued cutting chaff until 1916 when the water wheel axle wore out and broke; with the shortage of labour due to the First World War McDowall was unable to replace it.⁵⁴

Once the mill stopped working, willows grew and eventually choked the mill race so that the river was forced straight into the mill. By the 1970s the mill was virtually standing in water for twelve months of the year with the 2m high water wheel and other machinery completely submerged in silt. Beginning in 1975 the Bignells, descendants from McDowall and by then the owners of the mill, began an ambitious restoration project which involved replacing the wooden shingle roof with asbestos cement slates; digging a new 1.5k tail race and pushing the resultant dirt into the old one; clearing or re-digging the 500m head race; almost completely reconstructing the three sluice gates 200m and 50m before the mill and immediately above the water wheel; and repairing the two weirs at a fork in the river—one had been a sandstone frame into which wooden hatches could be dropped to block the flow

but this had been replaced with concrete about 1958, while the other had been a log with additional vertical boards driven down and this weir too had to be concrete. Inside the mill the overshot water wheel 2m wide was salvaged and rebuilt to the original design: a new axle 6m long and 40cm in diameter was fitted and the wheel rebuilt with celery top pine. As well, the gearing, all windows and the doors and bottom floor were rebuilt. As a result of all this work, Thorpe Mill once again produced flour on 17 July 1977.⁵⁵

Although there has been considerable reconstruction there is much that is original of the second 1836 mill, in particular the building itself of handmade bricks on a dressed sandstone foundation, which makes it one of the earliest surviving intact mills in Tasmania—and Australia. The water wheel is the only remaining overshot wheel of such early design; the iron frames (single castings) at each end are possibly from the first mill, as the absence of a similar casting in the middle between two compartments suggests that the width of the wheel may have been increased at the time of the 1836 rebuild. There is still a live mill race, and associated with the mill are some items reclaimed from the mud, plus a reel or large flour dresser, a Thomas Tyson (agent for Carter and Turner) grain cleaner and smutter, and the sack hoist which remained reasonably intact. The Carter and Turner's Patent rollers have survived and are the only known extant rollers of that brand in the state. For all these reasons Thorpe Mill is of the highest significance, not only for the state but also for the nation.⁵⁶

4.7 Ouse - Millbrook

When Ross' *Almanack* of 1831 noted of the two mills at Bothwell that a large part of their custom came from supplying the stock-keepers on the back runs (see 4.6.2), it went on to prophesy that "...when mills are erected on the Shannon and Ouse both abounding in the most convenient and powerful waterfalls, capable of working machinery to almost any extent, the value of the more interior farms of this district will be much enhanced." No mill was ever built on the Shannon, but one on the Ouse did follow four years later. In January 1835 Walter A. Bethune of Dunrobin placed an advertisement calling on millwrights and contractors, saying: "[t]he undersigned is about to erect a Flour Mill on that part of his property situated on the West bank of the river Ouse, and invites tenders from competent persons." Bethune had been a successful merchant in Hobart Town who settled permanently on Dunrobin in 1830 and by lease or purchase soon acquired 25 000 acres. No record has been found as to who was the successful tenderer, although *The Heritage of Australia* speculates William Roadknight which is most unlikely. Edward Nant the younger, having just arrived in the colony, may well have been involved (see 4.6.1).⁵⁷

The mill was built to the south-east of the Victoria Valley Road (map reference Ouse 762965) and when Burn visited the district around 1840 he regarded it as "a capital flour-mill." It was obviously after it was built that the property was called "Millbrook." Very little is known about its operation. The property was occupied by John Stracey in 1856 and Julia Smith in 1858: Bethune had married Charlotte Stracey and her sister had married Captain Smith, so it appears that the house was simply used by family members. The Bethunes returned to England in 1856, and following Charlotte's death in 1864 the property was put up for sale "under the Marriage Settlement of W.A. Bethune." It included the mill "substantially built of stone, a 6-room cottage, granary [and] stores...as now occupied by Mr Smith." The mill and farm was sold to James Howard, a former servant, for £1350 in November 1865. In 1871 he advertised for a "good, steady miller" so was obviously working the mill. In 1877

when he advertised Millbrook for sale he described the mill as “substantially built of stone, having every convenience and in capital repair, with a good business connection...”⁵⁸

The mill was bought by Henric Nicholas of Cawood, the son of Edward of Nant (see 4.6.1). George Nicholas lived on the estate, but in 1881 it was Henric who offered the mill for lease. In 1880 the lessee was James Tolland, later of the Hamilton Mill (see 4.5), while in 1896 it was F. Brown who wrote to Schumacher’s Mill Furnishing Works praising their round reel rapid flour dressing machine. Later the same year George Nicholas ordered a Schumacher’s premier feeder and mixer, and then an elevator with belting, pulleys etc. According to the *Tasmanian Mail* in 1903, the main purpose for milling at this stage was to provide the flour required on the estate. Ledger books still on the estate mention the selling of flour until 2 September 1909, and this could well be when the mill stopped working. The last George Nicholas in residence died in 1934, and his wife in the early 1940s. Geoff Chapman bought the Millbrook section of the Nicholas estate about 1946, and his son Giles still owns it. The water wheel continued to operate a water pump for irrigation until the 1960 flood, and then the Hydro Electric Commission took the water.⁵⁹

The breastshot water wheel was replaced about 1878; the Chapmans own a plan of the proposed water and pit wheel prepared for H. Nicholas by Ford & Pyc, timber merchants and engineers of Hobart, and as they traded under this name for only two years this dates the replacement wheel very well. About 1948 two pairs of millstones were taken out to prevent the floor from collapsing completely, while about 1950 the pit wheel spokes were broken when a crowbar, put into the wheel to stop it revolving, was inadvertently left in when the water was put back on the water wheel. However, apart from these minor blemishes Millbrook Mill remains today in largely its original condition. Moreover, it has the best collection of any mill in the state of mid-nineteenth century dressing machinery and millwrighting equipment, including a fine collection of mill bills and thrifts, and a step block for lifting the runner stone. These help put it into the list of the five most significant mills in the state.⁶⁰

* * *

It is of some interest that three of the six most important mills extant in Tasmania—Thorpe, Millbrook and Nant—are found within such a short distance of each other. Much more of Clarendon too would have survived but for the 1960 flood and an unintentional fire. Their survival can be put down to their location on farms, and the relative isolation of the communities around them which caused them to be operated for longer than mills in other areas.

¹ ITTG 11 Dec 1819, p.1/3.

² Burn, David, *A Picture of Van Diemen’s Land*, Hobart, 1973, first published in the *Colonial Magazine* 1840-41, p.89. Relationship: Dow, Gwyneth M., *Samuel Terry, the Botany Bay Rothschild*, Sydney, 1974, pp.16-22; SG 11 Sept 1819, p.3/2, & 16 Dec 1820, p.4/1. For Samuel, see also ADB, Vol.2. Lachlan Mills: Family notes at Hamilton Heritage Centre. Sydney: Terry to Parker, in *ibid*; see also SG 12 Sept 1818, p.2/3, & 11 Sept 1819, p.3/2. Keg of nails: FM 19 Sept 1903, p.1/5.

³ Grant: Terry to Parker, *op.cit.* Road: Newitt, Lyn, *Convicts and Carriugeways*, [Hobart, 1988], pp.36-7.

⁴ Terry to Parker, transcribed with corrections of spelling and punctuation at Hamilton Heritage Centre. Moore: Dow, Gwyneth M., *op.cit.*, p.19.

⁵ Macquarie: Quoted in Von Stieglitz, K.R., *A History of New Norfolk and the Derwent Valley*, Evandale, 1961, p.13.

- ⁹ McKay, Anne (ed), *Journals of the Land Commissioners for Van Diemen's Land*. Hobart. 1962, p.13. Abstraction: HRA III, IV, p.307. New cut: HTC 8 May 1830, p.1/2. Backhouse: Quoted in Bethell, I.S., *The Valley of the Derwent*, Hobart, n.d., pp.102-103. Fertility, 1831: Ross' *Almanack* 1831, pp.108-9.
- ⁷ Additional grant: AOT LSD 1/11 p.429.
- ⁸ Plan: Terry to Parker, op.cit. Aborted: Mary Stander? to von Stieglitz, under "M", & A Reid to von Stieglitz under "Derwent Valley", both in von Stieglitz files, QVMAG. Marriages: ibid. Died: CT 10 July 1844, p.3/6. Ralph: CT 28 May 1852, p.1/6. His son: Merc 4 April 1879, p.1/7, & 1 June 1881, p.1/3. Irrigation: Merc 4 Mar 1873, p.3/4-5. Turnbull: Clive Turnbull to von Stieglitz, in von Stieglitz papers under "T". QVMAG.
- ⁹ Death: Hamilton Heritage Centre. Sale: Merc 11 Feb 1897, p.4/7. Moore: Bennett, Scott & Bennett, Barbara, *Biographical Register of the Tasmanian Parliament 1851-1960*, Canberra, 1980, pp.118-119. Tynwald, electricity: Stilwell, G.T., & Pretzman, E.R., "Notes on Buildings in New Norfolk and District," in THRA P&P, Mar 1972, Vol.19, No.1. Scandal: Merc 20 Dec 1901. Race: AOT LSD 1/53, map following p.557.
- ¹⁰ Fire: Dallas to von Stieglitz, 1 Nov 1960, in von Stieglitz papers, QVMAG. Hospital: "Let's Talk about New Norfolk," 1970: Removal of stones: National Trust Derwent Valley Group to Dallas, 18 Mar 1970, in UT/516/1-3.
- ¹¹ Bastian: CT 8 July 1834, p.211/3. Rayner informus: Ibid, 9 Dec 1834, p.389/4. Location: AOT LSD 1/53, p.555. Rayner leaving Sorell: CT 1 Dec 1835, p.384/2. Enforced: HTC 2 Dec 1836, p.2/1. Lease: HTC 29 Dec 1837, p.1/1.
- ¹² AOT SC 285, Report 50. Operating 1840: CT 28 July 1840, p.8/2.
- ¹³ Mann: CT 9 May 1843, p.1/5. Insolvent: HTC 18 Aug 1843, p.1/5. 1849 for sale: CT 23 Oct 1849, p.4/4. 1852: Ibid, 28 May 1852, p.1/6.
- ¹⁴ Allwright: *Tasmanian Daily News*, 20 July 1855, p.3/6. AOT LSD 1/53 pp.553-563. Remainder: VRs.
- ¹⁵ AOT LSD 1/53 pp.553-563. Third insolvency: LE 5 Jan 1860, p.3/5. Death: Merc 21 Feb 1862, p.2/6. Mary Ann: Ibid, 23 Aug 1862, p.1/3. Still: LE 19 Mar 1867, p.3/6.
- ¹⁶ AOT LSD 1/53 pp.553-563. For sale: Merc 14 July 1869, p.4/7. 1870s: VRs. Allwright: Merc 4 Dec 1878, p.4/3, & VR 1879. Machinery: Merc 30 June 1880, p.1/7.
- ¹⁷ Merc 20 Dec 1901.
- ¹⁸ Dallas to von Stieglitz 1 Nov 1960, in von Stieglitz papers, QVMAG.
- ¹⁹ AOT CSO 1/180/4337 pp.108-127. Sale notice, insolvency: HTC 16 Sept 1842, p.3/4. Wolfhagen: THRA P&P, Sept 1972, Vol.19, No.3, p.133.
- ²⁰ Operating: HTC 26 July 1844, p.1/4. Grinding rates: CT 17 Sept 1844, p.1/3.
- ²¹ Stilwell & Pretzman, op.cit., p.35. Undershot: Dallas to von Stieglitz 1 Nov 1960, in Derwent Valley file, von Stieglitz papers, QVMAG. Pump: CT 17 Sept 1844, p.3/3. Brown: HTC 13 Sept 1845, p.1/3. JF Walker, & resident miller: Craig, Clifford, *Old Tasmanian Prints*, Hobart, 1964, p.273, and THRA P&P, Sept 1972, Vol.19, No.3, p.133. Engine: Merc 2 Mar 1874, p.3/6. 1885: "Through Tasmania" in Merc 18 May 1885. Stopped: TM 19 Sept 1903, p.1/5, & Stilwell & Pretzman, op.cit., p.35.
- ²² Fire: pers.comm. Anthony Downie 12 Feb 1997.
- ²³ Stilwell & Pretzman, op.cit., p.32, & ADB Vol.1. Map of grant: NL RM 3000. Savery, Henry, *The Hermit in Van Diemen's Land*, ed. Hadgraft, Cecil & Roe, M., St Lucia, 1964, p.137.
- ²⁴ Marriage: LA 7 Mar 1831, p.77/3. CT 27 Feb 1838, p.66/4. Kerr's grant, new farm: NL RM 3000. Haines: Stilwell & Pretzman, op.cit., p.33. Miller: CT 7 Feb 1851, p.1/4.
- ²⁵ Elliston: Merc 12 Mar 1859, p.3/6. England: Stilwell & Pretzman, op.cit., p.33. Middleton: Merc 12 Mar 1859, p.3/6 & 16 Mar p.1/6. Family history, including dilapidated farm: Brammall, Eileen (ed), *The Shoobridges in Australia: A History*, 1985, p.18. *The Cyclopaedia of Tasmania*, Maitland and Krone, Hobart, 1900, Vol.1, p.426. Later descriptions, mill race for irrigation: Merc 14 Feb 1873, p.2/6-7.
- ²⁶ Straightened: TM 3 Oct 1903, p.1/3-4; see also NL RM 3000. Blyth: Letters by Blyth and typed manuscript by FSR Shoobridge in Shoobridge papers. Jim Shoobridge pers.comm. 20 June 1997. Different mill race: Henry Shoobridge to Dallas, 26 Jan 1960, in Dallas papers UT 516/1-3. Ballarat: Shoobridge papers.
- ²⁷ Ferguson: AOT CSO 1/496/10873, p.85, & LSD 1/76 p.94. Burn, David, *A Picture of Van Diemen's Land*, Hobart, 1973, first published in the *Colonial Magazine* 1840-41, p.96. ADB Vol. 1.
- ²⁸ CT 14 Nov 1843, p.2/1. Merc 28 April 1858, p.3/6.
- ²⁹ Blyth letters, in Shoobridge papers. Louis to Amy Shoobridge 22 July 1876, in ibid. Obituary: Merc 9 April 1874, p.2/4.
- ³⁰ Offered for sale: Ibid, 13 Jan 1875, p.4/4 & 26 Mar 1878, p.1/7. Shoobridge bought: Shoobridge papers. Rupert Shoobridge to von Stieglitz 16 Nov 1960, in von Stieglitz papers, QVMAG. The story is given in Von Stieglitz, K.R., *A History of New Norfolk and the Derwent Valley*, Evandale, 1961, p.90.

- ³¹ Jim Shoobridge pers.comm. 20 June 1997. See also "Through Tasmania." Merc 2 May 1885.
- ³² Louis: Brammall, op.cit., p.56. Louis uses the name "Glenora" in his letterbook 1885-1896. "The Forest." & hop-pickers: "Through Tasmania," Merc 2 May 1885. 1882: Shoobridge ledger book, Shoobridge papers.
- ³³ Millstones: Rupert Shoobridge op.cit. Overshot: "Through Tasmania," Merc 2 May 1885. Deal: LMS Shoobridge letterbook "WES in acct with LMS 21 July 1892;" LMS to Mgr Commercial Bank 27 Dec 1893; LMS to Rumly 25 Sept 1895, in Shoobridge papers.
- ³⁴ New pit wheel, WC article cited in Evans, Kathryn, *Hop Industry Historical Research Project*, Vol 2, 1993, p.34. Jim Shoobridge pers.comm. 20 June 1997. 1928: Shoobridge papers. Rupert Shoobridge op.cit.
- ³⁵ Public History Partners, *Hamilton: The Way to the West: A History of the Hamilton District*, 1991, p.13, and Savery, Henry, op.cit., pp. 149 & 211. Death of father: Notes in "Derwent Valley" file in von Stieglitz papers QVMAG.
- ³⁶ AOT CSO 1/89?/1979, pp.30-33.
- ³⁷ Location: DPIWE map 89125. Partnership: CT 27 Jan 1826, p.1/1. Small, weir: AOT LSD 1/9 p.619.
- ³⁸ For sale: HTC 6 April 1838, p.3/7. Kerr: Ibid, 15 June 1838, p.3/7. Repairs: Ibid, 19 Oct 1838, p.3/6. & 16 Nov p.3/3. Burn, David, op.cit., p.103. Letting: Ibid, 18 Dec 1840, p.1/1, & CT 9 Feb 1841, p.3/2. Sibley: HTC 28 May 1841, p.1/4.
- ³⁹ Tyrrell: CT 14 Mar 1848, p.2/5. Port Phillip: HTC 18 Jan 1853, p.3/3. Increases: Ibid, 31 July 1852, p.2/3, & 18 Jan 1854, p.3/4. 1861: Merc 20 Feb 1861, p.3/5. Obituary: Merc 14 Dec 1871, p.2.
- ⁴⁰ Family information: pers.com Anne Speed 17 Dec 1997. Spencer: Merc 26 Jan 1880, p.1/7. Valuation Rolls 1858 (Charles), 1899 (Tolland). Bark mill: "Through Tasmania," Merc 11 April 1885. Mrs Shelverton: VRS 1886, 1888. Fire: TM 5 Sept 1903, p.37/3.
- ⁴¹ Mort: NL R5213 & 5214. Jack Booth 30 April 1997.
- ⁴² Nicholas: Notes under "N" in von Stieglitz files, QVMAG. HTG 24 June 1825, p.1/4. McKay, Anne (ed), *Journals of the Land Commissioners for Van Diemen's Land*, Hobart, 1962, p.47.
- ⁴³ McDowall: Evidence to the Select Committee on the Lake Crescent Water Supply, PP 1888, No.124. Roadknight to govt: AOT LSD 1/82 pp.154-5. Dam: HTC 6 Jan 1857, p.2/6. Anderson: CT 8 Mar 1836, p.88/1.
- ⁴⁴ HTC 6 Jan 1857, p.2/6. Petition: HA 1856, No.64.
- ⁴⁵ PP 1888, No.124. HTC 6 Jan 1857, p.2/6. "Through Tasmania" in Merc 24 Nov 1884, p.3.
- ⁴⁶ PP 1888, No.124. Many properties: Information under "N" in von Stieglitz files, QVMAG. Death: TPI George: HTC 15 Sept 1837, p.1/3; 1 Oct 1853, p.1/2.
- ⁴⁷ Henric: Merc 29 June 1870, p.1/7. Auction: Ibid, 12 April 1871, p.1/4. William: Robertson, E. Graeme, *Early Buildings of Southern Tasmania*, Vol.II, Melbourne, 1964, p.296. Leased: Campbell, Colin McDowall, *"The Colonial Campbells": A Family History*, Bothwell, 1987, pp.76-8. Bought, chaff-cutting, sold: Ibid, pp. 82, 98 & 114.
- ⁴⁸ Kennedys: Macfie to Ryan 28 Nov 1988, in file on Mills, Institute of Engineers Tasmania.
- ⁴⁹ Bignell, John, "The Restoration of Thorpe Watermill, Bothwell, Tasmania." in *The Australian Journal of Historical Archaeology*, Vol.6, 1988, p.83. Watts: AOT CSO 1/92/2118, p.80. Grinding rates: HTG 1 April 1826. McDowall: PP 1888, No.124. Reiterated: HTG 18 Nov 1826, p.3/1.
- ⁵⁰ Savery, Henry, op.cit., p.159. Almanack pp.118-9. Clark to Weston 2 Feb 1834, RS8 G1/2. UT.
- ⁵¹ For sale: e.g. HTC 14 June 1828, p.2/4. New mill: Ibid, 28 Mar 1829, p.1/3, & CT 8 Mar 1836, p.88/1. Edward Nicholas jr: Brown, P.L., *Clyde Company Papers*, London, 1941, Prologue p.194, & TC 9 Sept 1834, p.4/3. Clay: Bignell, John, op.cit., p.83.
- ⁵² Anderson: CT 8 Mar 1836, p.88/1. Clyde Company: Brown, P.L. (ed), *The Narrative of George Russell of Golf Hill with Russellania and Selected Papers*, London, 1935, p.106. A. Anderson: CT 7 June 1842, p.1/2, & HTC 17 May 1845, p.1/1. Axford returned: Ibid, 15 Oct 1845, p.3/3.
- ⁵³ Lackey: "Through Tasmania," Merc 7 Feb 1885. Murdered: CT 26 May 1855, p.3/5; 28 May p.2/6; & 2 July p.3/2-3. Topham: HTG 1855, p.27. McDowall lease: HA 1856, No.64. Taylor: Valuation Rolls. Grinding: Merc 8 July 1871, p.1/1; & 7 Feb 1872, p.1/4. Auction: Ibid, 7 Oct 1879, p.4/7. Public: PP 1888, No. 124. Chamberlen, McDowall: Bignell, John, op.cit., p.83.
- ⁵⁴ Kennedy: WC 25 July 1903, p.34/4. Remainder: Bignell, John, op.cit., pp.83-5.
- ⁵⁵ Bignell, John, op.cit.
- ⁵⁶ Tyson as agent: AM Nov 1898, p.230.
- ⁵⁷ Ross Almanack 1831, p.119. HTC 30 Jan 1835, p.1/4. Bethune: ADB Vol. I. *The Heritage of Australia: The Illustrated Heritage of the National Estate*, Melbourne, 1981, p.7/33.

⁵⁸ Burn, David, *A Picture of Van Diemen's Land*. Hobart, 1973, first published in the *Colonial Magazine* 1840-41, p.117. 1856 Electoral Roll, in HHC 8 April 1856. Smith: VR 1858. Marriages, death, servant: Note B30 in von Stieglitz files, QVMAG. Sale: Merc 3 Oct 1865, p.4/6. Howard bought: Entry in diary of George Wright, in possession of Virginia Greenhill. Steady: Merc 19 July 1871, p.1/7. Howard's sale: Ibid, 14 Nov 1877, p.4/5.

⁵⁹ Nicholas: Pip and Giles Chapman pers.comm. 13 Feb 1997. & *The Cyclopedia of Tasmania*. Maitland and Krone, Hobart, 1900. Vol.I, p.447. George: Also Merc 25 Oct 1879, p.1/7, & 1 June 1881, p.1/7. Lease: Ibid, 12 Jan 1881, p.1/6. Schumacher: AM Jan 1896, p.11; June 1896, p.112; Oct 1896, p.202. TM 5 Sept 1903, p.37/4. 20th century: Pip and Giles Chapman pers.comm. 13 Feb 1997.

⁶⁰ Ford & Pye: Merc 4 May 1877, p.2/5, & 21 Feb 1879, p.2/2.

CHAPTER FIVE

THE JORDAN VALLEY: BRIDGEWATER TO OATLANDS

5.1 Bagdad/Mangalore

5.1.1 Armytage's Mills

The first grant of land in the Bagdad Valley was made in 1813 (see 5.1.2) so the area must have been fairly undeveloped when George Armytage arrived in 1816 as a free settler, having moved from Sydney which was his initial destination the year before. By 1817 he had 500 acres which he improved with such success that he was later granted another 1000 acres. As well as being a farmer this "determined, proud, intelligent" man also worked as a division constable and district poundkeeper and later kept a hotel. Around 1822 he removed to his property at Bagdad (it is not clear where he was living previously) and decided to build a mill there, using his engineering training. In November 1822 he was able to announce "that his Mill at Bagdad has begun to work.... The Proprietor flatters himself, that this Mill is equal to any in Van Diemen's Land, and assures the Public that the greatest attention and dispatch may be depended upon. Terms one shilling and threepence per bushel." Almost nothing is known of this mill except that it used colonial stones, but presumably it was wooden. Armytage added that he intended to carry on his trade of wheelwright at Bagdad.¹

It is not known how long this mill worked but in 1834 Armytage built a second mill, possibly on the same site. This mill was fully described by the *Hobart Town Courier*.

Mr Armytage, of Bagdad, has, we learn, erected a most capacious flour mill and threshing machine under one roof, and driven by one immense wheel upwards of 40½ feet [12m] diameter, which it was necessary to make of that large dimensions to give the comparative small supply of water sufficient power.... The whole of the mechanism is of colonial manufacture. The patterns of the wheels and iron machinery were made by Mr Esby (sic), a very ingenious man, one of the survivors of the *Hibernia*, and Mr Harris, the brass founder of Macquarie street, cast the wheels and other pieces of the mill with great solidity and exactness. The mill will be a vast convenience to the settlers in the neighbourhood, who were often obliged to carry their corn to Mr. Terry's mill, at New Norfolk, and sometimes to Hobart town to be ground, and we trust it will prove equally advantageous to Mr Armytage, the laudable and enterprising projector, who has expended between two and three thousand pounds on the undertaking.

This is the first record of any mill in the colony making extensive use of locally manufactured cast iron for its gearing and its water wheel. The mill was probably built near his house at Milford (now Milford Manor), as the mill was said to be about 1½ miles [2.5km] from Sayes Court. It began working about the beginning of December but little more is known of it, although in 1842 Armytage supplied flour for the Green Ponds (Kempton) probation station.²

Armytage moved to Victoria in 1847 and when he advertised in 1848 that the estate of Milford comprising 4000 acres was for let the property included a water and steam mill. The addition of steam would have been of great benefit as the supply of water in the Bagdad Rivulet was very poor in summer (see 5.1.2), but it is not known when it was installed. In the

obituary of engineer Alexander Clark it was stated that the first bushel of wheat threshed by steam in Tasmania was by an engine imported and erected by Clark for Armytage, and as the threshing machine was in the same building it is probable that this was also used for the mill. As the obituary implies that the engine was the first production of Clark when he set up in business for himself after leaving John Walker's employment (see 2.3) and before he built the first flour mill in Victoria for Thomas Learmonth which was 1841, it was probably installed about 1840. Charles Foster leased the property for seven years from 1850. In July he announced that the Bagdad Mill was at work and he was charging sixteen pence a bushel, but by the following April he was sub-letting the mill. Following Foster's departure in 1857 the estate "together with a corn mill" were offered again for lease, but no further newspaper references to the mill have been found, not even when Milford Estate was offered for sale in 1877. It is likely that by the end of the 1850s it was no longer working, with Lackey's Mill (see 5.1.3) remaining as the only functioning mill in the neighbourhood.³

Residents of the area remember a sandstone or brick building just to the south-east of Milford Manor which they were told was the mill, but it was pulled down many years ago.⁴

5.1.2 Hayes' Mills

Thomas Hayes originally had a small farm at New Town (see 3.1.1) but received a grant of 50 acres at Bagdad in September 1813, possibly the first person to receive one there. According to his son John, Thomas exchanged his land at New Town for cattle and sheep as money was scarce, and they moved to Bagdad (which included Brighton Plains) where they had the whole district to themselves for a time. When the bushranger Michael Howe visited while Hayes was entertaining Thomas Stocker in 1816, Howe was able to get away with £300 worth of goods which indicates that he was doing fairly well.⁵

In the same 1822 issue of the *Hobart Town Gazette* in which Armytage advertised that his mill had started working Hayes too announced he was building a mill. Trained as a millwright, Hayes was able to design an unusual sort of water mill.

Mr. Thomas Hayes, Sen. of Bagdad, begs to inform the Settlers of the Colony, that he is constructing a Water Mill on a very useful and economical Plan, which will embrace every advantage, and the convenience of being removeable (sic) at pleasure to any fall of Water, from 4 feet [1.2m] and upwards. The whole is not more than a cart load, and may be seen at Mr. William Hayes's farm, at Bagdad, within a Month from this Date. It will grind from 2 to 4 bushels per hour, according to the quantity of Water, and its expence (sic) is estimated from £100 to £120. The Inventor will engage to fix them according to order in any part of the Colony.⁶

It is possible that this was a "Norse" mill, with a horizontal wheel and direct drive to a single pair of stones. It is not known whether anyone else took up his plan, but Hayes' mill operated for about twelve years. It was a real family affair, positioned as it was on his son's William farm with another son John (later MHA) often working as the miller. William's 50 acres were located a little to the south of the current Bagdad post office in approximately the location of Wilson's Road and were to the west of the Bagdad Rivulet, thus now bisected by the Midland Highway. The supply of water for the mill must have been a problem as the Bagdad Rivulet was often dry; in fact when Thomas Hayes was granted his land it was described as south-west of the Bagdad "run of ponds." About 1816 the water was diverted, perhaps to provide water to a house or for irrigation. By 1834 the mill-race was the rivulet

and the old course of the rivulet was cultivated land. When Dr John Espie took up land further upstream at what is now Sayes Court in 1822 the Hayes family was given permission to enter Espie's land to look after the race.⁷

When in 1826 the Land Commissioners went past Hayes' farm, "his House curiously seated on the Top of a Hill," the small mill was grinding wheat at fifteen pence a bushel. Nothing more is known of this mill. However, Thomas Hayes continued to demonstrate his ingenuity by inventing a horizontal windmill "upon an entirely new principal (sic)." Based upon a model, the mill design was claimed to have the same power as the common post mill and use similar gearing, with the added advantage of being able to "use its own power to face the wind" and regulate itself if the wind was too strong. It would be interesting to know if this was the design of mill used by Mann for the Davey Street windmill (see 2.10).⁸

Following the death of Thomas, his son William took over the watermill and rebuilt it with "double motion," presumably two pairs of stones. This would have required considerable capital and probably explains why he took one Williams into partnership with him. The new mill had been operating for less than a year when Hayes' relationship with Espie suddenly soured and the mill's operation was threatened. The source of the problem was the fact that Espie wished to buy a farm belonging to Hayes but when it was bought by Armytage Espie took his revenge by cutting the bank at the side of the mill race. This caused the water to escape and the mill to stop. When the miller John Williams (possibly a relation of Hayes' partner) went to investigate, Espie told him: "I forbid you or William Hayes from going up this mill-race any more, for I am determined you shall not have one drop of water down the race any more; and I'll let him know, I will have that place up yonder yet!"⁹

At the resultant court case the Attorney General appeared for Dr Espie and tried to defend his client on the grounds that as Hayes could not prove twenty years' continuance ownership of the water course there was no case to answer, but as Gellibrand, the lawyer for Hayes and Williams so rightly said, if this objection "were to hold good, every mill in the colony would be destroyed..." He went on to say that if Espie had cut the bank because he wanted the land which had been bought by Armytage, then "he (Mr Gellibrand) was ashamed of him." Miller Williams and Thomas Hayes deposed that the trade of the mill had dropped considerably since the mill water was stopped, which William Page from Constitution Hill corroborated by saying that the mill had been working very slowly and it was three weeks before he got some corn back. Fellow-mill owner Armytage testified that in normal times the mill would grind from three to four bushels an hour and the profits of the mill would be about sixpence a bushel; the jury awarded damages of £4 16 shillings.¹⁰

No further references have been found to the operation of this mill so it is possible that Espie's action resulted in its permanent closure. However, if it did stop working at this time another cause could also have been the competition provided by the two other larger mills in the vicinity (see 5.1.1 and 5.1.3). By 1857 when it was owned by Armytage it was described as "Old Mill, Bagdad, 50 acres," so had obviously not worked for some time. No remains have been located.¹¹

5.1.3 Lackey's Mill

The third mill to be built at Bagdad was to be the most long-lasting. It was built by Michael Lackey who had already built a mill on the Blackman River near what is now Tunbridge (see

11.1). By May 1826 he had paid £500 to Surveyor Evans for fine marsh land originally granted in small lots to the early settlers on the eastern side of the Bagdad Rivulet, and by September 1828 he was erecting “a very superior mill upon a large scale.” The mill was built on what is now called Milford at 76 Goodwins Road, Mangalore (map reference Tea Tree 201788) with a lengthy mill race from a dam just to the south of Wilson’s Road (approximate map reference Broadmarsh 192793). In December 1829 he was able to advertise,

Mr. M. Lackey respectfully begs leave to inform the inhabitants of Bagdad, Cross marsh, Broad marsh, Black brush, Old Beach, Tea tree brush, Coal river, and all others...that his excellent Mill is now in full operation and ready for the reception of grain...

The stone mill was capable of holding several thousand bushels of wheat and Lackey valued it and the other buildings on the property at £2500.¹²

For some time Lackey conducted both his mills from his home at Bagdad. He was perhaps indulging in an ingenious piece of advertising when he entered a horse called “Maid of the Mill” into a race at Gatchouse’s racecourse at New Town in 1833, and must have been highly gratified when it won. The Bagdad mill suffered from the shortage of water that afflicted the other mills and several times Lackey thought it worth while to advertise, for example, “that the late rains have afforded him an ample supply of water.” In 1842 Lackey held government contracts to provide flour for four probation stations (Oatlands, Jericho, Lovely Banks and Picton) and once they were completed he reduced his grinding and dressing rate to tenpence a bushel. Following Lackey’s death in 1843 Mrs Mary Lackey (nee Kimberley) ran the business, advertising for millers on a regular basis until March 1855 when she offered both Mill Farm and another property at the Eastern Marshes for lease. At this time the mill was said to have a “thrashing machine affixed.” The following month she held a sale of livestock, waggons and agricultural equipment—a fateful sale as Thomas Axford of Thorpe was on his way there when he was murdered (see 4.6.2)—and she left the colony. From then on the farm was under the control of her son-in-law Charles Lempriere.¹³

The mill and farm had a succession of tenants, including George Bisdee, G.T. Harrison and Alexander Finlay. The latter was in possession from at least 1868 to 1877, often advertising in the autumn that the mill was in “full operation for the season.” However, the “season” was probably very short-lived. Alexander’s son George was the miller for the family and his diary from 1875 mentions only a few days grinding each May. When the Finlays moved to Campbell Town in 1877 the unexpired term of Finlay’s lease was offered for sale; by this time the mill had wood-cutting and chaff-cutting machinery attached. Edward Graf became the tenant and when the estate was auctioned the following year he was the purchaser. In Maning’s *Post Office Directory* for 1881-2 Graf is listed as a flour miller, although when the Special Correspondent for the *Mercury* visited in 1885 he still called it “Lackley’s (sic) Mill.”¹⁴

Over the course of its history the mill underwent several name changes. Lackey began by calling it Bagdad Mills, in contrast to Armytage’s Milford. By 1855 the estate was known as Mill Farm, but in the 1858 Valuation Roll it was called Miles Rene. In 1865 it was called Millbrook Estate and Finlay called the mill variously Milford Mill, Bagdad Flour Mill and Bagdad Mill. In 1877 the property was Milford Mill Estate and the following year it was Milford Estate. Despite the confusion with Armytage’s property, this is the name by which it is still known.¹⁵

In 1929 when Adolphus Graf sold the property to the Goodwins the mill wheel and other mill machinery had gone. The three-storey stone building survived until the 1967 bush fires which caused such damage that the building was pulled down and an iron shed built on the same foundations with the same dimensions, although not as high. The rafters from the mill were reused in the new shed. The outline of the mill pond behind the house can still be seen, as well as the course of the mill race on the side of the valley. It is a great pity that this very early mill which had survived so long should have been lost so recently.¹⁶

5.2 Brighton/Pontville

Any discussion of these two localities has to take into account a confusion about what the names actually signify. According to John Hayes (see 5.1.2), the name “Bagdad” was used for the entire valley including Mangalore and Brighton Plains. The Pontville Bridge was initially called the Bagdad Bridge. When Macquarie visited in 1821 and fixed on a site for a township “on a peninsula formed by the Jordan River and Strathallen Creek [so named now]”, he called the site where he stopped Bagdad Plains and the new town site Brighton. The first settlement in the area was the Brighton Plains Military Station and was where Tea Tree Road meets Ford Road. The new village of Pontville developed after the bridge was built in 1834-7 and after an 1838 subdivision and sale of land. However, the confusion over the names existed long after this. In 1856 the military station was referred to as the “Old Pontville Station.” In the 1892-3 *Post Office Directory* the two localities are given as “Brighton (Pontville)” and “Brighton (Railway Station),” while in 1903 a Special Reporter for the *Tasmanian Mail* wrote: “The part of the country known as Brighton is 16 miles [25k] from Hobart. The official title for the place is Pontville.” Thus the area denoted by either of these names at any particular time has to be deduced from the context.¹⁷

5.2.1.1 Reynolds’ mill

In 1825 Thomas Garrett, having been unable to find a suitable site for a grant of land at Bagdad on which to erect a watermill—and no wonder as there were already two in the area (see 5.1)—asked for land at Brighton Plains between the road and the river Jordan on which to erect a windmill. Garrett did not proceed, moving on to own the Dynnyrne Mill and later the Rokeby Mill (see 2.11 & 6.1.1), and in February 1827 David Reynolds memorialised the government:

...Memorialist is a resident Settler at Bagdad, and most respectfully begs leave to solicit Your Excellency’s permission for sufficient Land on Brighton Plains for the purpose of erecting a Windmill for grinding Grain - there being no Mill of that description within ten miles of that place in any direction, to the great inconvenience and expense to the Settlers.... as Mr. Garrett has declined a building of the kind at Brighton, the situation whereon he had fixed would prove very desirable....

Reynolds was given permission but was told to be “careful to conform to the lines marked out on the ground for future streets.”¹⁸

He was the brother-in-law of Daniel Stanfield jnr who had erected a mill at Rokeby (see 6.1.1) and as Stanfield and Michael Lackey of the Bagdad Mill were also related through marrying Kimberley sisters, building mills might be considered to be a family occupation. In February 1828 Reynolds advertised for an experienced millwright to erect a windmill but by

the time the 1830 Ross *Almanack* was written it was still only in the process of being built. According to the 1834 *Almanack* it was called the Avon Mill. Unfortunately Reynolds drowned that same year when a boat on which he was taking a load of grain to Hobart Town was upset during a gale. It is quite possible that his wife Mary (nee Stanfield) sold the mill after his death as none of the (admittedly few) references to it mention her name again.¹⁹

E. Weavill was occupying the mill in 1836, and he needed a “free or Ticket-of leave Man” to run it. A Mr Hutton offered the sale of the Crown Inn in Brighton in the same year but the advertisement is confusing because after mentioning “those most desirable premises, known as the Crown Inn, Brighton, at present occupied by Mr Weavill”, it goes on to say: “There is also an excellent run of the business to the house, and the Mill affords a comfortable living....” If this is Reynolds’ windmill the Crown Inn must have been in a different location from its present one in Pontville as the windmill was between Tea Tree Road and the Jordan River. This is made clear in an advertisement in 1839 for an auction of:

An Allotment of Land in the Township of Brighton, containing four acres, more or less, bounded on the north side by Cottage-row, on the east side by Richmond-street, on the west side by the Steyne, and on the south side by crown land. Together with the windmill; and also the messuage or tenement thereon; erected and built, and lately in the possession of Mrs Edwin Weavell (sic).

The section of Tea Tree Road which runs north-south was then called Richmond Street. Cottage Row was just to the south of and ran parallel to that section of Tea Tree Road running east-west. The Steyne, or Steyne Street, no longer exists. No further references have been located.²⁰

A locally-made millstone from Brighton was still in the area in the 1920s. It was said not to have been used for long as it turned the flour a dirty colour.²¹

5.2.1.2 Mary Lamprill’s mill

In 1836, a few years after the death of her husband David, Mary Reynolds married his assigned servant William Lamprill who had been lucky enough to survive the overturning of the boat which had led to Reynolds’ drowning. It is said that because she refused to sign over her property (valued at £5000 in 1834) Lamprill eventually left her, and she carried on alone. At some time before 1855 she built a small tower windmill on her property Summerville to the east of Derwent Street and to the south of Tea Tree Road, so very close to the first windmill. It is shown in a sketch by von Guerard dated 19 May 1855. The Summerville homestead had been the residence used by the police magistrate when the prison station was close by. In the fifties the mill was being run by John Aylward who was also occupying the Brighton watermill (see 5.2.2). He returned in the sixties and when in 1869 she offered to let “the Windmill on Brighton Plains, in capital working order,” Aylward bought it.

By the time of the 1892-3 *Post Office Directory* Aylward was the miller only at the Brighton railway station. In 1903 Summerville was being run by H.E. Lamprill who used a windmill to drive a machine to cut his chaff.²²

5.2.2 Brighton watermill

Very little has been found about this mill. The detailed breakdown of the Mills and Manufacturing Returns for 1849 indicates that it hadn't been built by that time. When the estate of the late Gamaliel Butler was offered for sale in 1853 there is no mention of a mill, but by the time of the 1858 Valuation Roll Butler's trustees own a mill operated by John Aylward. The mill was advertised in 1877: "To Millers—To Let or Sell, a Water Mill, with 5 acres of land attached at Brighton, close to Railway Station." Aylward was still the miller in the 1902 *Post Office Directory*.²³

5.2.3 Pontville mill

When the Special Correspondent for the *Mercury* visited "Pontville (Brighton is the name it is better known by)" at the beginning of 1885 he noted that "Pontville boasts a new mill...driven by steam." The mill was owned and operated by Thomas Hodgman who had the store in Pontville. A plan of the township drawn around the turn of the century shows the mill on the western side of Prince Street just where it meets Cheyne Street, but this seems unlikely as when it was offered for sale with its two pairs of stones in December 1893 the mill and shop site were described as "abutting on the Main-road." It is possible, however, that it was only the shop which abutted the road. The various properties up for auction formerly belonged to Hodgman but were now in the hands of the Commercial Bank. By 1903 the *Tasmanian Mail* correspondent could see only "the remains of a flour mill." Local residents averred quite recently that the millstones were in the river nearby, but these have not been found.²⁴

5.3 Bridgewater mill

This is another mill about which little is known. The first definite reference to a mill at Bridgewater is from a sketch of the mill by "L.V.H." dated 3 February 1866. In November 1866 William Brown of the Bridgewater Mill advertised that he had taken the mill and put it in thorough working order. The site of this mill has not been determined, but the illustration of it in the Mitchell Library shows it to be right on the foreshore and part of a complex of farm buildings. According to Walch's *Almanac* of 1867 the mill was owned by one Bell. Robert Moore bought it by 1868 and Charles Moore was the miller, but the mill on less than an acre was gradually valued at less and less—from £50 in 1868 to £20 in 1870 to £10 in 1871—and by 1874 it was empty and owned by W Bealey. In 1874 "that valuable property at Bridgewater, known as the windmill" was put up for auction.²⁵

The 1892-3 *Post Office Directory* lists a flour mill owned by Robert Jannes at Bridgewater. This may have been the windmill, but there is a possibility that it was a new, perhaps steam, mill. The 1903 *Directory* lists Jannes at Old Beach as the owner, while Frederick Bradshaw the miller is at Bridgewater. He was presumably related to John Bradshaw who had such a long career as a miller, in particular at Oatlands (see 5.8).

5.4 Broadmarsh

5.4.1 Invercarron mill

It is unknown when either of the two Broadmarsh mills began working, but both were functioning in 1842 according to the Mills and Manufacturing Returns. A market would have been provided by not only the free population but also the Broadmarsh probation station, the Commandant of which lived in the house which became the nucleus of Invercarron. The property was acquired in 1844 by Lieutenant William Gunn, known as “Wingy” after his right arm had to be amputated when he was shot by a gang member of bushranger Matthew Brady. Gunn was superintendent of the Prisoners’ Barracks in Hobart Town, but in 1846 he was moved to Launceston as superintendent and visiting magistrate in the convict establishments. His son, also William and later Brighton Warden for over 30 years, ran Invercarron from 1855.²⁶

The watermill was built on the eastern side of the Jordan River (map reference Broadmarsh 102780) with a 4km mill race coming from a dam near what is now Glen Craig (Broadmarsh 096793). Descendant Bill Gunn (the fifth William) attests that the mill was not very successful because of the intermittent supply in the Jordan River, a claim backed by the Special Correspondent in the *Mercury* in 1885 who wrote that: “In summer it just flows in channels between deep pools, and in winter is a torrent subject to floods which are destructive.” Nevertheless the mill continued to function for many years. In August 1861 William Gunn jnr announced that he had engaged the services of John Ilslow as miller and was now “prepared to do Grist Work at sixpence per bushel, or eightpence per bushel if hooked.” From 1886 the mill is no longer mentioned in the Valuation Rolls but this is not to say it had stopped functioning, as the mill was worked by the third William Gunn (William James) and may have continued for farm use at least.²⁷

The mill building had gone in the 1920s, although the boards from the troughing for the race were still there. In the vicinity of the mill site there used to be quite a bit of stone which may have come from the mill or perhaps merely from its foundations. There are some stones remaining in the dam and its pond is still called Mill Pond. The line of the mill race can be traced on the ground and on the 1:25 000 map where it is a combination of “major flood level” and “former watercourse.”²⁸

5.4.2 Stoneyhurst Mill

Another mill began working in Broadmarsh in 1842, evidently built for John Hodgkinson. The following year “Hodgkinson’s Farm” of 640 acres and containing “a Watermill and Threshing Machine, in excellent order” was sold at auction by order of his assignee: he had chosen a bad time to build a mill and had become insolvent. The estate could well have been bought by J.P. Rowe at this time, but it was Thomas Champny who informed settlers in the vicinity that the newly-renamed Stoneyhurst (sic) Mills were in full operation and charges were moderate. Stoneyhurst with a “stone water mill, and thrashing machine worked by water” was one of three properties owned by Rowe in 1846 when he offered them for sale.²⁹

The mill was built close to Stoneyhurst Creek near the house on what is now Storeys Road (map reference approximately 090762-3) with a 100m mill race from the creek. It was in

good repair when the farm was offered for lease in 1852, with information to be provided by John Hodgkinson Esq who had now returned. He offered the property for sale in 1853 and by 1856 it was owned by John Holmes who “got the ...mill in thorough working order.” In 1863 when Sarah Holmes of Clarence Plains advertised the farm for lease she announced that : “There has also lately been erected a steam mill at a considerable cost; the mill can also be worked by water power, a threshing machine is attached to the water wheel.” Edmund Wilson leased the mills in 1867 and in August announced:

After 3 months experience of the...Steam Mills, [he] desires to thank his supporters for past favors (sic) , and intimate that for the future, seeing that he cannot work and live by the loss, the charge for grinding at the Stonehurst (sic) Mill will be the same as at other establishments—viz one shilling per bushel.³⁰

In 1873 J. Holmes described himself as a miller, but in April that year he put the property up for auction, announcing that: “Connected with the mill are dressing machine and smutter and threshing machine,” but the property was withdrawn at £1900. The following year Aaron Hodgman took the “Steam Flour Mills, Broadmarsh” and announced a grinding rate of ninepence. By the time of the 1881 Valuation Roll the property was owned by Gordon Bowring and by 1886 the mill was no longer mentioned, although this does not necessarily mean that it stopped working then. However, when the Special Correspondent for the *Mercury* visited the property in 1885 he made no mention of the mill and as he did say that the land had been allowed to become over-run with briars and wattles, it is quite likely that the mill last worked in the 1870s.³¹

The two-storey sandstone mill with a shingle roof and one pair of stones survived until the 1967 bushfires. There are now no remains.³²

5.4.3 Mary Lamprill Mill

This mill seems to have been destroyed as soon as it was built. In 1852 a coroner’s inquest was held into a drowning during flooding at Broad Marsh (sic) with the highest recorded levels since 1828. The newspaper report went on: “...A new mill, the property of Mrs Lamprill, is destroyed...” In 1872 William Lamprill offered for tender properties belonging to the late Dan Reynolds at Broadmarsh including “a homestead of 600 acres fronting on the River Jordan.” This presumably had been the site for the mill.³³

5.5 Constitution Hill

The origins of this mill are unknown. In 1849 Henry Speak inserted the following advertisement in the *Colonial Times*:

Grainfield Mill. The undersigned having recently obtained and laid down an excellent pair of stones (French Burrs) in addition to the pair previously at work, begs to inform the Public that every attention will be paid to the orders with which he may be favoured. Charge, for grinding and dressing, sixpence per bushel; cracking barley etc fourpence per bushel. Good flour always on hand, either for sale or exchange.

Speak had the Grainfield property right on the top of the hill and the mill was built near the highway opposite the small church. From 1851 he appears not to have run the mill himself but to have employed or leased it to others. H. Green (of the Battery Point Mill in 1868?)

seems to have had it for most of the 1850s and in 1861 while John Topham had it for some years in the 1860s. Speak offered the mill for lease in February 1874 but by the following year he had sold it to Robert Nicholls. During the rest of the seventies Nicholls advertised several times for the mill to be leased, but by 1885 it was described as deserted.⁵⁴

An illustration of the mill shows it to have been a post mill, but when the architect Heywood photographed the remains in the 1930s only the stone roundhouse with its roof were still surviving. Thus it is the only confirmed Tasmanian example of a well-constructed masonry roundhouse added to a post mill, a practice that was common in England. The mill was demolished soon afterwards. The site of the mill can no longer be seen as the highway now goes over the spot, although Grainfield House is still there.⁵⁵

5.6 Green Ponds (Kempton) mill

As early as 1826 the *Hobart Town Gazette* announced:

The want of a Flour Mill has long been felt at the Green Ponds, and we are happy to learn that Mr Pullen and Mr Millar are erecting an extensive one in that neighbourhood. The wheel, which is 60 feet [18m] in diameter, will be driven by a small stream coming from the hills behind; and by throwing a bank across and confining the water in the rainy season, a reserve will be obtained extending three miles back....

These grandiose plans—60 feet is far larger than any wheel known to have been adapted for flour milling in the colony—did not ever come to fruition and it was to be probably another 20 years before the area had its own mill.⁵⁶

In 1849 first W. then Francis Flexmore advertised the Huntingdon Steam Mill “now in full work” for sale or to be let. Francis was the son of a Second Fleet convict and was born on Norfolk Island. He arrived in the colony in 1808 on the *City of Edinburgh* and eventually bought and was granted land in the area. In 1850 George Shelverton took the mills and remained there for the rest of the 1850s. In 1858 he announced “to the Inhabitants of Green Ponds and Oatlands...that having had his Steam Mills put in thorough repair and considerable additions made” he was able to provide flour, pollard and bran “delivered in any quantity at five minutes notice.” Wheat for grinding could be delivered at William Jones’ store in Oatlands. Unfortunately, the following year he became insolvent with four years’ lease of the mill unexpired, and Henry Green of the Constitution Hill windmill (see 5.5) took over in 1860. He announced that he could provide a paddock for bullock teams and the charge for grinding and dressing in the future would be ninepence a bushel, with smutting threepence.⁵⁷

From 1860 on the name “Huntingdon” was never used; instead the mill was called the Green Ponds Steam Mills, or once Green’s Mill. In 1863 Mrs Green advised that she was to continue the business at the Green Ponds Steam Mill during her husband’s absence from the colony. Green was still in occupation in 1866 but by 1868 William Shelverton, son of George, was the miller. In 1870 he advised that the grinding rate was to be one shilling a bushel. In December the mill together with two acres and having a frontage on Louisa Street was advertised for sale but it was still owned by the Flexmore family as late as 1888. Shelverton continued at the mill until 1879 (then moved on to the Hamilton Mill in 1885—see 4.5). The mill was empty in early 1880 but James Philpott leased it later in the year and put it into “thorough working order” before announcing grinding rates of sixpence.

He was still in occupation in 1886 but the mill was once again empty in 1888. In 1903 it was said to have ceased operations many years previously.³⁸

The mill was on Flexmore's land right on the western bank of the Green Ponds Rivulet on the western side of Memorial Avenue, the old Midlands Highway (approximate map reference Elderslie 167896). It later became a bark mill. It is still possible to see a small part of the stone foundations and some scattered bricks. The millstones are said to be still in Kempton.³⁹

5.7 Bath Mill, Jericho

This mill was built by John Watts, one of the first millwrights in the colony. He arrived in November 1822 as a free settler and in an application for land stated that since his arrival, "he has followed his occupation as a Wheelwright, and has succeeded in erecting & repairing several Mills in the Island..." One of the mills was almost certainly Downward's watermill at Sorell (see 6.2.2) and the mills at Bothwell are a possibility (see 4.6). Watts was granted 200 acres in the Jericho district. When the Land Commissioners visited in April 1827 they noted that although his farm was unoccupied, "...he is an excellent Mill Wright & is meditating building a Mill on his Farm." By March 1829 when he applied for additional land as his initial grant "was taken merely on account of the Mill, & is not capable of improvement," he had erected a flour mill worth £500 although had he not brought some of the necessary articles with him from England it would have cost a lot more.⁴⁰

Watts' wooden watermill, called Bath Mills as it was situated in the parish of Bath, was close to the north bank of the Jordan River to the north-west of where it leaves Lake Tiberias. Dr Ross pronounced it "excellent." In 1832 Watts lowered his grinding rates from one shilling to ninepence, but in 1835 he appears to have been in financial difficulty as 200 bushels of his wheat were sold in an enforced auction by the sheriff, and then the farm and mill were also offered for sale. Watts died in November, still residing at the mill, but the financial problems appear to have been temporarily solved as his wife Anna continued in business, assuring the public that she had a constant supply of water and was about to engage an experienced miller. However, in 1840 the title of John Watts (presumably James' son) to the farm and mill were offered for sale by the Sheriff's Office and by 1841 the watermill was part of the 9000-acre Gorthy Estate.⁴¹

It would be good to know more about the history of the mill during the forties. Edward Parsons was the miller in 1842 and William Watson was living there in 1843. At some time Gorthy was bought by George Mercer and when he offered it for sale in 1852 the property contained a "steam and water mill," but it is as yet impossible to say exactly when steam was added. In 1842 a new channel was cut (from Lake Tiberias?) to improve the water supply for the mill, a necessary activity it would seem as the Jordan River was renowned for its intermittent supply (see 5.4.1). However, even this was evidently not enough and the decision was taken to add a steam engine to remove the problem altogether. The very early vertical steam engine once present on the site and now removed to the Queen Victoria Museum & Art Gallery would indicate an earlier rather than a later date for this. It would seem highly likely that this was also the time when the original wooden building was replaced with the brick mill on stone foundations seen in later photographs. The wooden water wheel utilised rim gearing with a layshaft.⁴²

The new mill seems to have been built in the same place as the old; it was certainly built on what was John Watts' original grant. Its remains are on the Jordan River as it drains out of Lake Tiberias before it crosses the Colebrook Road (map reference Stonor 255054). According to Greg Taylor, the current owner, there were two water sources for the mill. Water was brought from Lake Tiberias to a dam on the Jordan River about 300m above the mill, and a small dam was also constructed on Ringwood Creek. Taylor still uses this latter dam, although it has been increased in height.⁴⁴

When Mercer offered the Gorthy Estate for auction, 9000 of its 9512 acres were leased by John Rowland Roe. Roe had arrived in Van Diemen's Land as a child in 1822. His father had died on the voyage out and his mother had taken her two children to the Jericho district where she later married James Bryant. When Bryant died his widow returned to England with her children and John Roe trained as a doctor at Oxford. Following his mother's death he returned to Van Diemen's Land and ran the estate of Sandhill which had been left to Roe and his sister by Bryant, then leased the major part of Gorthy by 1847. Mercer was initially unable to sell Gorthy at auction and it was put up for sale by private contract, finally selling in September 1853 to Roe for £10 000. Roe had renamed the property Ellesmere by 1855 when he offered the steam mill (which could also be worked with water) at Jericho for lease. From then on the mill was generally called the Jericho Steam and Water Mill or simply Jericho Mill. The name "Bath Mills" had fallen out of use after Watts' death; in between then and Roe's purchase it appears to have simply been called the mill on Gorthy Estate.⁴⁴

In 1860 Roe announced he had put the mill in working order and was charging one shilling for grinding and dressing. He offered to employ "an active and competent Miller" in 1861 and Ilslow (later of the Invercarron Mill) was appointed, while George Allwright took the mills in 1862. Other millers in the 1860s included John Bradshaw of the Oatlands Mill (see 5.8). John Roe jnr rented the mill from his father for a couple of years in the mid-seventies and Thomas Skeggs had it for a few years at the end of the decade, advertising that:

As sufficient inducement is now offered, I am prepared to Cart, (sic) Wheat, Grind and return to any place along the Main Road to Brighton, as far as Mr. Hodgman's stores, where wheat may be left and taken care of. Grinding and carting included, ninepence per bushel, and only one pound taken as waste.

Percy McLaren was the miller at least in 1884.⁴⁵

Roe's daughter sold Ellesmere to James Mitchell in 1901, and Mrs Mitchell wrote about her farm:

On our farm contained, amongst other attractions, an old mill worked by a water wheel, and many a time I sat watching the cumbersome (sic) circle slowly revolving, the water splashing into the cool pool below it, and the birds flying in and out of the spray it caused. All around the pool grew forget-me-nots, tiny ferns, and flowering rushes.

On a hot day it was an ideal spot, and most restful, with the sound of the running water, and the "plop plop" of the big wheel.

But the days of the water wheel were getting over, farmers took their wheat to be ground by steam rollers, as the flour had to be finely dressed to suit modern taste. Our old miller, who had lived there for forty years, declared that the health of the people was not so good, now that "they took all the good out of the flour," but there were still some who liked the old fashioned way best, so the mill still worked in its own leisurely way.

The miller was Jimmy Taylor who remained at the mill until at least 1907.⁴⁶

The mill was demolished by Watkins, a Kempton carpenter. The chimney was blown apart in 1941 as the result of a bet between the then-owner O'Kelly (nephew of J. Mitchell) and an army captain that it would take more than one shot from one of the army's big guns to demolish it. It took three, and then the bricks were taken to build sheepyards and to line a charcoal pit. The water wheel was broken up to make horse troughs. Although some of the stone foundations have been removed to the garden of the Ellesmere house some stone blocks from the mill remain on site, including part of the wheel pit where the marks of the water wheel can still be seen. The millstones and some other machinery were donated to Callington Mill in Oatlands about 1967 when moves were made to restore the windmill there. The mill race from the Ringwood Creek dam can still be traced.⁴⁷

5.8 Oatlands Mill

The windmill at Oatlands was built by John Vincent by 1837. Vincent had arrived in 1823 with his wife and seven children. As early as 1825, having built a house on a grant of 500 acres at Sorell Springs, York Plains, he requested an additional grant of rocky land with a creek in order to build a watermill. The request was refused as he was not living on his land. Within a few years he was the owner of the Bothwell Inn and by 1832 had built the London Inn (now Tedworth) at Spring Hill. After he complained of oppression by others in the Bothwell area, Captain Vicary, the Police Magistrate at Bothwell, was asked to comment. He wrote: "Mr Vincent's temper is very bad, he has no command over it, and some time ago, he used such violent and abusive language...that I should have put him in gaol...."⁴⁸

Vincent must have made some money from his inns and other land in order to build the mill at Oatlands which he announced would be in full operation by 15 October 1837. In 1928 it was said by old residents that the mill was built by Cleghorn and Anderson and that the machinery was imported and erected by Easby and Robertson. This is quite likely as both Anderson and Easby were to erect the Barton mill within a few years (see 11.4). The stone was said to come from the shores of Lake Dulverton, with the shaft for the sails coming from the property Inglewood. Vincent employed a miller and by the end of 1838 offered for lease: "The Callington Mill...considered one of the first rate windmills in the country, and surpassed by none in its situation for business, fitted up with two pair of good stones. (French burs [sic]), dressing and smut machines..." along with a dwelling, counting house and small store, granary and six cottages, all let. At the time he was licensee of the Royal Oak Inn at Green Ponds, but he was said to be "on the premises" at Oatlands. When he again advertised the mill for sale or lease in July 1839 he gave further details that the stone windmill was 52 feet [15m] high, had two pairs of 4½ feet stones and was capable of grinding between 20 and 30 bushels an hour. It is interesting that Roderic O'Connor from as far away as Connorville sent wheat to Vincent's mill. The following June John Vincent jnr announced he had bought the mill (for £1200) and Vincent snr left Oatlands and removed to Bothwell, asking O'Connor to remit his cheque for grinding there "as I am very anxious to get my late business at the Mill closed."⁴⁹

Vincent jnr continued to run the windmill but evidently found that a windmill which perforce depended on the available wind was not as reliable as he would have liked, for in January 1845 he arranged with the engineer Alexander Clark to erect an eight horse power steam engine to work one pair of French burr stones and a flour dressing machine for £450. It

appears that the machinery was erected in the already-existing store. The steam mill is included in Calder's 1846 survey and in October Vincent, in announcing the steam mill, mentioned that his grinding rates were sixpence a bushel, ninepence if dressing was included. He added: "J.V. takes this opportunity of informing the public that the utmost expedition, in the execution of any order...may be now confidently relied upon." From this time onwards the name Callington Mill is not used; instead the complex is referred to as the Oatlands Wind and Steam Mill or Oatlands Flour Mill.⁵⁰

At this time Vincent appears to have been in financial distress. In March 1850, preparing to leave Van Diemen's Land, he sold the mill back to his father, then bought it back again the following year for £2000. He finally left the colony in December 1851 for the Victorian gold rushes and in April 1853 Thomas Jillett announced he had bought the mills and intended to carry them on himself. Jillett paid £2400; it is unknown whether Vincent jnr found fortune in his hunt for gold, but at least the gold rushes had allowed him to make a profit on the sale of the mill, with Jillett prepared to offer a higher price than Vincent had paid a year earlier. Jillett leased the mill to his cousin, John Bradshaw, but in 1857 the latter advertised the three years of his unexpired lease and William Exton was the lessee from 1858 to 1862. Jillett tried to sell the mills every year from 1860 to 1863, by which latter date he had added another pair of millstones to the steam mill, but he had no takers and by July 1863 he had employed a miller and was superintending the mill himself. However late in 1863 Bradshaw bought the mills (for £1600) and he was to remain there for some years. In 1870 he advertised:

John Bradshaw in thanking the public for past support, desires to intimate that to enable him to keep pace with the present "age of progress" he has added a new improved silk dressing machine to his previously complete establishment, where, as heretofore, all grinding will be executed with despatch....

The following year he reduced the price of grinding from one shilling to ninepence a bushel "to meet the depressed times," and offered a cheap 16 horse power Cornish boiler for sale. In 1873 he installed a "superior description of millstone known as Bodington's [actually Boddington] patent" which was capable of producing more flour to the bushel than burr stones together with a new improved dresser, and announced he was now prepared to do grist work "equal to any mill in the Colony" for ninepence a bushel cash.⁵¹

When Bradshaw offered the mills for sale in 1876, the mills contained elevators, a 12 horse power engine and a circular saw and weighbridge, but once again they were not sold and although W.E. Morrisby leased the mill for a year, Bradshaw was back in possession in 1879. The following year he inserted a notice in the *Mercury* which, had he realised it, boded ill for his establishment.

Wanted known, that on and after Jan 1, to meet the depressed times, I have reduced the grinding to sixpence per bushel for cash on delivery or eightpence credit. A supply of flour etc always on hand, at market price, delivered at any of the railway stations and sidings in the district.

It was not only the depressed times that were the problem; the coming of the railway had brought this successful country mill into competition with the city mills. Bradshaw was probably getting out at the best time when he sold the mills, complete with the "most improved machinery" to J.B. Roe (lessee of the Jericho Mill) by 1881, although Roe later said that he was very successful for a couple of years with both mills. Bradshaw was to be the first miller at the Campania Steam Mill in 1885 (see 6.5.2). Alfred Nichols bought the

Oatlands mill in 1884 and installed his kinsman Percy McLaren as miller; the latter also became the miller at Jericho that year and bought Oatlands in 1886. McLaren was in some financial difficulty and in 1888 it was (a creditor?) E. Hopkins who offered the mills for sale; the windmill was said to be used only for storage but the steam mill commanded the trade of the country within a radius of 30 miles. McLaren was finally put out of business in the depression of the early 1890s when his creditors, the Launceston-based Equitable Building Society, foreclosed. It was later said that the sails were cut off about 1890, and this would make sense if the windmill was not being used for grinding at that stage. Both Percy McLaren and the Oatlands mill are last listed in the 1892-93 *Post Office Directory*. The Oatlands mill had finally stopped working.⁵²

An article in the *Tasmanian Mail* in 1903 referred to W. Thomas who had worked there for 25 years; he is known to have been at the mill in 1864. A story is told of J. Thomas (the same person?) that he had climbed on to one of the sails to repair it and a passing resident decided for a joke to undo the lock on the machinery and allow the sails to turn. Fortunately the weight of the miller caused the sails to stop quite quickly and Thomas climbed to safety. It is not recorded if he caught the perpetrator. The same 1903 article mentioned that Oatlands used to be an important place but the railway had led to a decline.⁵³

In 1913 a fire destroyed the tower cap and gutted the interior of the windmill, evidently after a spark from the forge of a blacksmith then occupying the building caught on the wooden fittings. The rest of the windmill was lucky to survive if the following story is true. It was said that plans to demolish the mill and use the stone for a dwelling were about to be carried out when it was realised that as the stone was curved the builder would have to erect a round house, and it was decided not to proceed. Later the lower 3.4m of the mill was sealed with cement render and used as a water reservoir. The millstones and other machinery on site are from the Jericho Mill (see 5.7).⁵⁴

As early as 1933, by which time the chimney had already been demolished, a Mr Herbert suggested restoring the mill. In the 1960s plans for a possible reconstruction were drawn up, and in 1976 some preservation work was undertaken. In 1988 the funding was found for replacement of the interior timber and the ogee shaped cap. Currently there are further plans to continue restoration of this very important tower windmill. There is only one other tower windmill in the state for which there are any remains, and the other at Saltwater River is in a very poor condition.⁵⁵

¹ Armytage: ADB, Vol.1. Moved to Bagdad: CT 23 Dec 1834, p.411/1. HTG 23 Nov 1822, p.1/3. Colonial stones: HTG 26 Oct 1822, p.2/1.

² HTC 19 Dec 1834, p.2/4. Distance from Sayes Court, & Dec: CT 23 Dec 1834, p.411/1. Green Ponds: HTC 4 Mar 1842, p.2/1-2.

³ Victoria: ADB, Vol.1. To let: CT 22 Feb 1848, p.2/4. Obituary: Merc 12 Sept 1894, p.3/6. Learmonth: MS12459, Learmonth to Somerville Learmonth, 26 Aug 1841, LTAMC, SLV. Forster: CT 8 Jan 1850, p.3/6; CT 26 July 1850, p.1/1; HTC 14 Aug 1852, p.1/3; HTC 19 Jan 1853, p.4/2. Sub-Jet: CT 15 April 1851, p.1/4. HTC 28 Feb 1857, p.1/6.

⁴ Pers.comm. Lyn Linnell and Gaye & Neville Gangel, 6 Oct 1997.

⁵ Hayes' grant: Morgan notes, QVMAG. John Hayes' autobiography, in the possession of Helen Neill-Fraser. Howe: Evans, George William, *A Geographical, Historical, and Topographical Description of Van Diemen's Land*, first published 1822, facsimile reprint London, 1967, p.102. & Von Stieglitz files under Lower Midlands, QVMAG.

⁶ IITG 23 Nov 1822, p.1/3.

⁷ John the miller: John Hayes' autobiography, in the possession of Helen Neill-Fraser. MHA: Bennett, Scott & Bennett, Barbara, *Biographical Register of the Tasmanian Parliament 1851-1960*, Canberra, 1980, p.80. For William's land and the new course of the rivulet, see the maps in Terry, Ian, "Bagdad Valley Planning Study Historic Report," A Report for the Department of Infrastructure, Energy and Resources, November 1998, pp.12 & 42. Diversion of rivulet, & permission to enter: CT 23 Dec 1834, p.410-11. Espie bought: AOT LSD 1/3 p.387.

⁸ McKay, Anne (ed), *Journals of the Land Commissioners for Van Diemen's Land*, Hobart, 1962, p.6. Windmill: HTC 16 Aug 1828, p.4/4.

⁹ HTC 13 June 1834, p.1/5. & CT 23 Dec 1834, p.410-11.

¹⁰ CT 23 Dec 1834, p.410-11.

¹¹ Old Mill: HTC 28 Feb 1857, p.1/6.

¹² Bought land: McKay, Anne (ed), *Journals of the Land Commissioners for Van Diemen's Land*, Hobart, 1962, pp.6-7. Superior: *The Tasmanian*, 12 Sept 1828, p.3/1. Location, race, stone: Tony Goodwin pers.comm. 18 Dec 1997. In operation: HTC 5 Dec 1829, p.3/2. Several thousand: Ross *Almanack* 1830, p.231. Value: AOT LSD 1/74, p.467.

¹³ Horse race: Ross *Almanack* 1835, p.185. Two mills, home at Bagdad, late rains: HTC 21 May 1831, p.1/4. Water supply, government contracts: HTC 12 Aug 1842, p.3/4, & HTC 4 Mar 1842, p.2/1-2. Mrs Lackey: e.g. HTC 1 Sept 1843, p.1/1; HFA 21 Aug 1850, p.1/5. Thrashing: HTC 7 Mar 1855, p.3/1. Sale of livestock: HTC 21 April 1855, p.1/1. Lempriere, Lackey left: HTC 13 June 1856, p.3/5. See also articles by Freda Gray and Kathy Duncombe in Schaffer, Irene, *Pontville, Kempton, Jericho, Colebrook, Richmond: Excursion 28 March 1993*, New Town, 1993.

¹⁴ Bisdee: Merc 9 Feb 1857, p.1/1, & VR 1861. Harrison: Merc 8 April 1865, p.1/6. Finlay: VRs 1868-75; Merc 1 April 1872, p.3/7; *ibid* 26 Mar 1873, p.1/2. George Finlay diary in possession of Jim Finlay. Campbell Town: Jim Finlay pers.comm. 27 Nov 1997. Unexpired: Merc 9 Feb 1877, p.1/6. Sale: Merc 5 Feb 1878, p.4/2. Lackley: "Through Tasmania" Merc 31 Jan 1885.

¹⁵ Bagdad Mills: HTC 5 Dec 1829, p.3/2. Mill Farm: HTC 21 April 1855, p.1/1. Millbrook: Merc 8 April 1865, p.1/6. Finlay: Merc 20 April 1870, p.1/2; 1 April 1872, p.3/7; 26 Mar 1873, p.1/2. Milford Mill Estate: Merc 9 Feb 1877, p.1/6. Milford: Merc 5 Feb 1878, p.4/2.

¹⁶ Tony Goodwin pers.comm. 18 Dec 1997.

¹⁷ See Macfie, Morris-Nunn and Dudley, *The Pontville Historic Environment Study*, Parts I & II, A National Estate Project for the Brighton Council, 1995, pp.3-6. & Gray, F. J., *Old Pontville: A Seamless Web*, Cambridge, (1995?), p.1. Old Pontville Station: AOT LSD 1/8 p.436. TM 31 Oct 1903, p.1/3.

¹⁸ Garrett: AOT LSD 1/103 p.533. Road: Macfie, Morris-Nunn and Dudley, *The Pontville Historic Environment Study*, Parts I & II, A National Estate Project for the Brighton Council, 1995, pp.4-5. Reynolds: AOT LSD 1/9 p.687.

¹⁹ Reynolds' family: Gray, F. J., *Old Pontville: A Seamless Web*, Cambridge, (1995?), pp.12, 14. Millwright: HTG 2 Feb 1828, p.1/4. Drowning: HTC 15 Aug 1834, p.3/1, and Ross *Almanack* 1835, p.224.

²⁰ Weavill: CT 19 April 1836, p.1/2. Crown Inn: CT 18 Oct 1836, p.355/1. Auction: HTC 18 Oct 1839, p.3/4. Map in AOT LSD 1/8 p.444.

²¹ W.J. (Bill) Gunn: pers.comm 17 Dec 1997.

²² Marriage, property: Macfie, Morris-Nunn and Dudley, *op.cit.*, pp.61-62. Lamprill: Pinch, Merle E. *De Stanfield - Standfield - Stanfield 1788-1991*, 1992. Von Guerard sketch in the Mitchell library, Aylward: CT 17 April 1856, p.3/4-6; VRs 1856, 1858, 1868, 1875. To let: Merc 9 Jan 1869, p.1/7. Residence, chaff: TM 31 Oct 1903, p.1/3.

²³ Merc 2 Feb 1877, p.1/7.

²⁴ "Through Tasmania", Merc 10 Jan 1885. Hodgman: VR 1886. Store: *PO Directory* 1881-2. Plan shown in Gray, F. J., *op.cit.*, p.40. Millstone: *Ibid*, p.41. For sale: Merc 23 Dec 1893. Bank: Macfie, Morris-Nunn and Dudley, *op.cit.*, p.29. TM 31 Oct 1903, p.1/3.

²⁵ Brown: Merc 24 Nov 1866, p.1/4. Mitchell: ZPXA 4460. Moore, Bealey, value: VRs. Auction: Merc 13 Aug 1874, p.4/7.

²⁶ Gunn: ADB, Vol.1, & TM 24 Oct 1903, p.1 Nucleus, acquired: Norm Laurence notes. William jnr: Tas Cyc Vol.1, p.438. LE 19 April 1856, p.6/1-2.

²⁷ W.J. (Bill) Gunn: pers.comm 17 Dec 1997. "Through Tasmania" Merc 10 Jan 1885. Hsloow: Merc 7 Aug 1861, p.4/2.

²⁸ W.J. (Bill) Gunn: pers.comm 17 Dec 1997.

- ²⁹ 1842: MMR. Auction: IITC 10 Nov 1843, p.3/5. Champny: CT 2 April 1844, p.2/3. Rowe: IITC 6 May 1846, p.1/4.
- ³⁰ Location and race: Greg Whelan pers.comm. 8 Jan 1997. See also AOT NS 972/5. Lease: CT 6 Jan 1852, p.4/2. Re-sold: HTC 31 May 1856, p.3/3. Holmes: IITC 31 May 1856, p.3/3. Sarah: Merc 7 May 1863, p.1/6. Wilson: Merc 22 May 1867, p.1/2, & 21 Aug, p.1/2.
- ³¹ Holmes: Merc 11 Jan 1873, p.1/7, & 14 April, p.4/7. Withdrawn: LE 17 May 1873, p.3/3. Hodgman: Merc 4 Feb 1874, p.1/2.
- ³² Greg Whelan pers.comm. 8 Jan 1997.
- ³³ IITC 31 July 1852, p.3/4.
- ³⁴ CT 21 Aug 1849, p.1/1. Location, deserted: "Through Tasmania", Merc 7 Feb 1885. Speak renting: e.g. CT 14 Feb 1851, p.1/1. Green: MMR 1855, VR 1856, Merc 16 June 1860, p.1/2, VR 1861. Topham: Merc 7 July 1860, p.1/4: VRs 1861, 1866. Merc 18 Feb 1874, p.1/7. Nicholls: Merc 29 Mar 1876, p.1/7, 21 Mar 1877, p.1/7.
- ³⁵ Heywood photo, QVMAG collection. Demolished: Joe McKay pers.comm. 28 Jan 1998.
- ³⁶ HTG 2 Sept 1826, p.3/3.
- ³⁷ IITC 26 Sept 1849, p.3/4, & LE 29 Sept 1849, p.620/1. Flexmore: Thelma McKay in Schaffer, Irene. *Pontville, Kempton, Jericho, Colebrook, Richmond: Excursion 28 March 1993*, New Town, 1993, pp.13-14. Shelverton: CT 11 June 1850, p.4/6. Additions: Merc 14 Aug 1858, p.4/5. Insolvent: Merc 20 Aug 1859, p.4/4-5. Green: Merc 9 June 1860, p.4/4.
- ³⁸ Green's Mill: Merc 26 Dec 1870, p.4/6. Wife: Merc 5 Dec 1863, p.1/7. Green in 1866, Shelverton: VR 1866, 1868, 1877, 1879. Grinding rate: Merc 20 Oct 1870, p.1/3. Sale: Merc 26 Dec 1870, p.4/6. 1888 VR. Empty: VR 1880. Philpott: Merc 4 Sept 1880, p.1/2: VR 1886, 1888. TM 22 Aug 1903, p.2.
- ³⁹ Joe McKay pers.comm. 28 Jan 1998.
- ⁴⁰ Applications: AOT CSO 1/92/2118. McKay, Anne (ed), *Journals of the Land Commissioners for Van Diemen's Land*. Hobart, 1962, p.51.
- ⁴¹ Wooden: 1842 census. Parish of Bath, wife's name: Stephanie Burbury pers.comm. 23 Jan 1997. Location: Map DPIWE 88190. Ross *Almanack* 1830, p.28. Grinding rates: HTC 20 July 1832, p.3/4. Sales: HTC 5 June 1835, p.2/3, & CT 16 June 1835, p.186/3. Death: Jericho Anglican Church burials. Wife continued: CT 19 April 1836, p.1/2. John: HTC 24 Jan 1840, p.2/3. Mill part of Gorthy: HTC 4 June 1841, p.3/4.
- ⁴² Parsons: 1842 census. Watson: Stephanie Burbury notes 23 Jan 1997. Mercer: CT 21 Dec 1852, p.4/4. Channel: Hudspeth's correspondence, cited in Mortyn, S.M., "The Nomenclature of the Oatlands District," *THRA* June 1967, Vol.15, No.1, p.12. For a discussion of the steam engine, see Smith, Michael, "Unique Engine from Ellesmere Mill," in *The Industrial Heritage Newsletter*, No.16, 1998. Rim gearing: a piece survives on site.
- ⁴³ DPIWE map 88190. Greg Taylor pers.comm.
- ⁴⁴ Roe: Wray to von Stieglitz 12 Feb 1960, and other information in "Lower Midlands" file, von Stieglitz papers. QVMAG. Leasing Gorthy: Roe's marriage certificate Nov 1847. Private contract: IITC 28 Mar 1853, p.3/4. Sold: Greg Taylor notes. For lease: HTC 17 May 1855, p.3/5. Jericho Mill: Merc 2 June 1860, p.1/7.
- ⁴⁵ Merc 11 July 1860, p.1/1. Active miller: Merc 24 April 1861, p.4/2. Ilslow: Stephanie Burbury notes. Allwright: Merc 29 Nov 1862, p.1/5. Bradshaw: VR 1870. Roe jnr: Tas Cyc Vol.1, p.453. Skeggs: VR 1879. Merc 26 Feb 1881, p.1/1. Merc 11 Oct 1884.
- ⁴⁶ Mitchell: Greg Taylor notes. Mrs Mitchell: transcribed by Stephanie Burbury. Taylor: Stephanie Burbury notes.
- ⁴⁷ Greg Taylor: pers.comm. 9 Jan 1997. Stephanie Burbury notes.
- ⁴⁸ Schaffer, Irene, *Bothwell Excursion 20th October 1991*, pp.23-26.
- ⁴⁹ In operation: HTC 13 Oct 1837, p.1/4. Easby etc: *Illustrated Tasmanian Mail*, 4 Jan 1928. For lease: HTC 7 Dec 1838, p.3/3. Royal Oak: Schaffer, Irene, op.cit., p.26. Further details: IITC 19 July 1839, p.1/4. Vincent jnr: IITC 12 June 1840, p.3/2. Harris, Simon, *Callington Mill Research Project Stage 1*, National Trust, May 1987, p.42. O'Connor: Connorville Papers, Box 8 - Accounts 1824-50.
- ⁵⁰ Clark: Articles of agreement, UT/C4/1.1 Store: *Illustrated Tasmanian Mail*, 4 Jan 1928. Calder: DPIWE. 0/21. Announcement: CT 27 Oct 1846, p.2/5.
- ⁵¹ Leaving: HTC 6 Mar 1850, p.1/1. Harris, Simon, *Callington Mill Research Project Stage 1*, op.cit., pp.46-47, 50. Jillett: CT 16 April 1853, p.4/3. Miller: CT 15 Sept 1853, p.3/5. Bradshaw: IITC 13 Dec 1855, p.3/6, & Merc 3 July 1857, p.4/6. Exton: VR 1858, Merc 7 July 1860, p.4/2, Merc 25 Jan 1862, p.1/5. Tried to sell: Merc 21 Aug 1860, p.4/3; 27 Nov 1861, p.3/3; Merc 15 Jan 1862, p.1/7; Merc 18 Mar 1863, p.1/7.

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- Superintending: Merc 4 July 1863, p.1/4. Bradshaw bought: Merc 16 Feb 1864, p.1/6. silk dresser: Merc 26 Mar 1870, p.1/2. Reduced: Merc 20 Sept 1871, p.1/6. Bodington: Merc 12 Mar 1873, p.1/2.
- ⁵² Offered for sale: Merc 6 Sept 1876, p.1/7. Morrisby: Merc 12 Jan 1878, p.1/3. Bradshaw back: Merc 3 Sept 1879, p.1/3. Railways: Merc 7 Jan 1880, p.1/7. Improved machinery: Merc 17 Aug 1880, p.4/6. Roe: VRs 1880, 1883; Tas Cyc Vol.1, p.453. Nicholls. McLaren: Merc 11 Oct 1884. VR 1886. Hopkins: Merc 3 Mar 1888, p.1. Cut off: *Illustrated Tasmanian Mail*, 4 Jan 1928. See also Harris, Simon, *Callington Mill Research Project Stage 1*, op.cit., pp.51-53. McLaren: VR 1886.
- ⁵³ TM 8 Aug 1903, p.37/2. Joke: *Illustrated Tasmanian Mail*, 4 Jan 1928. Harris, Simon, *Callington Mill Research Project Stage 1*, op.cit., p.53. *Callington Mill Historic Site Outlands: Conservation Management Plan*, 1993, p.40.
- ⁵⁴ *Illustrated Tasmanian Mail*, 4 Jan 1928. Reservoir: Murphy, H.T., "Callington Mill, Outlands - Its History and Restoration," in Mills file of The Institution of Engineers (Tasmania).
- ⁵⁵ Herbert: Merc 25 Jan 1933, p.10/4. Later plans: Murphy, H.T., op.cit. Current plans: Merc 13 Oct 1998.

CHAPTER SIX

ROKEBY, SORELL AND THE COAL RIVER VALLEY

6.1 Rokeby (Clarence Plains)

6.1.1 Stanfield's mills

Within ten years of the initial settlement at Hobart Town, settlers, particularly the Norfolk Islanders, had begun to move into new areas. Two districts in particular which were quickly settled were Clarence Plains on the eastern side of the Derwent, and Pittwater. They had the advantage of retaining sea communication with Hobart and the land was very suitable for farming. Within a few years the wheat from these areas was growing in abundance and mills became a necessity. But with access to few of the swiftly-flowing rivers with which the western shore of the Derwent had been blessed the settlers here turned initially to wind power.

As it happened, two settlers vied with each other for the right to be called the builder of the island colony's first windmill. Although Nash had begun earlier, by June 1816 the Colonial Office was notified that:

Much credit is due to Rob Nash, settler of Pittwater, also Daniel Stanfield, settler, Clarence Plains, for having in progress, and in a state of forwardness, a Windmill each on their respective Farms, for the accommodation of their own Families and their neighbours, which it is hoped will reward the exertions of the Proprietors....

In the event it was Robert Nash who won the "competition" (see 6.2.1) and Stanfield did not even come second, being pipped at the post (mill) by sons of Nathaniel Lucas in Launceston (see 9.1.1).¹

Daniel Stanfield jnr had been eighteen years old when he and his family—and Robert Nash—joined many other Norfolk Islanders on board the *City of Edinburgh* and journeyed to Van Diemen's Land in 1808. His parents settled at Green Point near Bridgewater but Daniel jnr received a grant of land at Clarence Plains and after the Rev. Knopwood had married them he took his new wife Maria (nee Kimberley) and their baby daughter there to live. It was at Clarence Plains that he built his first windmill, but just where has proved impossible to determine. The mill took some time to build, probably because of the difficulties in acquiring the necessary millstones and machinery, and it was not until March 1818 that the *Hobart Town Gazette* was able to announce that the mill had "begun to grind with great success".²

However, its success must have been short-lived as in 1827 Stanfield announced that he had built a new windmill on his farm; indeed, he does not even refer to the first mill so it would appear that it had not worked for some years. As he proudly advertised that "[t]he mechanism of the work has been planned and executed by Mr Peter Ferguson, and flour of the best character has already been produced", it is likely that he or another amateur had been the millwright for the first mill and that it had not worked very well. Ferguson had been the millwright for the new Government Mill in Hobart Town (see 2.3) and was later to erect the

machinery in the Trafalgar Mill at Richmond (see 6.3.2). The new windmill was erected at Mill Point close to the beach in front of where the Tasmania Police Academy is now (approximate map reference Taroona 372489). It was actually built not on Stanfield's farm but on adjoining land belonging to his father-in-law (and fellow Norfolk Islander) Edward Kimberley. It was probably put there to make sure it was around the point and able to take full advantage of the prevailing westerly winds. In 1829 Edward Kimberley died and left to Stanfield the two acres on which the mill had been built plus a right of road to it.⁴

In 1829 Stanfield reduced the price for grinding from one shilling to tenpence, while in 1833 he announced he had good flour always on hand and would sell it for cash at Hobart Town prices. In 1837 he offered the mill on a long-term lease but it is not clear if he had any takers. In 1847 he sold the mill for £200 to Thomas Garrett (ex-Dynnyrne Mill—see 2.11) who in 1850 rented both it and a house to John Barker Insley for fourteen years at a rental of £45 a year. Following Garrett's death in April 1853 the mill was put up for auction by the executors (who included William McRobie of the Dynnyrne Mill) and in 1854 Frederick Vigar bought "the mill and two messuages" for £700. Frederick Vigar had married Daniel Stanfield's daughter Maria in 1848 and owned the Albion Mill on the New Town Rivulet (see 3.1.4). The considerably higher price compared with Garrett's only seven years earlier could be explained partly by the effect of the Victorian gold rushes, but mostly by the addition of two houses. A succession of lessees had the mill during the 1860s and 70s and one of them, S.H. Pewterill, advertised grinding rates of ninepence in 1873, but by 1886 it was empty.⁴

A story is told that the mill was the cause of an American whaler running ashore when a Captain Sinclair, a newcomer to the Derwent, was told by a more knowledgeable skipper to take his bearings from "the windmill" and unfortunately made for the Rokeby mill instead of that at Battery Point. Fortunately the whaler was towed off without harm. When J.E. Calder in 1880 recommended to travellers a route past the windmill he still referred to it as "Stanfield's windmill". It continued to stand for many years, much-loved by photographers and painters who documented its gradual decline. It is said that the miller's house burnt down in 1900 while the mill itself finally succumbed in a gale in 1908.⁵

6.1.2 Nichols' mill

The early history of this mill is unknown. It was built on land granted to William Nichols to the east of the Clarence Plains Rivulet in the approximate area of the present Meehan Road (until recently known as Chipmans Road). The first reference located is from June 1842 when William Titley, who had just spent six years in the new Waterloo Mill, advertised: "that having rented Mr. Nichols Mill, and put the same under an experienced millwright, into the most perfect repair, he has commenced grinding corn...." Both Nichols (or his father) and Stanfield had been singled out for a mention in Wedge's dairies in 1826: after describing the settlers at Clarence Plains as "a rum set", Wedge went on: "Stanfield and Nichols are natives of the Colony from Convict Parents - They are deserving much credit from the way they conduct themselves, as well as for the pains they are taking to educate their family...." Just when Nichols built the mill is unknown.⁶

Titley lasted less than twelve months and was replaced by February 1843 by George Vincent, possibly a relation of John who owned the Callington Mill at Oatlands (see 5.8), but by

October Nichols himself was in occupation. At that time he offered for sale the mill which was “in perfect order, and a steady man may get constant employment in grinding the grain grown in the neighbourhood.” The mill and 475 acres was evidently bought by Robert White; in 1846 and again in 1847 the assignee to the insolvent White’s estate offered it for sale. The 1846 advertisement said that the windmill was “erected on a well chosen spot, open to the land and sea breezes, which might be worked to considerable advantage”, implying that it had not been worked for some time. It appears not to have been used again and was probably bought by Joseph Chipman, Stanfield’s son-in-law. In 1848 Chipman offered the mill for sale, or alternatively the machinery and four foot French hurrs could be purchased. It appears that this latter offer was taken up, as in 1851 Chipman advertised for sale “[t]he Shell of a Windmill, very strongly built of the best materials, and in a manner that it may be easily taken to pieces and removed”. Nothing further is known.⁷

6.2 Sorell

6.2.1 Nash’s mill

That indefatigable mill-builder, Robert Nash, who had given up a mill on Norfolk Island, built Van Diemen’s Land’s first mill on New Town Rivulet only to lose it by flooding, and then built Hobart Town’s first mill (see 3.1.1 and 2.1), was one of over 300 granted land in September 1813 in compensation for land given up at Norfolk Island. Nash’s grant was for 200 acres at Pittwater, and in October of the following year he sold the Old Mill in Hobart Town and moved to his grant (south of the present Sorell school and bounded by Pittwater and Sorell Rivulet). The area was very fertile and grew excellent crops of wheat and considering Nash’s previous history it is really not surprising that he began almost at once to build a windmill on his property.⁸

In May 1815 Lieutenant-Governor Davey asked Macquarie for “a pair of Mill Stones for Robt. Nash, who has erected a Windmill at Pittwater at his own expence (sic)”. Nash was to pay for the stones by grinding for the government at one shilling a bushel when required until the price was paid. Unfortunately for Nash, the wheels of government ground much more slowly than he might have liked: it was another nineteen months before Macquarie wrote to Davey that he was sending the stones on the *Kangaroo*, and even then the necessary brass and iron work was inadvertently omitted and had to be sent in March 1817. It appears, however, that Nash had been able to make other arrangements for the brass and iron, as on 8 February 1817 the *Hobart Town Gazette* announced:

We have the satisfaction of announcing to the public, that the first Wind-mill erected in this Settlement, has within these few days begun to grind on the premises of Mr Robert Nash, at Pitt Water. It promises to fulfill (sic) every expectation, and we have no doubt the benefit of which will be felt by the settlers residing in that district. This undertaking has been begun and finished at a considerable expence (sic) to the owner, Mr Nash, and at his sole risk; which it is hoped will reward the exertions of the proprietor.⁹

Unfortunately it does not seem that Nash was rewarded enough: when he died in March 1819 at the age of 48 letters of administration of his effects were granted to those major money-lenders Edward Lord and James Lord and in 1820 they put his estate up for auction “for the benefit of the Creditors”. It is possible that he still had not been able to repay (James?) Lord the money he owed in 1810 (see 3.1.1 and 2.1). The advertisement for the auction mentioned the “capital Windmill in complete repair”, but no further references to the mill have been

found. In 1822 when Armytage advertised that his new Bagdad Mill was working (see 5.1.1) he was at pains to “inform the Public, and particularly the Inhabitants of Pitt Water (from which there is a good Road not more than 20 Miles distant). . . .” This would seem to indicate that Nash’s mill was not working at that time. He was unlikely to have had the benefit of a good millwright, and like Stanfield’s at Rokeby (see 6.1.1) the windmill may not have worked particularly well. With competition from Bagdad and a new watermill at Sorell (see 6.2.2), it may not have been in anyone’s interest to try to keep Nash’s mill going.¹¹

The windmill which survived at Sorell until the end of the century was (and often still is) called “Nash’s Mill”. This is almost certainly a result of historical confusion: a knowledge that Nash had built a mill at Sorell combined with the fact that a windmill was still there. However, it is possible that Nash’s windmill was bought and re-erected in the new location (see 6.2.3), although there is no documentary evidence to support this.

6.2.2 Downward’s mills, Wattle Hill

Richard Downward arrived in Van Diemen’s Land on the *Christiana* in 1822, having been recommended by the Earl of Lonsdale as a person of respectability. He brought with him goods to the value of £1894, including a threshing mill and a flour mill, and was granted 1400 acres. Lieutenant-Governor Sorell recommended he build his mill at Pittwater and he began almost at once, selecting more land on Iron Creek about six kilometres from Sorell. The mill was built about 100m to the north of the creek with a 500m head race and 700m tail race, both about 2-3m in depth. The millwright was almost certainly James Watts (later of Jericho mill—see 5.7) who had also travelled on the *Christiana*; in July 1824 Watts took Downward to the Sheriff’s Office, presumably for payment of his account, and by that time the water mill had been built. Downward later claimed that the mill and brick house had cost him £1250. The Land Commissioners in 1826 thought Downward deserving of considerable credit “for the Snug cottage, Mill, & Mill Dam. . . . he has also cleared some of the heaviest timbered land in the country. . . .”¹¹

However, Downward had considerable trouble getting a grant of the land involved. Initially he was promised five acres, but as he was quick to point out this did not allow him reasonable control over his mill races and he asked for it to be extended to 25. He added that “[a]s Mr Terry of New Norfolk, had one hundred acres of land given to him to erect his Mill on, I trust His Excellency, the Lieut. Governor, will not deem my application for about twenty five acres, unreasonable.” Frankland pointed out that there was no comparison between the two cases as Terry had been granted 1500 acres, and chose to have 100 located at New Norfolk for the mill; nevertheless the government was inclined to be sympathetic towards Downward except for the fact that he had rented his 1400 acres to “a notoriously Bad Character”. Downward was told that if a free overseer was on his grant his request would be acceded to. He was eventually granted both the hill at the back of the mill, and the 25 acres between the mill race and Iron Creek.¹²

He had further problems with his mill. About 1826-7 he suffered extensive damage from a flood, but his more usual worry was a dearth of water in the summer months. At different times he wrote that the mill was idle for from four to seven months every year, and eventually he built a windmill in Sorell to overcome this difficulty (see 6.2.3). It appears too that he had financial problems: in 1826 David Lord advertised that although three years

previously he had endorsed two promissory notes of Downward for £225 10 shillings, he would not now honour them. However, Downward managed to survive. He was probably lucky that the experienced convict miller William Butterworth (see 1.2) was assigned to him in 1830 and stayed with him for several years. About 1832 Butterworth wrote home:

After landing [in this colony in April 1830] I was assigned to the service of Mr Richard Downward.... My master is from Cumberland. He has two mills, a water wheel and a wind mill, and my work is chiefly to attend to them sometimes one and then the other. He has about 40 acres in cultivation. He is no farmer himself, he knows nothing but soldiering. I have all the ground to sow and he is very fond of me. He has a large family of 12 children.¹²

In 1833 Downward added to his mill a dressing machine “for the manufacture of Fine Flour &c”. However, he evidently become increasingly frustrated by the unreliability of both the water and wind supply to his two mills and decided that he should look for a long-term solution. In 1838 he “respectfully announce[d]...that his new Steam Mill (adjoining his Water Mill) for grinding corn, is now at work, and will be at work, every day, Sunday excepted.” The new mill was paid for by a mortgage taken out with John Robertson (later of Colebrook Park—see 6.6.1) who provided £450, and the eight-horse power steam engine was installed by the new firm of Davidson and Clark. This was the first country steam mill to be built in the south and one of the first in the colony as a whole, following only Walker’s in Hobart Town (see 2.7) and Gaunt’s at Windermere (see 9.4).¹⁴

In January 1841 Downward may have been in some financial difficulty, probably because of the severe depression that the colonies were then facing, as the following advertisement appeared in the *Hobart Town Courier*:

Mills, Brewery, Farm and Homestead, For Sale, by Private Contract, the proprietor being desirous of retiring from business, the following eligible property, viz:- An excellent steam-mill, driven by an eight horse power engine, on the latest and most improved principles, recently imported to order, set up by an experienced engineer, works with ease and mechanical exactness, facilitated still further by supplying itself with water, and close at hand is an inexhaustible supply of fuel - contiguous is a corn mill kept in a very constant operation by a judiciously arranged supply of water, in which the most arid seasons have little effect.... The income derived from the property...for some time past has been very considerable....

Just when the brewery had been added is unknown, although Downward may later have regretted its addition (see below). It is also of interest that the “inexhaustible supply of fuel” is mentioned: presumably this was from the steep wooded hill behind, and its proximity may well have been the deciding factor in Downward’s decision to install steam. The property did not sell and in September the mortgage with Robertson was renewed.¹⁵

Within a few years Downward faced his severest test: in December 1845 he was charged with having a still in his possession and was fined £500, and when he refused to pay “such an enormous sum” he was sent to prison. The details of the case were laid out at length in a pamphlet he published in 1846, at which time the 64-year old had been in prison seven months and was experiencing deteriorating health. The still had been discovered in the brewery, and Downward’s chief defence was that he never went into the brewery, which was run by his son Joseph. “My own attention and time,” he wrote, “were fully occupied in the management of the water and steam mills, that are at a distance, and quite disconnected from the brewery.” Downward protested that he had had “an unblemished reputation” and included in the pamphlet a number of testimonials to his strict honour and integrity from influential

citizens, including Bishop Willson. Just when he was released has not been determined, but the case must have put him under more financial pressure as in 1846 he not only renewed his mortgage but borrowed a further £150.¹⁶

In 1849 Downward, citing family considerations, again offered the property for sale. He deposed that at the watermill and the 10-horse power steam mill “between 7 and 8 thousand bushels of farm grist is ground annually, besides manufacturing flour to a considerable extent for Hobart Town, and water carriage is within a distance of 5 miles, easily and inexpensively reached....” Although the mills again failed to sell, Downward was finally able to dispose of them following another advertisement in 1851. He moved to Launceston where in 1862 he died at his residence in Cimitiere Street aged 79. The mills were bought by D. Lyons who called them the Pittwater Steam Mills; no further reference has been found to the watermill. Lyons announced that his grinding rates were ninepence a bushel, although these were lifted to one shilling the following year “in consequence of the high rate of labour”. He emphasised also that “[i]n no case will wheat be fetched, or flour returned, except in Sorell, or the road thereto. In future, in all small transactions grinding must be paid for, or the wheat will be tolled for the amount.”¹⁷

The steam mill had a succession of owners and lessees in the fifties. It was offered for sale in 1854; by the time of the 1858 Valuation Roll it was owned by Isaac Bomford of Oatlands, while at the end of 1860 Daniel Simpson was the owner. William McGuinness leased the mill in 1857, advertising that he had taken the “Gully Steam Mills” and would grind at one shilling and threepence a bushel, and when he left in 1860 he was replaced by Richard Allen. By November 1861 the “Sorell Steam Mills” were owned by Jonas Gatehouse, son of Silas who owned the next door property and nephew of George of the New Town mill (see 3.1.2). Gatehouse found that the habits of the community died hard and while in 1861 he announced that “the Steam Mills known as Downward’s” had undergone considerable repair and grinding rates would be reduced to one shilling, in 1862 he gave in to local nomenclature and simply called them “Downward’s Steam Mills”.¹⁸

Gatehouse continued to own the mill until dramatic events of June 1872 during a flood, described in the *Mercury*:

At two o’clock information reached Sorell that the Gatehouse Mill had been washed away, and that Mr. Jonas Gatehouse, with his family, were clinging to small trees for their lives. The action of the Warden was prompt; and in a few minutes a score of mounted volunteers, with the Superintendent of Police, hastened to the rescue. On arriving at Wattle Hill they found that, although the mill had been washed away, the inmates of the house were still above water. No immediate assistance however could be rendered to them, no boat being available; and the house, from its peculiar situation, and the force of the waters being unapproachable for the rescue of the little children.

The Gatehouse family and the house survived, but the mill was not rebuilt. At some time the property was given the name “Millbrook”, although no evidence has been found to indicate when this was done or indeed if it was done while the mill was still in existence. Certainly no newspaper references found give it this title. The millstones were said to have survived and were leaning against a pear tree at the homestead until washed away in the 1960 floods. Some brick work, including what appears to be the base for a steam engine, still survives at the site but it has not been determined whether these remains are of the mill or the brewery. What seems to be a tributary of Iron Creek could well be the mill race.¹⁹

6.2.3 Downward's windmill

In 1825 the millwright Patrick Miller memorialised Lieutenant-Governor Arthur, requesting a piece of ground at Sorell on which to erect a windmill as the settlers were in great need of one, the watermills being quite useless in dry weather. It is not known exactly what happened with Miller but he may have given Downward the idea to build one himself; the latter may indeed have hired Miller to build it. Downward first requested two allotments—one of the mill, one for a dwelling—in 1826, although the expense of repairing his watermill following a flood (see 6.2.2) delayed progress until 1828. Even when he was ready, however, he had to wait for the land to be surveyed and this took a considerable time to arrange. He finally went ahead on the verbal assurance of Frankland that three acres of land would eventually be surveyed, and the windmill was built by November 1829. It is possible that it was still not finished then, however, as at this time he wrote that the mill had cost £450, but the following May he said the cost was £500. Both were greater than his original estimate of £300.²⁰

Downward was still campaigning to have the allotment surveyed. By the end of 1831 he was getting desperate and wrote to Frankland twice within eleven weeks asking for it to be done, particularly as he wanted to begin building a granary nearby as the mill had sustained serious damage the previous year “by the very great pressure of wheat”. It was not, however, until 1834 that Downward's wife (writing on behalf of her husband who was indisposed) could write that the site had been “lately measured” by Mr Halls, but even then there was a difficulty as the allotment had been measured in such a way (presumably in a square) that two streets came very close and “should ever any houses be built, the working of the Mill will be most seriously affected....” Frankland then told Halls to measure the allotment in the form of a circle with the mill at the centre, and so Sorell's unusual feature of The Circle came into being.²¹

As early as 1832 Downward, “intending to retire up the country,” offered the windmill for sale, but it was not until 1836 that it was bought by Feltham Bold Watson. He operated it in partnership with William Urquhart and J. Peacock for a few months, then carried it on alone. In 1839 it was R. Drury who advertised for a miller and as he owned the mill in 1842 he had presumably bought it in the earlier year. He owned the Sorell store and leased out the mill but in 1842 the assignees to his estate offered the mill for sale, subject to a mortgage of £200 with the merchant John Robertson. Robertson was in possession of the mill when in 1846 he sold it along with 250 acres to Downward for £631. In 1848 the mill was put up for auction because default had been made in the payments for the 1836 mortgage taken out by Watson with Downward and Robertson; it would appear that Watson had continued in occupation of the mill and Downward was hoping to recover the £200 still owed. Watson was finally declared insolvent in 1856 and the mill was sold to Samuel Isles of the Gordon Highlander. He acknowledged the “support he has for many years enjoyed as a brewer, licensed victualler and lately as a miller” and advised that the windmill was undergoing thorough repair. In 1858 he leased the mill to David Barton, who “solicit[ed] a share of the liberal patronage bestowed upon his predecessor” and announced reduced grinding rates of one shilling for cash.²²

When Isles auctioned several properties in 1860, he described the mill as:

...built of weatherboard, well enclosed by substantial post and rail fence. The Mill works one pair of stones, has dressing machine and other cleaning apparatus and is capable

with steady moderate wind of grinding about 100 bushels of corn per day. The Mill is let at £100 per annum.

The purchaser was John Smith with Barton continuing as lessee, although by 1863 the latter had been replaced by William Budd. By 1870 the owner/occupier was Richard Crocker (possibly removing competition for his other mill—see 6.2.4) and in the mid-eighties William Peacock was the lessee. However, the mill may well have ceased working as its value in 1883 was given as only £3. The property was left to Crocker's daughter Mary Ann Clark (see 6.2.4).²³

The windmill— often erroneously called Nash's mill— stayed for many years, a favourite subject for painters until it collapsed in 1914. The machinery and other parts were stored in a Forcett barn by the Reardons, descendants of Robert Nash, and were destroyed by the 1967 bushfires.²⁴

6.2.4 Crocker's mill

Richard Crocker of Somerset arrived in Van Diemen's Land in 1828 and farmed land in the Prosser's Plains and Pittwater area. His first marriage to Mary Gatehouse (daughter of Clement) was witnessed by George Gatehouse of the New Town mill, and for forty years he leased the farm of Thorn Hill owned by George Read of the Old Mill (see 2.1), so he had strong milling connections. In 1859 he advertised in the *Mercury*:

Wanted by the Undersigned a Miller, competent to manage a 5 horse power flour mill and steam engine. Reference as to competency required. No drunkard need apply.

By April of the following year he was able to advise that he had completed his "Steam Flour Mill and Crushing Machine" and he would charge one shilling for grinding and dressing. As his daughter Mary Ann married the engineer John Clark in 1862, it is quite likely that Clark had supplied the engine. The mill was almost certainly on the farm Belle Vue he owned on Pawleena Road, but little else is known of it aside from the fact that it was mentioned in Walch's *Almanac* of 1867. Crocker died in 1883 and Belle Vue was left to his son, Richard Clement Crocker.²⁵

6.2.5 Another possible windmill

In 1841 P. Mills called tenders for "finishing a Windmill and a Dwelling-house erected on the Farm of the late Mr John Wade, at Sorell." Robert Nash's 1813 grant for land at Sorell passed "from a bend of the Creek opposite Wade's farm". Nothing further is known of this mill; according to the Mills and Manufacturing Returns there were five mills in the Richmond district in 1839—presumably two at Richmond, two at Rokeby and one at Sorell. In 1840 there were six, evidently including Mills', and then by 1842 there were only five again. If Mills' windmill ever worked it was for only a very short time, with the depression of the 1840s probably being the culprit.²⁶

6.3 Richmond

6.3.1 Walker's mill

The Coal River area was early recognised as particularly good for growing wheat and soon ranked with Pittwater and Clarence Plains as the granary of Van Diemen's Land. The government bought 90 acres from David Lord for a township which was officially called Richmond in February 1824, and in September that shrewd Scot John Walker, realising the opportunity, applied for a grant of land "for the erection of a mill in the Township of Richmond". The watermill was erected in 1824 and in March 1826 W. Wilson advised the public that he was leasing it and it worked two pairs of stones, one pair of which were French burrs. Walker sold the mill to Patrick Miller, probably in 1828 as in January of that year the former asked for a grant of the allotment as he had fulfilled the conditions for it and if he did not get a grant soon it would be a serious loss.²⁷

Miller exchanged a school house in Liverpool Street for the mill in Richmond; he could well have been the millwright who had applied for an allotment in Sorell to build a windmill (see 6.2.3). However, in September 1828 he was in serious trouble, as detailed by the *Hobart Town Courier*. In the course of a heavy flood during which the Coal River rose nearly 4.5m above its normal height, the mill dam was almost completely washed away, and then both the mill itself and its miller were threatened:

In the course of last night the water broke into the mill, and poor "Paddy the Miller" had to retreat to the upper story where he passed a miserable night, expecting every moment to be swept away with all his premises. The violence of the flood tumbling his casks and boxes about the apartments below, the fowls scrambling on the top of the shingles, made such a noise as led him to expect that the house was falling about his ears, while the cats and rats forgetting their natural antipathy and fearless of his presence, joining him in his forlorn retreat, served to heighten his despair.

Eventually three constables ventured through the flood and by putting a rope through an upper window were able to get "the old man" the same way and take him to dry land, much to the relief of a large crowd who had watched from the bank "in trembling anxiety".²⁸

However, Paddy's trials were by no means at an end. The Richmond bridge had also been damaged by the flood and when John Lee Archer came to inspect it he found that the damage had been caused to some extent by the proximity of the mill dam which was a mere fifty feet [15m] to the north. His predecessor as Colonial Architect, David Lambe, had pointed out in 1826 that the dam might cause problems with the bridge as water flowing over the dam was undermining the piers. Archer recommended in early 1829 that the mill dam not be re-erected in the same place, even though Miller had already prepared materials to do so. Miller agreed with Archer's "superior judgment", but pointed out that as the mill and its privileges had cost him nearly £500 he would hope he could obtain permission to erect a dam somewhere else. When a settlement appeared distant, Miller withdrew from the exchange with Walker and left him to deal with the problem. Walker too found a solution difficult, as by the middle of 1829 there was too much water in the river to enable a new dam to be constructed, and the convict gang in the area had left the district and there was no labour available. Requesting a grant of land in compensation for his problems, Walker sold the mill as a dwelling for £125 to Thomas Issell in August 1830. It is of interest that Issell was a miller and may have hoped for a future possibility of operating the mill once more, although

this seems never to have occurred. He did, however, make a killing with his purchase as just two years later he sold the block to Henry Thomas for £390.²⁹

The precise location of this mill has not been determined, although considering the position of the dam it can be safely assumed that the mill was some distance south of the bridge. The triangular block of land to the south of the bridge on the eastern side was known as Mill Field and Elizabeth Jones can remember a mill race there.³⁰

6.3.2 Trafalgar mill

Soon after the devastating flood, James Kestall Buscombe determined to provide an alternative mill for the town. In February 1829 he applied for an allotment to erect a windmill and dwelling house of brick and stone, citing as his reason the scarcity of water in the Coal River. (This latter is interesting as it implies that the watermill was still able to operate despite the damage to the dam.) Buscombe had arrived on the *Heroine* along with John Walker in 1822 and was very active in Richmond, having already built the Lennox Arms which he ran. He acted as postmaster for nearly 20 years, was an auctioneer and storekeeper and as a builder was responsible for many other buildings in the area including Prospect house.³¹

Buscombe planned to build the colony's first tower windmill at an estimated cost of £1100; all previous windmills had been the smaller—and less expensive—post mills. It was to be built between Russell Street, the Esplanade and Old Bridge Street. Several problems forced delays and in the event it took several years to construct. By May 1830 he had completed the stone tower which was 25 feet [7.5m] in diameter and forty feet [12m] high, thus making it shorter than both the Oaulands and Battery Point mills (see 2.14 and 5.8). His request for the return of a pair of government sawyers for three months to complete the timber work of the mill was rejected, despite Arthur's support, with John Lee Archer saying that they could not be spared. Although he described himself as a mechanic, Buscombe was not a millwright and he therefore had already engaged Peter Ferguson who had helped build the new Government Mill in Hobart Town (see 2.3), but without the sawyers he was unable to provide the materials required by him in the given time. Completion of the mill was further delayed when Ferguson was seriously injured in a fall during construction, while Buscombe's request for a particular sized iron for the spindle to be provided from the Ordnance Store was also rejected, this time by Arthur who feared the precedent it might establish.³²

It was February 1832 before the mill approached completion. By this time Ferguson had lost a grant of 640 acres at Russell's Falls on which he had intended to build a watermill, as he had not taken up residence there within the stipulated six months. (The land was instead granted to Captain Fenton who eventually built his own mill there—see 4.4.1.) Ferguson pleaded with the government to restore the land to him, and produced supporting letters from several local property owners including Buscombe, G.W. Gunning and Thomas Lascelles. Gunning was glowing in his praise:

I beg leave to certify His Excellency I have known Memorialist several years, and I believe him to be a most conscientious man, I have seen a great deal of his work, and I have frequently visited him in the progress of his present undertaking - The Tower Mill of Richmond (sic) - working two pair of French Burrs with dressing machinery and tackle complete - and which I am informed cannot be excelled in New South Wales, this

Mill, it is expected, will be in full operation about five or six weeks, to the great convenience and benefit of Richmond, and the surrounding neighbourhood....

As early as 1831 Ross praised the “very superior windmill”, going on to say that “the lofty stone tower...situated conspicuously in the centre [of Richmond], already give[s] it the appearance of a thriving English village.” However, it was not until October 1832 that Buscombe was finally able to inform the public that the Trafalgar Mill and dressing machine was in full operation. He claimed that it had cost him £1500.³³

In 1834 the mill was damaged by gales and repairs took several weeks to complete. In 1836 Buscombe advertised the mill for lease, the “sole reason [being] the proprietor’s ill health, and having so many other things to attend to.” The lease was taken for seven years at an annual rental of £100 by John Stonehouse of the Stratford Mill, Campania (see 6.5.1). In October 1839 Buscombe sold the mill to Francis Rose, miller of Richmond, for £900. It is possible that Rose had been employed by Stonehouse, or possibly the latter had let his lease lapse by this time and Rose had taken over. By the time the mortgage was renegotiated in September 1848 Rose had added an engine house and a steam engine; it would be interesting to know whether his decision to do this had anticipated Vincent’s similar move in Outlands in 1845.³⁴

Rose must have defaulted on his payments as it was Buscombe (jnr) who put the wind and steam mill up for auction in 1853, although Rose was still in occupation at a rental of £100. The steam engine was described as:

of very superior construction, and of sufficient power to grind for the whole of this prosperous district, affording to an enterprising speculator the means of commanding an immense trade in grain and flour, which can be shipped for exportation at the Wharf in the rear.

When the mill did not sell at auction it was advertised for sale by private contract, the advertisement specifying that the “fans and apparatus for driving the mill by wind are in first rate order”. The mill remained in Buscombe’s hands with James Hobbs and George Burn leasing it in April 1853, and by the time of the 1856 Electoral Roll Burn’s son, George Gunning Burn, was the occupier. The mill was occasionally unoccupied for the remainder of the 1850s and by 1860 its annual value had dropped from £75 to £10. As Burn’s steam mill had by now started operating (see 6.3.5) it is likely that the Trafalgar Mill did not work again.³⁵

In 1864 the executors for J.K. Buscombe’s estate put it up for auction again: it still contained two pairs of stones and the 10-horse power engine was described as first-rate, while the four-roomed cottage and brick stable were also offered with the mill. However, it was not until about 1868 that it was bought by J.J. Overell. By 1871 the “old mill and land” was owned by J.W. Nichols and members of the family continued to own it until 1908 when P.J. Nichols gave the stone for the construction of the Town Hall and it was demolished. In its later years the mill had been used for storage.³⁶

In the early 1980s the foundations of the mill was uncovered for a few weeks and then covered again with earth. In 1996 a group called the Providence Mill (sic) Society Inc started to build a tower mill on the spot but were forced to demolish it when it was shown to contravene heritage legislation. The miller’s cottage, still with its mud shingles, was saved from demolition by a determined group of residents and is now repaired.³⁷

6.3.3 Providence mill

The second Richmond windmill had a short history. In April 1838 the millwright Isaac Savidge announced that he had completed the erection of the Providence Mill and “most earnestly” solicited support, but in September 1839 he advertised for sale:

That valuable property, the ‘Providence’ Windmill, with nearly two acres of land, situate (sic) in the centre of Mr. Cassidy’s estates [Woodburn], near Richmond. The principles on which this mill is built will be found to possess every convenience, having a round-house underneath. The mill itself contains one pair of French burr stones, four feet in diameter, with a full-sized dressing machine and sack tackle, complete—the whole of the machinery can be driven at one time.

Little is known of Savidge. Macfie has found that when as a widower he married Elizabeth Frances Eastwood in Sorell in 1835 one of the witnesses was George Peacock, perhaps related to the J. Peacock who ran the Downward windmill for a few months (see 6.2.3). Macfie also feels he had an abrasive personality, judging from two letters he wrote, so this, combined with the distance of his post mill from Richmond and competition from the larger Trafalgar Mill, may explain his difficulties in business.⁸

Savidge, unable to sell the mill, took out a mortgage in 1840 with the Van Diemen’s Land Fire and Marine Insurance and Life Annuity Company but when he defaulted on repayments the mortgagees put the mill up for sale again in July 1841. The mill land of less than two acres was described as being bounded on the south-east by Brougham Street, on the north-west by a creek, and elsewhere by John Cassidy’s land. Once again the mill failed to sell, and once again it was offered for sale in September 1843, and then again in 1850—called “Savage’s Mill” this time. Nothing further is known.⁹

Two photographs held by Tasmaniana show what appear to be the remains of this mill. A Thomas Chapman painting used by Elizabeth Jones for the cover of her book about Richmond may show the mill in the distance, although its location vis-a-vis the church does not seem quite right. Long-time residents remember from the 1930s a large circular structure about 12m in diameter. This was possibly the roundhouse, but as a horse worked in it, it was possibly a water pump and unrelated to the windmill. The current owner of the property believes there was a windmill pump on the creek. Alternatively the flour windmill may have been converted to pumping after Savidge finally left. A shearing shed was built on the site (approximate map reference Richmond 365687) in the early 1950s but was burnt down in 1967. The hill was lowered with a bulldozer about 1977.¹⁰

6.3.4 McArdell mill

Almost nothing is known of the history of this mill. The only reference found so far has been from *The Cyclopaedia of Tasmania* where Philip H. McArdell of Mornington, Bellerive, is described as purchasing the paddle steamer *Surprise* which plied between Hobart Town and Bellerive, then selling out. “He then decided to start flour milling, and built a mill on the Coal River, near the township of Richmond, which did not prove a success, and he left the colony....” It is clear from the article that he must have operated the mill some time in the 1840s; the Mills and Manufacturing Returns would indicate 1840 when the number of watermills in the Richmond district goes from two (Downward’s at Sorell and Stonehouse’s

at Campania) to three. In 1842 the number drops to two again. In Victoria McArdell erected the Wattle Steam Mills at Sale.⁴¹

Old-time residents remember sandstone blocks, the remains of a mill, on the eastern side and quite close to the Coal River and north of the bridge (approximate map reference Richmond 360696). A mill race can still be traced on the western side, and the dam upstream used for a swimming hole could perhaps be the remains of the mill dam. The site has recently been bulldozed.⁴²

6.3.5 Burn mill

The only Richmond mill building to survive is the 2-storey brick steam mill on the eastern side of the bridge (now 2 Wellington Street). It was built by George Burn, who had bought Mill Field in 1835 (see 6.3.1) and was evidently the brother of that David Burn whose *A Picture of Van Diemen's Land* was published in the *Colonial Magazine* in 1840-41. George settled at Roslyn, Campania, and was thus next door to the Stratford Mill of John Stonehouse (see 6.5.1) and in 1853 he had leased the Trafalgar Mill and installed his son George Gunning Burn as miller (see 6.3.2). The Mills and Manufacturing Returns list a new mill in 1857, so the likely date is 1856-57. It would be at the time of the gold rushes, although would have been too late to take real advantage of them, and it would fit in with Burn's renting of the Trafalgar Mills. In 1856 George Gunning Burn was at Trafalgar, but by the 1858 Valuation Roll he had moved to the steam mill.⁴³

The mill was certainly built by March 1858 when an advertisement for a miller for the Richmond Steam Mills appeared in the *Mercury*. G.G. Burn continued to run the mill until 1865. In July of that year William Searle, in announcing his retirement from the Commercial Steam Mills in Hobart (see 2.15), went on: "W.S. also solicits the interest of his country friends on behalf of his nephew, Mr Wm Bone, who has taken the Richmond Steam Mills..." Bone continued to lease the mill until 1872 when it was offered for auction on the instructions of the executors of the late George Burn. The advertisement noted:

The Mill, which was erected by the late firm of Easby & Robertson, is substantially built and in perfect order, and the whole driven by a 9 horse power engine with 12 horse power tubular boiler by Clayton and Shuttleworth, London. Attached is a circular saw and bench capable of cutting from 30-40 tons of wood per diem. All in first class order and let to Mr. Bone at the low rental of £100 per annum.

Bone bought the mill for £1400 and continued to operate it until 1886 when Benjamin Bone, presumably his son, took over. He was still there in 1888.⁴⁴

In 1903 the *Tasmanian Mail* had an article about Richmond, which talked about the mill:

For some years the mill worked day and night and turned out flour of a first-class quality. When the owner died the mill was purchased by Mr Nichols, who subsequently turned it into a butter factory. After running for some time the factory closed its doors and has not been used since in either direction, a circumstance much regretted locally.

About 1920 the building was sold to the artist John Eldershaw who converted it to a residence. The tank for the mill about 40 feet [12m] long and three feet [1m] deep was next to the house until Eldershaw pushed it into the river. At least one of the boilers from the mill

was on the river bank until relatively recent times. As one of the larger country steam mills, with three pairs of stones, and dating from the 1850s this building is of some significance.⁴⁵

6.4 Runnymede

Runnymede could equally well be located in the East Coast catchment, but as its location puts it into the Richmond/Sorell area it will be dealt with here.

The property of Runnymede, originally owned by Charles Parsons, was acquired around 1844 by the prominent businessman and later politician Askin Morrison. Morrison installed many tenants on the property and eventually their produce warranted the erection of a flour mill, although just when this occurred has not been determined. The Mills and Manufacturing Returns specifically mention a mill there in 1849, but as there were four steam mills for Richmond listed in 1843 and 1844 it is likely to have been built by then. The five-storey sandstone building was set back a few metres from the western side of Woodsdale Road, about 20m south of the present Old Mill farmhouse (map reference Runnymede 458786). A photograph in Rowlands' book, *Richmond's 100 Years of Municipal Government*, shows a very large building which is misidentified as the mill; a plan in the AOT makes clear it is instead the granary, which was several hundred metres to the west. Almost nothing is known of the operation of the mill, but at some time an overseer is said to have suggested that the tenants' leases not be renewed and the property was turned over to sheep farming, so that the mill was no longer required. Following Morrison's death in 1876 the property was bought by Wilson and Crosby, and then later by A. Parker. During his ownership two brothers, identified as Stokell, cleaned up the machinery of the mill and worked it again for a short time.⁴⁶

In 1903 it was described in the *Tasmanian Mail*:

It was built on the latest designs known at the time, and has not suffered damage in any way through being idle. The machinery was of a first-class pattern, and, save for rust and accumulation of dirt, is now in good order. Everything in connection with the mill is still complete, and one cannot help expressing regret that the surrounding country is not utilised in such a manner as to keep it working.

In 1906 the estate was subdivided, and by the 1930s the mill was long past being operational. At some time the machinery was sold and two storeys removed for the sandstone, much of which was used in Triabunna for houses. By 1952 when the property was sold to Maurice and Lola Tate, there was no machinery left. In 1966 the building had become dangerous and was demolished. All that is left of the mill are two boilers rusting away nearby.⁴⁷

6.5 Campania

6.5.1 Stonehouse's Stratford Mills

The first mill in the Campania area was erected by John Stonehouse who had arrived in the colony in 1832 and bought property on the White Kangaroo River. In October 1835 he was able to inform the public that his Stratford Mills on the river were operating and solicited a share of public patronage. In a letter home in December of the following year he gave some further details:

Our new business has turned out quite as well as we anticipated and I certainly feel very much gratified with Mr. B. Stratford for the justice he did me with regard to the machinery and millstones which I have no doubt are as good as though I had been on the spot. You will see that we have called the mill after him, Stratford Mill...[which] is now well known all over the country.

From this we can assume that Stonehouse had not intended to begin milling when he left England, but had taken advantage of his location on a swift-flowing river and written home to his friend Stratford asking him to select the required machinery and stones. Stonehouse employed one Walters, a ticket of leave man from Borrowby Mill in Yorkshire, as miller for £45 a year. The same letter announced that he had also leased Buscombe's windmill in Richmond (see 6.3.2), so he must have had great faith in milling.⁴⁸

By July 1841 Stonehouse had added a steam engine to his mill, and announced that he would no longer keep grist accounts but take a payment in toll: obviously the depressed times were having an effect on his customers' ability to pay their debts. Presumably he did well during the early fifties with the gold rushes, but then according to family members the mill was washed away in a flood. It is possible that this happened in 1852 when the whole colony faced severe flooding. In 1859 he advertised a steam engine for sale from the Stratford Mills which may indicate that he had decided against operating the old mill again. Instead he built a new mill in a different location which was safe from flooding. In 1860 he imported from H.E.M. Moses a "Patent Turbine and Vortex Water Wheel of 6 horse power and Gearing for same...[with] Cast Iron Vortex Case, 9 Pipes and 1 bend." Instructions for erecting the same were also forwarded. In 1862 he was able to announce that he had "completed his Hydraulic & Steam Mills" and would grind and dress for ninepence cash. Perhaps he had been unable to sell the steam engine, or possibly the turbine had not been as effective in low water as he had hoped and he had had to install steam after all.⁴⁹

Stonehouse was most unusual in his determination to use the latest technology in a country mill. He converted to steam quite early, and his use of a turbine was preceded only by Degraives at the Cascades. His family remembered him as a man of scholarly interests and he was friendly with the one-time Premier Thomas Gregson. He had a wry sense of humour which did not desert him even after his later misfortunes; when he apologised to Gregson in verse for being forced to miss a dinner the poem began:

Perchance you will miss me
But may take the will for the deed
For 'tween floods, ill luck and taxation
I have nothing to spare for a feed.

Stonehouse's misfortune stemmed from the actions of George Burn. Burn at Roslyn was his neighbour and two of his sons married two of Stonehouse's daughters, but when Burn built his steam mill at Richmond in the mid-fifties (see 6.3.5), possibly after the flood had destroyed the Stratford Mill, Stonehouse's mill was too isolated to compete. Just when the second mill stopped working is unknown, although between the Valuation Rolls of 1866 and 1868 the value of the property dropped from £60 to £30 which may indicate that the mill had stopped working at this time. Following Stonehouse's death in 1881, the property remained in the possession of family members and in the early years of this century the mill was used to store apples.⁵⁰

The first mill was on flat ground right next to the river (map reference Tea Tree 381780), but there are no remains although an old resident of the area remembers the brick building standing somewhat dilapidated in the early years of this century. If this is true the family's

belief that the mill was washed away needs some modification. However, there is some brickwork remaining at the site of the second mill (map reference Tea Tree 379780) along with part of the penstock for the turbine and a rusted egg-ended boiler. The mill race for bringing water about 2km from the river to the millpond can be traced in places. The feed to the turbine was probably conveyed from the millpond through a brick culvert, fragments of which still survive. As it contains the remains of a continually upgraded country mill, this site has some significance.⁵¹

6.5.2 Brock's mills

H.J. Brock was the owner of the Campania Estate in 1884 when he decided to build a steam mill in Campania, near the station for easy transportation of wheat or flour. When the Special Correspondent for the *Mercury* visited in November, the mill was as yet unfinished but Brock had already initiated milling in a smaller building of corrugated iron, using a Eureka smutter and a Waterhouse dresser. The correspondent marvelled at "the neatest portable engine in Tasmania, a wonder of compactness, strength, and lightness...by the Waterhouse [Waterous] Standard Grist Mill Co., Brentford [Brantford, Ontario], Canada." The engine was 20 horse power and could be moved by just two horses. The permanent mill of two storeys and a loft, designed by William Greenlaw, was being built of stone from a quarry nearby, and was built close to the railway station with a siding right up to the door to allow easy transfer of wheat and flour. It was expected to be ready by early 1885, but it was not until December of that year when the *Mercury* noted that the new mill was working under the management of John Bradshaw, long-time miller at Oatlands, and that the mill was using rollers. This was almost certainly the first time that any mill in the colony had converted to the new technology.

In May 1886 the *Mercury* provided a description. Bradshaw, on Brock's behalf, had gone to New South Wales in 1885 "observing upon the working of porcelain rollers, which have superseded (sic) burrs". Like all of the early millers who used rollers, he did not install a complete roller plant at Campania. He employed a specially imported set of stones, very well-balanced and working at 220 rpm (twice the normal speed) to crack the wheat, then four pairs of smooth rollers, probably the Hungarian Ganz brand, for a gradual reduction process. This represents a transitional phase before the introduction of fully integrated roller plant using both break and reduction rolls. The mill employed the latest labour-saving machinery as well, so that no handling was required from the time the wheat was taken up an elevator to storage to the time it came out as flour, and the new manager, Mr Tolland, needed only an engineer to operate the steam engine and one other assistant. The corrugated iron building was now being used for storage of grain. The journalist noted that:

It is a curious fact that a mill so far removed from the metropolis should be one of the first in the island to adopt so much labour saving machinery.... It is now clear that other millers will have to adopt the patent rollers, or they will find themselves left very far behind.

A modern reader might echo his surprise, and with hindsight can verify that indeed it was not long before the other millers began to catch up.⁵²

J. Tolland was still at the mill in 1888. The mill was still advertised in the 1894-5 *Post Office Directory* but the Mills and Manufacturing Returns indicate it had stopped working by 1897. By 1903 the steam engine had been taken to Lawrenny, another of Brock's properties, and the mill building was used only for public functions. After the 1914-1918 war the mill was

used for produce storage by returned soldiers. During the Second World War it was used as a flax mill, but in 1949 it was converted for “temporary” use as a school, a function which it still retains. The fact that this was almost certainly the first mill in Tasmania to install roller machinery adds considerably to the significance of the site.⁵³

6.6 Colebrook

6.6.1 Colebrook (Jerusalem) Park

Much of what has been written about this mill is inaccurate. Although it is often claimed as the colony’s first steam mill, or the first rural steam mill, neither is in fact the case as Walker’s Hobart Town mill, Gaunt’s at Windermere and Downward’s at Sorell preceded it (see 2.7, 9.4 and 6.2.2). The article on John Robertson in the *Cyclopaedia of Tasmania* states that he built the first engine ever made in Tasmania, and presumably because of his known links with Colebrook Park some writers have assumed that he therefore built the Colebrook Park engine. However, the engine was installed by Alexander Clark. Nor was it the first this engineer provided, as he had already installed Downward’s.⁵⁴

The mill was built by Andrew Tolmey, a Scot and stonemason who arrived in the colony in 1823. In 1828 he applied for land and was granted 1280 acres to the south of the township of Jerusalem. (The name was officially changed to Colebrook in 1894). Naming his property Jerusalem Park, Tolmey built a stone house there by 1831. In 1836 when he successfully applied for a further grant the list of the buildings on his farm included a stone barn and stables, but there was no mention of a mill.⁵⁵

The earliest located reference to a mill is from May 1839 when Tolmey inserted the following advertisement in the *Hobart Town Courier*:

Jerusalem Steam Flour Mills. The Settlers in the neighbourhood are respectfully informed, that the above Mills are now in full operation, and that they can have their wheat ground and flour dressed at the shortest notice, and returned by the carts that bring the wheat. Persons living at such a distance as to render it necessary for their teams to remain absent all night, will have their bullocks well cared for without cost. Flour always on sale at reasonable prices. Present price, £30 per ton, for flour for family use.

The high pressure engine was of six horse power. The mill was later described as a water and steam mill. It is probable that it was originally built as a watermill with steam added later: an 1840 article in the *Colonial Times* says that Tolmey “has erected a steam engine for his corn mill”, implying that the introduction of steam followed the initial building of the watermill.⁵⁶

Tolmey supplied the local military and road-gang station with flour, which the same *Colonial Times* article described as “superior to anything we have seen in the Colony”. It went on:

In order...to stimulate and encourage the men in their useful and important work, Mr. Tolmey has made an allowance of 1½ pounds [0.68 kg] of flour per day to the rations of each man, a proceeding which has given ample proof of the effect of such liberality and kindness by the additional labour produced.

Martin Cash was evidently not so impressed as it was the brutal conditions he suffered in the Jerusalem chain gang which led him to escape, but he was pleased to find Tolmey’s mill in order to obtain supplies.⁵⁷

Tolmey's kindness and consideration along with his honesty and his ability to work hard endeared him to all his neighbours, both gentlemen and working class, and his sudden unexpected death in May 1844 from (evidently) a twisted bowel was followed by a funeral attended by 150 deeply mourning people including Thomas Gregson and G.W. Gunning. It was said that even the officiating minister was so profoundly affected that he was almost unable to continue with the service.⁵⁸

Tolmey's death created an immediate problem for the remaining members of the family. He died intestate and considerably in debt to his son-in-law James Robertson. (Rowlands is incorrect in saying that Tolmey left the property to his grandson Alexander Robertson, who was then less than a year old.) Robertson had arrived in 1832 and ran a successful engineering and shipsmith business on the New Wharf with his brother William. He had married Margaret Tolmey in 1841. Tolmey's first born and older son, James, had drowned in the mill dam in the Wallaby Rivulet in 1843 and his other son Andrew was only eleven. It is probable that Tolmey's widow Jane tried to carry on the business, but in 1847 the whole property of 2141 acres was put up for auction by order of the mortgagee. Lot II, 619 acres together with the principal homestead and the water and steam mill, was bought by J. Chipman for £1238. Presumably Chipman (who later owned one of the Rokeby windmills—see 6.1.2) continued to run the mill although nothing is known of his time there, nor of how it came about that Robertson and his family eventually came to live at Jerusalem Park following his retirement from business in 1856. It can only be assumed that Robertson continued to hold the mortgage over the property and that eventually Chipman or a later purchaser defaulted and Robertson became the owner.⁵⁹

Robertson continued operating the mill; the Mills and Manufacturing Returns indicate that it was working until at least 1869. In 1867 Robertson retired back to Hobart where he died 30 years later with an estate said to be worth the enormous sum of £870 000. His son Alexander took over running the property and at some stage dismantled the mill machinery. The story goes that "Cady" Lerey who as a young man had driven the bullocks which hauled the boiler into position had the same job as an old man when the machinery was pulled out. In 1883 the Valuation Rolls no longer record a mill on the property. Alexander died in 1928 and the property passed to his son Alan and eventually to Alan's son John who is still in possession (1999).⁶⁰

The 2-storey stone mill and granary which were to the north of the house (map reference Bains 319892) survived the 1967 bushfires although the interior was gutted. However, the whole complex of buildings was demolished in the mid-1980s when the Craighourne Irrigation Scheme led to the entire area being inundated. Two French burrstones are lying near John Robertson's new house, while another plus the old boiler are near the site of the mill. The mill race can still be traced, while the stone foundations of the mill are visible at low water.⁶¹

6.6.2 Hardwick Mill

The competition for the Jerusalem Park mill was provided by John Stokell, son of the George Stokell who had emigrated from Durham in 1822 and eventually owned considerable property in the Coal River valley as well as Rokeby Park. John was only a small child when

his father emigrated and he completed his schooling in England before joining his father in 1838. He evidently managed much of his father's property but also had his own farm at Jerusalem Plains south of Jerusalem. In 1852 he was at the Victorian gold diggings and wrote home to his sister that second class flour was selling for £25 a ton; less than three weeks later it was £70 a ton. It is possible that it was these high prices which encouraged him later to build his own mill, although as some years seem to have elapsed before the mill was completed it is more likely that it was built as an investment and as a means of feeding the large number of people who worked on Stokell properties.⁶²

Just when the mill was built is impossible to say. In 1857 an advertisement in the *Mercury* requested stonemasons "for labour only" for a steam mill and it is possible that this was for Stokell. Certainly in 1859 when the mill was put up for auction it was described as "newly built", although this has a rather elastic meaning. Stokell was said by family members to have actually erected the machinery which was imported from England. (He was also said to have responded to a man who complained that the bags of wheat he was unloading were too heavy by carrying *three* bags up the granary steps—one under each arm and one on his back with a corner held between his teeth.) The 1859 auction was for a "stone dwelling house, steam flourmill and other buildings with corrugated iron roofing" near Jerusalem. Evidently the mill did not sell as the following year Stokell advertised the Jerusalem Steam Mill for lease.⁶³

Following Stokell's death at the early age of 41 in 1863, the mill passed to his half-sister Henrietta and the mill had a series of tenants, including John and William Brain. In 1870 Henrietta tried to sell the "substantially stone built and well established Steam Flour Mills with every convenience including circular saw for cutting wood...." For the first time they were called Hardwick Steam Mills. However, they stayed in her possession and the following year Benjamin Bone began leasing them. Bone was evidently the son of William Bone who at the time was leasing the Richmond Steam Mill (see 6.3.5). He continued to lease them throughout most of the 1870s, although they were again unsuccessfully put up for sale in 1874 and in 1880. In the latter year they were described as being "in perfect working order and doing a lucrative business. Built of stone regardless of cost and fitted with all the most improved steam machinery, having special regard for economy....". By the end of the decade George Stokell jnr was operating the mill, then through much of the eighties it was John Stokell jnr who was the occupier. In 1888 W.J. Howorth was the occupier and he was the last manager of the mill.⁶⁴

The mill building is still standing south of the Colebrook and to the west of the main Colebrook-Richmond road. Around 1900 the machinery was dismantled and some of the small pieces of machinery taken to Rokeby House, although they are no longer there. The mill was sold to Leslie Reynolds in 1921. For some time it was used for farm storage until in 1947 it was renovated and became a residence for Claude Reynolds. The original interior steps are still in use.⁶⁵

6.7 Other Coal Valley mills

In 1835 an advertisement in the *Hobart Town Courier* offered a 20-year lease of a farm of 100 acres on the Coal River, together with a horse flour mill:

Also rent free, for the same term, 9 acres of rich arable land (adjoining the above farm) on which there is a good site for a water mill, together with part of the machinery prepared on the spot and ready to be put up. An advance in aid of erecting the water mill will be made by the proprietor.

The location of these mills has not been determined.⁶⁶

It may be, however, that they were part of the Campania Estate. In 1853 when Francis Smith (father of the later Premier) decided to retire and offered the estate for sale, he listed all the buildings the estate contained, finishing with "fattening, cart, and wool sheds, thrashing machine, flour mill, and all the other appurtenances to a large establishment...." The wording would seem to preclude a large mill building, but could well refer to a horse mill. However, the announcement of the auction of the estate in 1858 makes no mention of a mill so it was probably a hand mill.⁶⁷

¹ AOT CO 283/1 p.4a.

² Pinch, Merle E, *De Stanfield - Standfield - Stanfield 1788-1991*, 1992, pp. 29, 37. IITG 7 Mar 1818, p.2/1.

³ IITG 24 Nov 1827, p.3/1. Kimberley: Schaffer, Irene, *Excursion: Rokeby, Cambridge, Sandford*, New Town, 1995, p.20. RD 3/3772.

⁴ HTC 19 Sept 1829, p.3/4. CT 6 Aug 1833, p.4/3. Lease: CT 22 Aug 1837, p.271/3. Garrett: RD 3/3772, HIA 29 Mar 1850, p.3/5. & HTC 3 July 1854, p.3/1. Vigar: RD 4/168. Succession of lessees: VRS 1858-1888. Pewterill: Merc 7 Jan 1873, p.1/1.

⁵ Whaler: *Spirit of Clarence: A Tasmanian Community*, 1989, p.42. Calder: Merc 2 April 1880. Burnt down, gale: Schaffer, Irene, op.cit., p.21.

⁶ CT 7 June 1842, p.1/2. Land District Map Monmouth 3. Wedge diary, 11 Nov 1826.

⁷ Vincent: CT 7 Feb 1843, p.3/6. Sale: HTC 13 Oct 1843, p.1/1. HTC 3 Oct 1846, p.3/4. White: CT 3 Sept 1847, p.2/3-4. Chipman: CT 7 April 1848, p.2/4. & CT 1 July 1851, p.1/4.

⁸ 200 acres: Sharon Morgan notes, QVMAG. Fine wheat: Evans, George William, *A Geographical, Historical, and Topographical Description of Van Diemen's Land*, first published 1822, facsimile reprint London, 1967, pp.70-2, & Henry, E.R., "A Tale of Two Islands: Norfolk Island and Van Diemen's Land," THRA Dec 1976, Vol.23 No.4, p.160.

⁹ Stones: HRA III, II, pp.109, 171, 604, 607 & 610. IITG 8 Feb 1817, p.2/1.

¹⁰ Died: IITG 20 Mar 1819, p.2/3. Letters of administration: AOT MM 144/1/No.41, 31 Mar 1819. Auction: IITG 19 Feb 1820, p.1/2. Armytage: IITG 23 Nov 1822, p.1/3.

¹¹ AOT CSO 1/114/2830, pp.34-5, 42, 54. Sorell: AOT LSD 1/2 p.825. Sheriff: IITG 30 July 1824, p.4/1. Plan of mill site in LSD 1/2 p.826. JLC 19 April 1826.

¹² AOT LSD 1/2, pp.825-833, 853. CSO 1/114/2830, pp.54-7.

¹³ Flood: AOT LSD 1/2, p.829. Mill idle: AOT LSD 1/2, pp.825, 833. Lord: CT 23 April 1826. Spencer, W.E., "John Grayson, Alias William Butterworth", p.90; copy held in Tasmaniana Library.

¹⁴ Dressing machine: CT 23 July 1833, p.4/3. Steam: CT 6 Nov 1838, p.353/3. RD 3/2219. Davidson & Clark: CT 28 Aug 1838, p.274/4.

¹⁵ Sale: HTC 1 Jan 1841, p.3/3. RD 3/2219..

¹⁶ Downward, Richard, *The Case of Mr Richard Downward, of Pittwater, in Van Diemen's Land*, Hobart Town, 1846. RD 3/2219.

¹⁷ Sale: CT 13 Nov 1849, p.3/6. Another attempt: HIA 3 Jan 1851, p.3/6. Death: Merc 22 Mar 1862, p.2/6. Lyons: HTC 5 July 1851, p.1/2; HTC 10 Mar 1852, p.3/5.

¹⁸ CT 25 May 1854, p.3/5. McGuinness: Merc 1 May 1857, p.3/1. & VRs for 1858, 1859, Nov 60. Allen: VR Dec 1860. Silas: ADB Vol.1; AOT CSO 1/114/2830.

¹⁹ Merc 6 June 1872, p.2/5-6. Millstones: John Bignell pers.comm. 1 Feb 1998.

²⁰ Patrick Miller: *Critic*, 10 Dec 1920. 1829, May 1830: AOT CSO 1/114/2830, pp.42, 54. Remainder: AOT LSD 1/2 pp.829, 837, 861.

²¹ AOT LSD 1/2 pp.841, 845, 853, 861-2.

- ²² Retiring: HTC 28 Jan 1832, p.3/1. Watson: CT 4 Oct 1836, p.329/4 & CT 25 April 1837, p.135/2. Drury: CT 12 Nov 1839, p.361/2; CT 7 April 1840, p.7/4; HTC 5 Aug 1842, p.3/4. Robertson: RD 3/2219. Auction: CT 18 Feb 1848, p.2/3. Iles: Merc 23 Jan 1856, p.1/3. Barton: Merc 27 Feb 1858, p.1/7.
- ²³ Auction: Merc 4 April 1860, p.1/7. Mary Ann: Duck, Sandra (compiler), *Crocker Chronicles 1670-1999*, Launceston, 1999, p.40. Remainder: VRs.
- ²⁴ Barbara Reardon 11 Dec 1997.
- ²⁵ Crocker: Duck, Sandra (compiler), *Crocker Chronicles 1670-1999*, Launceston, 1999, pp.38-40, 45. Wanting miller: Merc 30 Nov 1859, p.1/8. Completed: Merc 14 April 1860, p.4/6.
- ²⁶ CT 19 Oct 1841, p.1/1.
- ²⁷ Granary: Evans, George William, *A Geographical, Historical, and Topographical Description of Van Diemen's Land*, first published 1822, facsimile reprint London, 1967, p.70. Walker: AOT CSO 1/105/2535, p.59. Wilson: CT 17 Mar 1826, p.1/3. Serious loss: AOT LSD 1/109 pp.657-8.
- ²⁸ Exchange: AOT LSD 1/109 p.661. Flood: HTC 27 Sept 1828, p.3/4.
- ²⁹ AOT CSO 1/105, pp.37, 48-50, 56. AOT CSO 1/105/2535, p.24. Issell. Thomas: Title deeds, as noted by Elizabeth Jones. Issell a miller: Geoff Woods pers.comm. 12 April 1999.
- ³⁰ Elizabeth Jones pers.comm. 16 Dec 1997.
- ³¹ Allotment: AOT LSD 1/107, pp.97, 109. Buscombe: Jones, Elizabeth, *Richmond - Tasmania: A Crossing Place*, Richmond, 1973, pp.23, 38 & 61; & Macfie, Peter, *The Miller's Cottage (Milton Cottage 1837) and Tower Windmill, Richmond (1831-2)*, report for the National Estate Tas, Hobart, 1986, p.4.
- ³² AOT CSO 1/121/3070 pp.122-3.; CSO 1/496/10873 pp.82-3; CSO 1/528/11493 p.14. See also Macfie, Peter, *The Miller's Cottage*, op.cit. pp.4-6.
- ³³ AOT CSO 1/496/10873 pp.85-90. Quotation from Macfie, Peter, *The Miller's Cottage*, op.cit. pp.4-5. Ross *Almanack* 1831, pp.115 & 117. CT 16 Oct 1832, p.3/5. Cost: AOT LSD 1/106/351-4.
- ³⁴ Gale: AOT CSO 1/584/13235. Lease: CT 8 Nov 1836, p.379/3. Stonehouse: Stonehouse letter 7 Dec 1836, quoted in Harvey, Ailsa, "The Stonehouses of Stratford: The Story of John Stonehouse, an Early Tasmanian Free Settler, and his Family," December 1980, unpublished ms. in the possession of Carol and John Hubbard. Rose: Macfie, Peter, *The Miller's Cottage*, op.cit. p.10.
- ³⁵ Auction: CT 1 Feb 1853, p.1/4. Fans: CT 10 Mar 1853, p.3/3. Hobbs & Burn: HTC 12 April 1853, p.3/2. Electoral Roll: HTC 16 April 1856, p.3/1. Remainder: VRs.
- ³⁶ Auction: Merc 23 Mar 1864, p.4/4. 1868 and 1871 VRs. Storage: Jones, Elizabeth, op.cit., p.55, 1908; Macfie, Peter, op.cit., p.11.
- ³⁷ Base: John Jones pers.comm. 16 Dec 1997. Cottage: Merc 3 Dec 1982, p.3. & 24 Aug 1984.
- ³⁸ CT 24 April 1838, p.136/2. HTC 6 Sept 1839, p.1/5. Macfie, Peter, op.cit., p.9.
- ³⁹ Mortgage, sale: HTC 16 July 1841, p.3/3. HTC 29 Sept 1843, p.1/3. HTA 10 May 1850, p.3/5.
- ⁴⁰ Circular structure, horse: Charles Joseph pers.comm. 27 June 1999. Other residents: John Jones 16 Dec 1997, Lance Cosgrove 11 Mar 1998. Current owner: Alan Keehn pers.comm. 16 Dec 1997. Jones, Elizabeth, op.cit., cover. The painting is NK 164 from the National Library.
- ⁴¹ *The Cyclopaedia of Tasmania*, Maitland and Krone, Hobart, 1900, Vol.1, p.383.
- ⁴² Residents: Charles Joseph pers.comm. 27 June 1999; John Jones 16 Dec 1997; Lance Cosgrove 11 Mar 1998. See also Jones, Elizabeth, op.cit., p.55.
- ⁴³ Mill field: Title deeds, as noted by Elizabeth Jones. Burn, David, *A Picture of Van Diemen's Land*, Hobart, 1973. For Burn family see Brown, P.L., *Clyde Company Papers*, London, 1941, Prologue p.88. Legend: Jones, E.B., "A Guide to the History of Richmond, Tasmania" in THRA Vol.16, No.4 May 1969, p.160.
- ⁴⁴ Merc 17 Mar 1858, p.1/2. Scarie: Merc 3 July 1865, p.2/2. Sale: Merc 24 April 1872, p.4/6. £1400: Title deeds, as noted by Elizabeth Jones. 1886, 1888: VRs.
- ⁴⁵ TM 23 May 1903, p.40/3. Eldershaw: Jones, Elizabeth, *Richmond - Tasmania: A Crossing Place*, Richmond, 1973, p.54. Tank: Charles Joseph pers.comm. 27 June 1999. Boiler: Lance Cosgrove pers.comm. 11 Mar 1998.
- ⁴⁶ Parsons, granary photo: Rowlands, W.J., *Richmond's 100 Years of Municipal Government*, 1961, p.14. 1844, death: Morrison obituary LF 10 June 1876, p.4/6. Businessman, politician: ADB Vol.5: Bennett, Scott & Bennett, Barbara, *Biographical Register of the Tasmanian Parliament 1851-1960*, Canberra, 1980, pp.119-120. Location, description: Maurice Tate pers.comm. 19 Nov 1997. Granary plan: AOT PW 10 266/1709. Wilson; VR 1877. Overseer, Parker, brothers: TM 30 May 1903, p.1/1. Stokell: Cutting from the *Mercury*, possibly 6 May 1937.
- ⁴⁷ TM 30 May 1903, p.1/1. Subdivided: Rowlands, op.cit., p.14. 1930s: Cutting from the *Mercury*, possibly 6 May 1937. Remainder: Maurice Tate pers.comm. 19 Nov 1997.

- ⁴⁸ Mill working: CT 6 Oct 1835, p.315/1. Remainder: Harvey, Ailsa, "The Stonehouses of Stratford", op.cit.
- ⁴⁹ IITC 4 July 1841, p.1/3. Merc 18 May 1859, p.4/7. Mill completed: Merc 30 July 1862, p.1/2. Flood: Harvey, Ailsa, "The Stonehouses of Stratford", op.cit.
- ⁵⁰ Harvey, Ailsa, "The Stonehouses of Stratford", op.cit. Apples: Carol and Phil Hubbard pers.comm. 23 Jan 1997.
- ⁵¹ Harvey, Ailsa, "The Stonehouses of Stratford", op.cit. Race: Carol and Phil Hubbard pers.comm. 23 Jan 1997. Old resident: Bill Kearney pers.comm. 11 June 1998.
- ⁵² "Through Tasmania", Merc 19 Nov 1884. Merc 19 Dec 1885, p.1/5 & 4/2; 24 May 1886, p.3/1-2.
- ⁵³ VR 1888. TM 14 Nov 1903, p.1/5. Merc 19 Feb 1949. Storage: Bill Kearney pers.comm. 11 June 1998.
- ⁵⁴ "First mill": e.g. Reynolds, John, "The Clarks of 'Rosebank'", THRA Vol IV. No.1, Jan 1955, p.5. "First rural": Macfie, Peter, *The Miller's Cottage*, op.cit. p.11. "Robertson the builder": e.g. Schaffer, Irene, *Pontville, Kempton, Jericho, Colebrook, Richmond: Excursion 28 March 1993*, New Town, 1993, p.38. Tas Cyc. Vol.1, p.382. Clark: CT 29 Oct 1839, p.352/1.
- ⁵⁵ Jerusalem changed to Colebrook: Schaffer, Irene, op.cit., p.31. Remainder: Robertson, Braham (Bruce) William, "A Brief History of the Robertson Family in Tasmania from 1832". Midway Point, [1998], pp.21, 24-5.
- ⁵⁶ HTC 24 May 1839, p.1/3. 6 hp: CT 29 Oct 1839, p.352/1. Watermill: HTC 6 Feb 1847, p.3/5. CT 3 Nov 1840, p.351.
- ⁵⁷ Cash's account of his adventures is quoted in Robertson, E. Graeme, *Early Buildings of Southern Tasmania*, Vols I & II, Melbourne, 1964, p.355.
- ⁵⁸ CT 5 June 1844, p.2/3. Twisted bowel: Robertson, Braham (Bruce) William, op.cit., p.25.
- ⁵⁹ Robertson, Braham (Bruce) William, op.cit., pp.7, 8, 25-27. Rowlands, W.J., *Richmond's 100 Years of Municipal Government*, 1961, p.12. Auction: HTC 6 Feb 1847, p.3/5. Tas Cyc Vol.1, p.382.
- ⁶⁰ Tas Cyc Vol.1, p.382. Robertson, Braham (Bruce) William, op.cit., pp.7, 9.
- ⁶¹ John Robertson pers.comm. 3 May 1997. See also *Tasmanian Mail*, 11 Sept 1984 (although it does say that the mill "burned down" in 1967).
- ⁶² Mary McKinlay pers.comm. 20 July 1998. The letters home are quoted in Mabel Hookey's history of the Stokell family, 1932, p.21, in the possession of Mary McKinlay.
- ⁶³ Merc 4 May 1857, p.1/6. Merc 9 April 1859, p.4/2. Family stories: Mabel Hookey, op.cit., pp.25-26. Merc 30 June 1860, p.3/8.
- ⁶⁴ LE 21 Mar 1863, p.4/6. Valuation Rolls 1866-88. For sale: Merc 27 Aug 1870, p.1/7; 25 April 1874, p.4/6; 7 Oct 1880, p.4/6. Bone lessee: Also Merc 4 Feb 1873, p.1/6; 29 Nov 1876, p.1/7. Howarth last: *Tasmanian Motor News*, May 1970.
- ⁶⁵ 1900: *Tasmanian Motor News*, May 1970. Machinery, Reynolds: Mary McKinlay pers.comm. 20 July 1998.
- ⁶⁶ HTC 15 May 1835, p.1/1.
- ⁶⁷ CT 5 May 1853, p.3/3. HTC 7 Dec 1858, p.1/2.

CHAPTER SEVEN

KINGSTON AND THE HUON VALLEY

7.1 Kingston

The area of Brown's River (as the settlement was called until its name was officially changed to Kingston in January 1851) began to be settled by Norfolk Islanders after 1808, the first appearing to be Thomas Lucas who received 530 acres soon after arrival. He operated a boat, probably in order to get supplies from Hobart Town as water was the only means of access for the settlement until the 1830s. Even this was occasionally a problem, and remained so until the building of the first jetty in 1887. Although William Proctor built a road over Mt Nelson and down Vincent's Rivulet in 1835 to give Brown's River its first land link with Hobart Town, parts of it were just a bush track so that it was not suitable for cartage. Thus the quiet little settlement remained rather isolated and quite small, so it is perhaps not surprising that it took so long (apparently) to build a flour mill there.¹

The first reference found to the existence of a mill dates from January 1837 when James Hackett convened a meeting at Hackett's Mill, Brown's River. The land had originally been owned by the solicitor Thomas Wood Rowlands and it is possible that he had had the mill built before Hackett bought it in December 1836 (the probable date). Just who the millwright was is also unknown, but one could speculate that the Lucas family might have been involved. They had been involved with mills on Norfolk Island and Sydney and two sons of Nathaniel Lucas had built the windmill in Launceston (see 9.1.1). However, no definite link has been found between the Thomas Lucas in Kingston and the milling Lucas family.²

James Hackett appears to have been a prickly character. Following his arrival in the colony he had fought a duel and in the early 1830s he had played a leading role in trying to rid Van Diemen's Land of the Roman Catholic priest Father Connolly, even though Connolly had advanced him money when he was sick. He had also been a confidant of William Bryan in his campaign to discredit Arthur (see 11.7.1). He owned considerable property in Hobart Town and operated the Franklin Rectifying Distillery, producing "Hackett's Incomparable Cordial Gin", but by 1839 he was insolvent and the 420 acres of land at Brown's River "with Flour Mill, Public House, and other improvements" were put up for auction by order of the mortgagee, Henry Jellicoe. The race for the watermill was said to be able to be used for irrigation. In early 1840 many of Hackett's other properties were auctioned by order of his mortgagees (one of whom was John Walker) and in April eight further lots including—again—the Brown's River mill were to be auctioned without the least reserve. Further details were given of the mill:

...there is a substantially and excellently constructed Corn Mill, with Machinery, of the very best description, capable of Grinding and Dressing 400 bushels per week, and having the command of 72 feet Water Fall, with a never failing supply. This Mill is now clearing at the rate of £200 per year, at the least, by grinding for hire, and if at full work, would earn more than thrice that sum. The Mill Stones are 4 feet 6 inches, French Burrs, and the Dressing Machine quite new.

The proprietor had held off selling for eighteen months as he expected compensation from the government "for the destruction of his trade and prospects" in the failure of the Franklin

distillery, and he requested government assistance for a passage back to Britain for himself and family. The grounds of his complaint have not been researched and it is not known if he was successful with his request but his track record with government had not been good.³

The mill was on the northern bank of Brown's River, probably not far upstream from where Fisher Creek joins. (It was on the stretch of river between Tarroona 224436 and Tarroona 228434, and is likely to have been built close to the eastern end to enable the owner to control his millrace.) When the mill, no longer the property of Hackett, was again put up for auction in 1842 it was described as being "contiguous to the New Road, now finishing by the probation party, which will afford every facility for cartage to and from the mill...." If this is the new road through Tarroona to Hobart the advertisement was stretching the truth a little as the new road followed basically the course of today's Channel Highway and was in fact some distance away. It was finished in 1845, and this may have had the effect of opening the mill to competition from the bigger Hobart Town mills. In February 1845 the farm, mill and two houses were offered for the bargain price of £700, the advertiser announcing that the "mill cost more than is asked for the whole". It is noteworthy that by this time the public house was no longer operating, presumably because the Kingston Hotel was better suited to take advantage of traffic using either of the two roads into the settlement. The probation station was abandoned by 1850 which would have been a loss to all those who had provided produce—including perhaps the mill owner.⁴

In 1848 the 420 acres were again put up for auction, with the mill said to be in excellent working order and doing a good business. By the time of the 1858 Valuation Roll it was owned by John Hall who had owned the next door property, but the Mills and Manufacturing Returns do not show it operational after 1856 (or before 1856!) In 1860 the mill and farm were leased by William Smith and in 1864 by James Wood. That year an adjoining farm was advertised for sale with the declaration that it had the added advantage of being near "Hall's Flour Mill". Nothing further is known of the mill's history, but it is unlikely to have lasted much longer as by 1885 there was little agriculture practised in the area, farmers going in for dairying and fattening animals. No remains have been located.⁵

7.2 Woodside Mill at Franklin

Settlement at the Huon River was slow to develop largely because there was no track there until 1830. By the mid-thirties the government was starting to sell land in the area and one of the first allotments of 100 acres was bought by John Clark in August 1837. By the end of that year he was one of only three settlers in the Huon Valley, the others being William Nicholls at Cygnet and William Sherwood at Woodstock.

Clark's land on the western side of the Huon was at what was soon called Clark's Rivulet, north of the present town of Franklin and almost directly opposite the property of Woodstock. He called his farm "Woodside", the name of a property near Rye in England where Clark had worked for some years as a gamekeeper. It is not known when he had arrived in Van Diemen's Land (after a visit to America) but he had owned property in Hobart Town and in March 1837 he was described as "John Clark of the Huon River, Settler". Thus even before he bought his block he had been living in the Huon, probably with Sherwood, but he quickly moved to his own land and began clearing. Family history has it that it was the 1839 shortage of wheat in New South Wales causing Van Diemen's Land wheat to be sold at

the astronomical price of 30 shillings a bushel that led settlers in the Huon to begin growing wheat amongst the stumps of their newly-cleared land. Such wheat needed to be ground and Clark returned to his early training as millwright to provide the service.⁶

The Woodside Mill was built on the Main Road south of Clark's Rivulet, just across the road from the Huon River (map reference Huonville 018314). Its date of building can be gauged from the fact that in March 1842 Clark was the successful tenderer for flour at the Victoria Valley (Huonville) convict station. It was a three-storey wooden building with an overshot water wheel which powered the machinery through rim gearing. The millpond close behind was two to three metres wide but about 200 metres long and was fed by a 400m race from Clark's Rivulet. Barges brought wheat from up and down the river and unloaded at a jetty immediately opposite the mill; on some occasions even wheat from Adelaide was imported. Clark also owned several vessels, starting in the mid-40s, and he provided a regular service to Hobart Town for other settlers as well as being able to sell his own produce, which by the end of the 40s included not only flour but fruit, potatoes, hops and timber.⁷

Clark died in 1865, leaving his sons to carry on the mill. Chief miller was Aaron, but his twin brother Moses and other brothers John Kellaway, James, Harry and Robert also helped from time to time. Harry was a capable carpenter and made a replacement water wheel for the mill from Huon Pine. One Fred Taylor employed in the mill was accidentally drowned in 1877. By 1882 it is likely that custom was poor and Aaron left for the North-West Coast where he became miller at Stewart's mill at Torquay (see 12.7.1). By 1885 the mill was "emphatically silent", according to the *Tasmanian Mail* correspondent. In 1892 it was converted to a sawmill by James who had taken control of the property but it functioned for only three years as it was found more efficient to take a steam engine into the bush to be set up close to where the timber was cut. In the 1920s the machinery and wheel were dismantled but the derelict building remained until after the Second World War when it was pulled down.⁸

Traces of the mill race can still be seen although it is mostly filled in, and the water outlet from the mill is marked by a culvert which now goes under the road.

7.3 Kellaway mill at Woodstock

Another mill was built on the eastern side of the Huon River almost directly opposite Clark's Woodside Mill. The Woodstock property had originally been owned by William Sherwood (see 7.2) but it was soon bought by John Kellaway. Kellaway and his family had arrived in Van Diemen's Land from Dorset in 1834 and after spending some time at New Norfolk they moved to the Huon about 1837 and worked at Woodstock. Kellaway may have leased the property or perhaps he worked as Sherwood's manager; in either event, in 1841 he became the owner of Woodstock. In 1843 his eighteen-year-old daughter Sarah married the 35-year old widower John Clark from across the river and from then on there were very close relations between the two families.⁹

In 1847 Kellaway and Clark took a half share each in the vessel *Brothers*, and it was about this time that Clark began helping his father-in-law to build a combined flour and sawmill. Just why it was decided to include a flour mill when Clark's was already operating is unknown, but there was quite a sizeable community on the eastern shore. At the time of the 1842 census there were 11 people living at Woodstock, but by 1853 the three Kellaway men

(including George, probably John's cousin, and George's son Thomas) were employing 40 passholders and ticket of leave men, and this of course does not take into account other free settlers at Woodstock. The wooden four-storey mill was built right on the shoreline near the house a little to the south of where Pelverata Road now joins the Channel Highway (approximate map reference Huonville 028309). A 3.5 kilometre long race from the Sandfly River (on the north side of Pelverata Road) was cut by convicts, and unlike Clark's mill the machinery was powered by the shaft of the large waterwheel. The mill was almost certainly run by George, who until 1846 had been overseer of various probation stations.¹⁰

John Kellaway died in 1859. His obituary referred in glowing terms to his "undeviating integrity - the frank and un-affected simplicity of his manners - his honest and straightforward turn of mind - and the unostentatious hospitality of Woodstock." Failing health had caused him in 1856 to lease the mill and house to George who remained there until his death in 1877. However, in 1858 he became insolvent and the remaining eleven years of the lease of "those well-known premises on the Huon River, the Woodstock Flour and Saw Mills" currently rented for £52 per annum were offered for auction. Luke Clarke, who had married Jane Clark, John Kellaway's grand-daughter and John Clark's daughter, became the miller until his death at the age of 31 in 1866, although it is possible that he was working for someone else: in 1862 William Ratcliffe was the lessee. John Wallis Kellaway (John's son) was the owner by 1862 and often the occupier, although in 1875 Aaron Clark from the Woodside Mill was the lessee.¹¹

Just when the mill ceased working has not been determined. However, one mill in the Huon area was still in use in 1894, according to the Mills and Manufacturing Returns, and as the other two are known to have stopped it was probably Woodstock which worked this late. Its timbers and roof were lying on the ground within living memory, but it is believed that there are now no remains.

7.4 Hill's mill at Kermandie

In 1834 Patrick Reid, a discharged soldier, was granted 100 acres at the Kermandie River. The block had a series of owners through the 1830s, and from 1835 was subject to a mortgage by Cornelius Driscoll who in December 1840 tried to sell "all those 100 acres together with the Mill or engine for sawing timber thereon about to be erected and built". This sawmill appears on Frankland's 1839 map, and decades later was said to have been built by J.B. Walter. In 1844 the property was sold to William Wilson of the Davey Street Brewery and in May 1845 it was offered for let. Then in 1848 Mrs A Wilson advertised:

For Sale, with immediate possession, All that Sawmill, situate on the Kermandie (sic) River, Huon, with an abundant supply of water at all seasons; the Mill is in excellent working order, with saws complete....

Soon afterwards the mill was bought by Hill and Britton, but the partnership did not last long and in 1852 the sawmill and the 100 acres were owned solely by Richard Hill.¹²

Hill was born in Hobart in 1825 and trained as an engineer under Easby and Robertson. His sawmill, 50 feet [15m] by 30 feet [9m] and powered by a composite overshot wheel, was located to the south-east of the present bridge over the Kermandie River on Whale Point Road (approximate map reference Geeveston 959207-8) in the area called Honeywood. It was located there so that it was accessible by boat but could also use the last of the rapids as

its source of water power. Over the next 50 years Hill turned his attention to a variety of businesses: a pottery in the 1850s before the large exodus of people to the Victorian gold rushes; the growing of apples and pears; the cultivation of hops irrigated from the mill race; hotel-keeping (one adjacent to the mill), and shipbuilding. According to "Through Tasmania" in 1885 Hill had not originally intended to use the mill but the demand for timber with the gold rushes had caused him to change his mind, and thereafter timber milling remained the central part of his business. However, at some stage he added a flour milling operation to the same building, and this was in about 1860 according to the Mills and Manufacturing Returns. (It is often written that he added a sawmill to an existing flour mill, but the original sources clearly disprove this.)¹³

It is also impossible to say how long the flour mill operated. In 1885 when the correspondent from the *Tasmanian Mail* visited, the flour mill was no longer used as "[a]ll the flour [is] brought from other parts". It is probable that the extension of the road from Franklin to Geeveston in 1880 was instrumental in this. In 1903 the *Weekly Courier* reported that the mill was then in ruins although "for a long time [it] was a picturesque object by the riverside". Kostoglou was unable recently to find any remains.¹⁴

7.5 Other Huon mills

There were several other mills in the Huon Valley about which little information has been found. According to the *Huon and Derwent Times* of 17 December 1936 one Page had a flour mill at Ranelagh. Geoffrey Stilwell whose grandfather Thomas Frankcombe bought the property in 1893 remembers water races on the property but knows nothing about the mill.¹⁵

In 1860 the auction of property at Garden Island Creek was advertised. The first lot of 500 acres bounded on the west by the creek had several buildings already erected and "also partly erected a Saw and Flour Mill, 750 yards mill race, part of which is tunnelled and strongly slabbed." Lot 2 was:

The Water-wheel, Machinery, and Plant...; the water-wheel is 36 feet [11m] diameter and 6 feet [2m] wide, with strong iron segments and pinions, extra strong journals, brasses, and pedestals - the iron-work alone cost £230.

No further information has been found and as the machinery for the mill was sold separately it is likely that the flour mill was never completed. In 1875 Chesterman, Deardon and Co. were beginning to erect a sawmill on the eastern bank of the creek and the area was described as "almost uninhabited". A race of half a mile brought water to the mill and this may have been the same race cut fifteen years earlier.¹⁶

In 1861 the *Mercury* carried an advertisement for the auction of a steam flour mill at Welsh Town, Port Cygnet:

fitted up with one pair of stones, dressing machine, and the usual gear, ten horse power engine, saw mill adjoining, with frame and circular saws and benches, public house now occupied by Mr Cohen, brewery, malt house and sundry cottages....

Nothing further is known.¹⁷

- ¹ *The History of Kingston*, (no pub. details), pp. 3, 7, 17, 23. MS 10913. Calder Collection. F Box 89/2 p.96. LTAMC (agreement between Nash, Kenton and Crowder 1811).
- ² CT 10 Jan 1837, p.9/4. *The History of Kingston*, (no pub. details), p.7. HTC 18 Oct 1839, p.3/4. For Rowlands see also HTC 28 Oct 1842, p.3/6. Kroehnert, Rhonda & Taber, Betty, Lucas Family History Committee. *Nathaniel & Olivia: The Lucas Family*, 1987.
- ³ Hackett: Robson, Lloyd, *A History of Tasmania*. Vol I, Melbourne, 1983, pp.108, 286, 298, 300. Distillery: CT 24 Jan 1837, p.25/4. Insolvent: CT 3 Sept 1839, p.286/2-3. Auctions: HTC 18 Oct 1839, p.3/4; CT 21 Jan 1840, p.2/3; CT 21 April 1840, p.2/4-3/1. Failure of distillery: CT 26 May 1840, p.6/2-4. Britain: CT 12 May 1840, p.5/4-6/1.
- ⁴ Location: HTC 24 April 1840, p.3/6 (320 acres); Land District Buckingham No.1 map. HTC 28 Oct 1842, p.3/6. CC 12 Feb 1845, p.3/6. *The History of Kingston*, (no pub. details), pp. 10, 11, 15.
- ⁵ HTC 26 July 1848, p.3/4. Valuation Rolls 1858, 1860, 1864. Merc 13 April 1864, p.1/7. "Though Tasmania", Merc 15 Mar 1884.
- ⁶ Clark, D.F., *Woodside Descendants: A Sesqui-Centenary*, Burleigh Heads, 1991, pp.2, 4-5, 17, 20, 22.
- ⁷ Clark, D.F., *Woodside Descendants*, op.cit., pp.22-23. HTC 4 Mar 1842, p.2/1-2. 2nd wheel: Baily Clark pers.comm, 13 Mar 1997.
- ⁸ Clark, D.F., *Woodside Descendants*, op.cit., pp.24, 158. LJ: 25 Jan 1877 p.5/6. "Through Tasmania", TM 1 Aug 1885. *Huon and Derwent Times*, 17 Dec 1936.
- ⁹ Clark, D.F., *Woodside Descendants*, op.cit., pp.18, 26-7
- ¹⁰ Clark, D.F., *Woodside Descendants*, op.cit., p.28. *Huon and Derwent Times*, 17 Dec 1936. Robert and Baily Clark pers.comm. 13 Mar 1997.
- ¹¹ Clark, D.F., *Woodside Descendants*, op.cit., pp.36, 29. Merc 6 Nov 1858, p.3/8. VRs 1862, 1870-74. Merc 24 June 1875, p.2/6.
- ¹² Clark, D.F., *Woodside Descendants*, op.cit., pp.3-4. Frankland: QVM.1984.M.731. Walter: *Huon and Derwent Times*, 17 Dec 1936. HTC 15 May 1845, p.3/4. CT 22 Aug 1848, p.1/6. Hill & Britton: WC 20 June 1903, p.8/3.
- ¹³ Location: Kostoglou, Parry, *Historic timber-getting between Glendevie and Franklin*, report to Forestry Tasmania, 1995, p.35. Tas Cyc Vol.1, p.411; Merc 20 July 1875, p.2/7; *Huon and Derwent Times*, 17 Dec 1936. "Through Tasmania" TM 18 July 1885.
- ¹⁴ "Through Tasmania" TM 18 July 1885. WC 20 June 1903, p.8/3. Kostoglou, Parry, *Historic timber-getting between Glendevie and Franklin*, report to Forestry Tasmania, 1995, p.34. Road: Reid, O.W., "Excursion to the Huon", THRA 11 Oct 1980, p.2.
- ¹⁵ Geoffrey Stilwell pers.comm. 11 Mar 1997.
- ¹⁶ Merc 20 Oct 1860, p.3/7. Merc 31 May 1875, p.2/7
- ¹⁷ Merc 2 Jan 1861 p.4/6.

CHAPTER EIGHT

THE EAST COAST

8.1 Cranbrook

8.1.1 Glen Gala

The story of milling on the East Coast begins with the arrival in Hobart Town on 17 March 1821 of the barque *Emerald*, a ship that had been chartered by Lieutenant George Meredith R.N., Joseph Archer and T.G. Gregson. Meredith was accompanied by not only his second wife and five children but also by his former tenant farmer in Wales, Adam Amos, with his brother John and their families. Following a recommendation from Lieutenant-Governor Sorell who was anxious to foster settlement on the East Coast, Meredith and the Amos brothers each selected land at Great Swanport, the first settlers to do so.¹

The Amos brothers were Scots whose father had leased Heriot Mill Farm at Gala Water in Scotland from 1776 to 1814. After the lease expired Adam joined George Meredith in Pembrokeshire, and then agreed to join him in going to Van Diemen's Land. John Amos was also invited and as he was a millwright he proved to be of great importance to the new settlement, although as he had little capital he was vulnerable to the machinations of Meredith who managed to successfully claim John's first grant of 400 acres. Both Amos men eventually settled on the Swan River, John having Cranbrook on the eastern side of the river and Adam Amos calling his 1000 acres on the north-western side Glen Gala. In a letter Adam wrote home in 1826 he explained that his reason for choosing land so far from Hobart Town when there was plenty of closer land was that he did not want to live in the neighbourhood of ticket-of-leave convicts, partly from not liking their company and partly from their propensity to steal. In fact, however, the settlements on the East Coast were quite vulnerable to bushrangers as well as to Aboriginal attacks just because of their isolation.²

Despite these difficulties Adam was able to establish himself quickly. Soon after his arrival he was appointed District Constable, and it is in the diary in which he kept track of the weekly movement of convicts that there is the first reference on 24 June 1823 to his plan for a mill:

The Government Sawyers who have been with Mr Talbot lately are come to me this day. They ought to have been with me two months since and I suppose (sic) I should not had (sic) them now if I had not thrattened (sic) to send them to Town for punnishment (sic). They are cutting stuff for a grist mill that I am Building.

A week later a flood damaged the partially completed head race. The mill seems to have been operational by the end of 1823 and certainly before 9 March 1824 as on that date a party of men arrived in search of the Aborigines Mosquito and Black Jack who had killed a man assigned to Meredith and had previously threatened to burn Amos' corn. Wrote Amos:

They showed me the warrants and the order for provishions (sic) they had got an order for 20 pounds Flour from Mrs Meredith which I am to give them from hir (sic) wheat - I made them Grind as the watter (sic) will not drive the Mill....³

The wooden mill was built near the Glen Gala house on the northern bank of the Swan River to the north-east of the bridge to Craigie Knowe (approximate map reference Cranbrook 890488). A plan drawn by Henry Giffney in December shows the mill and race, the latter coming from the river some two kilometres away (approximate map reference Cranbrook 894491). John Amos was the millwright and Adam's son James (aged 19 in 1823) became the usual miller, although other men worked in the mill as well including an assigned man Dunbar who "had his hand much hurted by the wheels of the Mill" in August 1824. In 1834 the *Hobart Town Almanack* referred to "Mr. Jones's Mill" at Glen Gala; presumably he was the lessee. The flour was sold to whalers and to other settlers in the area, with George Meredith and George Rayner being major purchasers.⁴

Extracts from the diary of James Amos, son of Adam and by then the usual miller, show that by 1840 the mill was not going very well. There are several references in April to the "mill going slow", probably a reflection of the water supply as the dam was being repaired in May. In October a new steel mill was installed, surely a sign that the watermill was not functioning as well as it should. Finally in 1841 James decided to build a new larger mill a little downstream (see 8.1.2). While this was being built he had to work at the old Glen Gala mill. In September 1841 he wrote that he "[g]ot the old mill started with a good deal of trouble" and there seem to be worries that there was outward movement of the foundations which led to repairs for the water wheel being required. A note in May 1842 that he began to grind "with both mills" indicates that there were two pairs of millstones. (This does not mean the new mill as it was yet to have its foundations laid.) The two sets of millstones were each driven by a separate wheel, the original mill having been extended and the machinery duplicated. The final reference comes on 17 April 1843 when he started the mills. It does not appear to have been used once the new mill came into operation in June. In 1858 both Glen Gala house and the mill burnt down. Some stone on the banks of the mill race may indicate its location.⁵

8.1.2 Gala

In 1840 James Amos moved into a house on the western side of the Swan River about half a kilometre south-west of Glen Gala and decided to build a new bigger mill to replace the deteriorating Glen Gala mill. His diary tells the story. On 2 April 1841 bricklayers began to make bricks and on 11 May he and his uncle John the millwright began levelling the watercourse for the new mill. The race appears to have been a continuation of the Glen Gala race. On 12 July they went looking for and eventually found the right sized blue gum for the water wheel shaft. Cutting this caused a problem as the saw stuck fast in the tree and had to be left there all night, then when this difficulty was solved they found their bullocks would not draw the log home and they had to send the sawyers to the tree to dig a pit and cut the log where it was. On 15 January 1842 James agreed with probationer James Murfett and his son that they would work for six months on building the mill for £35. On 20 May Murfett began to lay the foundations of the new mill. In September they were still working on the shaft for the water wheel, in October they had the pit wheel in and by the end of November the water wheel was ready.⁶

There now appears to be a delay; perhaps ordinary farm work had to take precedence, or perhaps the required machinery was slow in coming. On 5 April 1843 two sets of millstones were landed, one pair of French burrs and one of grey stones. These were lifted into the second floor on 30 May, and on 2 June one of the French stones was put into position. John

Amos worked at dressing the French stones and fixing the hoops on them. Finally on 26 June 1843 the new mill was ready for the water. The following day, no doubt very frustratingly, “[w]e all got the stones balanced and all things ready for grinding, but the water did not come.” An alteration was made and they were able to grind a little on the 28th but by 9 o’clock in the evening there was plenty of water and James celebrated by grinding until 4 a.m. James continued to grind the next day and found he could grind at the rate of three bushels an hour “all day”. The new mill was a success. The sluice at the old mill was lifted and James continued to grind for several days. It was not until 18 November that the grey stones were ready to be used; James found they cut the bran too much but were good for “rations flour”. On 8 December both sets of stones were used at the same time: “I ground and dressed 60 bushels”, wrote James in triumph.

The new mill was on Glen Gala land and the property was initially called The Mill, then Gala Mill and finally just Gala. James continued to be the miller until at least 1860, although one Henry helped in the mill and in June 1860 ground for the first time and from then on rapidly became the usual miller. This was almost certainly James’ son, who was accidentally killed in May 1862 aged 23. John Graham who had the big store in Swansea was a regular customer; in June 1854 he bought ten tons of flour at the good price of £26 a ton, while in September 1860 James sent two carts of flour and bran to Graham’s store.

By January 1864 James, presumably finding his health worsening, advertised Gala Mill Estate for lease, the mill being available with or without the estate. He died in July “of Paralysis” at the age of 59 and in August the mill was let to William Bellchambers. In 1869 the executors to the estate put the mill up for auction, including “a fine flour mill fitted with machinery of the latest improvements, there is also a threshing machine with winnowing machine attached; the whole is worked by water power.” The estate did not sell as it was offered for sale again in 1871 and although it was bought by J.W. King he was unable “as a minor” to complete the sale and the estate was eventually sold to Bishop Lyne who lived in the house but advertised the mill for let. In 1874 the mill was leased by Daniel Dossetor who was also leasing Riversdale and later operated the Commercial Mill in Hobart (see 8.3.1 and 2.15). Leonard Harris was there in 1877. In 1884 the mill was being run by the son of John Lyne, the owner, and the Special Correspondent for the *Tasmanian Mail* noted that:

...the machinery is of the first order, in good order, and the appliances, with the exception of the smutter, are all modern, silk-dressing frame, etc., etc. There is ample storage for grain and flour, which useful commodity I am given to understand Mr Lyne, junr., is an adept at producing. I have recommended him to get one of the Eureka smutters, which will further improve the quality of his flour.

Lyne advertised in the 1894-5 *Post Office Directory* but it is not known when the mill finally stopped working. Presumably Morey’s steam mill in Swansea (see 8.3.2) would have provided too much competition by the end of the century. However, it appears that the Gala mill may have been used for stock feed into the 1920s.⁷

Much of the brick and stone mill remains on the western bank of the Swan River across the driveway from the house (map reference Cranbrook 889485). During the 1929 floods a bridge further upstream collapsed and was swept onto the mill, taking away half of the building. The remaining section of the mill that contained the machinery is still standing, reinforced with a concrete buttress adjacent to the enclosed wheel which remains although in a derelict condition. The wooden pit wheel also remains despite being buried in silt as a

result of regular floods. These remains make this mill one of the nine most significant mills in the state.

8.1.3 The Grange

By 1836 there were at least two flour mills in the Swansea area, at Glen Gala and Mayfield, and a third either built or soon to be built at Riversdale. However, these did not always provide the necessary flour as a letter written by Robert Makepeace to the Surveyor-General's Department in 1837 makes clear.

It's with the most profound respect, I beg leave to acquaint you that the inhabitants of the Township and vicinity of Swansea, Great Swanport, suffer a very great inconvenience in respect of not having a requisite Convenience for Grinding their Grain in dry seasons; and that in consequence of which many a family go without Bread for whole Weeks together. Therefore wishing for the welfare of myself and family, and also for the Community at large, I beg leave to apply for the Buying of an Allotment or two, in that Township, that I may erect thereon a Windmill, and other Buildings....

His request was refused as the government had decided not to sell any more land there for the time being. But the problem did not go away. The Amos diaries make clear that there were many occasions when a lack of water prevented milling, and people other than Makepeace saw what was required. In the event it was Francis Cotton who made the necessary moves to supply a windmill.⁸

Cotton had arrived in Van Diemen's Land in 1828 with his wife and five children and after working as a builder for six months he settled at Kelvedon south of Swansea. In 1837 when applying for a secondary grant of land he included in his list of improvements and capital "100£ (sic) remitted in a Treasury Bill per "Elphinstone" for the purchase of the material for a small windmill etc." Before he erected the windmill a serious drought was causing Cotton to send his wheat to Hobart Town for grinding and he was very doubtful that the combined weight of flour, middlings and bran returned to him was correct. Two further bags of flour sent from Hobart Town were not good enough for human consumption so, wrote Cotton, "it seems almost a public duty to erect a wind-mill." By this time he was the owner of another property near Cranbrook. This property had originally been granted to George Meredith and Joseph Allport, and when they sold it to J.T. Gellibrand in 1835 he called it "New Grange". Under Cotton's ownership the property came to be called simply The Grange. Just when the windmill was erected there is unknown; a windmill is listed in the Mills and Manufacturing Returns for Great Swanport in 1846 but as this is also the first year when the watermills are shown it is quite possible that the windmill had been built earlier. It is likely that it was erected soon after Cotton received the machinery from England about 1838, and is said to have been already there when his son Henry moved to The Grange to manage the property.⁹

The windmill was built on top of a small hill behind the first house, which has since been replaced by one higher up. It was therefore on the hill to the west of the drive into the new house (approximate map reference Cranbrook 892449). The mill is mentioned in Walch's Almanac for 1865 and 1867, but according to Cotton by this time The Grange was only a sheep run as blight and other problems had caused agriculture to fail, so it is likely that the mill was no longer in use. When John Campbell and his brother bought the mill in 1883 the mill had not been used for many years and William Campbell had pulled it down by 1885. There are no remains.¹⁰

8.2 Falmouth

There was an attempt to build a mill further north on the East Coast, when William Steel began the work on his property Thomsonville (now Enstone Park) at Falmouth. On 29 May 1833 Steel wrote: "I am digging a Mill race to carry on both a flour & sawing mill". By July he had men splitting timber to build the mill and bakehouse and had engaged a millwright. In September 1834 he went to Hobart Town to collect the machinery he had imported but the boat he was bringing it back on, the *Jean*, stranded on the bar at St George's river and both Steel and the millwright, Dunn, were drowned. By that time the mill building would probably have been built but its subsequent history is unknown.¹¹

8.3 Swansea

8.3.1 Riversdale

While the Amos brothers selected their land at Cranbrook following their arrival in 1821, George Meredith established himself further south. He managed to rapidly acquire large tracts of land, not always honourably. His trouble with Talbot in which they both claimed the same land is well known; following a sometimes bitter campaign Meredith eventually won and Talbot was forced to move to a grant at Fingal he called Malahide. Less well known is Meredith's method of acquiring the farm later called Riversdale, just north of Swansea. According to the Land Commissioners who visited in 1828, "Major Honner had located the...farm [later Riversdale], but being in distress and difficulties, and owing some money to Mr G. Meredith, the debt was cancelled on his quitting the premises." It appears that Honner's difficulties arose from damage done to his crops by herds of cattle belonging to Meredith and Amos. The Commissioners were scathing of "Mr Meredith [who] undertakes everything and accomplishes nothing", but he was ultimately successful in many enterprises, including whaling and shipbuilding.¹²

Some time in the 1830s Meredith organised the building of a watermill at Riversdale, just to the north of the house, with water brought from Browns Hole, a soak towards the Springs about 3km away. Its date is problematic but it is most unlikely to have been built before 1836, as an account book kept by Adam Amos shows meal and flour being supplied to Meredith until at least 16 July in that year. The house was built in 1838 and it is probable the mill was built around the same time. The mill seems to have been built by "Old Bull", almost certainly William Bull, bricklayer, who was given a life sentence to New South Wales in 1818 and then, after twice attempting to escape, another to Macquarie Harbour in 1822. In 1828 the commandant asked for Bull to be given a ticket-of-leave "from his invariably correct conduct, his substantial Services in the Construction of a Gaol, Lime Shed, new Penitentiary, and other Masonry and Bricklayers work". He was not then given his ticket, but some time later he began to work for George Meredith, designing and building Cambria, Riversdale House and Spring Vale. The millwright John Amos was employed to build the machinery of the new mill.¹³

Little is known of the mill's operations in its early years. In 1840 James Amos, Adam's son, wrote in his diary that "My uncle John and I went down to Tilley's mill to dress it"; this was Riversdale but it is unclear how long Tilley was the miller. In 1842 it is quite possible that he became insolvent and was certainly leaving as in March James Amos wrote: "I went to

Riversdale and saw all Tilley's wheat sold. John and I bought a small quantity in the old barn for £25." George Meredith died in 1856 and the property passed to his son John. Bernard Gallagher was tenant of the mill in 1858, then for five years William Gibson leased it before going to Hobart in 1864 and building the City Mill, to be so well-known as simply Gibson's (see 2.16).¹⁴

In 1861 John Meredith attempted to sell the almost 11 000 acres of both Cambria and Riversdale by auction, the mill described as having "two pairs of stones, dressing and smut machines, hoisting tackle, [with] threshing machine attached...." However, there was no sale. In April 1868 he made a preliminary announcement of a sale but it was not until 1871 that both estates were put up for sale by tender. The flour mill had its machinery complete and was let for £50 a year. Riversdale was bought by Albert Lyne and the following year he advertised the mill for lease at a low rental; in 1874 the miller was Daniel Dossetor, later of the Commercial Mill, Hobart (see 2.15). Lyne attempted to sell Riversdale in 1877 but most of the property remained in his family until 1965.¹⁵

From 1880 John Keefer, one of many German settlers in the area, leased the mill. In October 1884 the *Tasmanian Mail* reported that Keefer leased 600 acres of Riversdale, and went on:

There is a mill here, also leased by the German, where he grinds the grain he raises. He disposes of much of his flour in the shape of bread to the good folk on Swansea township, and to the men at work on the Campbell Town road and other local contracts. It is not possible to say much of the mill; a red brick building that has for many years been threatening to tumble down.

According to material in the Glamorgan History Room Keefer continued as miller until 1890, about which time the mill fell into disuse. Much of the dressing equipment was sold to William Morey for his steam mill in Swansea (see 8.3.2) and the building was thereafter used mainly for storage, although after Gordon and Ruth Amos bought the mill and some land at Riversdale in 1953 it was used for brewing cider and home-made wine. For a few years in the 1990s it was used as a cafe.¹⁶

Although it was "threatening to tumble down" in 1884 much of the two-storey brick and timber mill on stone rubble foundations still survives (on the western side of the Tasman Highway—map reference Cranbrook 878421), but the perimeter walls have been extensively rebuilt and the overall dimensions altered. A section of the northern end of the mill collapsed during a very wet season some time in the 1930s, and further damage was sustained when a large pine tree fell on it about 1960(?). However, considerable work by subsequent owners has made the rest of the structure secure, although within the last few years there has been an unfortunate addition of a lean-to at the back. What makes this mill of particular significance is the retention of the beautifully made, compact wooden gearing inside, built to last by that expert millwright, John Amos. The breastshot water wheel is also in place, although it is obviously a late nineteenth or early twentieth century replacement, being of quite flimsy construction. These aspects make this mill one of the five most important mills remaining in Tasmania.¹⁷

8.3.2 Swansea Steam Mill

Once the Riversdale mill closed down there was an opening in the district for a new mill and William Morey, son of Abraham who had been at Ravensdale (see 8.6), took up the

challenge. He had been born in England in 1836 and may indeed have been the miller at Ravensdale. In 1884 he had built a bark mill in Swansea to replace a mobile mill which he had previously used, and in 1898 he decided to add flour milling to the enterprise. He firstly bought some of the machinery he required from Lyne at Riversdale, paying £165. He was able to obtain an oat bruising machine from Rhehan (see 8.7), and evidently the millstones came from Ravensdale as "the things belonging to the mill stones" were brought from there. Other milling requisites were ordered from Otto Schumacher in Melbourne. In March with the help of Walter Glover and J. Quin, Morey began to erect an extension to the corrugated iron bark-mill building. In May and again June a case of machinery arrived for him on the *Surprise*, but his plan to hire a millwright from Schumacher to help get the mill working was thwarted. A draft letter to Schumacher dated 28 June 1898 survives and not only gives the reason for his frustration but also informs as to the progress on the mill:

Yours of the 23rd to hand. All that I want is for a man to put the mill together and put machinery in its place, and to give it a start. I think a man could do the whole of it in a fortnight. The building is very nearly finished there is about one half of the floors to lay. Elevators very nearly in position. I do not understand your letter wanting £130 to erect the mill and put same in working order, when everything came and was supplied by you. And as to farmers and others to assist in putting mill in working order I only require one millwright. I can give him all the assistance he may require and find all material such as timber nails screws etc and as to the millstones I have all the appliances excepting the pulley to drive the stone. Have you sent all the machinery that was ordered, for it would not be any use to sending a man until all the stuff's here. I have not received the Pulley or the main shaft and likewise the Pulley to drive the stones as you had the dimensions.

He evidently received no satisfaction as in the event he employed Mr Bean, almost certainly Robert Bean who had been a miller at Milford, near Llewellyn, and had later built a steam mill at Fingal (see 10.5 & 10.7.2). Bean was working at the Swansea mill by 25 July and on 18 August the mill ground flour for the first time. The mill was called the Swansea Roller Flour Mill and a No.127 Cornelius Internal Roller Mill is still on the premises, so it is likely that this was used for the first trial. However, the millstones Morey mentioned were also used, Bean setting them to work on 26 August. It was to be another three weeks before Bean was finished, so he had taken rather longer than the fortnight that Morey had estimated, but then he may not have been a practised millwright. The type of engine used initially for the mill is not known, but in 1911 Frank Morey bought an 8-horse power Marshall engine from P. Mitchelmore.¹⁸

Initially the mill appears to have been quite successful. The *Tasmanian Mail* in 1903 reported that agriculture in the area had been hindered because of the difficulty of getting produce to market but that it was becoming prominent again since the *Warrentina* was making weekly trips. The mill diary for 1904 shows that Morey, together with his son Frank, were often at work in the mill and much wheat was bought locally as well as from Websters in Hobart and Afflecks in Launceston. There are references to working the mill at night in 1908, but this may simply have been a matter of finding the necessary labour rather than indicating an ultra-busy mill. By 1910 references to grinding wheat are quite few and by around 1915 the flour mill seems to have stopped working. A later resident described the flour as most unpalatable, but the main problem was surely that the day of the small local mill was over, particularly in an area where much less wheat was being grown than previously.¹⁹

The bark mill continued in use until 1960 with the Cornelius Rollers being used for stock feed. In 1981 it was restored to a working museum, with the flour mill section closest to the

Tasman Highway being converted to a tea room. All that is left of the originally three-storey building are the beams and studs, and the floorboards. On display in the bark mill are several pieces of flour milling machinery, including the Cornelius rollers, some small and large elevators, two monolithic millstones of basalt (bluestone) and a Victor Horizontal Bran Duster made by Schumacher. The mill is just to the north of where the highway intersects with Shaw Street.²⁰

8.4 Mayfield

Lieutenant Thomas Buxton, a cousin of T.F. Buxton who was a later Governor of South Australia, arrived in Van Diemen's Land with his wife and family aboard the *Westmoreland* in 1821. He had been engaged to manage (old) Belmont at Swanport for two years for William Talbot, and his time there was somewhat traumatic as Talbot became locked in dispute with George Meredith (see 8.3.1) as to the ownership of the land. In 1823 Buxton received a location order for 500 acres and selected his land further south, calling his property Mayfield, the name of his father's house in Derby. In 1826 he was almost ruined by the depredations of bushrangers, but in 1828 he was a divisional constable and in 1829 a poundkeeper. Legend has it that it was the excellent dinner he gave to the visiting Lieutenant-Governor Arthur which induced the latter to grant him another 780 acres in 1828.²¹

By 1833 he was doing well enough to resign as divisional constable and soon afterwards he must have begun to build a watermill on the bank of what is now known as Buxton River, with a race coming down close to the river for most of its length. The mill was erected in 1836 as indicated by the inscription "T.B. 1836" over the mill door. Its builder is unknown, but the millwright could well have been John Amos from Cranbrook (see 8.1 and 8.3.1). Evidently the water supply was not reliable and grinding was not always possible. In 1839 James Radcliff of Lisdillon (see 8.5) took Buxton to court on the grounds that he had dammed up the river and as a consequence floods had deposited so much rubbish on some of Radcliff's alluvial soil that it had deteriorated considerably. The court found for Radcliff, and Buxton's subsequent appeal was unsuccessful. He made his feelings known in a May advertisement:

Thomas Buxton returns his most grateful thanks to the settlers of Swan Point and Spring Bay, for their custom during the time his mill was at work, but in consequence of a verdict given against him in the Supreme Court...and the following notice from Mr James Radcliff...I beg to inform you that, for some time, my mill will not be able to grind, until I can substitute some other power to work it, when I shall be most grateful for your patronage.

Copy of Mr James Radcliff's Notice, Swan Port, April 2, 1839 to Thomas Buxton. Sir - I have to request you will close up the present watercourse to your mill, and remove the dam*, that the creek may be restored to the proper channel....

*There is no dam across the creek; that was proved on the Trial, by Messrs Watson, Lord and Furlong - T.B.

Somehow the affair was sorted out as Buxton was grinding again in 1840, although the two neighbours were again at loggerheads in 1841 when Buxton accused Radcliff of manipulating the boundary line between them to give the latter more land than he was entitled to.²²

Nothing is known of the mill's history over the next twenty years, but as the only major mill in the district between Ravensdale and Swansea it presumably had a regular clientele at least in its early years. In March 1864, just before the death of his wife, Buxton advertised the estate for lease. The buildings included "a water corn mill and machinery, 2 pair of 4 feet French hurr mill stones, dressing machine, and sack tackle. etc., etc." The following year Buxton died in Hobart at the age of 76 and in 1866 the estate was auctioned by the trustees to Buxton's will. The buyer for £2500 was John Mitchell of Lisdillon (see 8.5). His wife Catherine, writing to relatives, explained that their motive was that they did not want anyone disagreeable to become a neighbour. However, Mitchell was somewhat tentative about bidding, offering to give up all right of purchase in favour of Buxton's eldest son, but the latter requested Mitchell to bid. "I felt for him," wrote Mitchell, "as he was very anxious to become the proprietor of his old home but he had not sufficient means or security to give for the payment."²³

Mitchell set about getting the mill to work again, although according to Catherine, "there is not enough work near here to keep so good a mill at work." It had evidently not been used for some time as the mill race had completely gone to decay, and Mitchell cut a new section of 91 metres by blasting through rock. A description of the upper part of the race was given in 1884:

Buxton's Rivulet, some distance back, has a permanent dam constructed across it in a rocky defile, from whence the water is carried in 2 x 1 flumes, with a fall of 1½ inches to the chain [1:530]. They are securely bolted to the side of a cliff for about five chains, whence the water is carried through a cutting, which, at the deepest, is 9 feet [2.7m] deep. This work cost a lot of labour, and dynamite to excavate. From the 17th chain onward the race is 2 feet x 1 foot [610 x 305mm] for a mile and a half [2.4km] to a point where the fall is 42 feet [12.8m] vertical.

In November 1867 a start was made on a new wheel, the workman involved being very proud when it was finished the following May. The water was too low to start the mill just then, but on the 13 June Mitchell was able to write that "the wheel was doing capitally and was capable of driving much more machinery. It has been a great expense and is not likely to be attended with much profit, but it is a great convenience." The miller was the English immigrant Horrel who was moved over from the horse-driven mill at Lisdillon (see 8.5). Mitchell eventually built him a cottage near the mill to Horrel's design.²⁴

The mill continued to work for many years. In 1875 Kate Mitchell wrote that "...old Horrel is busy in the mill as usual - his present work is grinding & dressing flour & doing carpentering work for the new cottages..." Both Mitchell and Horrel died in 1881; the miller's name is commemorated in Horrels Point, the headland on the northern side of Buxton River. Mitchell's son Edwin who had come back from New South Wales to take over Mayfield (Mitchell's other son Mark was given Lisdillon) employed a new miller, William Ackerley, who was in residence until at least 1883 but he then also died. When advertisements for a new miller failed to attract a satisfactory response, the mill was allowed to fall idle. When the Special Correspondent for the *Mercury* visited in October 1884 the water race higher up was about to be used to power a turbine for a sawmill, but the flour mill had not been used "for a few years" as there was not enough grain to keep it going, although the correspondent suggested that grinding bark might be possible. This almost certainly did not happen.²⁵

The solidly-built brick mill still exists on the northern side of the Buxton River and to the east of the Tasman Highway (map reference Mayfield 829206) and the mill race can be traced from a natural dam high in the hills. Horrel's cottage, Hollybush, is nearby and two of the millstones are in the vicinity. Of more significance is the fact that this is the last remaining example of a country mill where the stones were arranged in a line and driven from a layshaft and rim gearing from the water wheel. Much of the gear drive remains in situ, although the wheel has collapsed. Its age plus the remnants of the wheel and machinery puts this mill in the top seven of the most significant in the state.²⁶

8.5 Lisdillon and Rocky Hills

The only references to milling at Lisdillon come from the reminiscences of two grandchildren of John Mitchell who in 1852 had bought Lisdillon from James Radcliff, its original grantee and owner of Rheban (see 8.7). When referring to Horrel, the miller of Mayfield, Sarah Mitchell wrote in 1944: "He had had charge of the flour mill chaff cutting Horseworks at Lisdillon." Kate Alice Rodd (Mitchell) gave more detail: "The wheat and oats were ground to flour and meal by a grinder drawn round and round by four horses." This would presumably have been somewhere in proximity to the house, and would probably have worked from soon after Mitchell bought the property until 1868 when he had bought the nearby Mayfield mill and repaired it (see 8.4).²⁷

Sarah Mitchell was also able to put the record straight about the "Rocky Hills treadmill". This treadmill, now at the Queen Victoria Museum & Art Gallery, is usually thought to have belonged to the Rocky Hills probation station just a little further north. However, Sarah wrote that it came from Trehawke, a part of Lisdillon rented to a Mr Minchel. She remembered seeing a horse in the treadmill: "It was a very hot day and worked hard. They threshed the corn and cut the chaff with the Treadmill." In other words it was not a flour mill. Following the drowning of Minchel and then the death of his wife, "her things were sold and Jennings bought the Treadmill - and they let people think it was a prison-treadmill - It was taken up to Rocky Hills" - where Jennings lived as one of the pensioners who occupied the station.^{*28}

8.6 Ravensdale mill

Further south on the coast the water supply was not reliable enough to allow the building of watermills, and it is here where the colony's horse mills were built. In 1847 the Mills and Manufacturing Returns list two horse mills at Spring Bay and one of these was at Ravensdale. This property had been owned firstly by Lieutenant John Hawkins and then by James Hobbs. In 1846 Hobbs was declared bankrupt and Ravensdale was sold to William Noyes, Police Magistrate. It would therefore seem that it was Noyes who installed the mill as soon as he came to live there. It is quite possible that this utilised a horse wheel, where the horse walks below a high level gear wheel. It is not known if he used the mill simply to grind wheat for the estate, but it is likely that he ground for his neighbours as well as there was no other mill for some distance in either direction. Noyes was listed as the operator in 1853 and 1855 but at some stage soon afterwards it was sold. In 1861 the 3305 acre estate, "well

* Thanks to Judith Hastie who brought the true story of the 'Rocky Hills treadmill' to our attention.

known as formerly the property of W.T. Noyes", was offered for sale by the new proprietors who were dissolving partnership and they mentioned that the improvements included a dwelling house and flour mill. The property was bought by Abraham Morey.²⁹

Morey had arrived in Launceston with his young family in 1842 and had spent time farming in the Evandale area. On taking up his new farm at Ravensdale he bought a book to keep track of his accounts and one of the earliest entries is "Moving the Mill". Unfortunately he does not say where either the old mill had been or the new one was located. Whereas it is possible that Noyes used the mill simply for grinding flour for himself Morey certainly ran his as a business, grinding wheat for many of his neighbours including Mr Radford, John Cotton and George Chaffey. However, Morey was not particularly successful as in 1871 the estate was offered for auction on the instructions of the mortgagee. Lot 1 contained 1280 acres and the Ravensdale homestead along with "a large wooden barn built on a stone foundation, capable of holding 700 bushels of grain in the straw [and] a 4-horse power flour mill with dressing machine in good working order". The milling entries in Morey's book stop about this time. When the Special Correspondent for the *Mercury* went through the area in September 1884 Morey had retired to a part of the estate which he called Mt Murray, while the Ravensdale house was in the hands of E. Cassels.³⁰

It is supposed that Castles continued to use the mill as it continues to be listed in the Mills and Manufacturing Returns until 1885, and occasionally after that as well. By coincidence, on the very same day that the Correspondent's article, "Through Tasmania" appeared, so too did an advertisement for the sale of Ravensdale, now 5000 acres and containing a "Large Stone Mill, strongly built, with machinery, complete." The property was evidently bought by Cassels at this time.³¹

It is likely that the Ravensdale millstones were later used in the Swansea mill built by Morey's son. One entry in a 1898 book mentions that three of the men went "to Ravensdale for things belonging to mill stones", presumably the stone spindle, feed shoe and grain hopper, and possibly the stone dressing tools. There are small monolithic millstones at the Swansea Bark Mill where the flour mill was, and these would have fitted a horse mill well. If they are from Ravensdale they are the only known remains of this mill. The location of the mill has not been determined although it is likely that it was in the vicinity of the house and the other farm buildings.³²

8.7 Rheban mill

The property of Rheban, originally called Annaroe, at the Sandspit was bought by Richard Radcliff after the death of its first owner, Thomas O'Donahoo. When Richard died in 1839 Annaroe passed to his brother James Radcliff who renamed it Rheban after his wife's home in Ireland and evidently built the horse mill, which is mentioned for the first time in the Mills and Manufacturing Returns in 1847. Following the disappearance of Radcliff in England in 1856 Rheban passed to his son Hamilton, but even before then the property was usually leased. Stephen Grueber, later of the Battery Point mill (see 2.14), came from Buckland in 1852 and took a 14-year lease but he was beset by a series of difficulties. Firstly the steamers went off the coast run and there was no regular access to market; then fluke decimated the flocks and finally his cereal crops were afflicted by a disease he called "Take all" so that he

could grow only peas and beans. It would seem, therefore, that the mill was not being used at the end of the fifties. Having lost money every year Grucher gave up the lease in 1861.³³

It is quite probable, however, that the mill came back into operation when the growing of cereals resumed. A replacement lessee for Francis Bomford was being sought in 1870; the advertisement for the estate of 5380 acres mentioned the "Granary and Flour Mill, 100 by 30 feet, of cut blue stone, in good order". Frank Gill leased the estate in the 1870s, and although he tried to sell the four years' unexpired lease in 1877, H.H. Gill was still in occupation in 1880 when it was put up for auction. In the 1880s one Stapleton (a neighbour?) was a lessee, first alone and then in partnership with Michael Bresnehan who was later to buy the property. The Mills and Manufacturing Returns mention two horse mills operational in Spring Bay until 1885, after which they work only sporadically into the 1890s. Bresnehan is said to have sent his wheat to Gibson's Mill in Hobart rather than grind it himself.³⁴

Rheban is most unusual for a small country mill—indeed any mill in Tasmania—in that it had a drying floor for grain equipped with an oven and flue. This was presumably used for the production of oatmeal, as in August 1898 when the new Swansea flour mill was being set up (see 8.3.2) Morey sent a man to Rheban to pick up the "oat machine - bruising". The horse works remained on site until the 1930s when they were sold for scrap, then in 1936 the property was taken over by the Gray brothers, Jack and Eric.³⁵

The mill is between Rheban Road and the driveway leading to the house (map reference Sandspit 762798), at the northern end of a long building. The stone walls are still in excellent condition but some of the interior woodwork has gone along with part of the chimney, and the shingled roof has been replaced with iron. The solid 38-inch millstones of basalt (blue stone) similar to Swansea's (see 8.3.2), are in the garden, and near the mill is one of the large sandstone blocks used as a base for the horseworks. A square hole on the northern side of the central room with a flat section of ground indicates the position of the horseworks. There are still some perforated cast iron tiles remaining on the drying floor in the western room, probably the only surviving examples in the state and certainly the only ones in situ. Their continued existence helps to make this site of considerable significance.

8.8 Buckland mill

Almost nothing is known of the history of the mill at Woodsden. The property was settled in 1824 by Thomas Cruttenden, who named it after his home town in Kent. The mill which used a horse works was built just behind the house, presumably by 1842 when F.(sic) Cruttenden was the successful tenderer for flour for the Prossers Plains probation station. At that stage the track to the East Coast went through the property, which would have helped the mill. After Cruttenden's death in November 1883, aged 83, Woodsden passed to the Mace family (Thomas' sister Caroline had married Henry Mace). Descendants still own the property.³⁶

The mill was only small, with the horse outside turning the works. It still remains (map reference Orford 602837), although with some alterations dating from about 1950 when it was converted to a garage. A small dresser and the wheel used to hoist sacks are still on an upper platform, but the shingle roof was replaced by an iron roof about 1994. Some gearing and two millstones (burrs) are in a nearby paddock. As one of only two mills using horse

works remaining (the other being Rheban), and with some parts of the machinery extant, this site is of some significance.³⁷

8.9 Maria Island

8.9.1 Darlington mill

Maria Island was used as a convict station for two separate periods. During the first period from 1825 to 1832 it was used, according to Arthur, for convicts “whose crimes are not so flagrant a nature as to induce the Magistrates to sentence them to Macquarie Harbour”. At this time various industries were set up, such as blacksmithing, weaving, shoe-making, quarrying stone and brick and pottery making. A little land was set aside for cultivation. In 1827 a fulling mill was erected with a water wheel driving the hammers, the water being supplied through a race from a reservoir upstream. The race was cut in 1826 and the Commandant, Major Thomas Lord, wrote that he intended its water to turn “a small corn-mill also”. Nothing further is known of this mill. Brand speculated that it would have been in the factory complex which housed all the cloth-making, but it has not been ascertained that the mill was ever built.³⁸

In 1842, ten years after the closure of the first penal station, it was determined to use the island again as a receptacle for convicts. It was to be one of the new probation stations, set up following the abandonment of the assignment system. This time it was to be primarily an agricultural settlement with the prisoners mainly employed in clearing and cultivating the land. By the middle of 1844 there were 135 acres in cultivation and by 1847 this had risen to 363 acres, of which 300 were for wheat. It is therefore not surprising that it was decided to erect two windmills, with the supervising millwright being John Elliott, possibly a relation of the William Elliott who at that time was the miller at Windermere (see 9.4). Comptroller-General Champ reported in April 1845 that the windmill at Darlington was being erected by the convicts “and the wheat grown will, for the future, be ground on the spot and cost of transportation avoided that has hitherto been incurred”. By August the mill was finished and the following year La Trobe pronounced it a good one.³⁹

The wooden post mill with brick roundhouse of small diameter was built at the northern end of the island, well exposed to the wind on a high promontory, with a nearby two-roomed miller’s cottage (approximate 1:100 000 map reference Nugent 880856). The convict miller *would have appreciated his own “comfortable quarters”*, as La Trobe called them, but they were necessary so that he could bring the mill into operation as soon as there was enough wind. It is presumed that the mill continued to be used until 1850 when the probation station was abandoned. The dilapidated mill had lost its sails by the time it was the subject of several photographs around the turn of the century. The building then gradually disappeared, although Ian Brand was told that a section of the brick work was still in existence in the mid-1960s. However, still visible is the stone paved track 20m in diameter which marked the turning circle of the tail pole, along with the four stone blocks which formed the foundations for the trestle of the post mill. As these are the only remains of a post mill in the state, this site with its miller’s cottage is of considerable significance.⁴⁰

8.9.2 Long Point (Point Leseur)

The second windmill on the island was built at Long Point (now Point Leseur). The probation station there appears to have been opened in 1845, the same year the decision to build a mill there was taken, but it evidently had to wait for the Darlington mill to be built as the same millwright, Elliott, was used for both. In August 1846 the site had still not been finalised, with Elliott suggesting a different site from that originally chosen. The Superintendent asked for clarification, saying that he had previously received instructions:

that the Mill was to be erected on the Hill on which the Old Hospital stands and at which place the large Barn is to be placed. I beg respectfully that the latter site is the most eligible and will be a most central spot as the whole of the land around that spot is fit for cultivation and in fact, is now being cleared.

Evidently the Superintendent's recommendation was followed as the mill was built close to the barn. Construction was slow, hampered by the non-arrival of equipment, although Champ reported in October that the "whole of the Mechanics on the Station [were] employed on the Mill". It was finally recorded as completed in November 1847.⁴¹

The mill was built on an exposed small hill close to the sea on the northern side of Long Point and some distance to the west of the solitary cells (approximate 1:100 000 map reference Nugent 835761). When La Trobe visited in 1846 he reported that there were 145 acres under wheat, although the crop was thin and not nearly as good as at Darlington where the wheat produced fully four bushels more to the acre. The station at Long Point went in for livestock in a major way and it is possible that the lower yields for wheat led to the windmill going out of use even before the station was finally closed down, evidently in early 1850.⁴²

Masonry fragments can be found amongst the long grass and the rectangular stone foundation blocks of the post mill trestle remain in situ. As the latter are closer together than those at Darlington (at 2.5m apart) Ian Brand speculated that this mill might have been smaller. However, it appears to have been the same sort of mill with a brick roundhouse. Nothing further is known and it can only be presumed that the mill gradually disintegrated in the strong winds of the area. A map of the island from the Bernacchi era of the 1880s shows the Darlington windmill but nothing at Long Point.⁴³

8.10 Tasman Peninsula

8.10.1 Port Arthur mills

It was some seven years after its establishment that the penal settlement at Port Arthur was first mentioned as a possible site for a flour mill. Deputy Assistant Commissary General Darling proposed in 1838 that wheat should be grown on the Peninsula to feed the convicts and he was supported by the Commandant, Charles O'Hara Booth, who suggested that "by the establishment of Tread Mills it could be ground into Flour."⁴⁴ At the time the proposal came to nothing. However, the following year there was a crisis when the price of wheat was temporarily so high due to a severe shortage in New South Wales that the government found difficulty in obtaining enough wheat to provide rations. Roberts, Darling's successor,

⁴⁴ Unless otherwise specified, all quotations are as transcribed by Ian Brand, although the original documents are cited in the endnotes.

suggested that the government should advertise that it would buy wheat at seven shillings a bushel until it had two years' supply, but the storage capacity at Hobart Town, Launceston and Port Arthur was inadequate. He therefore recommended improvements to the stores at both Launceston and Hobart Town and the building of a new store at Port Arthur capable of holding two years' supply of wheat. "For want of store room for wheat," he declared, "I am sure the British Government have lost, since my arrival in these colonies, about thirty thousand pounds", the reason being that it had to pay the ruling price which in 1839 was ten shillings and more. His recommendation, however, went further: the store should be part of a watermill.⁴⁴

His chief reason for suggesting the mill was the savings to be made in transport costs: freighting wheat to Hobart Town for grinding and then conveying the flour to Port Arthur could cost as much as one shilling and sixpence per bushel, and this was on top of the cost of grinding. Taking all running expenses into account, he predicted a saving for the government of over £1500 per year, and with the mill estimated to cost £800 its building costs could be recouped in the first six months of grinding. As well, the settlers at Pittwater would not risk losing their vessels laden with wheat (something which had occurred on several occasions in the preceding year) because the route to the peninsula was sheltered almost all the way, unlike the trip to Hobart Town. Moreover, the mill would be able to grind for all the penal stations accessible by sea and so not only enhance the financial position of the government but also improve the quality of the flour, as contractors frequently replaced the best flour with sharps (the offal from the grinding).⁴⁵

Lieutenant-Governor Franklin, not surprisingly swayed by the amount of money that could be saved, called for further comments. Commandant Booth approved, although he thought one year's supply of wheat a more appropriate plan due to problems with both security and weevils. However, he did voice his doubts that the mill could be proceeded with quickly in view of other building works then taking place. His suggestion of a 20 feet [6m] overshot wheel was taken up by the Commander of the Royal Engineers, Captain Roger Kelsall, who asked his civilian Acting Foreman of Works at Port Arthur, William Carte, to prepare a plan, report on the site of the dam and mill, and state whether there was enough water to operate a mill. In view of the mill's later history this question would seem to be the critical one, so it is interesting to find Carte stating that "a sufficient supply of water would scarcely be found throughout the summer months". However, he felt that this difficulty could be overcome by firstly, a larger 24 feet [7.2m] water wheel and secondly, a treadwheel which could operate the machinery when the water was low. He recommended that there be three pairs of stones rather than the two proposed by Kelsall so that two pairs could always be at work, and answered the latter's question about which building material was preferable by suggesting stone or brick. Not only would the building be more secure against fire, he thought, but this material was easier to obtain than wood. Perhaps foreseeing later complaints, he went on:

This building [in his plan] may be deemed too large for the purpose required, but a considerable portion of the room will be appropriated for housing the flour there being only room for about 3 months in the present Commissariat store.

With the exception of the size of the wheel, Carte's ideas were to influence all the later planners of the building and his impact should perhaps be more widely known. However, all of the proposed designs would have been unworkable at the selected site.⁴⁶

Carte sent his plan to Kelsall in October 1839 but it was January 1843 before work on the mill actually began. Much of the delay was caused by Booth, who wanted the military

barracks and the new barracks for the boys at Point Puer completed first. In January 1841 he pointed to a lack of stonemasons as the problem; in June he said he had not been given the authority to proceed. In April 1842 he was instructed by the Colonial Secretary to start at once but it was still another eight months before work began. Part of the delay can also be laid at the door of Kelsall who was not at all in favour of including the treadwheel as he did not "recommend that wheat be ground by convict labour", but was eventually forced to defer to Booth who felt that this "description of labour [was] at times much required". Kelsall had then to prepare new estimates. However, the main problem appears to be the difficult relations between the Royal Engineers, the Lieutenant-Governor and the Convict Department, each with their own view of how the system should operate. Whereas the Royal Engineers looked for the most efficient way of operating, people like Booth insisted that punishment of convicts should have the highest priority, even when this led to necessary workmen being removed from building projects. It was to be a major problem during the construction of the mill.⁴⁷

Through all the delays the officers of the Commissariat were becoming increasingly desperate. In 1839 the population of the peninsula had been 1600; by February 1842 with the establishment of the new probation system this number had almost doubled to nearly 3000 and by the end of that year it was up to 4000. It was not only the mill that was required but also the granary to hold the required supplies. Following an appeal in November 1842 by the Assistant Commissary General McLean to the Colonial Secretary, asking for "His Excellency's powerful support", Franklin showed his frustration:

I have on various occasions given positive and specific instructions respecting the erection of this Mill...and had long ago directed the Commanding Engineer to proceed to Port Arthur and fix on the site and I must say that the non-completion of that mill which I feel to be of such importance has not rested with the Local Government [i.e. Booth] but with the Royal Engineers Department.

He ordered the newly arrived replacement for Kelsall, Commanding Engineer Major J.C. Victor, to be told of the work's importance and for Booth to "use every exertion" to finish the mill.⁴⁸

By then, however, the last preparations were already in train. In early 1842 Kelsall, responding to Booth's requirement that there should be a competent millwright in charge of the works, approached the man who by now was the best-known millwright in the colony, Alexander Clark (see 1.2). Clark, who was already being employed by the government to supervise the installation of a steam engine at the peninsula coal mines, agreed to do the work on the mill for £150. In mid-November when Victor, who had arrived just days beforehand, asked Clark to quote for both his salary and the provision of the required iron work for the mill, Clark responded with an offer of £200 plus rations. In mid-December his salary was approved, although without rations, and in mid-January 1843 he was finally ordered to proceed to the peninsula.⁴⁹

Architectural plans for the mill and granary had been drawn up by the convict architect, Henry Laing, at least by September 1841 but many of his ideas were not followed. Probably following on from Carte's plan, he made the mill building itself 30 feet by 20 feet [9m by 6m], with the section for the treadwheel much bigger at 30 feet by 95 feet [9m by 29m]. These dimensions were eventually used (although the buildings ended up being 31 feet wide). However, within days of his arrival Clark was suggesting a 35 feet [10.5m] water wheel, a substantial increase on the original plans for 24 feet [7m]. The larger size, enabling

the mill to take full advantage of the topography, would help compensate for a low water flow and also assist in overcoming the problem caused by groundwater combined with back-watering at high tide. When the work started on the foundations it was found difficult to keep the water out. This problem caused a change in Laing's plans for the water wheel as well: he had called for the shaft of the wheel to be just above ground level, with a deep pit dug to take the bottom half of the wheel—some 3.5m—and an underground culvert for the tail race. It seems certain that this was not possible with the water seepage and of course a larger diameter wheel would have made the problem worse. The one surviving sketch of the mill showing the wheel suggests that the shaft was about half way up the building with only a small section going into an underground pit.⁵⁰

With a larger diameter wheel the building needed to be higher and Laing's plans for three storeys were replaced with a new plan for four. Moving the water wheel shaft higher would have entailed the tread wheel having to be moved higher as well, from the ground floor which was Laing's original plan, so this two-storey section eventually became four as well. The new plans for this led to one of the few disagreements between Victor and Clark. The two engineers got on very well as a rule, but Victor wanted the treadwheel roof to remain five feet [1.5m] below the watermill roof while Clark wanted it raised to the same height. He wrote:

The same roof will be required, and the stone for quoins and windows being all cut, I think it a pity, that such a noble edifice, should thus be defaced, merely because it is five feet lower and no doubt will present a shocking if not repulsive appearance.

Clark eventually won. The original plan for the floor above the tread wheel to be a bran room was not proceeded with (perhaps the ground floor was now used for this) and Clark suggested using the two unused floors above for cells, a suggestion with which Commandant Booth was delighted. With regard to the water supply, Clark suggested replacing Laing's troughing on arches with pipes which would be lighter and therefore cheaper and this was agreed to. However, Victor's proposal to replace the overshot wheel with one that was breastshot met solid opposition from Clark. The two power sources for the mill were to be connected to the same gear drive to the stones, with the direction of rotation of the water wheel the opposite of the tread wheels. To now reverse the direction of the water wheel would not only require the wheel to be dismantled and rebuilt, but also the treadboards would have had to be changed as well. Victor retreated.⁵¹

However, the engineering problems and all the changes necessary must have seemed quite acceptable for Clark compared with the other difficulties he faced in getting the mill and granary completed. He found William Carte continually obstructive and towards the end of the building period was free in his condemnation of the Foreman of Works (who was also Superintendent of Convicts). Carte's unfavourable opinion of much of what Clark was doing culminated in May 1845 with his saying that the stone gutter which Clark had built would shrink! "[L]udicrous," snorted Clark. Moreover, Clark found his men continually tried on some slight charge and sentenced to three or six months hard labour, which deprived him of necessary labour, "whereas [he wrote] it must be obvious ...that I can work the man...as hard as can be done in any other gang...." Victor tried to soothe him:

Without doubt the regulations necessary to present discipline among the prisoners, will sometimes interfere with the progress of the works on which the men are employed, but there is no remedy for this. All we have to do is to make the best use we can of their labour in the manner that is permitted to us.

However, the worst was to come. In November 1844 the new Comptroller-General Champ, on the strength of information received, accused Clark of bringing in wine without a licence and when Clark angrily poured the wine down the drain, suspended him until he heard from town. Clark told Victor that unless he particularly wanted Clark to erect the machinery of the mill he would leave immediately. The row blew over, but Clark probably summed up the difficulties when he wrote to Victor in April 1845, saying: "You and I are not over popular here!!!"⁵²

Despite all the problems, work on the mill progressed. The treadwheels were the first to come into operation, performing their first revolution in March 1845. Clark, understandably proud, described the event to Victor:

There were six lengths of tread power employed [one length had recently been broken and needed replacement], and considering that every part of the machinery being new, and the metallic parts from their long exposure to the weather, being a good deal rusted, I could not but witness...the smooth, correct and steady revolutions of the different parts of the machinery which elicited plaudit, and universal admiration from the different visitors [which included Champ and Carte].

A few days later after some adjustment, the mill ground at an average of a very satisfactory 6½ bushels an hour, working just as well as a water-powered mill. Clark was happy to report that the convicts were most impressed with the steadiness of the mill compared with that in Hobart Town "and of course their opinion must be taken as authority." By June the treadmill was entirely finished and found most effective as a punishment. A later visitor commented that:

[t]he treadmill appears to be the only species of laboratory where the operative must work, and work hard, or inflict self-punishment. He may, indeed doggedly resolve to mount no higher on the rotary stair, but then his shins must suffer for it!⁵³

The water wheel took a little longer to come into use; indeed it is not clear exactly when it was first operational as Clark and his informative Letterbook had left the settlement by the end of June 1845, his contract having come to an end. At that time the water wheel was almost ready, with just a little work to be completed on the tunnel, and the masonry work to be joined to the iron pipe to allow the water to be brought onto the wheel. It is probable that it began in July or August. The miller was Thomas Mannington who had been at the Liverpool Street Mill for many years and at the Old Mill more recently (see Chapter 2.4 & 2.1). He had been appointed to Port Arthur as early as August 1844 in order to give advice on matters relating to the final layout of the mill, after an earlier decision to appoint John Winter of the Houghton and Kensington Mills (see Chapter 3.2.1 & 3.2.2) had been reversed.⁵⁴

The mill had cost £2210, rather more than the estimated £1397 that Kelsall had originally estimated (without the treadmill) and almost three times the £800 that Roberts had suggested in 1839. But after all the expense and all the trials it worked for only a few years. At the end of 1846 La Trobe reported that the treadmill, making one revolution a minute, was operated by 36 prisoners at a time. The two pairs of millstones were turned by the water wheel and then the water was used to supply tanks for shipping. The mill had two dressing machines and ground 18 bushels an hour and it was able to supply most of the flour required at the probation stations on the peninsula. Subsequent reports indicated that as many as 60 men could be on the wheel at once. But there were difficulties: as early as May 1846 there were problems with the water and it was suggested that both the dams should be enlarged. However, the biggest problem seems to have been the suspension of transportation in 1846 which led to a decline in the number of prisoners. The water wheel was still functioning in

1848 but by then there was the first suggestion that the whole building could be converted into a penitentiary, and the comment from Superintendent Courtenay in August may indicate that the treadwheel was not being worked.

If the Station were kept up to its present strength it might be a question whether the mill might not be useful. I have ten or twelve men locked up now and shall have more very likely before long.

Three years later the treadwheel had certainly been discontinued as there were not enough men to make it pay, and this may well have been the case in 1848.⁵⁵

In 1850 a report of a speech by Allport at a public meeting on transportation showed that the Port Arthur mill was becoming the butt of jokes:

The miller who was in charge at Port Arthur had informed him (Mr Allport) that the Government, having plenty of money, wanted to do something with it. They began to build a mill in the rainy season. The miller told them that by the time it was finished there would be no water. But what did they do? Why they finished it before the rainy season was over; and now for nine months in the years, there is not enough of water to wet the wheel. (Loud bursts of laughter.)

Mundy, visiting Port Arthur in 1851, continued in the same vein. "There is a commissariat building," he wrote, "nearly as extensive and as ornate in style as Somerset House, and which would contain all the Commissariat Stores in the South Sea colonies." By May 1852 plans to convert the building into a penitentiary were proceeding due to the expected arrival of the convicts from Norfolk Island which was being closed as a penal station, and by April 1853 the first moves were made to carry out the conversion. It is presumed the watermill did not work again, and it may not have been working for some time.⁵⁶

Little of the flour mill can be seen in the remains of the penitentiary, gutted when a fire swept through the settlement in January 1898. However, there are impressive remains of the stone arched tunnel leading from the dam, along with the dam itself near Smith O'Brien's cottage (map reference Port Arthur 689221). The position of the sluice gate can be clearly seen. Recently the upper dam on Radcliffe Creek has been located (approximate map reference Port Arthur 680215) and the mill race from there to the lower dam can still be traced.⁵⁷

This was not to be the last flour mill at Port Arthur, however. Following the conversion of the granary a steam sawmill was erected as part of the workshop complex to the west, and in June 1858 Boyd noted that its nine horsepower engine, which had been made at the workshops, was "now being made applicable to a Flour Mill". A return of convict labour in August 1859 lists a miller employed "Dressing Mill-stones for new Flour-mill". By June 1861 the engine had been altered to enable an increase in power, so that as well as operating the sawmill and working the flour mill when required, it could also drive the foundry blast, crush bones for manure and turn the lathe. Little more is known of the mill and it is unknown how long it worked. In 1873 when W.H. Cheverton, Overseer of Works, made his report on the state of the buildings on the peninsula, he wrote that the flour mill needed its roof reshingling, along with "new saddle-boards, new spouting and down-pipes, heads and shoes." It was located between the carpenters' shop and the boiler house. This complex too was destroyed in the 1898 fire.⁵⁸

8.10.2 Saltwater River mill

Although the remains of this windmill still exist no documents have been found which give anything of its history. The Saltwater River Probation Station was the first to be built following the decision to stop the assignment system, with the first convicts arriving in 1841. It was one of the few places on the peninsula where much agriculture could be carried on, and its fertility quickly led to the planting of wheat as well as potatoes. In 1847 there were 350 acres in cultivation and 474 convicts in residence. Presumably the decision was made to build a windmill because of the distance from Port Arthur, but it could well have been constructed while the large edifice there was still being talked about. However, neither the 1842 Burn description nor the 1846 La Trobe report mentions a mill, and by 1851 the station had been turned into a sheep and cattle station.⁵⁹

It is interesting that the decision was made to build a tower windmill, rather than the simpler post mill. Its brick remains are on the hill to the west and north of Saltwater River, overlooking the sea (map reference Communication 588361). The mill was 8m diameter at the base and parts of the wall remain up to 3m high, although the structure is badly eroded. As one of only two tower mills which have any remains (the other being Oatlands) and the only one remaining at a convict settlement, these remains have considerable significance.

* * *

The East Coast ranks with the Upper Derwent Valley as a major locality for surviving mills, with the added interest that they are of contrasting types: watermills, horse mills, a post windmill, a tower windmill and a treadmill all survive. Gala, Riversdale and Mayfield all have at least part of their wheel surviving and the latter two much of their gearing. Moreover, Mayfield is the sole remaining example of a mill having in-line millstones driven via a layshaft and rim (ring) gearing. At both Rheban and Woodesden more than just the buildings of these two horse mills are still extant, with Rheban having the sole surviving grain drying floor in Tasmania; indeed, this is a rarity in Australia as a whole. Even the ruins at Port Arthur, Saltwater River and Darlington are of sufficient magnitude to give a good idea of the original mills. The remains of the Darlington mill are the only postmill remnants extant in Tasmania, while Port Arthur is the sole surviving example of a treadmill building erected in Australia, although smaller examples remain on Norfolk Island.

¹ Davenport, Bill & Amos, Ruth, *Glamorgan Tasmania: The Oldest Rural Municipality in Australia*. Glamorgan Municipal Council, 1988, pp.4-6. ADB Vol II.

² Nyman, Lois, *The East Coasters*, Launceston, 1990, pp.3-4. Amos, A.H., "History of the Glamorgan Municipality". unpublished manuscript in von Stieglitz papers, Queen Victoria Museum & Art Gallery. Davenport, Bill & Amos, Ruth, op.cit., p.20. Typescript of Adam Amos letter, 20 April 1826, in von Stieglitz papers, QVMAG.

³ Wayn notes in von Stieglitz papers under "L", QVMAG. Adam Amos diary in possession of Ruth Amos, including entries for 18 Oct 1823, 14 Aug 1824. Typescript of Adam Amos letter, 20 April 1826, in von Stieglitz papers, Queen Victoria Museum & Art Gallery, 1823; Parker Papers UT. Plan of Glen Gala now held at Gala.

⁴ Typescript of Adam Amos letter, 20 April 1826, in von Stieglitz papers, Queen Victoria Museum & Art Gallery. Account book in possession of Ruth Amos.

⁵ James Amos diary, 9 & 25 April & 28 Oct 1840, 23 Sept 1841, 19 May 1842. Parker Papers 1858 UT.

⁶ Nyman, Lois, *The East Coasters*, Launceston, 1990, p.154. James Amos diary, 8 Oct & 24 Nov 1842.

- ⁷ Merc 15 Jan 1864, p.1/6. CC 27 July 1864, p.4/4. Merc 26 Aug 1864, p.1/2. Merc 13 Jan 1869, p.1/6. Merc 27 Jan 1871, p.1/6. Merc 26 April 1871, p.1/6. Merc 16 Oct 1872, p.1/7. VRs 1874, 1877. "Through Tasmania", TM 18 Oct 1884. Pat Greenhill pers.comm. 11 Nov 1997.
- ⁸ AOT LSD 1/11, p.703.
- ⁹ AOT LSD 1/2 p.571. UT Francis Cotton Papers, including appendix on family, and DX 19/2. Davenport, Bill & Amos, Ruth, op.cit., pp.26-7. Cotton, Frances, *Kettle on the Hob: A Family in Van Diemen's Land 1828-1885*. Orford, 1986, pp.27-8.
- ¹⁰ UT Parker Papers, and DX19/15. Campbell, Colin McDowall, "*The Colonial Campbells*": A Family History, Bothwell, 1987, p.63.
- ¹¹ McManus, Tim, *Thanks to Providence, Falmouth*, 1993, pp.30, 32. CT 28 May 1833 p.1/2.
- ¹² JLC p.92. Ruth Amos pers.comm. 11 Nov 1997. Robertson, F. Graeme, & Craig, Edith N., *Early Houses of Northern Tasmania*, Vols I & II, Melbourne, 1964, p.203. Davenport, Bill & Amos, Ruth, op.cit., pp.19-20.
- ¹³ Date: Parker Papers, UT; account book in possession of Ruth Amos, Robertson, F. Graeme, & Craig, Edith N., *Early Houses of Northern Tasmania*, Vols I & II, Melbourne, 1964, p.203. Davenport, Bill & Amos, Ruth, pp.19-20.
- ¹⁴ Amos diary 16 Mar 1840 & 12 Mar 1842, transcribed by Ruth Amos. Davenport, Bill & Amos, Ruth, p.20. VRs 1858-64.
- ¹⁵ Merc 25 Sept 1861, p.4/6. Merc 4 April 1868, p.4/6. Merc 11 July 1871, p.1/7. Merc 25 May 1872, p.1/7. VRs 1874, 1880-1883. Merc 1 Aug 1877, p.1/7. Information on Riversdale Mill held by the Glamorgan History Room.
- ¹⁶ VRs 1880-83. "Through Tasmania" TM 18 Oct, 25 Oct 1884.
- ¹⁷ Ruth Amos pers.comm. 11 Nov 1997. Glamorgan History Room information.
- ¹⁸ Swansea Bark Mill records, including 1884 diary, Union Bank passbook, 1898 book.
- ¹⁹ Swansea Bark Mill records, including diaries for 1904, 1905, 1910, 1914, & weighbridge dockets 1915. TM 30 May 1903, p.2/4. Harvey to Dallas, 30 April 1966, UT 516/1-3.
- ²⁰ "The Swansea Bark Mill Tourist Centre" pamphlet. Ray Lewis pers.comm. 12 Nov 1997.
- ²¹ Mayfield file. Glamorgan History Room, particularly Royal Society notes 1969. Johnson to von Stieglitz 30 Nov 1954. QVMAG.
- ²² Nyman, Lois, *The East Coasters*, Launceston, 1990, p.72. CT 14 May 1839, p.153/1; 21 May 1839, p.165/3; 4 June 1839, p.181/2-3. Mill accounts, and notes from Dr Story's Casebook (C7/B29) held by the Glamorgan History Room. Johnson to von Stieglitz 30 Nov 1954, QVMAG.
- ²³ Merc 9 Mar 1864, p.1/6. Mayfield file. Glamorgan History Room, particularly Royal Society notes 1969. Thomas & Ellen Buxton's headstones in Mayfield cemetery. CC 24 Mar 1866, p.6/7. Catherine Mitchell to English relative, 16 April & 18 May 1866; John Mitchell 10 July 1866; letters courtesy of Joyce & Robert Dunbabin.
- ²⁴ Catherine 10 July; Mitchell 15 July 1866, 13 June 1868; Kate Mitchell (daughter) 18 November 1867 & 13 May 1868; letters courtesy of Joyce & Robert Dunbabin. "Memories of S.E.E. Mitchell", op.cit. "Through Tasmania", Merc 11 Oct 1884.
- ²⁵ Kate 5 June 1875, letter courtesy of Joyce & Robert Dunbabin. Horrel's headstone in Mayfield cemetery. Charles E.S. Mitchell, interviewed 22 Feb 1969. VRs 1881, 1883. "Through Tasmania", Merc 11 Oct 1884.
- ²⁶ Judith Hastie pers.comm. 11 Feb 97.
- ²⁷ "Memories of S.E.E. [Sarah] Mitchell" & Rodd, Kate Alice, "My Grandfather Mitchell", copies held at the Glamorgan History Room. For Mitchell, see "East Coast Excursion, 28-29 November 1970", prepared for the Northern Branch of the Royal Society, copy held at the Glamorgan History Room.
- ²⁸ "Memories of S.E.E. [Sarah] Mitchell", op.cit. A copy of Sarah's sketch of the treadmill is on display at the Swansea Bark Mill.
- ²⁹ Hobbs: ADB Vol.1. Lester, Suzanne, op.cit, p.224. Merc 6 Mar 1861, p.4/6. Swansea Bark Mill records.
- ³⁰ Chick, Neil (ed), *Van Diemen's Land Heritage*, Genealogical Society of Tasmania Inc, November 1988. Swansea Bark Mill records, 1861 book. Merc 31 May 1871, p.4/5. Merc 11 & 20 Sept 1884.
- ³¹ Merc 20 Sept 1884. Lester, Suzanne, op.cit., p.225.
- ³² Swansea Bark Mill records, 1898 workbook.
- ³³ Lester, Suzanne, op.cit., pp.198-99. Grueber: UT DX19/F 218.
- ³⁴ Merc 28 Dec 1861, p.3/7. Merc 31 Aug 1870, p.1/7. Merc 21 Mar 1877, p.1/6. Merc 13 Sept 1880, p.4/7. Merc 1 Jan 1881, p.1/7. VRs 1870, 1881, 1883, 1888. Jack Gray pers.comm. 19 Nov 1997. Gibson's: Nyman, Lois, *The East Coasters*, Launceston, 1990, p.72.
- ³⁵ Swansea Bark Mill records, 1898 Workbook, entries for 11 & 13 Aug. Jack Gray pers.comm. 19 Nov 1997.

- ³⁶ HFC 4 Mar 1842, p.2/1-2. *Special Central Coast Courier* 1985. Lester, Suzanne, *Spring Bay Tasmania: A Social History*, Hobart, 1994, p.206.
- ³⁷ Charles Mace, pers.comm. 11 Feb 1997.
- ³⁸ Brand, Ian. "The Convict Buildings of Maria Island", Part I, THRA, Sept 1975, Vol.22 No.3, pp.131, 140, 145.
- ³⁹ Brand, Ian. "The Convict Buildings of Maria Island", Part II, THRA, Dec 1975, Vol.22, No.4, pp. 159, 174-5, 180.
- ⁴⁰ La Trobe's report, courtesy of the Port Arthur Historic Site.
- ⁴¹ Brand, op.cit., pp.180-4.
- ⁴² Brand, op.cit., pp.181, 185.
- ⁴³ AOT LSD 1/103, p.181.
- ⁴⁴ Darling: AOT CSO 5/129/3067, May 1838. Roberts: CSO 5/204/5011, 28 April and 22 July 1839.
- ⁴⁵ AOT CSO 5/204/5011, 22 July 1839.
- ⁴⁶ AOT CSO 5/204/5011, 3 Aug. 16 Aug, 21 Oct 1839. Kelsall; Macfie, P.H., "The Royal Engineers in Colonial Tasmania", 1985, paper held in Hobart by the Institution of Engineers, Australia.
- ⁴⁷ Booth & barracks: AOT CSO 5/204/5011, 29 May 1840; CSO 22/57/704, 28 Oct 1840. Booth & delays: CSO 5/274/7120, 12 Jan 1841; CSO 5/204/5011, 14 June 1841; CSO 22/57/704, 1 April 1842. Kelsall & treadmill: CSO 5/204/5011, 28 Oct, 13 Nov 1839, 14 June 1841; CSO 22/57/704, 15 Oct 1840. Booth & treadmill: CSO 5/204/5011, 29 May 1840. For a discussion of relations between the Royal Engineers and the Convict Department, see Macfie, P.H., op.cit.
- ⁴⁸ Population: AOT CSO 5/204/5011, 21 Oct 1839; CSO 22/57/704, 15 Feb, 28 Nov 1842. Commissariat protests: CSO 22/57/704, 15 Oct 1840, 15 Feb 1842. McLean & Franklin: CSO 22/57/704, 28 & 29 Nov 1842.
- ⁴⁹ AOT CSO 22/57/704, 15 & 18 Feb, 16 Dec 1842. Brand, Ian (ed). "Letterbook of Alexander Clark", held at Port Arthur Historic Site, 11 Feb, 12 & 14 Nov 1842, 14 Jan 1843. The original letterbook is held at the University of Tasmania. From here on it is cited as Clark's Letterbook.
- ⁵⁰ Laing: Brand Papers on Granary and Corn Mill, 211, p.8. Original plans: AOT PWD 266/1798-1802, 31 feet: Clark's Letterbook, 7 April 1845; 28 Jan, 3 & 8 Feb 1843.
- ⁵¹ Clark's Letterbook, 26 Aug 1843; 12 & c.20 Jan, 4 May, 11 May, 27 & 29 June, 25 Sept 1844; 8 June 1845.
- ⁵² Clark's Letterbook, 15 Feb 1843; 1 & 12 Jan, 17 Feb, 5 Nov 1844; 6 April 1845.
- ⁵³ Clark's Letterbook, 3 & 7 Mar 1845. AOT MM 62/2 A 1090, file 1944/8, 3 June 1845. GO 33/52/613. Brand Papers on Granary and Corn Mill, 211, p.37.
- ⁵⁴ Clark's Letterbook, 19 May, 19 June 1845. AOT MM 62/2 A 1090, file 1944/8, 3 June 1845. Millers: Brand Papers on Granary and Corn Mill, 211, p.28.
- ⁵⁵ AOT CSO 50/20, return for 1845. CSO 5/204/5011, 14 June 1841. GO 33/60/1617, p.1621. CO 280/546. MM 62/17 A1108, file 5898, 17 May 1846. Brand Papers on Granary and Corn Mill, 211, pp.35-37.
- ⁵⁶ Denison to Grey, 5 Oct 1850, *British Parliamentary Papers*, Vol 10 (1851). Brand Papers on Granary and Corn Mill, 211, pp.41-42.
- ⁵⁷ LE 4 Jan 1898, p.5.
- ⁵⁸ Glover, Margaret. "Some Port Arthur Experiments", THRA, Dec 1979, Vol.26, No.4, pp.138-39. HA 1859, Paper 59. HA 1873, Paper 77. LE 4 Jan 1898, p.5.
- ⁵⁹ Notes provided by the Port Arthur Historic Site. Wood's *Royal Kalendar and Almanack 1847*, pp.178-81.

CHAPTER NINE

LAUNCESTON, THE TAMAR VALLEY AND SCOTTSDALE

The various settlements at Port Dalrymple were without watermills or windmills for some years. After Paterson's request to Governor King (see 1.1) a hand-operated mill was sent in July 1806 and presumably more followed. There were probably several plans to build mills in the early years, but the only one for which evidence has been found was that of William Leith. He had proposed to build a watermill in Sydney in 1810 but on preparing to move to Port Dalrymple he changed the suggested location, memorialising Governor Macquarie for some assistance. J.T. Campbell, the Colonial Secretary, replied in April 1811:

I have submitted your memorial of yesterday to His Excellency the Governor, wherein you solicit a Grant of Land and other indulgences in Port Dalrymple to enable you to build a Water Mill for the accommodation of the Public at that place and for your own benefit and that of your family.

I have now to inform you that His Excellency will have no objection to the making you a grant of a small portion of land at Port Dalrymple and to the extending some few indulgences to you as a settler provided you go there to reside permanently, but His Excellency will not extend any assistance to you for the purpose of erecting a Mill which His Excellency however has no objection to your constructing.

Although Leith did arrive he did not build a mill. He probably found a shortage of suitable mill sites. (See 9.2 for more on Leith.)¹

9.1 Launceston

9.1.1 Lucas mill, Windmill Hill

It was not until 1817, thirteen years after the first settlement, that the north of the state acquired its first mill. The *Hobart Town Gazette* mentioned that it was nearly finished in March 1817 and then on 17 May announced:

We understand that the New Windmill at Port Dalrymple, which has been built at the sole expence (sic) of Messrs William and Nathaniel Lucas, grinds the first bushel of wheat on Whit Monday [26 May]; and as she is built in the most workman-like manner, the steel-mills and handstones will have a respite from their laborious exercise.

The Lucas brothers were sons of Nathaniel Lucas who had built mills at both Norfolk Island and Port Jackson and their mill began work only a few months after the colony's first windmill built by that other Norfolk Islander, Robert Nash (see 6.2.1). The mill appears on Smythe's Launceston map of 1835, close to the western side of High Street and a little to the south of where Adelaide Street crosses. Its site on top of the hill meant it was well-exposed to the winds, although customers who had to push their wheat in wheelbarrows or carry it on their backs up the steep hill might have wondered if they were in fact getting much respite from "laborious exercise".²

In 1886 an anonymous letter writer to the *Launceston Examiner* in a brief history of the early northern flour mills said that this mill was built in 1826 by “Mr Towse” [Towers] who also built the distillery on Distillery Creek. A week later the Longford correspondent corrected him, writing that it was the Lucas brothers who had been involved and in March 1819 William Lucas had been working it. It would therefore seem most likely that Nathaniel moved on to other things and let William run the operation: in 1825 the former was the proprietor of the Ship Inn in Launceston and in 1832 he had land at Brown’s River (Kingston) and was probably already living there.³

Just how long William worked it is unknown. Although the 1886 writer has been followed by later historians, no connection between the windmill and the Towers brothers has been found. In February 1829 one Robert Waddingham of Cameron Street advertised for a bolting machine capable of dressing ten bushels an hour, and in the following October the following advertisement appeared:

Mr. R. Waddingham takes the present opportunity of informing his friends in particular, and the Public generally, that the price of Grinding at his mill on the Windmill Hill, is reduced to the very lowest possible terms:- that is to say, Wheat will be ground at eightpence per bushel, in cash, or nine pounds [4kg] of Wheat. Wheat delivered at Mr Waddingham’s Store will be carted to the mill, and re-delivered at his Store free of expense.

These grinding rates compare favourably with those being charged in Hobart Town at the same time. Waddingham was still at the mill in 1830 as he is mentioned in Ross’ 1831 *Almanack*. There may have been some connection between William Lucas and Waddingham as they received adjacent land grants of 200 acres on the Tamar River.⁴

In 1831 it was announced that a large new windmill was about to be erected on Windmill Hill which may indicate that the older one was no longer functioning as well as it should, although this new mill was almost certainly not built. In August 1833 George Coulstock, newly arrived from the Swan River, wrote to his father:

I have had the offer of a small wind mill but I think it better to wait awhile it needs no capital to take a mill of that description as they are fully employed in grinding grist for ready money at ninepence per bushel and sixpence for the dressing.... [It] is letting for £60 a year; it has no machine, in fact nothing but one pair of stones and yet it affords a good living.

He was most likely referring to the Windmill Hill mill as this would almost certainly have been the only small windmill in the vicinity able to offer a good living. It is improbable that the mill could have offered serious competition to the Cataract Mill when it began working in late 1833 (see 9.1.6) and the windmill probably ceased operating soon afterwards. It had certainly stopped by February 1837.⁵

It continued to stand for some years, and then in October 1844 the *Launceston Examiner* announced:

Windmill—The erection that gave the name to the hill on which the flag-staff stands, and which has so long maintained its position after ceasing to be useful, was blown down by the gale on Monday night. The windmill has long been an unsightly object, and none but an antiquary will regret its removal.

According to James Wood in 1847, the ruins of the mill had been “lately removed”. The name Windmill Hill was gazetted in 1882 and still survives; a move in 1960 to call the area

Victoria Square led to petitions from residents who preferred the older name, a reminder of one of Launceston's earliest industries.⁶

9.1.2 Steale's mill

Very little is known of this mill. The only reference found is in the testimony of Deputy Assistant Commissary-General T. Walker to Bigge in April 1820. When Bigge asked if there were any windmills in the neighbourhood of Launceston, Walker answered that as well as one belonging to a man called Lucas (see 9.1.1):

...there was a small windmill Purchased by the Commandt. (sic) of Js. Steale for 4 Cows, and which was sent to George Town. It is of bad construction and small, after much expence (sic) in moving and rebuilding was of little Service, in fact useless.

Presumably Steale had erected his mill after Lucas but its site is unknown.⁷

9.1.3 Corra Linn

The first watermill in the north of the colony was built in 1822 on the North Esk at Corra Linn. This spot was one of two on the fertile and productive Paterson's Plains recommended to Bigge by T. Walker as suitable for a watermill (he called it "Cory Lynn"). The mill was built by Edward Yates, the ex-convict millwright who had earned his freedom by building the Government Mill in Hobart Town, and then gone on to build the Liverpool Street mill (see 2.3 & 2.4). In May 1821, after the arrival of his wife and five children in the colony, he dissolved his partnership with Tedder and the family made its way north. Yates probably saw an opportunity to make his fortune by being the first in the north to have a watermill when there were now three others in Hobart Town to offer competition there.⁸

The mill was built on land Yates purchased to the north of the gorge between the eastern side of the river and a hill. (Thomas Monds, who was later to live there, complained that it was very cold in winter as the hill prevented the sun from shining on the house until 10 o'clock.) Yates obtained colonial millstones from 50 miles [80km] away, probably from Ross which is known to have been a source of millstones. However, after going to the trouble of transporting them, dressing and erecting them he found that they did not work well and he was forced to buy a pair of French burrs. The cost of these, including transport, dressing and erecting them was estimated to have been £250.⁹

The *Hobart Town Gazette* announced that the mill was working in October 1822 and felt that the inhabitants in the vicinity would no longer be "compelled to grind their own". However, although Yates provided a bullock wagon to cart people's wheat from Launceston and their flour back, the mill may not have been particularly successful; the Land Commissioners who visited in 1826 felt Yates did not get much custom. Nevertheless he probably felt he had made a success of the mill simply because he was still in possession of it when he died. It appears that he had not entirely forgotten his convict past and was not above some chicanery. In 1828 he applied for a grant of additional land on the grounds of having expended so much effort and money in the erection of not only the mill but also several bridges across the North Esk. In this he was bitterly opposed by James Brumby who claimed that all the money had been his.¹⁰

In a letter to Lieutenant-Governor Arthur, Brumby claimed that he had bought the mill site from Yates and employed the latter to build the mill, providing Yates and his family with provisions for the nearly two years it took to build.

My agreement with Yates [he wrote], was that when the Mill was completed, he should work it, and receive one half share of the profits, and that one half share of the Mill itself, should be made over to him, upon his paying one half share of the expenses of the building.

Brumby went on to state that the mill and bridges had cost him “upwards of two thousand pounds” and he had not received any share of the profits as Yates had claimed the mill as his. The transfer deeds had been left in the hands of William Field from whom Yates had managed to obtain them and (presumably) destroy them, and Brumby had as yet been unable to begin legal proceedings as the heavy expenses of the mill had left him in difficulties, although he was planning to do so immediately. In support of his claim Thomas Archer had written from Woolmers to Frankland, the Surveyor General, that Yates had mortgaged the mill with Field and as Brumby was also indebted to Field he was unable to proceed until he had paid off his own debt. Archer added: “Edward Yates was a convict, and did to me years ago conduct himself well—I am sorry to say that I consider him now anything but a man of good character or at all deserving of encouragement.”¹¹

Given that Archer had access to Brumby’s documents it is likely that Brumby was being truthful. Certainly there are many references to Brumby in the early history of the mill. The 1822 *Hobart Town Gazette* article quoted above says that the watermill was “belonging to Mr. J. Brumby” and a note from George Langford to G.C. Clark the same year refers to the newly-erected mill of “Messrs Bromley (sic) and Yates”. In 1825 when Brumby was in debt the Sheriff’s Office advertised the enforced sale at the bridge on the North Esk River of Brumby’s “Farm of Thirty Acres, with a Water Mill, and the Apparatus thereto belonging with the Outhouses and other Tenements thereon erected.” Immediately afterwards Yates cautioned anyone from buying the mill and farm: “I hereby inform the Public, that I am the actual Owner of said Mill and Apparatus and also the bona fide owner of said 60 acres of Land...” This may well have been the time when Yates made his move and removed the title deeds from Field’s possession for subsequent destruction. Strong suspicion must also fall on Field as a willing accomplice: in Yates’ will he was described as a good friend and he was one of Yates’ executors.¹²

When Yates died in 1829 his obituary referred to him as “an old and respected Colonist, a man of unwearied perseverance”. Unfortunately for Brumby the latter had evidently been unable to convince the courts that he was the rightful owner and the mill passed into the ownership of Yates’ wife Jane, and she and later her new husband George Willett continued to run it. It was Willett who complained in 1831 when the government made moves to close one of the nearby roads which, he claimed, was the only one passable in winter. Willett was also the one in 1833 to employ as miller George Coulstock, newly arrived from Swan River, for £70 per annum. In January 1834 following the death of Jane, Coulstock wrote to his parents that the mill would shortly devolve on Yates’ children:

...yet it is quite likely that I shall continue here, as none of the family understand the management of it. I have held my situation since the 19 (sic) of August, and have given satisfaction, insomuch that I am the only one who mess (sic) with my master, although he has a smith, a wheelwright, and several other men working for him.¹³

It is not known whether he continued to work at the mill. When James Yates, on behalf of himself and his two brothers, announced in February that they had taken the mill over from "Williat", had the mill put in complete repair and could now manufacture any quantity of wheat into flour, he also announced that a "cart will daily arrive from the Mill to Launceston, and return the same day. Town Orders are requested to be left at the house of Mr James Yates, Bricklayer's Arms." This would indicate that he did not run the mill himself, although Monds later remembered that another son, Adam, had been involved. A little over two years after the death of Jane, in October 1836 the mill was advertised for sale:

To be sold by private contract. All those most desirable premises situate on the North Esk river, Patterson's plains, called "Yate's (sic) Mill", comprising the mill, with one pair of stones and machinery all complete, and an excellent dressing machine attached thereto; together with a good substantial weatherboarded dwelling house, and all necessary outbuildings, with about 100 acres of the finest land in the colony, all fenced in, about 50 acres of which are now in cultivation. The contiguity of the above premises to Launceston, being only 6 miles distant, and the advantage of a never-failing supply of water render this a most desirable opportunity....

The mill failed to sell and was regularly advertised over the next two years. This may indicate that whatever profits there had been had been eroded by the much bigger Cataract Mill which had begun work (see 9.1.6).¹⁴

In 1840 James Yates purchased the mill from the executors of his father's will (William Field and Richard White). The solicitor Henry Hookey again offered the mill for sale in March 1841 but it appears that it stayed in James Yates' hands even after his insolvency the same year. For some time his sister Eliza and her husband Thomas Inall, a draper, ran the mill but the involvement of the family in the mill was not to last. In 1845 the executors of the late William Field took the three Yates brothers, James, Samuel and Adam, to court for payment of debt and the mill and 358 acres was put up for auction and sold to a Mr Walbourne for £900. James Yates, however, was still to figure in the newspapers for some time. In 1846 George Yates of the Cataract Mill vehemently opposed his namesake's discharge from insolvency on the grounds that he had "deliberately made away with the property of his creditors, and knowingly and wilfully endeavoured to defraud them of their rights." In 1849, reporting that James Yates had been charged with obtaining money under false pretences in Adelaide, the *Cornwall Chronicle* recounted the story of a miller in Launceston who habitually bought grain from small farmers and paid for them with cheques, knowing full well that there was no money in the bank to pay. There is a clear inference that the miller was Yates. The writer of the article asserted:

...this practise (sic) of a certain miller will be in the recollection of every inhabitant in this town and district for years to come; he pursued it to the destruction of very many industrious small farmers....

Evidently James had learnt well the lessons of his father. It is not known whether he was found guilty as charged.¹⁵

Meanwhile Yates' mill had finally reached the end of its life. Immediately on purchasing it, Walbourne leased it for 21 years to the millwright John Guilan, previously of the Supply and Bridge Mills (see 9.3 & 9.1.8), on condition that he pull down the old mill and build a new one. Guilan's apprentice was the young Thomas Monds whose *Autobiography* is so useful in piecing together the story of the northern mills. According to him, the old mill was at best "a very primitive structure", and under the unprofessional eye of the draper Inall it had fallen into complete disrepair. James Yates' sister Eliza Inall seems to have been quite a different

person from her brother; Monds describes her as “a splendid specimen of a good wife and mother, kind-hearted and hospitable, and being but a boy myself I loved her as my mother, for during the short time she remained in the old home she showed me much kindness.” He also mentions the effect of the new mill on the rest of the Inall family:

Mr. Inall had of course to remove from the old mill and homestead, but the family remained in the house for a time, and when the children saw us pulling down the old mill, they cried as if their hearts would break. They had been used to seeing the splash of the merry water-wheel and hear the beating of the millstones from their infancy, and felt it hard to leave the old home; but such is life: they had to go; and we made a new home, and a new mill, which we christened the Albion Mills.¹⁶

The new mill was a three-storeyed wooden mill with two pairs of millstones and modern machinery, nearly all of which was made on the premises except the cast iron work. Much to Monds’ delight, he was involved with the building of all aspects of the new structure, and he also helped build a new bridge to replace the old one a little higher up the river which was washed away in a flood soon after their arrival. As a result of his experiences there and the lessons he learnt from the various carpenters, millwrights and blacksmiths employed he felt himself capable of working a mill as well as doing much towards building one. According to Monds the mills took eighteen months to build but in January 1846, only eight months after the auction, Guillan was able to advertise that the “Albion Mills, Patterson’s Plains, are now in full operation. Grinding and dressing, sixpence per bushel; smutting arranged according to quantity.” The following August he raised the price of grinding to ninepence, but lowered it to sixpence again in January 1847 in consequence of the low price of wheat. At this time he was operating a punt to the mill and it was not until January 1848 that he was able to announce the completion of the new bridge.¹⁷

In June and July 1850 Guillan was in some financial trouble and firstly some of his equipment and then the mill itself was offered for sale, although the latter was withdrawn when Guillan paid his rent. The unexpired part of the lease was sold at auction for £300, but Guillan was still able to announce in July to the farmers on the coast that he had opened his mills as a grist mill only: “[w]heat ground, dressed, and carted to and from the mill at ninepence per bushel, cash, or toll on delivery.” In February 1851 Guillan was declared insolvent. He gave up the mill and returned to his occupation of millwright, working at putting the Bridge Mills in order and then helping repair the St Leonards mill’s water wheel. It was while he was doing this that he had an accident which caused his death at the young age of 44 in 1851. Monds and his fellow apprentice James Smith erected a headstone for their old master, the builder of the second mill at Corra Linn. (By this time both had completed their apprenticeships and moved on to other things.)¹⁸

Little is heard of the Albion Mill for the few years after Guillan left and it is possible that no lessee could be found, particularly as there was now another mill on the North Esk at St Leonards which was closer to town (see 9.1.9). Von Stieglitz wrote that it was burnt out some time in the 1850s and this seems likely as in 1855 J. Bradshaw called tenders for the erection of new machinery, a new dam and 90-100 feet [27-30m] of chutes. The tender was to include the cost of clearing the mill race, which may indicate the mill had been out of use for a while. Daniel Clayton, possibly the son of Henry at Wickford, advertised in September that the mills were open for grist work at eightpence a bushel—a far cry from Guillan’s sixpence less than ten years previously—while the following April John Browne was the lessee.¹⁹

In 1860 William Titley, formerly of the Bridge and Supply Mills (see 9.1.8 & 9.3) was the lessee and in 1862, needing a store in town, he proposed a partnership with Monds who was married to his wife's sister. Monds agreed and opened a store in Elizabeth Street where customers could leave their wheat and buy their flour without having to make the long journey to Corra Linn. In 1863 Monds & Titley advertised:

New Bakery. The undersigned beg to inform their friends and the public that they have erected an oven and bakehouse on their premises; and having engaged a competent baker, they intend carrying on the bread and biscuit bakery in connection with their business as millers.... Albion Flour Mills Store and Bakery, Elizabeth-street.

The partnership of Monds & Titley did only a small trade as they had limited capital. When Titley retired in 1865 Monds leased at a low rental the mills he had helped to build. "I cannot say that my move to the Albion Mills was a very profitable one", he later wrote, "for I found it very difficult to do a business without a store in Launceston; however, I did manage to make ends meet, and a little over...." One of his major problems was that his was only a small mill and the larger millers who did most of the trade were able to offer almost unlimited credit.²⁰

When Monds moved on to the Carrick mill at the end of 1867 (see 11.7.1) the remaining year of his lease was taken by the produce merchant John Cartledge who had been the Launceston agent for initially Titley's and later Monds' flour; "our business transactions were eminently satisfactory, for Mr Cartledge was an honest man", wrote Monds. Cartledge, who had owned the Supply Mills with his brother James (see 9.3), remained at the mill until 1871. By 1874 John Sykes was the lessee and he was still there in 1883. In 1946 one Robert Stevenson recalled that Sykes used to collect wheat and deliver flour in his wagon while his wife worked the mill, then he took over operations in the evening. Just when the mill ceased operations has not been determined, although it is known that the building was still in existence in the 1890s.²¹

In the 1930s two millstones were still on site. In the 1940s the site immediately to the south of the mill was bought by the Salmon and Freshwater Fisheries Commission to develop as a hatchery to replace an earlier one at Waverley. One of the reasons for choosing this site was the presence of the old mill race which could bring water to the hatchery, and this race is still in use although some parts have been replaced with iron pipes. The weir is also still in use. Parts of the foundation of the mill were still visible in 1960 (approximate map reference Prospect 184069).²²

9.1.4 Government windmill

Very little information about this windmill has been located, and what evidence there is about its early history is confusing. According to Button it was removed from George Town after the decision was made to abandon that town as the headquarters, but if this is so it was not the main government windmill in that town as that continued to be in use for many years (see 9.2). What is certain is that it was in position at the end of Margaret Street not far from the river by 5 May 1824 when William Barnes wrote to his family and sketched his brewery, showing its position in relation to the government windmill. In 1830 it was being referred to as the "old Government Wind Mill" as if it was no longer functioning. In 1831 the government called tenders for renting it, but it is not known if there was any interest. In 1833

the government offered the mill for sale, the millstones were sold for £50 and by 1835 when Smythe drew his map the mill no longer existed.²⁴

9.1.5 Tibbs' mill

The only evidence found for the existence of this mill comes from two maps, one drawn by William Sharland in August 1826, and one drawn by Thomas Scott and printed in Ross' *Almanack* for 1832. Both show a windmill on John Tibbs' land in Invermay on higher ground, in the approximate area of the end of Mayne Street. (The fact that it was on higher ground indicates it was not a drainage mill, and anyway the symbol used on the maps is identical with that used for the two other flour windmills.) John Tibbs was one of the many convicts (William Field was another) who had been transported to New South Wales on the *Fortune* and had then gone on to the north of Van Diemen's Land. Nothing is known of the mill's history. It is possible that Tibbs had bought the mill in 1824 from his fellow *Fortune* convict John Smith (see 10.1.1). In September 1834 the partnership between John Bickerton and John Tibbs snr "previously trading as bakers and corn chandlers" was dissolved. Earlier the same year Tibbs had sold his 60 acres in the Swamp on which the mill had been built to Thomas Landale for £875; it is possible that the completion of the Tamar Street bridge across the North Esk River in 1833 made the windmill unviable as it was now in competition with the other mills in the Launceston area.²⁴

9.1.6 Cataract Mills

The gestation period for this long-lasting mill was lengthy and involved. As early as June 1831 the *Launceston Advertiser* announced that John Walker was "erecting a splendid mill" and work was proceeding rapidly with the dam. The French burrs were five feet and the water wheel was 40 feet [12m] in diameter and "a very able engineer has been employed to superintend the work". Walker had already built a mill at Richmond, and in Hobart Town he was building a steam mill and had recently purchased the Government Mill and possibly by now the Old Mill (see 6.3.1, 2.7, 2.3 & 2.1) so he was extraordinarily active in these years. The water course along the side of the Gorge was painstakingly erected, but there were difficulties with the ownership of the site chosen and in 1833 Walker erected a temporary smaller mill just downstream of the first set of rapids below the First Basin. The engineer, Andrew Sibbald, stated that "[t]he mill is thirty feet [9m] long, sixteen feet [5m] broad, and thirty feet [9m] high; and with the machinery, dam, race, and other requisites, cost between two and three thousand pounds". In October the mill was expected to be at work by Christmas. Unfortunately there were problems with this site as well, as Roderic O'Connor showed that the mill was built on his land and eventually in June 1835 the mill was dismantled at considerable cost to Walker.²⁵

Once the difficulties with the alternative site were sorted out the second much larger mill was erected at the mouth of the Gorge; as its wheel was less than 20 feet [6m] in diameter it is unlikely that there was enough power to drive the five-foot millstones originally mentioned in 1831, and these may well have been put into storage until Walker used them at Clarendon (see 4.2). The mill was erected at the joint expense of Walker and Sibbald and was probably operational by November 1836 as Sibbald was advertising for a miller at that time. Soon afterwards, in February 1837, the mill was offered for sale. It is likely that Walker found

himself short of cash, considering the losses he had sustained and also the fact that he was at the time redeveloping his mill (the old Government Mill) in Hobart Town (see 2.3). The advertisement read:

Valuable Property In Launceston for Sale. The Cataract Mill, situated on the bank of the river, where vessels of any burthen may lie. The mill which is newly erected, turns two pairs of French burr stones, with smutting and dressing machines. There is a good brick store, with out-houses... - and as there is no other mill within six miles of the town, it commands an extensive and profitable business. A considerable revenue may also be derived, by supplying the town with water from the mill troughs.

It was probably at this time that Walker sold his half of the mill to Mungo Somerville; he had certainly done so by June the following year. Sibbald, however, continued in occupation.²⁶

The Cataract Mill became a very profitable venture, not only from its milling but even more, as the advertisement had noted, from its ability to provide that necessity for the people of Launceston, fresh water. During 1837 Sibbald and Summerville erected a large water tank on the upper floor of a building on the corner of Bourke and Paterson Streets near their mill, filling it through wooden pipes from the mill race, and in October they were able to announce that the tank was completed and people could obtain pure water at a moderate price. Henry Button later explained how the system worked:

Spouts, terminating with five or six feet [1.5-1.8m] of leather hose, projected from the tank sufficiently high for carts to back under them: the hose was then placed in an opening at the top of the cask, a valve was raised by pulling a cord, and the cask, perhaps 100 or 120 gallons [460-550l], would fill in three or four minutes. The charge to the carters was sixpence a load, and the price to consumers ranged from eighteen pence to three shillings, according to distance. In the booming gold-digging days seven and sixpence was the cost of a load of water delivered on the Windmill Hill, and it frequently happened that half of it would be wasted by leakage from the purchaser's casks and tubs which had become dry and shrunk.²⁷

In 1840 the partnership between Somerville and Sibbald was dissolved, with Sibbald continuing at the mill. In March 1842 an addition to the water supply was advertised, as a pipe from the chutes had been laid across the roads to the wharf. Button (who wrongly attributed the change to the later miller George Yates, although the latter did improve them) observed that this was a great convenience for both shipping and breweries as they could now fill their casks by simply drawing their boats under the projecting pipe. In 1842 the price was sixpence for a ton [1008kg]. According to Monds, Sibbald made the huge sum of £2000 a year from selling water.²⁸

In March 1842 Sibbald died intestate and Somerville of Killafaddy claimed the estate as a creditor, meanwhile taking over the operations of the mill. Eventually Sibbald's widow married Henry Gunn who took over Sibbald's half of the mill property. By May 1843 the mill was leased to George Joseph Yates, a bounty immigrant who had arrived in the *Tintern* in 1842. Button wrote of him that:

...for some little time he was one of the celebrities of Launceston. On first coming here he assumed the role of a teetotal advocate, and frequently spoke at the Society's meetings. Indeed he was always ready to take the platform on any subject, and his humorous style made him a popular speaker for a considerable time. But when better known he was distrusted; eventually he became bankrupt, and left the colony.

Button was witness to an event when Yates, annoyed by troops of boys regularly walking on his chutes and damaging them, hid behind some rocks one Sunday afternoon, grabbed one trespassing boy in front of his mates and repeatedly dunked him in the chutes, telling him at last to "...go home and tell your mother that I have baptised you as well as Daddy Dowling could have done it!", the Rev. Dowling being an esteemed Baptist minister.²⁹

Following Somerville's death in December 1842, his half of the mill was eventually put up for auction in April 1845 by his executors. The advertisement stated:

The Water Mill is in first-rate condition, and drives three pair stones, with dressing machine, smutting machine, &c. &c., complete. The Stores are replete with every accommodation, and large enough to hold from 6,000 to 10,000 bushels of wheat; adjoining is an excellent brick house, but lately erected, containing five rooms...and then comes the El Dorado of Launceston, the Water Tanks, from which the whole of the town, and the inhabitants for miles around, are supplied with the purest water, the income of which is confidently asserted to be better than £1,500 per annum. The Mill and Tanks are now let to a highly respectable tenant, at the nominal rent of £1,000 per annum.

At the auction and despite considerable competition, Yates bought Somerville's half for £4400, "a large sum in these days", said the *Cornwall Chronicle*, "but not more than might have been anticipated." Yates may well have been supported in his bidding by G. Palmer Ball as in 1847 it was announced that the partnership between them was dissolved.³⁰

By early 1848 Yates was insolvent but continued at the mill, in July offering a £10 reward if someone could be convicted of rolling metal down the hill to break the mill chutes, with an additional £5 paid "if the shoots (sic) are proved to be so broken by the men in the employ of the government." But he was declared insolvent again in 1849 with Thomas Button (later the owner of his own mill—see 9.1.11) appointed the assignee. The mill was put up for sale, the advertisement describing the three-storey weatherboard mill containing "three pair of four feet French burr mill stones, with patent boxes. A six feet dressing machine with three cylinders. A six feet smutting machine, with going [gearing?] and hoisting gear all complete, and in first-rate working order." Other buildings included brick and stone stores, the brick six-roomed house (it was said to contain only five in 1845), a miller's house and a hut for the men. A separate cottage and large store were leased to the Messrs Cartledge, soon to buy the Supply Mills from Yates (see 9.3). The advertisement does not mention that only half the property was for sale but as Gunn was in residence in the 1850s (see below) this must have been the case. John Walker took the opportunity to return to the mill he had helped to build and bought it for £6000, although Yates continued in occupation as a lessee.³¹

Walker's plan to repair the mill and replace the wooden water wheel had to be carried into effect very quickly when the old wheel, which had been in bad condition for a long time, gave way and had to be knocked down less than two weeks after the auction in April. The Hobart Town millwrights Easby & Robertson built a new wheel of iron, 20 feet [6m] in diameter and six feet [1.8m] wide, and this along with a complete rebuild of the chutes and other repairs was said to cost more than £1000. The mill was back in operation in June. By the end of the year Yates had left (he was later to rent the St Leonards Mill and the Wellington Street steam mill—see 9.1.9 & 9.1.10), and Henry Gunn moved in to run the business. His grandson much later described him as "a stern, severe, head of the house type of Scot" and mentions how some of the children were born at the mill. "At one of these

births, the river was in flood and the doctor had to be brought to the house in a boat and entered through the window.” For a period at this time Thomas Monds was employed.³²

By March 1852 Gunn was insolvent and he left the mill, later running a business in Wellington Street. In the mid-fifties he imported four pairs of French burrs along with the necessary machinery to work them and a 16 horse power beam engine, but he was prevented by circumstances from erecting them in his premises and offered them for sale. Meanwhile John Walker stepped into the breach at the Cataract, employing as miller Richard Pescodd (who had been at the Sorell Mill in Hobart Town—see 2.5). In early August one of the highest floods ever experienced in the colony led to a long section of the chutes being swept away and once again they had to be replaced, the mill finally reopening on 20 October. Walker too became exasperated by people walking on and damaging the chutes and in 1854 he advertised that he would prosecute anyone doing so, both in his own interests and the public’s. As a result of disquiet being expressed in the newspapers, Walker was also forced to advertise:

As a very considerable part of the business of the [Cataract Mill], is for export to Victoria, I deem it proper to state that all Flour hitherto sold, and all that may be sold in future, is warranted, the sole produce of Colonial Wheat.

This is of course at the time of the gold rushes in Victoria. Pescodd bought William Dean’s bakery in 1853 and left the mill, and by March 1854 John Toan had moved in. He was to remain for the next twenty years.³³

In 1855 Robert Pott was the probable lessee but following his death Toan was the manager. By 1856 the mill was being run by the firm of “Walker, Toan & Walker”. John Walker having already gone into partnership with his son Robert (see 2.3), but early in 1858 the three-way partnership was dissolved, with Toan remaining as agent for John Walker & Son. A few months later, Robert Walker signed away the Walker half of the mill to John Cameron of Launceston, William Watchorn of Hobart Town and Robert’s brother John Fletcher Walker of Clarendon to hold it in trust. Robert was about to marry Emma Cameron, daughter of John, and it appears that this was a mechanism for making sure that Emma was taken care of. The Walkers continued to operate the mill as if nothing had changed. However, there had been one big change to the mill. In 1857 the newly-formed Launceston Corporation finally solved the problem of Launceston’s water supply, by diverting water from the St Patrick’s River into Distillery Creek. From then on the Cataract Mill’s pot of gold disappeared and the value of the mill was considerably diminished.³⁴

During the 1860s there were few major changes at the mill. However, a good picture of some of the difficulties of running a mill can be obtained from the events reported in the newspapers. In 1860 a prisoner, Daniel Gallagher, drowned when, having been given permission to bathe while repairing the mill dam, he was seized with cramp. In 1863 a robbery at the mill led to the loss of £32 when a crowbar and chisel from the mill were used to break open an iron chest. Another flood in June 1863 again caused damage to the chutes but the 90 feet [27m] which was washed away was replaced within a week. However, much greater damage was sustained in December with 500-600 yards [450-550m] of chutes near the dam being washed away. Although the water got into the mill Toan lost little flour, either from there or from his store in Paterson Street. He advertised a reward for people who might find the chutes and returned them, but promised to prosecute any who kept the timber. In 1868 he offered a reward of £5 for information leading to the conviction of youths who rolled large stones down Cataract Hill onto the chutes. An ongoing problem (which did not

get reported in the papers) was the difficulty of keeping the dam in good repair; it was an annual task for Toan to repair it to enable the mill to carry on working, especially in the height of summer.³⁵

Then in the early 1870s there were two more incidents which showed some of the possible dangers in mill work. In 1870 an employee called Michael Connors fell through a hatch in the upper floor and, striking the edge of the open hatch below, broke four of his ribs. A much more serious accident occurred in June 1873, when Connors was proceeding along the chutes with bags of horse dung to stop up some of the leaks. According to the newspaper account, "Connors ...stepped on a loose batten and the unfortunate man was precipitated on to a rock about 10 feet [3m] below, from which he bounced off to another rock lower down then into the river." His body was recovered the next day.³⁶

In 1870 it appears as if Robert Walker was preparing to sell the mill. All debts were being called in, the stock was being sold off as opportunity arose and the business was to be close to finishing by 1 March. However, the Walkers continued in ownership and Toan stayed on as manager for several more years. The most likely explanation for this is that David Ritchie of the Scone Mills had agreed to buy the mill but when on 27 February the Scone Mills he was leasing burnt down (see 10.2.3) and he had to come to an arrangement with his creditors, he had to withdraw from the deal. In a letter to Robert Walker on 14 March Toan gives details of Ritchie's financial affairs, as if knowing that they were very significant to Walker. The fire, however, caused only a delay in Ritchie's plans. In 1876, following the death of first John and then Robert Walker (see 2.3), the mill with its three pairs of four feet French burrs and a silk dressing machine was put up for auction, and although it was withdrawn it was later sold privately to Ritchie for £2800.³⁷

It is interesting that Ritchie wanted to buy the Cataract Mill, especially as the account of the auction seems to imply that he was initially not interested. Following the fire he had quickly installed steam milling machinery at his St John Street store (see 9.1.13) and had carried on this business successfully. Certainly the Cataract Mill would have been a lot larger, with more room for expansion; it is probable too that as it used water power it was cheaper to operate than a steam mill. There may also have been a wish to stop the mill falling into the hands of a competitor. Whatever his reasons, Ritchie seems to have made a good decision and the mill remained in the hands of the Ritchie family for the best part of a century.

David Ritchie and later his son, David Russell Ritchie, were innovators. In 1889 Ritchie snr pulled down the old wooden Sibbald mill, replaced it with an iron mill and installed a complete set of Ganz rollers. The new mill was completed in March 1890. At the same time Ritchie began converting the old rock dam to a much stronger masonry one, and he replaced the old iron Easby & Robertson water wheel with a turbine. When this did not work well, he replaced it with a smaller turbine which proved successful. With the upgrading of his mill Ritchie was in a dominating position in the town and the next decade saw the demise of all the other remaining mills in the area, although he soon had a new competitor in Affleck (see 9.1.14).³⁸

In 1898 Ritchie sued the Launceston Corporation for taking water for its new power station although he owned the water rights; the resulting shortage of water had led to several stoppages at the mill in February when the water level was low. The situation had been made worse by the recent destruction by fire of the Newry Mill at Longford (see 10.1.3), one of the largest mills in the colony, which had meant a much bigger workload for the Cataract. After

three days of evidence, during which the Corporation lawyers tried to prove that the chutes carrying the water had been enlarged from the original ones and therefore Ritchie was taking more water than he was entitled to, the case was dismissed when the jury was unable to agree on a verdict.³⁹

Messrs D. Ritchie & Son were once again to the forefront of change when in 1910 they erected reinforced concrete silos, the largest work in concrete to have been completed in the state to that time. This was the first grain silo constructed of concrete in Tasmania and there were then very few in the whole of Australia. The *Weekly Courier* gave a detailed description:

The silo consists of five bins, and has a capacity of about 24,000 bushels of wheat. The wheat is conveyed from the receiving floor into the silo by a 4½ inch [10 cm] pipe, through which it runs by gravitation to the basement of the silo, whence it is raised to the top of the tower by an elevator, which lifts eight tons per hour with ease. From the top of the tower the grain is spouted to the various bins as desired. The wheat is returned to the mill when required by means of a conveyor extending the length of the building, under the bins, from which the grain is drawn as desired.

The architect for the silo was Alexander North and the builders were Hinman & Wright.⁴⁰

Just when the mill stopped using water power is unknown. An 1891 plan of the mill shows an engine house jutting out to the east of the roller mill but there is no mention of steam power in the extensive reports of the 1898 court case, and the engine shed would have been housing the turbine (referred to occasionally as a “turbine engine”). According to Ratcliff and Jellyman, a photograph taken about 1908 shows a tall brick chimney, which indicates that at least auxiliary steam power was being used. However, the turbine had not been removed as in 1915 Ritchie complained again to the council that there were times when there was not enough water to run the mill. The mill chutes were still in position in 1929 as they are shown in a photograph of that time; it is likely that they were washed away in the floods of that year.⁴¹

Perhaps it was the ability to continue with the use of cheaper water power plus Ritchie & Son’s early innovations that positioned the business so well that it was able to keep going in the twentieth century when gradually most of the other remaining mills in the state were closing down. Even when its two major competitors in Launceston, Monds and Affleck, combined in 1918 and then considerably upgraded their mill in the 1920s (see 9.1.15) Ritchie’s was able to continue, although by 1933 its sack capacity (the number of sacks of flour per hour it was capable of producing) was only four compared with Monds and Affleck’s 15 and Gibson’s 26½ in Hobart. In 1943 the mill was largely destroyed by fire, although the rebuild was able to re-use the large oregon beams from the old mill. In 1962 new machinery was ordered from the United Kingdom at a cost of £10 000; just a few years previously the steel rollers which had been installed in 1890 were said to be still working perfectly. In 1973 the mill, which by then had little custom, was bought by Monds & Affleck to forestall a competitor acquiring it and it closed on 1 January 1974, although the silos continued to be used for a time. There had been a working mill on the site for 137 years, making it the longest operating mill site of any in the state.⁴²

Many of the mill buildings remain, including the early 1840s brick house. Much unsympathetic treatment of the fabric of the buildings has occurred, but the site is nevertheless of considerable interest, particularly with the historic silos. The dam still exists

in the river along with the masonry chutes leading from it, while the metal brackets which supported the chutes along the side of the Gorge can still be seen in places. The site's association with some of Tasmania's best-known millers, including the innovative Ritchie family, adds to its significance.'

9.1.7 Treadmill

The building of the Launceston treadmill in Bathurst Street began in 1835 (according to Norman using the treadwheel from the old Hobart Town treadmill—see 2.6), and it is shown on Smythe's map of that year between Paterson and Brisbane Streets and directly opposite the gaol. However in 1837 the *Cornwall Chronicle* was complaining that no work had been done on the half-finished building for two years and even in September 1838, when the building was finished and a superintendent had been appointed for some months, no grinding was being done. The reason given for this was that it had to be authorised by an Act of Council as the Police Act allowed offenders to be punished on a treadmill only if it was within the walls of a penitentiary. It was certainly operational by July 1839 as an inquest was held into the death of James Lovett who died at the treadmill; witnesses included the millwright Benjamin Lucas and the miller Richard Purcell.⁴³

The treadmill continued in operation for about fifteen years, providing flour for the various penal establishments. Ernest Whitfield was taken to see it as a young boy and the experience left an indelible memory on him:

It would accommodate 18 men, and was not minded much when there were only a few on, but when it came to the full complement, it got rather too lively, and, as the men said, "you had to step it pretty sharp if you did not want your leg broken or shins barked." The punishment was supposed to be of eighteen minutes duration, but it was not always so. A bell rang every minute, and was the signal for the end man to get off the machine, and the 17 remaining to move along, and make room for another, so that the man who happened to be at the right hand end only did a minute on the mill, the second two minutes, and so on.... An old hand has well described the treadmill as "A never ending staircase, you go up it step by step all day long and never reach the chamber door."

About 1854 the decision was made to discontinue its use and the room was used for stabling the horses of the mounted police. In 1858 the millwrights Blackburn, Jackson & Co. offered for sale the whole of the machinery, including one pair of four feet French burrs, two pairs Derby stones, one of which was four feet and one three feet, a complete dressing machine and four water wheel shafts, 16 inches [40cm] square and 16 feet [4.9m] long. In 1867 the building was converted to a police office and by 1909 Button was calling for its demolition.⁴⁴

9.1.8 Griffiths' Bridge Mill

By 1840 all the Launceston windmills had ceased working, and the only watermills in operation in the vicinity were the two at Corra Linn and the Cataract Gorge. It is not surprising, therefore, that moves were made to establish some competition by the building of a steam mill. It was the partnership of Gaunt and Raven which was the first in the field. This

⁴³ For a detailed description of the remaining buildings, see Austral Archaeology, *Conservation Plan: Ritches Mill Historic Site*, DELM, Dec 1997.

was Dr Mathias Gaunt who had already built a steam mill at Windermere (see 9.4). In July 1840 the partners bought a block of land adjoining the wharf, intending to erect “extensive steam flour mills”, according to the *Cornwall Chronicle*, “the machinery for which is ordered from home, and expected to arrive shortly...” Although the four-storey mill building was erected on Sydney Place, between William Street and the North Esk, the machinery was never installed. However, the building did have a flour-milling connection, as it was almost certainly used as a store for the Harden Mill (see 9.1.12).⁴⁵

With Gaunt & Raven’s plans aborted the field was left open for John Griffiths, the son of Jonathan Griffiths who after arriving as a convict had become one of Sydney’s shipbuilders and traders. The father had arrived in Van Diemen’s Land with three of his sons in 1822 and been very active; amongst other things he had built the Tamar Street bridge over the North Esk, completing it in 1833. His second son, John, was even more enterprising, erecting a wharf on the North Esk just downstream of the bridge, engaging in whaling, sealing and trading, and building such well-known ships as the *Henry*, the *Resolution* and the *William*. Perhaps it was the initial move of Gaunt & Raven which persuaded Griffiths to enter the flour-milling industry; their building was erected quite close to his own block of land on the other side of Sydney Place and it is possible that he bought their machinery to install in his new brick mill. The mill was built on his wharf, thus facilitating the export of flour. In April 1841 the *Hobart Town Courier* announced that “[t]he steam mill, which has just been completed for Mr John Griffiths at his wharf near the bridge, commenced operations on Saturday morning. The machinery was found to work excellently.”⁴⁶

Unfortunately Griffiths was caught up in the financial difficulties of the early 1840s; despite attempts to increase business by offering to store wheat free of charge provided it was intended for shipment in one of his vessels, he finally became insolvent. In 1843 at a meeting of his creditors the total amount of debts proved was £7128; although following the sale of assets creditors were eventually paid two shillings and twopence halfpenny in the pound, this was only 11% of the debt. Griffiths moved to Port Fairy in September 1843, intending to reside there permanently and taking with him the materials of a windmill. Although it is not known whether this mill was built, within two years he had built a steam mill and so in either case he was the initiator of flour mills in the Port Fairy area. In the late 1840s this amazingly active man returned to Launceston, reopening his shipyard and building the Tamar Brewery in 1851 with his son-in-law John Scott. In 1863 he moved on to Port Sorell and there founded a shipbuilding industry which was carried on by his descendants through the twentieth century. He died in 1881.⁴⁷

Meanwhile, the Bridge Mills were rented by John Guilan in late 1843 following his own financial disaster at the Supply Mills (see 9.3). His apprentice Monds went with him and later wrote:

We remained here only for twelve months, for although the flour mill was up to date in machinery, with elevators and other labour-saving appliances, the steam-engine was a very old-fashioned one and the boiler also, and as a consequence the cost of power was too great: the boiler consumed too much fuel, and the engine did not properly utilize what steam was made; so that we could not compete with the water mills.

Guilan moved on to rebuild the Corra Linn mill (see 9.1.3) and the Bridge Mills were silent for a time.⁴⁸

The mills had been offered for sale in September 1843, and then the whole of Griffiths' wharf property of over an acre was put up for auction on New Year's Day 1846, together with the steam mill worked by an eight horse-power engine driving two pairs of stones. It is not known if the property changed hands on either occasion. In 1851 it was finally sold to the wealthy merchant firm of Thompson & Co. who employed the millwright John Guillan, recently forced to leave the Corra Linn mill (see 9.1.3), to upgrade the mill. They may have been induced to do so by the newly-breaking news of gold on the other side of Bass Strait. The firm of Easby & Robertson built a new 26 horse-power engine and boiler, a third pair of stones was added and the mill was reopened under the name of the Tamar Steam Mill. Guillan had recommended the employment of his one-time apprentices, Thomas Monds and James Smith, with the latter as first applicant being appointed foreman although they were on the same wages. Soon afterwards Smith went to the Ballarat gold diggings and William Titley (previously miller at the new Waterloo Mill and Nichols' windmill at Rokeby—see 2.2.2 & 6.1.2) became the new foreman. Monds was later to marry Mrs Titley's sister and he went to the Forth River to make money selling palings to Victoria before going to work at Button's Cataract Hill mill (see 9.1.11). Titley left the Bridge Mills in 1857 to become manager of the Supply Mills (see 9.3).⁴⁹

By the end of the decade the firm of Thompson & Co. was in trouble; it is possible that they had over-committed themselves in the heady days of the early 1850s. In 1859, having moved out, they offered for sale the 3-storey brick mill and the adjoining 2-storey brick store, both roofed with corrugated iron, a large wooden store, a 3-storey house and various outbuildings. The property was subject to a mortgage of £6000 with the Launceston Savings Bank and in 1861 it was the mortgagees who again unsuccessfully offered it for sale. John Thompson then offered the premises for lease in the early 1860s, without success. At this stage the local economy was stagnant and there were two new mills to add to the competition (see 9.9. and 9.1.12). In 1868 the Launceston & Western Railway leased the area and used it as a store yard; in 1872 Thomas Hogarth leased the offices, stores and mill. Finally in 1874 local businessmen W. Hart and W.B. Dean bought the entire property for £2850, evidently with some plans for once again operating the mill, but it was never worked again. Much of the area was leased to the Mt Bischoff Company for tin smelting, although some of the stores continued to be leased by Thomas Hogarth. Presumably the mill building was eventually taken over by the smelters and became part of their operation; it was still standing when H.J. King took his aerial photos of Launceston in 1921-2.⁵⁰

9.1.9 St Leonards mill

In 1845 a new watermill near Launceston began working. It is possible that the Bridge Mills had shown the need for more mills in the area, and as the mill at Corra Linn was obviously on its last legs (see 9.1.3), another mill in the fertile Paterson's Plains area would have seemed called for. The position chosen, at what was called Clark's Ford, was also closer to town than the more remote Corra Linn. The mill was built by John Henry Tucker, a millwright from Yorkshire who had arrived at the Swan River settlement in 1829 and like Coulstock (see 9.1.1 & 9.1.3) had soon left that struggling settlement and come to Launceston, in 1831, to work at his trade. However, it appears that the initiator of the mill was Frederick Walford; in December 1843 he was given the right to build a dam on the river and he owned the land on which the mill was built. It is likely that he merely employed

Tucker, and that he was the author of the advertisement in the *Cornwall Chronicle* in June 1845:

North Esk Mill. The Inhabitants of Patterson's (sic) Plains and the Vicinity, are respectfully informed, that the above Mill, being now completed, and in full operation, all grain sent for grinding and dressing, will be executed with despatch and care. Grinding and dressing, ninepence per bushel.⁵¹

Just one month later, however, Walford sold the property to Tucker for £300. This low sum probably indicates that Walford owed Tucker a considerable amount of money in wages and the selling of the mill was one way of liquidating the debt. Tucker himself was advertising for the mill in 1846, but in February 1848 Richard Warren announced that he had taken the mill and was grinding on the usual terms. Warren was certainly there a year later and probably up until 1852 when the mill and the right to build a dam "not exceeding a breadth [of] 4 feet from the bottom of the...river" was conveyed from Warren to Tucker. This would indicate that for a short time Warren had owned the mill, not just leased it, but no conveyance from Tucker to Warren has been found.⁵²

Tucker continued with his millwrighting and by January 1852 George Yates, recently of the Cataract Mill (see 9.1.6), was in possession. He had chosen a good time to rent the mill, with the high demand from the Victorian goldfields. At the end of 1852 the Quaker tourist Frederick Mackie visited Yates, an erstwhile Quaker, and wrote in his diary:

Milling just now is so profitable a business that he is clearing no less than £100 per week. His mill is situated in a pleasant valley, Pattersons (sic) Plains, where the soil is good and the crops more promising than in most places that we have seen.

So profitable was the mill that in May 1853 Yates called tenders for a new water wheel, nine feet [2.7m] wide and 20 feet [6.1m] in diameter, along with a new shaft and new chutes to take the water to and from the wheel. He was still advertising in August, so it is possible the new wheel was not built. Also in May he followed Button (see 9.1.11) and assured the public that he was not using (inferior) American flour and his flour was "the produce of sound merchantable Tasmanian wheat only." By September 1854 Yates had left the mill and the following year he was insolvent. A final dividend of four and a half pence in the pound was paid to his creditors, or less than 2%. He moved to Hagley House for a time and had plans to build a watermill at Northwood, near Deloraine. He was to turn up in one more mill (see 9.1.10) before leaving the colony for good.⁵³

A newly-arrived Scot, James Colquhoun, who had made money in the Californian gold rushes, took a ten-year lease of the mill, beginning in September 1854, and also had the North Esk Mill Stores at the corner of York and Charles Streets for supplying the town requirements. Unfortunately he too became insolvent and was imprisoned for attempting to defraud his creditors by concealing some of his money. Meanwhile the mill at Clarke's Ford was rebuilt by Tucker and reopened, as the New Mills, in May 1857 by John F. Fletcher, probably the son of Thomas of the Lake Mills (see 11.6). Soon afterwards Fletcher joined with Tucker and the owner and lessee of the Albion Mill at Corra Linn to petition the Launceston aldermen about the new water supply for Launceston:

The Petition...respectfully Showeth, That Petitioners are interested in Mills on the "North Esk" River which have been erected at great cost.

That the "North Esk" River derives its principal supply of Water from the "Saint Patrick's" River, which is the Main Stream.

That any large quantity of Water withdrawn from the "Saint Patrick's" River would most materially and Seriously injure the interests of Your Petitioners, by lowering the level of the River, to which the Mills have been erected and the Mill-race and wheels adjusted.

That during several months of the year the supply of Water at the proper level is hardly sufficient for the Mill purposes required by them.

Your Petitioners therefore respectfully pray, that no larger quantity of Water may be withdrawn from the "Saint Patrick's" River than will be absolutely requisite to supply the inhabitants of Launceston and the fill the main Pipes [all punctuation as written in original].

The petition was signed by John Tucker and John Fletcher; James Walbourn, William Walbourn, and T. Ronald Gunn of the Albion Mill; and W. Wharton and Alex Rose, landowners in the vicinity. It was received and read, but not discussed. It is hard to know exactly what response could be expected, even though they certainly had reason to be worried.⁵⁴

In February 1858 Tucker advertised that the mill with three pairs of French burrs was again for lease. David Ritchie of the Scone Mills at Perth (see 10.2.3) leased them for a period, but by 1860 Tucker was working the mill himself in partnership with one Bushby. However, he too ran into problems, with the partnership becoming insolvent in 1861. Tucker's son, Francis, leased the mills from 1863 till 1865 when he turned to auctioneering, then John Gaunt (son of Mathias—see 9.4) and J. Kirkwood had the mills in 1866 before their partnership was dissolved at the end of the year and Kirkwood carried on alone for a few months.⁵⁵

The mill, which from now on was called by its old name of the North Esk Mill, was occasionally vacant over the next few years, and then in 1874 Robert Taylor became the lessee. In March 1875 he announced that the mill had been thoroughly repaired and supplied with a new water wheel and a first-class silk dressing machine. He went on:

For the convenience of settlers on the Tamar and in the neighbourhood of town, I have arranged with Mr. F.C.H. Dean, Patterson-street to receive or exchange grists. All grists left at his store will be punctually and carefully attended to. Grist received and delivered to St Leonards Station free of additional charge.

The availability of train transport probably made a big difference to the profitability of the mill and gave it a competitive edge over the Albion Mill. Unfortunately there were still more troubles in store, as in June the three-storey mill was gutted by fire. Some flour and bran was saved by passers-by, but 800 bushels of grain as well as all the machinery was lost. It was postulated that the cause of the fire was the overheating of the smut machine which set fire to some of the highly inflammable material in the mill. Tucker was not insured and the £300 he had recently spent improving the machinery had been money wasted, a fact made worse by the fact that Tucker was nearly blind and relied on the rent from the mill. (He later had a cataract operation in Melbourne which restored his sight.) The mill must have been rebuilt as Robert Taylor continued as occupier until at least 1882. According to the Mills and Manufacturing Returns the mill stopped working about 1891. In 1880 Tucker had died; his obituary said he had "enjoyed the respect and esteem of a wide circle of acquaintances." The mill passed to his daughter Annie and her husband John Clemons, and they later lived there and renamed the property "The Willows". The mill building was still in existence when it was photographed for the *Weekly Courier* in 1927, but when it was sold in 1937 there was only a "mill site".⁵⁶

Remains of the mill could still be seen in 1960 on the southern bank of the North Esk between the river and Johnston Road (approximate map reference Prospect 159098), but even those have now gone with changes of the road alignment in Johnston Road. However, the dam across the river is still visible as it forms the popular swimming hole at the St Leonards Picnic Ground.⁵⁷

9.1.10 Launceston Steam Mill, Wellington Street

Following the lengthy closure of the Bridge Mills from late 1844 (see 9.1.8) there was no steam mill in the town for some time until in 1848 Edward Harpur took up the challenge. In October 1848 he advertised that the Launceston Steam Mills would begin operating in the following week. It has not been determined whether he used an already-existing building; in 1847 he advertised for wheat to be delivered to the “Australian Mills” store, opposite the ‘Scottish Chief’, Wellington-street”, and it was possibly this building which became the flour mill. The mill was in Canning Street just behind a house on the north-west corner of the intersection of Wellington Street. It is also possible that Thomas Cox, the owner in 1852, was the proprietor and Harpur simply the lessee.⁵⁸

Whatever the case, Harpur was something of an entrepreneur. In December 1848 he inserted a lengthy advertisement in the *Launceston Examiner* which, as well as specifying rates of ninepence a bushel for grinding, dressing and either smutting or separating the wheat, gave considerable details of his smutting and cleaning machines—one was a Southworth’s Patent Smutter—and encouraged all settlers to clean their grain before export or storage. He further announced prizes for the best oats and that he was going to make oatmeal (the first in the colony to do so). The advertisement went on:

Importers of oatmeal will please take notice that as soon as new oats come to market, the public will be supplied with best colonial oatmeal at half the price usually charged by the shopkeepers, and should the consumption be sufficient in this, and the neighbouring colonies, to warrant a fractional profit on the article, it will be further reduced. The proprietor does not look so much for profit, as to the introduction of a wholesome article of food into general use.⁵⁹

Harpur was still at the mill in October 1851 when he introduced bark grinding on the premises. However, it is quite possible that the reopening of the Bridge Mills (see 9.1.8) created too much competition: a few months later the un-named proprietor offered for sale his interest in the brick house and store, held under a 21-year lease at the low rent of £52 per annum (which would indicate it was the lessee who was selling).

The machinery consists [ran the advertisement] of two high pressure steam engines, one of six and the other of twelve horse power, with boilers, &c., for each; two pairs millstones, with shafting, &c., for two additional pairs if required; three sets of elevators, 40 feet high each; one patent vertical smutting machine, one horizontal smutting machine, one flour dressing machine, one London made separator, one shelling duster, one oatmeal sifting machine, with 8-frames, one patent groat machine, one set wheat fans, and one set of shelling fans....

The machinery would be sold cheaply although erected at considerable expense, and the premises included a kiln for drying oats and other grain. The mill was in communication with the front part of the premises by means of boarded truckways, and the situation was lauded as all grain from the interior had to pass the door. Towards the end of 1852 Thomas Cox advertised “To Millers and others, My Miller Having Bolted” an eight horse-power engine

and one pair of millstones. It is possible Cox had bought the mill from Harpur, or perhaps Harpur was the bolting miller. The latter is not heard of again.⁶⁰

It is not known if the mill continued working in the next few years. In 1857 the peripatetic and by now insolvent George Yates, previously of the Cataract and Supply Mills and more recently of the St Leonards mill (see 9.1.6, 9.1.9 & 9.3), announced he had taken the Wellington Street Steam Saw Mills and the Wellington Steam Mills, had carried out improvements to the machinery and that they were now in operation. He was still there in August when he offered to help the Council repair a puddle in Canning Street opposite the mill gateway, but he is not heard of again and is not mentioned in the Valuation Rolls. It is probably about this time that he left the colony (see Button's assessment of Yates in 9.1.6). The building is unlikely to have worked as a mill again; by 1861 its annual value was given as £75, down from £150 just two years earlier. In 1865 it was bought by John Cartledge, Monds' friend and one who was involved in milling from time to time (see 9.1.3 and 9.3), but it is never referred to as a mill in the Valuation Rolls, although in 1889 Cartledge and his son were chaff-cutting in the premises.⁶¹

The brick mill building has survived at 60 Canning Street and is now used by Sims Bodyworks. As the earliest mill surviving in Launceston and one of the few surviving steam mills still extant in the state, this site has considerable significance.

9.1.11 Button's Cataract Hill mill

It was possibly the temporary closure in 1852 of the Wellington Street mill which prompted Thomas Button to go in for milling. He had arrived in Van Diemen's Land per *Forth* to Circular Head in 1833 with his brother William, a flour miller who had lost everything when his windmill in Sudbury which he had just upgraded was destroyed in a storm. When William had then decided to emigrate, Thomas decided to accompany him even though his own tanning business was doing well. Without enough capital to begin a mill William chose a career as a brewer, eventually leasing Barnes' brewery in Paterson Street when Barnes retired. Thomas meanwhile established the Cataract Hill Tannery on land he owned in Margaret Street between Elizabeth and Frederick streets. It is likely that word of the good profits to be made from sending flour to the goldfields prompted him to build a mill on his land, no doubt with good advice from William. He bought his milling machinery from Barnard of Landfall who had built a mill on his property but was forced to give up the idea of milling when he could not make his dams leakproof (see 9.5). In November 1852 Button advertised for a miller, and in January 1853 announced that the 4-storey mill was in full operation.⁶²

A few months later he vigorously defended himself against charges levied against him by that irascible newspaperman, William Lushington Goodwin in the *Cornwall Chronicle*, that he had sold inferior American flour. Apart from saying he had never sold American flour, he made another pertinent point:

...since the opening of my mill the public has not been dependent on any one miller, and thus the householder gets his two or three bushels ground at 2 shillings instead of 5 shillings per bushel, although fuel has increased in price 30 per cent.... In consequence some narrow-minded dealers in wheat and flour are much displeased with *Button's mill*.⁶⁴

In 1854 he met Thomas Monds at the Forth and offered him the job of miller for five pounds a week, which Monds accepted, but in August Button announced he was “declining business” and would auction his entire property. The mill had three pair French burrs, a patent dressing machine, smutting machine and sack hoisting tackle. The 11 horse-power high pressure engine was powerful enough to work two pairs of four-foot stones and the smutting machine at the same time. It seems the mill was not sold at the auction in February 1855 as it was still in Button’s hands when a fire broke out in the top floor very early on Sunday 14 April, possibly caused by a spark from the night miller’s lamp. Once the shingles were alight the fire engines were unable to stop the fire as water was not as yet laid on to the town, and the fire destroyed all of the upper part of the building, most of the machinery and a large amount of wheat. The losses Button sustained induced him to retire from the Municipal Council in May.⁶⁴

He did not restart the mill. Monds, who had almost reached the end of his term there, became a builder for some years, while Button continued as a tanner. Although his estate in Margaret Street was put up for auction in 1857 by order of the mortgagees, it evidently did not sell. In 1859 Button announced that he had repaired the mill building and it could now be used for storage of grain, potatoes, etc. By 1862 the property was owned by the brewer John Fawns. The building at 71-77 Margaret Street can be seen in a series of Spurling panoramas taken from Bourke Street later in the century, and it is not known when it was finally pulled down.⁶⁵

9.1.12 Harden Mill, Distillery Creek

The Launceston Corporation’s scheme in the 1850s for supplying Launceston with water by diverting the St Patrick’s River into Distillery Creek may have worried millers on the North Esk who feared a loss of water (see 9.1.9), but it was of great benefit to at least one other person. James Scott had been a surveyor for 20 years before the hardships he endured through exposure in the bush caused him to retire from government surveying. However, he had gradually acquired a considerable property, including Harden on the southern side of Distillery Creek. The water that was allowed to run to waste over the top of the Corporation dam built up the supply of water in the creek sufficiently to enable Scott to build a mill on his property. He had leased the Perth mill in the 1830s (see 10.2.1) and would have seen the profits millers were making during this decade.⁶⁶

Scott’s plans evidently took a little longer than he expected to come to fruition. The water scheme was opened in October 1857 and a metal plaque from the mill says “James Scott Harden Mill 1857”, but the mill was still being built in January 1858 when Scott called tenders for leasing it. His advertisement contains considerable detail. The mill was:

...distant 2½ miles [4k] from the Wharf in Launceston by a level road; or the owner will open a canal to admit a 20 or 30 ton boat each tide from the North Esk river to within 20 feet [6m] of the mill, by tendering higher for such canal, if required, during the lease. The situation for market or shipping is unexceptionable. The mill is of four floors, 27 by 24 feet [8m by 7m], cottage of six rooms, four-stall stable, all of stone and slated, six acres [2.4 hectares] of good land fenced in. The machinery, three pairs French stones, with extra runner [spare upper millstone], but room for five pairs of stones, high breast water-wheel 24 feet [7m] diameter, 5 feet [1.5m] broad, with abundance of water, patent dressing machine, snutter, two sets elevators, worm creeper, hoisting tackle, &c., are all of the latest improvements, so as to save the labour of about two men in ordinary mills.

Expected to be fit for work some time in March next. To any one desirous of carrying on milling extensively in connection with the Melbourne and Sydney markets, such an opportunity seldom offers.

But March came and went and the mill was still not working, as Scott had to wait for the millstones to arrive on the *Northern Light* in May. Even then the mill was not leased; Scott was still looking for a lessee in November.⁶⁷

It was not until February 1859 that two millers, James Cables (later to build his own mill near Sheffield—see 12.8.1) and one Paterson, were able to advertise that the mill was finally working, with grist costing ninepence a bushel. Twelve months later they were replaced by James Rowe and Edward Johnstone who in August were selling flour at both wholesale and retail prices from the Harden Mill Stores on the corner of York and Wellington Streets. By the end of 1861 they too had departed, with Gaunt & Son from Windermere taking over (see 9.4). In 1863 E. Gaunt (presumably the “son” in the previous firm) and C.T. Cowle signed a five-year lease, operating the mill as Gaunt & Co. One of their employees was Robert Taylor and he evidently took over the mill in 1868 as in that year he was advertising in his name. He was also living proof of the propensity of people of his trade to imbibe, as in 1866 when on a trip with the mill’s workers to the circus in town, he had left the Royal Oak Inn intoxicated and when his saddle had become unfastened he had fallen to the ground and broken two ribs. Taylor stayed at the mill until at least 1872 and then moved on in 1874 to the St Leonards mill (see 9.1.9).⁶⁸

While Gaunt & Co. were still at the mill, they ran into the problem which could beset the Harden Mill periodically. In 1866 the Council shut the water off at the tunnel (which brought the water from St Patrick’s River to Distillery Creek) in order to conduct repairs for the town’s water supply and this naturally led to the mill being stopped. The firm sent an urgent letter in protest asking for something to be done but the Mayor, Adye Douglas, replied quite rightly that the overflow from the dam “being an accidental circumstance” the Council was not at fault. At a specially-convened meeting the following day to consider the matter, the Town Clerk read a deed from Scott acknowledging that he had no legal right to the water, after which the Council went into committee to discuss what could be done to help the stricken mill. Nothing has been found to indicate if an immediate solution was found, but certainly the mill would have been able to start once the repairs were complete. Interestingly, the same problem surfaced with the Waverley Woollen Mills (which was further upstream) in 1933, with the same result that the Council was absolved from responsibility. A few months after the 1866 difficulty, Scott as Mayor presided over a new arrangement by which manufacturers and other large consumers of water had to enter into a contract with the Council in order to be supplied with more water than a purely domestic consumer would have used. This would not, however, have had any bearing on the operations of the Harden Mill.⁶⁹

During the 1870s the mill had several new lessees, including Isaac Dawe and Thomas Marshal, then following a few years when it was vacant it was leased for much of the 1880s by William B. Dean jnr. In 1884 James Scott died and, although the Harden farm and the woollen mills (leased to Peter Bulman) were left to his son Walter, the flour mill and nearby fellmongery were left to the trustees to sell as they saw fit, with the proceeds to be divided among all his children. By 1890 Robert Taylor was back at Harden and enquiring about the cost of buying rollers at the time that David Ritchie was installing his at the Cataract Mill (see 9.1.6). The minimum cost of £1300 put him off for the time being, but in October he

was again interested in finding out about rollers for small mills like his. However, it was left to the firm of Rankin & Chandler which was at the mill by 1893 to finally install the Cornelius Roller system. By that time the cost of similar machinery to that mentioned in Taylor's initial enquiry was £671. Although the quotation did not include installation, unlike the earlier one, this was still quite a drop in price from three years earlier, probably the result of the depression as well as the inevitable drop in prices as more rollers were sold.⁷⁰

In May 1899 the mill was sold to Robert Hogarth of the woollen mills. According to a writer in one of the newspapers in 1928, the mill had been one of the main flour mills of Tasmania, grinding 60-70 tons a week, but "twenty years ago, when Mr Hogarth worked it" the average output was only 15-20 tons. According to the respective editions of the *Post Office Directory* the mill was working in 1894-5 but not in 1900. Certainly it had stopped working by 1905, after which the mill building was used by the woollen mills as a store for woollen machine wastes, which were used during the First World War to make cheap blankets. In 1928 the writer just quoted described in poetic terms the building which by then had thistles growing out of the brickwork, and the space behind the mill which for two generations had been a picnic ground for the youth of Launceston but was now covered with briar, blackberry and bush. He made the surprisingly modern-sounding suggestion that enterprising cooks should convert the mill to a tea room and make a lot of money, but the suggestion was not taken up and in 1932 the mill was dismantled for its bricks.⁷¹

The mill had been to the east of Ravenswood Road and to the south of the creek (approximate map reference Launceston 146130). Four of the millstones were still in the area in 1968, but earthworks connected with new houses in the area have now removed any sign of the mill.⁷²

9.1.13 Ritchie's Mill, St John Street

In 1870 there were four watermills operating in the vicinity of Launceston, but a steam mill was soon to be added. At that stage David Ritchie had been operating the Scone Mill at Perth for some years, but it appears that he was planning to move into Launceston and so be closer to the port and probably the railway. But his plans to buy the Cataract Mill were thrown into chaos when the Scone Mill burnt down in February 1870 (see 9.1.6 & 10.2.3). This meant that Ritchie had nowhere to mill, as he had lost so much money that he could no longer afford to buy the Cataract Mill. However, by this time he had offices and a store in St John Street. (By coincidence that other well-known miller Thomas Monds had been born on the exact spot.) Within a very short time Ritchie started converting his store to a mill, employing W.H. Knight to make the machinery. The manufacture of oatmeal commenced in June 1870 and silk-dressed flour a few weeks later. Two pairs of French burr stones and the other machinery were driven by a 25-horse-power beam engine with a 15 feet [4.5m] fly-wheel which was fixed on separate foundations to save the building from shaking too much. This engine had come from Hunter's steam mill at Evandale. By May 1871 Ritchie had added the manufacture of pearl barley to his enterprise.⁷³

It is not known if Ritchie continued to make flour in his St John Street mill following his purchase of the Cataract Mills in 1876, although it would seem unlikely. Certainly the mill was later used solely for the manufacture of oatmeal. In 1896 Ritchie added brick office extensions to the front of the mill and in 1899 another grain store was built next door. It is

not known when the use of the beam engine was replaced by electricity. Oatmeal continued to be made at least until the 1960s. The building was taken over by Monds & Affleck in 1974 as part of its purchase of the company (see 9.1.6), and by 1976 it was being used for the manufacture of pies.⁷⁴

The building, much altered over time, still remains, and in 1999 there was a sack trap and part of a cockle cylinder used for the manufacture of oatmeal on the top floor as a reminder of the building's past history. Its association with the Ritchie family adds to the site's significance.

9.1.14 Crown Mill

By the 1890s mills around the colony were closing down, so it might be considered that it was not a good time to start a new mill. And yet one mill began in Launceston towards the end of the decade, and another ten years later. In each case they were started by long-established millers who had built their reputations on watermills in nearby towns. Both mills were successful and in 1918 the owners of the mills were to amalgamate, with both buildings continuing in operation for much of the twentieth century. Indeed the second mill was to be the basis of all future expansion by the new company, Monds & Affleck, and was the only Tasmanian mill to be still working into the twenty-first century.

The fact that they began in Launceston had much to do with the perceived necessity of positioning mills close to ports now that less wheat was being grown locally and more was being imported. This was particularly the case after Federation in 1901. The location near the heart of a rail network also made these mills able to compete successfully with the smaller country mills and thus give them the large throughput necessary to justify the high capitalisation necessary for new equipment.

The first to make the move was Thomas Affleck who for over twenty-five years had milled at Newry, near Longford, and had developed his business to the extent that it was one of the largest mills in the colony (see 10.1.3). At the beginning of 1897 in partnership with his son John he employed J. & T. Gunn to build at 22-26 Cameron Street a new four-storey brick mill with iron roof to the design of the architect Walter Conway. (This site also had once been owned by Thomas Monds' father.) The seven-sack roller plant was supplied by T. Robinson and Son of Rochdale who also made the 40 horse power boiler and 25 horse power compound engine. Machinery from Mather and Sons of Edinburgh was used for the manufacture of oatmeal and rolled oats. Within a year or two the mill was turning out 80 tons of flour and 15-18 tons of oatmeal a week. The mill was initially managed by Percy Ready, a one-time apprentice to William Rudge of the Latrobe Mills (see 12.5.2) and recently head night miller at Newry, although by November 1898 he had gained a position in a Victorian mill.⁷⁵

However, the owners of the new mill found that moving into town brought troubles of its own. At the end of 1897 an injunction was sought by the owner of the nearby brick terrace (almost certainly Nabowla House) to restrict the mill's working hours to between 6 a.m. and 10 p.m. as the sound of the machinery prevented his tenants sleeping. The injunction was granted; it is not known what the Supreme Court later decided, but in 1923 the mill was running three shifts which would indicate late-night work. It is possible that the noise problem combined with the loss of his Newry Mill in December 1897 (see 10.1.3) to force

Thomas Affleck to an early grave: he died in May 1898. The mill, however, continued to operate under the name of T. Affleck & Son. In 1900 the mill was remodelled and extended with the introduction of a Simon's four-roller mill, while in 1906 the steam engine was replaced by a 100-horse power electric motor. So significant was this latter seen to be that a special article was devoted to it in the *Miller's Journal of Australia*, which said in part:

The electrical power is supplied from the generating station of the Launceston City Council, and Mr. W. Corin, city electrical engineer, has pronounced the undertaking an unqualified success, and we take the opportunity of congratulating this enterprising and deservedly popular firm on being the first in the Commonwealth to have an electrically-driven roller flour and oatmeal mill.⁷⁶

In 1918 the firm amalgamated with T.W. Monds & Sons to form Monds & Affleck (see 9.1.15) and from then on the manufacture of flour was confined largely to the Esplanade mill, although when demand was high some flour continued to be made at the Crown Mill and wheatmeal using millstones was still supplied from there. The mill was mainly used for the manufacture of rolled oats, oatmeal, pearl barley and split peas, supplying most of Tasmania's requirements. In addition demand was so high on the mainland that in 1923 there were plans to double the mill's capacity and a new automatic Wolworth kiln had recently been installed. At least oatmeal and split peas were still being made into the 1970s and the mill had also been used for storage when Monds & Affleck sold it to John Boer, Leigh Myers, Glenn Smith and Lionel Morrell in 1977.⁷⁷

Much credit is due to the new owners who during the conversion of the mill to offices kept much of the original machinery in place, including a Bodington dust extractor, a Robinson dust collector, a large cockle cylinder almost 4m long used for cleaning grain, and two pairs of grey or peak stones from Derbyshire, still able to turn with just a slight pressure. One pair is 54 inches and the other 48 inches in diameter. The building also still contains the kiln on the ground floor, used principally for oats, and still connected with the chimney which has, however, been reduced in height by a lightning strike. Despite its relatively young age, this example of a purpose-built roller mill with some of its auxiliary machinery remaining in-situ has some significance, which is added to by its association with the well-known Affleck family.⁷⁸

9.1.15 Monds' Mill, later Monds & Affleck

Thomas Monds, or at least the firm now called T.W.Monds & Sons, moved into Launceston shortly after Affleck, in 1899. But initially they simply opened a store under the management of Charles (C.F.) Monds, with milling still carried on only at the Carrick mill (see 11.7.1), by now under the management of Albert (A.W.) Monds. The store on the corner of Lower George (now Shields) and William Streets had been built by Thomas Monds in 1882-3 but had been let to others until the firm could see a need for a business in Launceston. Following Federation in 1901 it became clear the the firm needed a mill at a port to handle imported wheat, and in 1908 the firm converted an old store on the corner of the Esplanade and Shields Street to a roller mill, driven by electricity and capable of turning out one ton of flour an hour. The site, right on the wharf and close to the railways, was ideal. Carrick continued to be used for a time, for the country milling.⁷⁹

In 1918 the two firms of T.W.Monds & Sons and T. Affleck & Son amalgamated to become Monds & Affleck Pty Ltd. The story goes that a toss of the coin determined the order of

names. From then on the old Monds' mill became the principal source of flour for the new firm. The manager of Affleck's at the time, Gordon Hughes, became one of the directors and both his son Jim and grandson Tony were to become directors of Monds & Affleck, while the two Monds brothers Albert and Charles, and later Albert's son, also Bert, were directors as well, along with Roley Affleck, so the firm remained very much a family enterprise. In 1922 1200 tons of flour from Tasmanian wheat was shipped overseas; this was economically possible because of the recent introduction of direct overseas shipping services. In 1923 the mill was remodelled and the latest roller machinery from the firm of Henry Simons (Australia) Ltd was installed. An 80-horse power electric motor provided the bulk of the motive force for the mill, although an additional 25 horse-power was available. As well, a two-storey brick store was built next door by Hinman, Wright and Manser, and soon afterwards a new frontage was added to the mill for office accommodation. The new machinery raised the capacity of the mill by 50% to 15 sacks per hour, thus making it almost four times the size of the 4-sack Ritchie's mill, although it was still smaller than the firm's chief Tasmanian rival, Gibson's in Hobart, which boasted a 26½-sack capacity (see 9.1.6 & 2.16).⁸⁰

The business has expanded since 1923 but the mill buildings have remained largely the same. In 1960 the firm made the move to Hobart, building a new mill on Salamanca Place (see 2.19). In 1972 the firm took over Gibson's and from then on all flourmilling in the state was in the hands of one company. The Launceston mill was refitted in 1953, with the addition of another break roll and two reduction rolls as well as a second plansifter, all Robinson's. This increased the mill capacity by 50%, to 30 bags an hour. In April 1993 it was refitted again, removing the 1923 Simons rollers and replacing them with seven Robinson rollers (three reduction rolls and four scratch rolls) acquired second-hand from Swan Hill, Victoria. The estimated capacity is now 40 bags or 4-4½ tons an hour, twice Gibson's capacity when it closed. Two of the plansifters remained and a third came from Gibson's in Hobart. A major reason for this refit was to make the mill pneumatic, replacing the old bucket elevators. The mill is now much cleaner, and the removal of most of the dark wood elevator legs made the mill somewhat noisier but it is also lighter. However, some of the 1923 fittings are still in use, including a Robinson cleaning machine. The provision of stock feed is a major component of the business now and allows the mill to remain viable despite the expense of having to import most of the wheat, and bulk handling of both wheat and flour has replaced the use of bags.⁸¹

In 1995 the firm of HMA Ltd (for Holyman Monds Affleck) was taken over by the Victorian-based firm, Pivot Nutrition, and the Managing Director Tony Hughes left, thus removing the last link with the old families who had run the business for so long. The North-Western Flour Mill at Devonport had been closed in 1996 and when Pivot closed Gibson's in Hobart in 1997 (see 2.19) the old Monds & Affleck mill became the only operating flour mill in the state.⁸²

9.2 George Town - Government mill

Although there was a small settlement at what was called Outer Cove from the earliest years, the settlement of George Town really began in 1811 when Governor Macquarie visited the area and determined to move the principal settlement at Port Dalrymple from Launceston, where the fertile land was and which formed a natural market town for the surrounding hinterland, to the place where the best port was, naming it George Town. Even then settlers

were reluctant to make the move and little progress was made until 1819 when Major Cimitiere finally made his headquarters there. Initially the convicts used steel mills to grind their corn. In 1820 such mills were at the hospital and the gaol, the military had one, and there were several others. The previous Superintendent of Public Works, W.E. Leith, informed Commissioner Bigge that to help the situation he had obtained “a pair of old Barrstones” from Launceston, and when one of these was found to be useless he found a suitable stone at Middle Arm and put up a mill “that works now [1820] with Iron craggs.” With four men it would grind one bushel an hour. Six men could use it at a time, but it was so constantly in use that it was frequently out of repair. It has been impossible to determine just what “barrstones” and “iron craggs” were, although the former might conceivably be an abbreviation for barley stones, an alternative name for the grey stone from Derbyshire.⁸³

A mill of some kind was an obvious requirement and plans were being made in 1818 to build a windmill. Lieutenant-Governor Sorell, in supporting this move, suggested that some expert opinion should be obtained:

This I considered more particularly necessary with respect to Wind Mills, with which so few persons in this Country are conversant, and in which so many have failed....The only people at Port Dalrymple, who I should conceive competent to pronounce with accuracy respecting the scite (sic) of a Wind Mill, are the two Brothers Lucas.

The two latter of course had the year before built a windmill in Launceston (see 9.1.1). It is not known if they were indeed consulted. James Steale’s windmill proved to be useless when sent to George Town and rebuilt (see 9.1.2). By 1819 a mill house had been built attached to the gaol, although this may have been the building which contained the hand mill mentioned by Leith, and the windmill was being finished by Thomas Rabery in April 1820. Bigge was told:

The Storekeeper used to issue about 20 bushels or so of wheat to the Miller for which he was responsible, and so much Flour was received in return, and I never heard that the miller was Deficient in his Quantity. There are printed Regulations exhibited in the Mill by which he is Guided.

This mill was built on what is still called Windmill Point quite close to what is now the Esplanade and not far from Cimitiere Street. (Bethell, probably through a misreading of Button who says that the mill was built on the point opposite Garden Island, says that the mill was built *on* Garden Island, and unfortunately this most impractical idea has been picked up by later writers.)⁸⁴

The mill’s later history has been confused, largely due to Henry Button. According to his account, the mill was dismantled when the government headquarters were moved back to Launceston following Bigge’s recommendation, and then re-erected in Margaret Street (as the Government Windmill—see 9.1.4). However, there was a windmill at George Town for another thirty years at least. Button himself goes on to say that “the mill has disappeared for nearly fifty years” from Windmill Point; as he was writing in 1909 he himself knew that the mill was still there into the 1850s. No explanation for this has been found.⁸⁵

The mill is shown on the 1830 John Welsh map, and in 1833 it was mentioned as an aid to navigation in the Tamar. In 1838 the Commissariat Office advertised:

Windmill at George town to be let for one or more years as may be agreed upon. Notice - Any person willing to rent the above mill on condition of grinding the quantity of Government wheat into 12 and 20 per cent flour, which may be required by the

Commissariat at George town, subject to the mill regulations of Hobart town and Launceston, will send tenders.... The mill to be kept in repair at the expense of the contractor.

The Mills and Manufacturing Returns show the mill was last operational in 1842. It is shown, still labelled the "Government Windmill", on an April 1849 map. Nothing further has been found about its history, although Moore-Robinson wrote in 1935 that its foundations could still be seen.⁸⁶

9.3 Supply Mills

The Supply River is the best place on the Tamar River to build a watermill, providing a never-failing stream, a good fall of water and an open space for the mill. Moreover, it is accessible by water, a most useful attribute in a new colony where roads were at the best poor and often non-existent. The river had almost certainly been discovered by Bass and Flinders in 1798, and definitely in 1804 by Captain William Collins of the *Lady Nelson*. Collins took on fresh water at the site and gave the river its name, while Adolarius Humphrey (whose wife Harriet later built a mill at Bushy Park—see 4.3) left his mark in the way of all smart young men by carving his initials in a rock near the base of the falls. The carving is still visible.⁸⁷

The disadvantage of the site was its distance from the early settlements, so it is perhaps not surprising that other places were initially favoured. On the other hand it was about equidistant from George Town and Launceston, the two principal settlements on the river at this time. So it was that in August 1825 the surveyor Wedge noted in his diary that he "went down to the Supply River, where Mr Charlton & Burrel have commenced to build a Water Mill for the purpose of grinding corn for exportation - a speculation which I think is likely to answer." Alexander Charlton was a builder who had arrived in the colony in 1821 and seems to have been the chief figure; Burrel was possibly a miller. Determined to supply flour for export they spared no expense in building a large stone and brick mill with its own wharf; contemporary accounts stress the extensive nature of the buildings. Angus Ferguson was employed as millwright to install the machinery. It is not known whether he was related to Peter Ferguson who had been the millwright of several mills in the south (see 6.3.2 & 6.1.1). Following the completion of the Supply Mills "entirely to the satisfaction of the Proprietor", Angus moved to Launceston and offered to build any kind of watermill or make or repair any machinery, but there appeared to be little demand and in 1828 he probably leased McLeod's Perth mill (see 10.2.1).⁸⁸

The first flour produced at the Supply Mills, in March 1826, was 1000 tons Charlton supplied to the Government but it was not until May that the mill was opened for general operations, which led the *Colonial Times* to praise effusively "those two enterprising Colonists, Mr Charlton and Mr Birrell (sic)". Burrell is not mentioned again. The mills were capable of producing 75 tons a week and in June the Supply Flour Warehouse was opened in Launceston by Charlton to augment local custom, but plans for exporting flour were delayed while seasoned timber for casks was procured. In September a sawmill was planned for cutting cask staves; the following month William Emmett, the largest exporter from Port Dalrymple and evidently involved in some way with the mill, sent for coopers from Sydney and there were plans to employ more later in the year. Finally in December the schooner *Hunter* sailed for Sydney with 1500 bushels of wheat and 15 tons of flour from the mills; the

best flour sold for £14 and second class for £11 and the *Hobart Town Gazette* bemoaned the fact that Hobart Town was “so far behind”.⁸⁹

Just two weeks later Charlton was nearly ready to ship to the Ile de France 250 tons of flour “ground, bolted, and casked at his mills” and over the course of the next two months there was news of several ships loading or planning to load flour from the Supply. But his plans suffered a mortal blow in February 1827 when some of the approximately 10 000 bushels of grain, intended for conversion to more flour for the Ile de France, was propelled into the river when the new building in which they were stored collapsed. The *Hobart Town Gazette* lamented the news:

We consider this a public calamity, it will materially check the spirit of emulation which has manifested itself at Launceston, and must be a severe loss to the proprietor of at least £1500. The public spirit which Mr. Charlton manifested in building the Mills will, we are sure, be taken into consideration by the Government, at the *present moment*, and some material assistance offered at this time of need.⁹⁰

As it turned out only 3000 bushels were lost, but with repairs to the building estimated to cost £150 and evidently no government assistance forthcoming, Charlton was in trouble. The granary was repaired and increased in size to four storeys and then Charlton, intending to leave the colony, offered for sale the mill property:

...with the whole of its Appurtenances, consisting of three Dwelling Houses, a Blacksmith's Shop, from one thousand to fifteen hundred Flour Sacks; three Boats, with masts, oars and sails, complete, (one of which is competent to carry 450 bushels of Wheat); Mill Bills, Corn Barrows, spare Bolting, Wire Cloth, with every requisite for carrying on such a Concern. Also, about 200 Pigs of an improved breed, with Piggeries, Troughs, &c.

The Mills...run two pair of four feet six inch French Burr Stones, with Smut and Winnowing Machines; two Bolting Machines (one seven feet and the other four feet six inches long), with hoisting Tackle, Screens, &c.... The Water Wheel (an overshot) is 18 feet [5.5m] in diameter, and 4 feet six inches [1.4m] wide; this, with the internal machinery, is allowed by competent Judges to be superior any (sic) thing of the kind in either this or the Sister Colony.

...For particulars and Terms of Payment, apply to J.T. Gellibrand, Esq. Hobart Town; William Emmett, Esq. Sydney; or on the Premises to A. Charlton.

This latter detail was immediately disputed, with Thomas Williams, William Emmett and Robert Campbell (the prominent Sydney merchant) claiming that Gellibrand had no interest in the property; the Launceston-based Williams was the only one with the power of sale, subject to a claim by Alexander Stewart.⁹¹

The mill did not sell and in June Emmett, probably the mortgagee, forced the property—together with the weatherboard store on the wharf in Launceston—to auction through the Sheriff's Office. Soon afterwards, Emmett left the colonies to return to England with his two children but they were killed by pirates. When no purchaser for the mills was forthcoming, Thomas Williams put them into order again and, while still hoping for someone to either buy or lease them, operated them himself. He offered grinding rates of fifteen pence, or eighteen pence for grinding and dressing, both to include conveyance to and from the mills. These were reasonably high rates; grinding in Hobart Town at about the same time cost ninepence, while in 1829 the Windmill Hill mill was charging eightpence (see 2.1 & 9.1).

Finally in September 1828 Adam Beveridge bought the mills, “principally for the purpose of manufacturing Flour for exportation”.⁹²

The isolation of the Supply Mills, particularly in the early years of the colony, made its inhabitants vulnerable. In November 1827 an Aboriginal attack on the mill was repulsed, but a fatal incident took place on 5 August 1828 when Thomas Williams’ miller, an old man named William Bartlett, was killed by a party of probably four bushrangers who then took the mill boat away with a quantity of tea and flour. An old woman was ill-treated and another man named Antile was wounded in the attack. Although the Government offered a reward of £50 to find the unknown assailant, it appears no claimant was forthcoming.⁹³

These were not the only attacks on the mill. In May 1829 the *Launceston Advertiser* advised that the Aborigines had been throwing stones on to the mill house, and about the same time the bushranger Bevan and his accomplice robbed the mills of flour, sugar and a boat, the *Mary Ann*. In August Beveridge offered a reward for the return of the boat, probably unsuccessfully, but in October he did make up some of his losses when three constables found five bags of flour and one of tea in a tree near Middle Island. As the bags were all marked “A.B.” and were affirmed by Beveridge to be his property, it was assumed that the tree was Bevan’s store house. There may have been other attacks on the mill. The often unreliable 1886 writer on “Our Early Mills and Millers” famously wrote that when George Cathcart was in occupation of the mill, the miller and his assistant were shot dead by the bushrangers “Beaven”, Britton and Jones and when the police arrived the bodies were being eaten by pigs. Unfortunately, no contemporary accounts of this episode have been found to confirm it. Button assumed the episode referred to the murder of Bartlett, but much of the detail is inconsistent and anyway Bevan did not join Britton and Jones until some time later. A definitely untrue story is that repeated by Bethell that Gildas was the owner of the Supply Mill when murdered by the aborigines in September 1830. Gildas was killed at his house which was “higher up” than the mill, says the 1831 Ross *Almanack*, although it is not exactly clear whether it was higher up the Supply or the Tamar. Plomley says it was Stoney Creek. Anyway, Beveridge was still the owner of the mill at that time.⁹⁴

Beveridge stayed at the mill for some years. He had arrived in the colony in 1824 in company with fellow Scot Robert Ralston who settled in the Evandale district. Shortly after arriving he had married Margaret, Ralston’s daughter, and it appears that he was in partnership with his father-in-law in operating the mills. He had been operating a retail business in Sydney before he bought the mills in 1828, but quickly wound this up and concentrated on milling. From the beginning he employed a number of convicts and it may have been this which enabled him in November 1829 to reduce his grinding rates to ninepence a bushel, with dressing fourpence extra, the charge to include picking up the wheat and delivering the flour to any part of the Tamar River. This was certainly a vast improvement on Williams’ earlier rates. Like the earlier proprietors he kept a store in Launceston, at which people could buy flour, meal and bran and also ship’s biscuit. In 1829 he bought the small boat, the *Maid of the Mill*, to carry the flour to various spots on the Tamar. In the early 1830s as cheaper imported flour came onto the market he fought back, advertising:

To prevent the return of Wheat to this Market in the shape of Flour, mixed with the inferior Wheat of New South Wales, I pledge myself to sell flour of the finest quality, made from the best samples of Wheat grown here, lower than any imported Flour.

Finally, in September 1835 he sold the mills to John Archer.⁹⁵

It has not been determined whether Archer ever operated the mill himself. By November 1837 the miller John Symes and the millwright John Guillan were in occupation as partners. Quite a lot is known of these two because Guillan later employed the young Thomas Monds as an apprentice. According to Monds, the eighteen-stone [114 kg] Symes was “an excellent type of the old English miller”, a good-tempered bachelor who was well-known for raising pigs. Of the man to whom he was apprenticed, the millwright Guillan, Monds wrote that, “[h]e was a Scotchman by birth; a man of excellent physique; a first-class tradesman; well educated...[and] an honourable man.” He also was a bachelor. The 1886 writer on “Our Early Mills and Millers”, describing him as “as practical and clever a workman at his business as has ever been in the colony”, went on to say that he had been brought out by Captain Ritchie to build the Seone Mills at Perth (see 10.2.3). This would certainly seem feasible. He is known to have operated as a millwright in Frederick Street in the mid-30s before going to the Supply Mills, although even then he remained active in his trade; in 1842 he advertised that at the Supply Mills he had just finished a smut machine which would enable wheat sent there to be cleaned in a superior manner. He was also a charitable man. In 1839 when the price of flour was so high, Guillan offered to supply the poor of Launceston with ration flour at threepence a pound provided they were in possession of a certificate from the Tradesmen’s Committee for the Relief of the Poor. At the time he was selling ration flour to the general populace for fivepence halfpenny.⁹⁶

Just when Monds joined Guillan at the mills is not easy to determine. According to his *Autobiography* he was born in 1829 and when just 14 (i.e. in 1843) he was offered an apprenticeship by Guillan which he eagerly took. He worked at the Supply Mill for twelve months before being sent by Guillan (i.e. in 1844) to a Launceston school which he attended for nine months before Guillan’s bankruptcy following the loss of the *Dusty Miller* (see below). They then moved to Guillan’s new millwrighting business and then the Bridge Mills. However, the *Dusty Miller* was lost in November 1842 and in October 1843 Guillan was already bankrupt and at the Bridge Mills (see 9.1.8). Either Monds began his apprenticeship at the extraordinarily young age of 12, or he put his birth date back. This latter seems to be the likely explanation. In March 1827 Thomas Monds snr was dismissed from his job as Chief Constable for having “detained Mary Ann Cardin a female convict...in his own lodgings” one night. In June he sought and was presumably granted permission to marry her. Monds’ account of his relationship with Guillan would make total sense if he was born in 1827, but it would be clear to his children from his parents’ wedding certificate that he was at least conceived and possibly born out of wedlock: the righteous Monds lied about his age.⁹⁷

Thus it was early in 1841 that Monds joined Guillan at the Supply. Another apprentice who was two years older than Monds, James Smith, had already been at the mill for two years and was just beginning school in Launceston as Monds arrived. Smith and Monds were to work together in various mills for some years, and were still on friendly terms in the 1890s when Monds would occasionally visit the famous “Philosopher” Smith at his Forth home. When Monds arrived at the mill the head miller was Robert Muir, “a fine Scotchman about six feet in height, and stout in proportion, a well-built man...[who] was a first-class miller”. The mill still had its two pairs of four feet six inch stones and could turn out about 40 tons of flour a week, apparently something of a come-down from the 75-ton capability of 1826 but probably simply more realistic. The mill could work night and day for eight months of the year, but only occasionally over summer when there was a shortage of water. Monds gives a description of his work.

My special occupation was to mind the hopper on the top floor, a work which a boy could easily do. In the morning I was engaged up till dinner time feeding the hopper of the dressing machine with meal, and in the afternoon minding or feeding the hopper of the smutting machine with wheat, using a shovel on both occasions; but the wheat being very often smutty in those days, we had to mix lime with the smutty wheat, which helped the smutting machine to scrub off the woolly end of the wheat berry, which held the smut dust. This was a very unpleasant job, but I did it for twelve months.⁹⁸

The partnership of Guillan and Symes seems to have been quite successful for some years. Guillan had several ships built, including the *Pickwick* (1838), the *Mariner* (1839), the *Diana* (1841) and the *Pedlar* (1844—after his bankruptcy). These vessels were used to carry on trade with Victoria and South Australia; the *Maid of the Mill* was still used to carry wheat to the mill and bring back flour to Launceston. But the most famous of his vessels was the 120-ton *Dusry Miller*, built for Guillan in 1840 by Thomas Wiseman at Mt Direction Creek opposite Swan Point. This ship was used for the Adelaide trade; it used to anchor as close to the Supply River as possible and the flour was sent from the mill in lighters. On her final trip in November 1842 the ship was totally wrecked near Portland in Victoria. Although the vessel was insured for £1000 the cargo, worth about £1400, was not. (Monds later wrote that neither the ship nor the cargo was insured and that the probable value of the cargo was about £10 000—certainly a great over-estimate.) It is probable that Guillan and Symes were suffering anyway from the 1840s depression and the loss of the ship was the last straw. Their bank stopped allowing credit and Guillan was forced into insolvency, working as a millwright for a short time and then moving to the Bridge Mills (see 9.1.8). Muir went back to Scotland and then on to Canada, while Symes set himself up as a baker in Launceston. Eventually he too became insolvent (in 1847) and went to Melbourne. Following an accident he had to be fitted with a wooden leg and was forced to sell fruit for a living.⁹⁹

The new lessee of the Supply Mills from September 1843 was George Yates, who just months previously had rented the Cataract Mill (see 9.1.6). In 1845 he bought half the Cataract Mill and then the following year bought the Supply as well. Such over-confidence had its inevitable outcome in 1848 when he offered the Supply Mill for sale, describing them in an advertisement:

The Mill consists of a large three-story wooden building, with a two-story building thereto attached, containing three pairs of the very best 4 feet 6 inch French stones [so one pair had been added since the 1820s], two very superior 6 feet dressing machines, and one very excellent smutting machine, with going gear, sack tackle, &c. &c. complete. There is a weather-boarded cottage close to the mill, containing six rooms, and also a miller's cottage near the same.

The mill was let to "respectable tenants" for £200. However, the mill did not sell and the following year the mortgagees, including James Scott who was later to build the Distillery Creek mill, forced the mill to auction. In April 1849 it was bought by John and James Cartledge who, not knowing anything about milling, employed James Smith as manager. When he left in July 1850, eventually to go to the gold fields, they gave him a reference which read: "The bearer James Smith has been in our employment for eighteen months and we have always found him an honest, sober, industrious man and one who thoroughly understands his trade." He was followed as manager, at one pound a week and board, by his old fellow-apprentice Thomas Monds who had recently returned from a stint as manager of Walker's mill in Hobart (see 2.3). Monds and the Cartledges became good friends but after eight months the Cartledges were in difficulties mainly, Monds thought, because of insufficient capital to carry on the business; he was laid off and went to the Cataract Mill (see

9.1.6). The Cartledges struggled on for a while but in June 1851 the mill was once again for sale or lease. Interestingly, both the advertisements for sale in 1848 and 1851 stressed the other uses that the site could be put to: paper manufacturing, distilling or brewing. It is possible that the mill was getting too old and it was difficult to make it a paying proposition.¹⁰⁰

Richard Clegg rented the mills for a while, but it seems likely that William Williams had bought the mill from the Cartledges. He was the brother of Thomas who had held the mills in the 1820s and in 1852 William had “a counting house”, but as early as November 1852 he advertised flour from the Supply Mills for sale. In 1854 he took possession of the mills himself and employed a miller, while the following year he had the Supply Mills Flour Depot in St John Street at Market [now Cornwall] Square. In September 1855 he was “putting the mill into complete repair”, and it seems clear that it was at this time that Williams rebuilt the mill, putting in new machinery including an extra two pairs of millstones and installing an iron wheel on the southern side, celebrating the changes by renaming the establishment. In June 1856 he announced that: “The Exeter Mills on the Supply River, and the Old Supply Mills, are now in full work. Grinding one shilling and sixpence per bushel.” The mill was run for a time in 1856-7 by Green, Cleveland & Co. Richard Green had been involved with the Union Mill at Windermere (see 9.4), but William Cleveland is not otherwise known.¹⁰¹

Williams ran the mill himself again from 1857 onwards, employing William Titley from the Bridge Mills as manager until 1860 when the latter leased the Albion mill (see 9.1.8 & 9.1.3). In 1864 Williams announced:

For the accommodation and at the request of settlers in the district, a stock of teas, sugars and groceries will be on hand for sale, at Launceston prices and produce of any kind taken in payment or bought for cash - such as wheat, oats, barley, potatoes, posts and rails &c.

In April 1865 Williams sold the mill to Charles J. Weedon and left Launceston. According to papers in the possession of the family, Shaw arrived in 1867 on the *Helen McGregor* with machinery for the Supply Mill which he then installed. This would indicate that Weedon went to some trouble to improve the mill, but the tale of the mill from then on is not a particularly happy one. Although the mill was leased at times to Edward Gaunt and also John Marshall, it also was empty for long periods. The mill was still owned by Weedon at his death in 1874 and it then passed to his widow; Richard Green was one of the executors. William Boswell Dean, one of that large family involved in baking and milling across the north of the state, ran the Supply Mill for a time in 1875 but in 1876 it was once more empty and there is no evidence it ever worked again.¹⁰²

In 1877 the executors to Weedon’s estate advertised the mill for sale, complete with its 46 acres. “The machinery is first-class”, ran the advertisement, “iron water wheel, 5 pairs stones, silk dressing and smutting machines, elevators, &c; also miller’s cottage. This mill will turn out 60 tons of flour per week when in full work, and with small outlay.” The following year the mill was still being advertised for sale or lease by C.J. Weedon & Co. In 1881 a new function was being planned, with one Barnard, John Thrush and George Williams, “practical paper makers” according to the *Launceston Examiner*, renting the mill for £24 per year with the aim of using grasses and converting old rags, canvas and sacking to make wrapping paper. The machinery was supposedly ordered, but it appears nothing was done. The lessees illegally removed the milling machinery and sold it to Monds at Carrick. (The writer of “Our Early Mills and Millers” wrote in 1886 that the mill was “pulled down” at this time, but he

must have meant only the machinery.) Although Williams was later exonerated, he lost his deposit. In 1885 John Thrush tried again to restart the mill with Sydney backing, but it seems that he might have been more interested in obtaining the water rights to help with the mining of silver recently discovered at the head of the river. This too came to nothing. There is a reference to the building being used around the turn of the century for a tea tree bark factory.¹⁰⁴

From 1900 photographs show the mill in steady decline, although it was (and remains) a popular picnic spot. In 1972 Henry Sullivan, reminiscing about the mill he camped in as a child with his family around 1900, wrote:

The mill was partly in ruins then, but the walls, first floor and stairs were intact. The roof was gone. The big water wheel and water race were intact though the buckets were rusty.... Twenty-five feet [7.5m] [in] diameter, it had a huge gearing which drove shafts on two floors. A big bevel gear and shaft that drove the stones lay on the upper floor. Three large stones lay around. Above the falls was the dam which formed the only means of crossing the river.

All the iron work was taken away during the First World War. The site (map reference Beaconsfield 949327) was acquired by the West Tamar Council, the Department of the Environment and Land Management and the local community in 1995 who have plans to develop the mill reserve as a tourist attraction. There are enough ruined walls left to enable a plan of the layout of both mill and cottage to be made. The mill race can also be traced, with one stone wall remaining, and there are the remains of huts above the mill. Although these are few remains compared with many other Tasmanian mill sites, the site has greater significance because a mill was established so early and was involved with a major export trade, and through its association with some of the best-known names in northern milling.¹⁰⁴

9.4 Gaunt mill, Windermere

The first steam mill in the north and only the second in the colony was built by Dr Mathias¹ Gaunt on his 2560-acre estate, which he called Windermere, on the East Tamar. Gaunt had arrived in 1830 on the *Eliza* and was obviously quite enterprising, erecting by January 1837 the Union Steam Saw Mills, believed to be the colony's first and with a high pressure 15 horse power engine. For some reason this appears not to have been a paying proposition or alternatively Gaunt became aware that he could make more money in flour, as by March 1838 he was advertising for a miller at the "Union Steam [no longer Saw] Mills". The first supply of flour arrived in Launceston in June at the firm of Smith, Raven & Co. This partnership soon dissolved but Raven continued on as agent for the mill at the Union Wharf. They must have been pleased with their profits as Raven and Gaunt in partnership planned another steam mill in Launceston in 1840, although this did not eventuate, probably because of the depression (see 9.1.8).¹⁰⁵

Gaunt's mill was remarkably successful. Its quality was such that, according to the (occasionally unreliable) writer of "Our Early Mills and Millers", "his flour stood A1 all over

¹ For a more detailed site inventory, see Austral Archaeology, *Supply River Flour Mill: Site Inventory & Archaeological Recording Project*, Hobart, 1998.

² For a note on the spelling of Gaunt's name, see Robertson, E. Graeme, & Craig, Edith N., *Early Houses of Northern Tasmania*, Melbourne, 1964. Vol.II, p.292.

the colonies, and, indeed, took the first prize at the Exhibition in London in 1851.” This latter claim has not been verified, but it is certainly true that he had a good trade by ship with the North-West Coast; “Bat” Thomas at Devonport is known to have shipped his wheat there to be milled. One of his long-lasting millers was William Elliott who had been milling at Strathmore (see 10.4) in 1837, but who was miller at Windermere for almost all of the 1840s. About 1853 Gaunt moved into Launceston and the business was carried on by his sons, one of whom, Edward, married a daughter of Thomas Ransom of Killymoon (see 10.8.1). Several of his sons were also involved in other mills (see 9.1.9, 9.1.12 & 9.3). Richard Green, later of the Supply Mills (see 9.3), became the agent for the Union Mills in 1849 and advertised that he was prepared to receive orders “for flour of that favourite brand”; he was evidently leasing the mill in 1855.¹⁰⁶

During the 1860s the mill rapidly declined in assessed annual value, from £250 in 1859 to £100 in 1861, then to £50 in 1866. The Gaunt children were running the mill, probably only at the height of the season; firstly Edward under the name of Gaunt & Co. until his business as a flour and grain merchant failed, and then Charles as C. Gaunt & Co. Charles was still working the mill in 1870, but later that year he was charged with embezzling £300 from P.O. Fysh for whom he worked as a book-keeper. By the time of the 1872 Valuation Roll the building was worth only £10 and was described as the “late mill”. The Union Mills’ business had died. In 1873 Shaw and Maxwell bought the machinery for their new mill at Ulverstone (see 12.12.2) and the building was never again used for milling.¹⁰⁷

A fire evidently occurred in the mill some time before 1900 as burnt timbers were later found at the site. The bricks gradually disappeared, evidently used for structures elsewhere. Landscaping some 20 years ago removed sandstone blocks and bolts about 10m up from the wharf, and now only some stone and brick abutments remain (at map reference Dilston 009260).¹⁰⁸

9.5 Dilston

There was an attempt in the 1840s to build a mill at Dilston. Charles Barnard came to Van Diemen's Land in the early 1820s, but when Wedge found difficulties in measuring his land grant and there were delays, Barnard returned to England where he married and had children. In the 1840s he returned with mill machinery and about 1846 built a mill on the southern side of Barnard's Creek, about 500m to the west of the current East Tamar Highway. Unfortunately the earth in the area is very porous and although he made two attempts at damming the creek, neither was successful as the water simply drained out and he eventually sold the mill machinery to Thomas Button who used it in his Cataract Hill mill (see 9.1.11). The mill building was converted into the Landfall homestead. It still remains (map reference Dilston 042269), built of brick with a natural stone foundation. The big wooden beams and shingles are still visible. The massively constructed dam, earth-filled and originally faced with rock, remains, as does the mill race which is 3-4m deep in places and occasionally still lined with rock.¹⁰⁹

The large brick and stone building on the southern side of the creek at Burnside, Dilston (map reference Dilston 042269) is sometimes said to have been built as a flour mill (see for example *The Heritage of Australia: The Illustrated Heritage of the National Estate*, Melbourne, 1981, p.7/130). However, no evidence has been found to substantiate this claim and there is considerable reason to doubt it, not the least important being that the building

does not have some of the necessary attributes of a mill. Two early, although not contemporary, newspaper references also appear to dispute the idea. An undated *Examiner* cutting from around 1938 suggested it was built as a huge granary by the owner of the property, Bransgrove. An even earlier cutting, from 25 August (March?) 1909, reported that it was rumoured that Bransgrove intended the building as a distillery but could not obtain a licence. Just why it is said to have been a mill is difficult to determine. However, it may have something to do with an advertisement which appeared in the *Launceston Examiner* in 1860, indicating that the stock of flour at “Milford Mill, near Stoney Creek” was to be auctioned. This is actually the mill near Llewellyn (see 10.5) but as the Burnside creek is sometimes called Stoney Creek someone in years past may have become confused.¹¹⁰

9.6 Scottsdale mill

The good land around Scottsdale was discovered in 1852 by James Scott, surveyor and later flour mill owner (see 9.1.12), and the area was called Scott’s New Country for many years. He was soon followed by Thomas Cox (of the Wellington Street mill—see 9.1.10) who was so enthusiastic about what he saw that people half-jokingly christened the area Cox’s Paradise. Of the many people to follow and take up land in the area, Thomas Tucker was one of the most important. A flour miller in Longford, and probably the son of that Thomas Tucker who had built the Independent mill there (see 10.1.2), Tucker had moved to Scott’s New Country in time for the birth of his fourth child in 1861. He was to build a store on the corner where the road to Launceston met the road between Bridport and Ringarooma; as a result the settlement was called Tucker’s Corner for some time.¹¹¹

Tucker was a most ingenious man, building himself an organ in his small cottage. In 1868 he built a watermill on the creek, called Tucker’s Creek, just north of where it crosses the Ringarooma Road (approximate map reference Scottsdale 437427). A visitor to the settlement at that time was most impressed: “Mr Tucker is a man of considerable skill...he has unaided, erected the corn mill just completed.” According to the writers of *Scott’s New Country*, Tucker used to cart palings to Bridport to be sent by boat to the Launceston market, and while he was away his daughter Emily operated the mill. Then on his return, he would take over and work into the night grinding flour. In 1874 the mill was in full work, but nothing further has been discovered of its operation. No doubt Tucker made quite a tidy sum when the North-East tin mines opened; in the late 1870s tin miners were paying £2 for a bag of flour. But when Tucker opened his store he closed the mill for good.¹¹²

It is most likely that the mill was taken over by Charles S. Button to use as a brewery. There was a strong family connection, with Thomas’ son William marrying Charles’ daughter Marion; as well, Fanny Tucker married Edmund Button. Button had a brewery on Tucker’s Creek in the same position as Tucker’s mill was said to be, so it seems most likely that this had been the mill. No remains have been found.¹¹³

¹ New South Wales Col Sec Papers, Reel 6002, 4/3490d, p.152.

² HTG 29 Mar 1817, Supp. & 17 May 1817, Tas Cyc, Vol.II, p.11.

³ LE 17 & 24 July 1886, TPDA 19 Jan 1825, p.1/3, HTC 28 Sept 1832, p.4/5.

- ⁴ Later historians: Whitfield in *Tas Cyc*, Vol.II, p.11, & Bethell, L.S., *The Story of Port Dalrymple*, Hobart, n.d., p.76. LA 16 Feb 1829, p.2/1, & 5 Oct 1829. *Almanack*, p.147. AOT LSD 1/73 p.365.
- ⁵ LA 27 June 1831. SLV LTAMC MS 12998, Coulstock letterbook, 3685/6. HTC 10 Feb 1837 Supp, p.1/5.
- ⁶ LE 2 Oct 1844, p.627/4. Wood, James, *Royal Kalendar and Almanack 1847*, p.5. HTG 1882, p.212. LE 28 Sept 1960.
- ⁷ HIRA III, III p.437.
- ⁸ HIRA III, III p.437. Langford to Clark 1822, in "Memo re the Settlement of the Clark Family in Tasmania", by a child of George Clark the son of G.C. Clark, in the National Trust file, Clark Family in Tasmania, QVMAG. Jane Yates' application for land 1829, in possession of Carol Scott.
- ⁹ Monds, T.W., *Autobiography of Thomas Wilkes Monds*, Launceston, 1907, p.39. Jane Yates' application for land 1829, op.cit., & Waddingham estimate attached thereto.
- ¹⁰ ITTG 26 Oct 1822, p.2/1. Jane Yates' application for land 1829, op.cit. McKay, Anne (ed), *Journals of the Land Commissioners for Van Diemen's Land*, Hobart, 1962, p.20. Brumby to Arthur, 18 April 1828, in possession of Carol Scott.
- ¹¹ Brumby to Arthur, and Archer to Frankland, both 18 April 1828, in possession of Carol Scott.
- ¹² Langford to Clark 1822, op.cit. *Tasmanian and Port Dalrymple Advertiser*, 4 May 1825, pp.1/1 & 3/2. Last will and testament of Edward Yates, 7 July 1828, in possession of Carol Scott.
- ¹³ LA 14 Sept 1829, p.3/3. CT 26 Oct 1831, p.4/4. LI 5 Nov 1831, p.2/1. Willett to Arthur, 8 Nov 1831, in possession of Carol Scott. MS 12998, Coulstock letterbook, LTAMC, SLV.
- ¹⁴ LI 8 Feb 1834, p.2/2. Monds, op.cit., p.25. HTG 14 Oct 1836, p.1/1. LA 16 Feb 1837, p.2/2; CC 13 Jan 1838, p.2/5.
- ¹⁵ Claudia Dean pers. comm. 27 Mar 1998. CC 27 Mar 1841, p.3/6. CC 20 Nov 1841, p.1/2. LE 30 April 1845, p.277/3. CC 24 Jan 1846, p.66/2. CC 6 June 1849, p.630/1.
- ¹⁶ Monds, op.cit., pp.22 & 25.
- ¹⁷ Monds, op.cit., pp.23-4. LE 24 Jan 1846, p.53/1. LE 1 Aug 1846, p.485/2. LE 9 Jan 1847, p.18/4. CC 1 Jan 1848, p.3/3.
- ¹⁸ LE 12 June 1850, p.375/4; 22 June, p.399/4; 6 July, p.426/1; 17 July, p.450/1. CC 13 July 1850, p.443/1. CC 8 Feb 1851, p.86/2. Monds, op.cit., p.31.
- ¹⁹ Von Stieglitz, K.R., *A Short History of St Leonards*, Centenary Edition, 1966, p.32. LE 14 April 1855, p.3/6. LE 29 Sept 1855, p.1/3. LE 5 April 1856, p.8/6.
- ²⁰ Monds op.cit., pp.38-40. LE 18 Jan 1862, p.7/7. LE 28 Mar 1863, p.6/1. LE 9 Mar, p.5/5; 21 Mar, p.1/5.
- ²¹ CC 2 Feb 1861, p.7/5. Monds op.cit., p.39. VRs 1871-83. LE 23 April 1874, p.3/4. Merc 30 Mar 1946. *Picturesque Tasmania*, printed by H. Button, [c.1893], p.19.
- ²² Rod Scott, pers.comm., 7 Nov 1997. Maroney, Noel, "Corra Linn Trout Hatchery: 1945-present", *On the Rise*, Inland Fisheries Commission Newsletter, Vol.25, No.1, June 1996. Noel Maroney, pers. comm. 25 Nov 1997. St Leonards Council Clerk Gurr to Dallas, 9 Feb 1960, UT 516/1-3.
- ²³ Button, Henry, *Flotsam and Jetsam*, originally published 1909, facsimile edition Launceston, 1993, p.136. Barnes' sketch is reproduced in Brown, P.L. (ed). *The Narrative of George Russell of Golf Hill with Russelliana and Selected Papers*, London, 1935, p.407. AOT LSD 1/11, p.731. LI 24 Dec 1831, p.1/1. LA 31 Oct 1833, p.1/5. CT 18 Feb 1834, p.56/1-2.
- ²⁴ QVM 1984 M 375. Webb, G.M., "Twenty Men of Fortune", in HIRA P&P, 45/3, Sept 1998, pp.144-163. LA 18 Sept 1834, p.1. RD 1/3463.
- ²⁵ LA 27 June, & 6 June 1831, p.181/3. LA 17 Oct 1833, p.3/3. CT 2 June 1835, pp.172/2-173/1.
- ²⁶ LE 17 Nov 1898, p.7/4. CC 19 Nov 1836, p.3/3. RD 2/1815. HTC 10 Feb 1837 Supp, p.1/5.
- ²⁷ CC 14 Oct 1837, p.2/3 & p.3/2. Button, *Flotsam and Jetsam*, op.cit., p.141.
- ²⁸ CC 8 Feb 1840, p.3/5. LE 19 Mar 1842, p.3/1 & 11/1. HTC 19 Nov 1845, p.2/5. Button, *Flotsam and Jetsam*, op.cit., p.142. Monds op.cit., p.30.
- ²⁹ CC 1842: 2 April p.3/4, 2 April p.3/4, 2 July p.3/5. LE 30 April 1842, p.59/4. Monds op.cit., p.30. Nicholls, Mary (ed), *Traveller under concern: the Quaker Journals of Frederick Mackie on tour 1852-1855*. Hobart, 1973, p.316. Button, *Flotsam and Jetsam*, op.cit., p.143.
- ³⁰ LE 14 Dec 1842, p.396/2. LE 4 March 1845, p.148/4. LE 12 April 1845, p.236/1. CC 12 April 1845, p.2/6. HTC 6 Jan 1847, p.1/2.
- ³¹ CC 26 Feb 1848, p.3/3. CC 8 July 1848, p.3/3. HTC 24 Feb 1849, p.3/2. LE 10 Mar 1849, p.161/3. CT 13 April 1849, p.2/6. LE 14 April 1849, p.240/2.

- ³² LE 14 April 1849, p.240/2. LE 25 April 1849, p.264/1. LE 2 June 1849, p.352/2. DT 16 Nov 1898. LE 1 Dec 1849, p.763/4. Gunn to Thompson, 4 May 1951, History Enquiries & Donations file 1951, QVMAG. Monds op.cit., p.30.
- ³³ CC 10 Mar 1852, p.278/4. CC 11 Aug 1852, p.505/2. LE 1 Dec 1855, p.5/4. LE 21 April 1852, p.278/4. LE 20 Oct 1852, p.709/2. LE 25 Feb 1854, p.1/7. LE 12 May 1853, p.497/3. CC 12 Oct 1853, p.1/6. LE 14 Mar 1854, p.2/1.
- ³⁴ LE 18 Jan 1855, p.3/6. LE 8 Aug 1855, p.1/5. LE 22 Jan 1856, p.1/6. LE 10 April 1856, p.1/3. CC 13 Mar 1858, p.5/7. RD 4/6389. Tas Cyc Vol.II, p.17. Monds op.cit., p.30.
- ³⁵ LE 31 Jan 1860, p.3/3. LE 20 Aug 1863, p.5/4. LE 16 June 1863, p.5/3. LE 17 Dec 1863, p.4/6. CC 19 Dec 1863, pp. 3/5-7, 6/6. LE 2 June 1868, p.4/6. DT 17 Nov 1998.
- ³⁶ LE 16 June 1870, p.4/6. ITN July 1873, p.14/4-15/1.
- ³⁷ QVMAG, Craig Collection: Priestley to Walker 21 Feb 1870 (unsorted box); Toan to Walkers 14 Mar 1870 (B2/1). LE 26 Oct 1876, p.4/4. LE 14 Nov 1876, p.2/2.
- ³⁸ DT 16 Nov 1898. WC 14 April 1910, p.14/2.
- ³⁹ DT 16-18 Nov 1898.
- ⁴⁰ WC 7 April 1910, p.14; 14 April 1910, p.14/2.
- ⁴¹ LCC TSD No.033-1. Ratcliff, Dr Eric & Jellyman, John R., *A Brief History of Ritchie's Mill*. Ritchie's Mill Art Centre, undated (c.1978?), p.5. Ritchie's Invoice Book, QVMAG 1995.MS.0021. LE 3 Aug 1929.
- ⁴² Royal Comm 1932-37, Vol.II, p.519. LE 12 Jan 1974. LE 15 Sept 1962. Merc 10 Feb 1959. Jim Hughes interview. QVMAG 1994 OH 18, p.1.
- ⁴³ CC 7 Jan 1837, p.2/3. HTC 3 Mar 1837, p.2/1. CC 1 Sept 1838, p.2/5. CC 20 July 1839, p.1/5.
- ⁴⁴ Whitfield, Ernest, *Early Launceston*, part 1, p.4. QVMAG. LE 28 April 1859. Button, Henry, *Flotsam and Jetsam*, originally published 1909, facsimile edition Launceston, 1993, p.153.
- ⁴⁵ CC 25 July 1840, p.2/4. LE 7 Oct 1858, p.3/5-6.
- ⁴⁶ ADB, Vol.I. QVM.1984.M.731, QVMAG. HTC 23 April 1841, p.2/4.
- ⁴⁷ LE 25 Mar 1843, p.1/2. CC 5 Aug 1843, p.2/6. CC 4 May 1844, p.3/7. CC 23 Aug 1845, p.98/1. LE 16 sept 1843, p.578/1. Jones, Lewis and Peggy, *The Flour Mills of Victoria 1840-1990: An Historical Record*. The Flour Millers' Council of Victoria, 1990, pp.167-8. ADB, Vol.I. Ramsay, Charles, *With the Pioneers*, Hobart, n.d., pp.142-3.
- ⁴⁸ LE 14 Oct 1843, p.643/2. Monds, op.cit., pp.21-2.
- ⁴⁹ LE 2 Sept 1843, p.547/2. HTC 12 Nov 1845, p.3/5. CC 12 April 1851, p.228/2. CC 6 Aug 1859, p.6/4. Monds, op.cit., pp.31-3.
- ⁵⁰ CC 6 Aug 1859, p.6/4. CC 26 Jan 1861, p.6/2. LE 8 Oct 1863, p.5/6. LE 26 April 1864, p.6/1. Chamberlain, Brian R., *The Launceston & Western Railway Co Ltd 1867-1904*, Launceston, n.d., p.4. CC 18 May 1874, p.2/4. VRs 1861-1889. QVMAG 1991 P 1362.
- ⁵¹ Abstract of title for mill site, and Marion D'Emden to Max Clemons, 16 Mar 1975, both in possession of Judith & Chris Clemons. LE 28 Jan 1880, p.3/1. CC 21 June 1845, p.3/6.
- ⁵² Abstract of title for mill site. CC 1 Aug 1846, p.584/1. LE 17 Feb 1849, p.112/1.
- ⁵³ LE 29 Oct 1853, p.50/1. LE 7 Jan 1852, p.10/3. Nicholls, Mary (ed), *Traveller under concern*, op.cit., p.59. LE 5 May 1853, p.473/4. CC 6 Aug 1853, p.4/5. LE 19 May 1853, p.521/2. CC 13 Oct 1855, p.3/6. CC 10 Oct 1857, p.6/4. CC 1 Oct 1856, p.6/3.
- ⁵⁴ LE 21 Sept 1854, p.1/3. LE 28 Aug 1855, p.3/6. CC 28 Mar 1857, p.3/1-5. LE 9 May 1857, p.1/5. CC 13 Feb 1858, p.1/2. LCC Correspondence Sept 1857, item 58, QVMAG. CC 16 Sept 1857, p.5/1.
- ⁵⁵ CC 13 Feb 1858, p.1/2. CC 24 Mar 1858, p.7/2. LE 20 Mar 1860, p.3/3. CC 21 April 1860, p.1/7. CC 29 June 1861, p.5/7. CC 21 Feb 1863, p.1/7. CC 4 Feb 1865, p.5/3. CC 27 Jan 1866, p.6/2. CC 17 Feb 1866, p.6/1. CC 8 Dec 1866, p.2/4. CC 6 April 1867, p.5/5.
- ⁵⁶ LE 20 Mar 1875, p.1/4. LE 15 June 1875, p.3/1. CC 18 June 1875, p.2/3. TM 8 Sept 1877, p.15. VR 1869-88. Abstract of title, op.cit.
- ⁵⁷ St Leonards Council Clerk Gurr to Dallas, 9 Feb 1960, UT 516/1-3.
- ⁵⁸ LE 28 Oct 1848, p.703/3. CC 7 Aug 1847, p.3/4. 1858 Launceston map in Launceston Library.
- ⁵⁹ LE 30 Dec 1848, p.10/2. LE 17 July 1886, p.1/8.
- ⁶⁰ CC 1 Oct 1851, p.621/3. LE 17 Jan 1852, p.39/3. CC 16 Oct 1852, p.676/3.
- ⁶¹ CC 14 Mar 1857, pp.5/5, 7/5. LCC correspondence Aug 1857, item 57. QVMAG. VRs 1853-1891. AOT AC 705, no.149.
- ⁶² Charles S. Button, "Notes on my life", 1896, ms. in Launceston Library. CC 26 Sept 1846, p.741/3. LE 17 July 1886, p.1/8. CC 3 Nov 1852, p.719/4. QVM 1984 M 205, QVMAG. LE 20 Jan 1853, p.66/2.

- ⁶¹ CC 7 May 1853, p.4/4.
- ⁶² Monds, op.cit., p.35. LE 12 Aug 1854, p.8/2. LE 3 Feb 1855, p.3/6. Button, *Flotsam and Jetsam*, op.cit., p.242.
- ⁶³ Monds, op.cit., p.35. CC 10 Oct 1857, p.6/1. LE 17 Mar 1859, p.3/6. VR 1862.
- ⁶⁴ Scott to Calder 20 Dec 1852, Calder collection, F Box 89/3, p.273, LTAMC, SLV. Scott's will, in possession of Jim Scott.
- ⁶⁵ Harris, Simon, *A Magnificent Failure: Governor Arthur's Water Supply Scheme for Launceston from the South Esk at Evandale: 1835-7*. Hobart, 1988, p.95. LE 9 Jan 1858, p.1/2. LE 22 May 1858, p.1/3. LE 18 Nov 1858, p.3/4.
- ⁶⁶ CC 12 Feb 1859, p.2/1. CC 9 April 1859, p.5/7. CC 4 April 1860, p.1/6. LE 4 Aug 1860, p.5/6. QVMAG LCC 6/8/1, letter from Ritchie & Parker Alfred Green & Co., 27 May 1933. LE 10 Mar 1868, p.5/6. LE 23 April 1866. Supp p.2/2. VRs 1860-70.
- ⁶⁷ LE 30 Aug 1866, p.3/5. QVMAG LCC 6/8/1, letter from Ritchie & Parker Alfred Green & Co., 27 May 1933. LE 18 Jan 1867, p.3/6.
- ⁶⁸ VRs 1872-1888. LE 7 Dec 1881, p.1/2. LE 17 July 1886, p.1/8. Scott's will, in possession of Jim Scott. Scott & Clark to Taylor, 8 Jan and 29 Oct 1890, in Salisbury Letterbook, March 1890-Feb 1891, DR35. QVMAG. Scott & Clark to Rankin & Chandler, 19 June 1893, Letterbook. Glasgow Engineering, QVMAG. AM Aug 1893, p.12, & Nov 1893, p.12.
- ⁶⁹ *Federalist*, 12 May 1899. QVMAG LCC 6/8/1, letter from Ritchie & Parker Alfred Green & Co., 27 May 1933. Newspaper cutting (unnamed) 19 Dec 1928. Robert Hogarth pers.comm. 26 April 1996. ITM 1 Dec 1932.
- ⁷⁰ Harvey to Dallas 21 Jan 1968, UF/516/1-3.
- ⁷¹ VR 1869. Monds, op.cit., p.1. LE 18 June 1870, p.5/1. LE 21 June 1870, p.5/6. LE 6 Aug 1870, p.1/2. LE 17 July 1886, p.1/8. LE 27 May 1871, p.5/1.
- ⁷² Tas Cyc Vol.II, p.122. LCC 1991 AD 68 & 222; 1976 No.29. Jack Shennan pers.comm. 3 Feb 1999.
- ⁷³ Tas Cyc Vol.II pp.125-6. LCC 1991 AD 44. Monds, op.cit., p.1. AM Oct 1897, p.193; 11/1898, pp.212 & 230.
- ⁷⁴ LE 5 Jan 1898, p.4. Tas Cyc Vol.II p.126. QVMAG 1995 MS 0021. AM 30 Mar 1907, p.7.
- ⁷⁵ LE 8 Sept 1923. National Trust Mills file.
- ⁷⁶ "Mills - Crown Flour Mill" file in Local Studies collection, Launceston Library.
- ⁷⁷ VRs 1882-1900. Monds, op.cit., p.53. WC 10 Nov 1908, p.4.
- ⁷⁸ Mary Walker in "Monds & Aifleck mill" in National Trust files. LE 8 Sept 1923. Jim Hughes interview. QVMAG 1994 OH 18, pp.3, 17.
- ⁷⁹ Tony Hughes pers.comm. 24 May 1994. Russell Fyfe pers.comm. 12 Feb 1999. Jim Hughes interview. QVMAG 1994 OH 18, pp.6, 34-6.
- ⁸⁰ LE 31 Aug p.1 & 1 Sept pp.1-2 1995.
- ⁸¹ Bethell, L.S., *The Story of Port Dalrymple*. Hobart, n.d., pp.17, 19. HRA III, III, pp.412 & 384.
- ⁸² HRA III, II, p.480. HRA III, III, pp.384, 378. Bethell, op.cit., p.34. Button, op.cit., p.397.
- ⁸³ Button, op.cit., p.397.
- ⁸⁴ QVMAG 1984 M 361. HTC 27 Dec 1833, p.2/1. HTC 2 Feb 1838, p.2/1. CSO 24/98/3017 p.115. Merc 6 Feb 1935.
- ⁸⁵ Bethell, op.cit., p.2. Kennedy-Tyson, Keith, "Supply River Mills Site", 1997, p.6.
- ⁸⁶ Wedge diary. Ross *Almanack*, 1829, p.56. CT 1 June 1827, p.1/4.
- ⁸⁷ CT 3 Mar 1826, p.4/1; 19 May pp.1/4 & 3/1. CT 23 June 1826, p.1/2; 11 Aug, p.2/3; 22 Sept p.3/1. Kennedy-Tyson, Keith, op.cit., p.7. HTG 16 Dec 1826, p.1/4. HTG 2 Dec 1826, p.2/3. HTG 16 Dec 1826, p.2/3.
- ⁸⁸ CT 15 Dec 1826, p.2/4. HTG 23 Dec 1826, p.2/5. HTG 30 Dec 1826, p.2/3. HTG 27 Jan 1827, p.1/3. HTG 24 Feb 1827, p.2/3.
- ⁸⁹ HTG 3 Mar 1826, p.2/2. CT 6 April 1827, p.1/3. Kennedy-Tyson, Keith, op.cit., p.9. See also CT 13 April 1827, p.1/3.
- ⁹⁰ HTG 9 June 1827, p.2/1; 4 Aug p.2/2. Kennedy-Tyson, Keith, op.cit., p.9. CT 17 Aug 1827, p.1/3. CT 21 Sept 1827, p.1/4. Bent's *Tasmanian Almanack*, 1829, p.147. HTC 27 September 1828, p.1/2.
- ⁹¹ Kennedy-Tyson, Keith, op.cit., p.10. *The Tasmanian*, 15 Aug 1828, p.3/2.
- ⁹² LA 25 May 1829, p.3/3. LA 10 Aug 1829, p.1/1. LA 12 Oct 1829, p.3/1. LE 17 July 1886, p.1/8. Button, op.cit., pp.406-7, 396. Bethell, op.cit., p.36. 1831 Ross *Almanack*, p.144. Kennedy-Tyson, Keith, op.cit., p.11.

- ⁹⁵ Geoff Sharman pers.comm. 20 Dec 1996. SG 1 Jan 1829, p.4/1. Kennedy-Tyson, Keith, op.cit., p.11. LA 16 Nov 1829, p.1/2. HTC 16 May 1829, p.1/1. HTC 27 June 1829. LJ 18 May 1833, p.1/3. LA 17 Sept 1835, p.3/1.
- ⁹⁶ CC 11 Nov 1837, p.3/6; 9 Dec p.3/2. Monds, op.cit., pp.17 & 31. LE 17 July 1886, p.1/8. CC 26 Nov 1836, p.3/5. CC 9 Dec 1837, p.3/2. LE 3 Dec 1842, p.369/3. CC 26 Oct 1839, p.2/4.
- ⁹⁷ Monds, op.cit., pp.1, 19-21. Sharon Morgan files, QVMAG, quoting AOT file.
- ⁹⁸ Monds, op.cit., pp.17-19. Smith diary, QVMAG, 14 Feb 1883, 14 Dec 1885.
- ⁹⁹ Parsons, Ronald (compiler). *Australian Shipowners and their Fleets*, Lobethal, 1992, Book 11, pp.27-8. Monds, op.cit., pp.18, 20-21. HTC 9 Dec 1842. HTC 30 June 1843, p.3/3. CC 6 Feb 1847, p.109/3.
- ¹⁰⁰ LE 2 Sept 1843, p.547/1. LE 16 Jan 1848, pp.38/4-39/1. LE 17 Mar 1849, p.177/2. CC 14 April 1849, p.510/2. ADB, Vol 6. Smith to Dallas, 14 Feb 1955, Dallas Papers, UT 516/1-3. Monds op.cit., pp.29-30.
- ¹⁰¹ Shaw Papers in the possession of Pam Shaw. CC 6 Mar 1852, p.1/4. LE 3 Nov 1852, p.737/4. CC 6 Nov 1852, p.727/3. LE 2 Sept 1854, p.1/6. LE 14 April 1855, p.3/6. CC 26 Sept 1855, p.6/4. CC 25 June 1856, p.1/6. LE 5 May 1877, p.7/4. LE 6 May 1856, p.3/7. CC 24 Oct 1857, p.1/4. LE 17 July 1886, p.1/8.
- ¹⁰² Kennedy-Tyson, Keith, op.cit., pp.18-20. CC 19 May 1860, p.7/7. CC 26 Mar 1864, p.5/3. Merc 11 Oct 1865, p.1/7. Shaw Papers in the possession of Pam Shaw. VRs 1866, 1868-76. LE 23 June 1874, p.2/3. LE 29 April 1875, p.3/7.
- ¹⁰³ LE 5 May 1877, p.7/4. LE 12 April 1878, p.1/2. LE 7 Dec 1881. Kennedy-Tyson, Keith, op.cit., pp.20-1, 55-56. LE 17 July 1886, p.1/8.
- ¹⁰⁴ LE 6 June 1972. David Parham pers.comm. 9 April 1998.
- ¹⁰⁵ Craig, Clifford, *Old Tasmanian Prints*, Hobart, 1964, p.157. LE 12 May 1874, p.2/5. CC 21 Jan 1837, p.2/2. CC 3 Mar 1838, p.3/6. LA 21 June 1838, p.1/1. CC 13 Oct 1838, p.3/5; 29 Dec p.3/7; 7 Mar 1840, p.2/2.
- ¹⁰⁶ LE 17 July 1886, p.1/8. Thomas, B.W., *The Appledore Papers: The Farming Journals, Papers & Letters of Bartholomew (Bat) William Thomas 1845-1894*, a transcription by the Devon Historical Society, Devonport, 1988, entries for 18 Nov 1848, 23 May 1856. Judy East pers.comm. 31 Oct 1997. LE 12 May 1874, p.2/5. CC 4 July 1849, p.695/3. CC 9 June 1855, p.1/5.
- ¹⁰⁷ VR 1859-72. LE 24 April 1869, p.3/6; 15 July, Supp p.1/6; 23 Sept, p.4/1. LE 5 Mar 1870, p.1/2. LE 17 Dec 1870, p.5/4. CC 31 Oct 1873, p.3/1.
- ¹⁰⁸ Ernest Hill, as told to Margaret Tassell - pers.comm. 18 Mar 1997. Judy East pers.comm. 31 Oct 1997.
- ¹⁰⁹ Wedge diary, 8 Aug - 8 Sept 1825. LE 17 July 1886, p.1/8. Gerald & Lou Archer pers.comm. 21 Mar 1997.
- ¹¹⁰ Cuttings in the possession of Judy East. LE 23 Oct 1860.
- ¹¹¹ Tucker, William Ewart. "Notes on the life of William Thomas Tucker", (1943?), LRL, SLT. Hookway, Eileen, et.al. (eds). *Scott's New Country*, 1980, pp.6-19, 51.
- ¹¹² Hookway, Eileen, op.cit., p.51. LE 9 May 1868, p.4/6-5/1. LE 3 Sept 1874, p.2/7. Eastcal, B.V., "The Chinese in Tasmania 1870-1900", unpublished Honours thesis, University of Tasmania, 1966, p.5.
- ¹¹³ Tucker, William Ewart, op.cit. Hookway, Eileen, op.cit., p.51.

CHAPTER TEN

THE SOUTH ESK: LONGFORD TO ST MARYS

10.1 Longford

10.1.1 Smith's mill

The rich and extensive plains around what is now known as Longford were selected by Governor Macquarie in 1811 as the best place to settle the final group of Norfolk Islanders after the complete abandonment of that early settlement. Because of their origin, he called the area Norfolk Plains. The settlers arrived in 1813 in the *Lady Nelson* and the *Minstrel*, with a few in the *Estramina*, and were given blocks of land of between 40 and 80 acres on each side of the South Esk River in the vicinity of what is now Pateena Road. Much wheat was grown, particularly by the married men who were endeavouring to support their families, and it is therefore not surprising to find that the first mill in the area was erected by 1822 and was on the farm of one of these Norfolk Islanders.¹

In October 1822 the *Hobart Town Gazette* announced that at "Port Dalrymple...there are now two mills erected; one a windmill, built by Mr. J. Smith..." (The other was at Corra Linn, begun by another Norfolk Islander, James Brumby—see 9.1.3.) Less than two years later Smith advertised:

To be sold by Private Contract, a Farm, situate at Norfolk Plains, known by the name of Roache's (sic) Farm, containing 50 acres, the whole in cultivation, with an excellent Stone-built Dwelling House.... There are also erected on the Farm, a large Barn sufficient to hold 1000 Bushels of Wheat in the Sheaf, a small Wind-mill, with out-buildings....For further particulars, apply to Mr John Smith, Launceston.

William Roche's 50 acres were on the western side of and fronting on to the South Esk (map reference approximately Longford 087979), and later became part of Esk Farm. Presumably by 1822 Roche had sold out to Smith, who from the advertisement was obviously not the Dr John Smith who had a practice at George Town and at Norfolk Plains. Nothing further has been found.²

10.1.2 Independent Mill/Longford Steam Mill

The next mill to be built at Norfolk Plains was to be altogether a more substantial and long-lasting affair. It was built by the Kent-born James Houghton who had arrived in the colony on the *Christiana* and who in 1829 owned, and was offering for lease, Launceston's Globe Hotel complete with brewhouse. In 1831 he opened the two-storey Cornwall Stores in Charles Street and was selling wheat, flour and meal, and it was presumably the profits he could see coming from the provision of flour that enticed him to change direction again and build a mill. The rapidly developing and rich wheat-growing area of Norfolk Plains must have seemed the ideal place and he leased his stores (certainly by June 1834 and probably earlier) for the healthy sum of £150 per annum, moved to Norfolk Plains and in March 1833 advertised for a millwright to erect a windmill. While waiting for the mill he evidently opened a store and later added a blacksmith and farrier's shop.³

According to the 1886 “Our Early Mills and Millers”, the builders of the mill were Mr Tucker and Mr D. Best. Tucker could well have been Thomas Tucker who in 1827 asked the government for an allotment at Ross Bridge so he could begin his occupation of Stone Cutter and Builder, and was probably father of that Thomas who later operated as a miller in Longford and then moved in the 1850s to Scottsdale and built the Scottsdale mill (see 9.6). It was not until the end of 1834 that Houghton advertised for a miller and finally in February 1835 he was able to announce that the Independent Mill was in full operation, with “a competent person as Miller, (lately arrived in the Colony)”. The mill was thus only the second tower mill in the colony, after the Trafalgar Mill in Richmond and preceding the Battery Point mill by some years (see 6.3.2 & 2.14). It is possible that it was a wooden smock mill on a brick base. By May Houghton had added a bolting machine. In March 1836 the mill was rented by his son Frederick James Houghton in partnership with one Charles Davis, “a professed Miller”. The partnership, however, was evidently not a happy one as only three months later the partnership was dissolved and Houghton announced that he would not be responsible for any debts contracted by Davis. However, like his father, Fred Houghton was not a miller and he was forced to employ one.⁴

Following James Houghton’s death in 1838 his widow Sarah advertised:

To be Let on Lease, for a term of seven years: The Tower Windmill, situate in the Township of Longford, Norfolk Plains; runs two pair of four-feet six inch French Burr-stones, together with Dressing Machine and Hoisting Tackle. There is about one acre and a half of Ground, and a Cottage thereon erected. For further particulars apply to Mrs Houghton, Norfolk Plains, or to Mr P. Jacob, Launceston.

In view of the later history of the mill, the addition of the name of Peter Jacob is of interest; he must have had an ongoing relationship with the family as when J. Houghton went temporarily to Victoria in 1840 he appointed Jacob as his attorney—presumably agent rather than lawyer. (“J.” was probably F.J., as the latter is known to have moved to Victoria at about this time to become Victoria’s first auctioneer while James jnr was then only 11 years old.) For at least twelve months in 1843-4 Jacob was renting the “Houghton Mill” (the name “Independent” is not used again) which had had new dressing and smutting machines added. It was while Jacob was at the mill that the 26-year old miller Charles Stephens was struck by lightning during a thunderstorm and was killed; it is possible that he was reefing the sails of the mill prior to the arrival of the storm. Jacob disappears from the papers for some time and it seems as if Sarah ran the mill, possibly until 1846 in partnership with her son Fred. Certainly it was Sarah who advertised in 1848 that the mill, “having undergone a complete thorough repair, is now ready to execute grist work of every description.”⁵

However, she was in some financial difficulties. It is quite likely that at least one of the causes was the establishment in the Longford area of two new mills (at Newry and Wickford—see 10.1.3 & 10.1.4). In August 1848 all of her properties, including the Plough Inn and the 4-storey brick mill, were offered for auction. The mill property had a narrow frontage on Wellington Street of only 11m but the block was long—up to 162m. The lengthy advertisement waxed lyrical about the opportunity now offered, with the mill:

...in excellent repair, and doing an extensive trade, which is daily increasing and must continue to increase from the circumstance that it is the only mill at Longford. In fact this valuable property cannot fail to command a rapid fortune for an enterprising owner.

However, the lots did not sell and the enterprising owner who already had the property could not command a rapid fortune, despite (or perhaps because of) the fact that her son James was now advertising that grinding and dressing would cost only sixpence per bushel cash. In April of the following year Sarah was taken to court by Joseph Solomon for non-payment of debt and the Sheriff ordered the lots to be auctioned.⁶

It appears that Peter Jacob bought the mill at the auction, as he was later the owner. His next actions indicate perhaps why the Houghton family had had financial problems; he added a steam engine to the mill in a separate stone building. The notorious unreliability of windmills combined with the competition from the watermill at Newry and the Wickford Steam Mill had presumably reduced the custom for the windmill to such an extent that steam seemed to be the only answer. In January 1851 Jacob advertised that he had “re-opened the Longford Steam Mill” and required a miller. Since 1845 he had been operating a store in Longford and when he moved to a new store, Sheppey House, he advertised that he would always keep a stock of flour from the mill on hand. Wheat would be ground and dressed for eightpence a bushel. The effect of the gold rushes can be easily gauged from his advertisements over the next few years. In June 1852 “in consequence of the increased price of labor (sic) and fuel” he raised the price for grinding and dressing to one shilling, and then in May 1853 to two shillings, but in March 1855 the price dropped back to one shilling and sixpence.⁷

By 1856 Fred Houghton was back in Launceston, operating from the Cornwall Auction Rooms which presumably were his father’s old premises in Charles Street, and he operated as a town agent for Jacob. It was probably fitting that when Jacob eventually decided to sell up in 1858 it was Houghton who was employed as the auctioneer. Jacob’s reasons for selling are a matter for conjecture, but it would seem that once the boom times of the gold rushes had gone the mill was no longer viable. This was particularly so as there was now another steam mill in Longford (see 10.1.5) to offer still more competition. The property for sale included a large brick shop fronting on Wellington Street, a cottage in an adjacent lot and:

The brick-built Longford Steam Flour Mill, with 12 horse-power engine, two large boilers, 17 feet [5m] long, set in a good stone building, with galvanised iron roof, driving three pairs French burr stones, patent dressing machine, six-feet [2m] cylinder, with smutting machine, elevators, hoisting tackle, well of water, fitted with pump, &c. all complete; together with a large iron store...[and] two-storey wood store.... The whole standing on a large piece of land, with blacksmith’s shop, stable, coach-house, men’s house, cattle-yard, piggeries, and a good well stocked garden. The whole of the machinery of the mill was entirely refitted in December last, and will be found in first-rate working order.⁸

When the mill was passed in at £1700, Jacob offered it for lease but within a few weeks the mortgagees instructed that it be sold. However, once again the premises failed to sell. In 1859 “Jacob and Tucker” were selling off their 12 horse-power steam engine. This Tucker was almost certainly Thomas Tucker who evidently had been Jacob’s miller and was now preparing to move to Scottsdale. Finally in 1860 Jacob was declared insolvent and J.F. Hobkirk was appointed the assignee. In May he called for tenders for much of the milling machinery, including a Robinson dressing machine and two pairs of four feet six inch and one pair of four feet French burrs, as well as a 15 horse-power engine and the iron store, while in November the mill itself with remaining machinery was up for auction yet again. Possibly at this time the premises were bought by Mrs E. Archer—she certainly owned it by 1864—and not intending to use the mill she sold one pair of stones plus the smutting and dressing machine to Charles Harris of Westbury (see 11.9.2). In 1864 Jacob was still trying

to sell off the remaining two pairs of stones and the engine. Two years later Peter Jacob, postmaster, died at Longford at the age of 70.⁹

Just when the sails disappeared from the windmill is not known, although they are not there in a post-1871 sketch by E. Neville. The tower stayed for many years (to the east of Wellington Street just south of its junction with Marlborough Street) until in 1903 a travelling correspondent for the *Daily Telegraph* reported that this “very ancient landmark” which had stood at the rear of Brown’s drapery shop had recently been pulled down. According to William Rudge (see 12.5.2) the mill was in a wonderful state of preservation and was bought for its bricks.¹⁰

10.1.3 Newry Mill

Considering that Longford was well positioned at the confluence of two major rivers, the South Esk and the Macquarie, it is perhaps surprising that it took so long to build a watermill in the area. Presumably the two watermills at Perth (see 10.2) along with the Independent Mill were enough to serve the area initially; in 1834 the operator of the punt at Longford, William Brumby, advertised that all Norfolk Plains wheat intended to be sent to Ritchie’s mill would be conveyed across the river at half price. It was not until the 1840s that a mill was built at Newry on the South Esk, with a dam upstream of the large loop which the river forms in that area and the mill race cutting off the loop. It is possible that the stimulus for building the mill came from the construction about 1843 of Pateena Road which gave access to the area; the old Muddy Plains Road had been notoriously subject to flooding. Just who built the mill is unclear. The earliest references call it Badcock’s, but as in 1848 he was only leasing the mill it would seem he was not the owner. In 1897 a newspaper article which is otherwise accurate says the mill was built by a Mr Heazlewood. No definite record of its date has been found, either. The unreliable writer of “Our Early Mills and Millers” says it was built in 1847, but the Mills and Manufacturing Returns for 1843 register an increase of watermills in the wider area from three to four, so this would seem to more reliably indicate its erection date.¹¹

The first newspaper reference found is an 1848 notice that the estate of 300 acres on the banks of the South Esk near Longford in the occupation of John Badcock would be auctioned, along with “the Mill thereon, now in full trade and capable of doing a very extensive business.” Unfortunately the name of the owner is not given. In 1850 the Sheriff’s Office announced that as a result of a writ from the Bank of Australasia against one Reid the defendant’s interest in Badcock’s Mill would be sold, and a month later A.C. Murray announced:

Newry Mill (late Badcock’s)—This mill having undergone thorough repair, the undersigned is prepared to grind and dress at Four Pence per bushel. All carts bringing grain to the mill or taking it back, have free puntage.

This is the first time the mill was referred to as Newry, the name by which it continued to be known for the rest of its history. The fourpence per bushel was even lower than the sixpence being asked by Houghton in 1848 (see 10.1.12), although by 1851 the price had gone up to sixpence.¹²

In 1852 the mill was occupied and possibly owned by W.H. King who had stores in Launceston, but in April that year Newry estate was put up for auction. The advertisement describes what is obviously by then a highly-developed estate:

The Valuable Estate of Newry (formerly known as Baddock's)...upon the property is erected a substantial brick built flour mill, now in full operation, with all the requisite out-buildings, miller's house, huts, piggeries &c. The supply of water is never failing; there is also a comfortable homestead and residence, with large barn, sheds and other farm buildings.... The property is now let to a respectable tenant for a term of 6 years, at the annual rental of £180. Terms:- £1700 can remain secured upon the property.

King continued in occupation until 1856. He was lucky during the 1852 floods which destroyed Mrs Dunning's mill at Perth (see 10.2.1) and swept away the Longford Bridge; although the water rose up to the eaves the Newry mill remained standing. The writer of the Mountford diary wrote at the time that the "last was a night of horrors, above the roaring of the flood we constantly heard the cries of people for help and this day presents a shocking scene of desolation."¹³

In 1856 the mill with two pairs of stones and smutting and dressing machines was put up for auction and was bought by Alexander Clerke for £2500. Clerke was an Irishman who migrated on the *Letitia* in 1828. Following a shipwreck he returned to Europe to claim compensation, leaving his wife Frances to arrive in Van Diemen's Land alone, and did not return until 1830. After time at Coronea at Hadspen and Westbury, he built Ravensworth at Longford and then acquired the Mountford property from George Palmer Ball in 1847. He was also the earliest to take up a grant at the Leven River. In 1853 he lost an eye and had two fingers amputated after a shooting accident. Clerke was a member of either the Legislative Council or the House of Assembly for much of the period 1853-74. Interestingly, in an 1862 election he received the same number of votes as Fred Houghton, auctioneer and butcher—and ex-Houghton Mill lessee. It was only the casting vote of the returning officer which saw Clerke returned. After his death his obituary described him as a "shrewd man of business, and though exceedingly careful of his means [he] was always found to be a straightforward and just man...."¹⁴

Clerke's family had an interest in the Skibbereen Mills in Ireland and he himself was a trained engineer, so it was perhaps not surprising that he decided to buy the Newry mill on the property adjoining his. No doubt too he could see some good profits to be made, especially as he was a leading grower of wheat which now could be ground more cheaply; at the time he was utilising the new Emerald Mill in Longford (see 10.1.5). The fact that he immediately set about re-building the mill would indicate that the first mill, although brick and barely ten years old, was a relatively flimsy affair. Various members of the Clerke family wrote a daily diary which is of invaluable help in determining the course of the rebuild. One of Clerke's first actions was to buy a lighter, or small boat, to assist in the carting of materials; his son William managed on one occasion to sink it with a load of clay but it was recovered. The millwright Peter Ferguson was employed for twelve months for two pounds a week, his first known mill work since working on the Trafalgar Mill at Richmond in 1832 (see 6.3.2). On the whole Ferguson appears to have worked well although on one occasion, according to the diary, "Ferguson drunk and away", and on another Thomas Ritchie of the Emerald Mill said Ferguson was incorrect in some matter relating to a millstone.¹⁵

The mill race was widened and its course considerably altered, but a substantial addition to the height of the mill dam proved to have a deleterious effect on the banks (of the river or the

race?) and it had to be lowered. In June 1857 the old mill was pulled down, with the foundations found to be in a better state than expected, and the new brick one erected in its place. The carpenter Alexander Gill who worked on it wrote to his father that the mill was “5 story high 70 feet long by 25 wide inside [21m by 7.6m] driven by water power 4 pair stones, there has been a deal of heavy work on it.” Milling machinery was imported on the *Lord Clarendon*, arriving in January 1858. Three new pairs of millstones were installed along with one other pair which presumably had been in the old mill, and in March the water was turned onto the wheel for the first time. In April one Nichols was employed “on wages” as miller, possibly a relation to the southern Nichols family who were involved with various mills including one of the Rokeby windmills (see 6.1.2). The road leading from the quarry to the mill was ploughed up and a new road made for carts to access the mill, evidently along the river flats in front of Mountford. In May William Clerke was advertising that he would buy wheat for cash at the Newry Mills but it was not until 24 June that the diary mentions that “William started the mill to grind flour for the house”, which presumably was the first occasion. Finally in August William advertised that the mills had been completed and were in full operation. The mill with Longford behind was sketched at about this time by Emma von Stieglitz. (Karl von Stieglitz is wrong in identifying the picture as being the view from Mountford; and his date of the 1840s is also almost certainly wrong as the sketch is much more likely to have been of the five-storey Clerke mill.)¹⁶

William was to run the mills for several years. He was the eldest son (probably born 1833) who had spent some time on the North-West Coast. When he returned in June 1856 the diary writer noted: “William returned from the Forth with ulcerated legs he is utterly sick of the bush and is now about to locate himself at Newry Mill.” It is surprising to find that towards the end of 1859 Clerke offered the mill for sale, even though it was doing “an excellent and increasing grist trade”. However, it did not sell and William continued in occupation. An article written in the *Daily Telegraph* in 1905 recounting the trials and tribulations of settlers at the Leven River says that they used to send their wheat to Clerke’s mill at Longford, presumably because of the North-West Coast connection although surely it was more difficult of access than some others. In February 1860 William added a powerful chaff cutter to the mill, but his father wrote that he did not find it at all profitable to utilise it, having a chaff cutter and horse works of his own. In 1863 William became insolvent and spent time in custody. By 1867 he had developed “religious mania” and in 1868 was sent to the New Norfolk asylum where he eventually died in 1896.¹⁷

His father evidently took over running the mill, employing George Blackwell as manager, until 1867 when he offered it for lease. Interestingly, it was Thomas Ritchie who took up the offer; he had been the owner and occupier of the Emerald Mill in Longford for some years (see 10.1.5) and it may be yet another example of someone who had a steam mill expecting a watermill to be more profitable. It appears, however, that he was there for only one year as by July 1868 Thomas Stevens had moved from the Emerald Mill and was advertising a price of fourpence a bushel for grist work. He also announced that the road to the mills had been much improved at considerable expense. Stevens died in 1869 and it is unknown who leased the mill for the next two years, but in February 1871 the following advertisement appeared in the newspapers:

Newry Mills, Longford—T. Affleck begs to inform the residents of Norfolk Plains, Cressy, Bishopshourne and the public generally that he has leased the above mills from A. Clerke, Esq. and trusts from his long experience in milling (having been for 10 years

head miller for Mr. David Ritchie) to receive a fair share of public support.... No charge for storage.¹⁸

Thomas Affleck was born and served his apprenticeship in Dumfries, Scotland, before moving on to Glasgow for a period. He emigrated to Tasmania in 1860 and worked for a short time at the Carrick watermill until he secured the position of head miller with Ritchie at Scone mill, a position he held until the mill burnt down in early 1870 (see 10.2.3). He then commenced work at Ritchie's new steam mill in St John St, Launceston (see 9.1.13). It would be nice to speculate that he found the noise of a steam engine too much to take after spending so many years in watermills. More likely, of course, was the realisation that he now had the opportunity to work for himself and make more money, and this ambition was certainly realised; he built the Newry business up to be one of the largest mills in the colony.¹⁹

Affleck continued to rent the mill for five years and then, following Clerke's decision to retire to the Leven, bought the Newry mill in 1876. (Mountford was sold to Alan Mackinnon, and in 1877 Clerke died at his Ulverstone property Sea View at the age of 73.) In 1873 Affleck established a wheat and flour depot in Longford adjoining W.H. King's and opposite the railway station which had been opened in 1871 at the north of the town. This would have enabled him to sell his flour throughout the colony. However, nine years later in 1882 he opened an iron store opposite the Prince of Wales Hotel and possibly no longer used the earlier one. In 1877 he joined forces with Monds at Carrick and Nickolls of the Emerald Mill to advertise that, in consequence of an increase in expenses, they would be charging a common grinding rate of sixpence a bushel for anything under 50 bushels, fivepence for over bushels.²⁰

The following year he added steam power to the mill with the installation of a McCall, Anderson & Co. beam engine. Unusually, this was not to supplement water power when the water level was low, as Newry always had a very good supply of water; Affleck needed the steam power for when floods prevented his water wheel from working. Flooding was a perennial problem. During the 1893 flood when the water at his mill was 27 feet [8m] above its normal summer level—and therefore must have flooded the mill to quite some depth—he also found his iron store in Longford in trouble and spent a day using his teams of horses to move all the grain there to the somewhat higher Emerald mill which he was using as a store as well (see 10.1.5). About 1886 Thomas' son John entered into partnership with his father and their steadily increasing custom led to theirs being one of the first mills (after Ritchie's in Launceston—see 9.1.6) to install a complete roller plant. In order to accommodate this another storey was added to the mill. (Affleck called this the fifth storey; perhaps Gill's description of the mill having five storeys included the bin floor.) The rollers with a capacity of six sacks an hour were installed in 1890, and it was probably at the same time that the water wheel was replaced with two 30-horse power Leffel turbines, and the old beam engine with a new horizontal steam engine made by W.H. Knight of Launceston. They were certainly in place by 1890. In September 1895 Affleck & Son added a powerful compound condensing engine. At least in the 1890s and possibly earlier the mill worked day and night without stopping, and the photograph of the mills at this time shows a very big commercial complex.²¹

However, on 5 December 1897 the mill was destroyed by fire, only the chimney stack and part of the walls surviving. The head miller, William Reid[†], noticed the fire in the evening and even though a fire engine was brought from Longford, only 50 bags of wheat, a few bags of flour and the books were saved. The insurance money of £4500 still left Affleck & Son out of pocket to the tune of about £1000 through uninsured produce. The loss could not have happened at a worse time for the firm, as they had just spent a considerable amount of money building the new Crown Mill in Launceston (see 9.1.14). However, it did mean that they could continue trading from there until they were able to rebuild. They made the decision to vacate the Newry site and build in Longford itself, behind their iron store in Union Street (see 10.1.6).²²

The Newry site was sold for £500 to the Longford Water Trust which utilised one of Affleck's turbines to operate a pumping plant made by Bogle and Clark to lift water to the Mountford reservoir. This continued in operation until the 1920s when an electrical operation was installed closer to Longford. The mill site can be seen on the eastern bank of the mill race (map reference Longford 098972), although the remains are almost certainly of the pumping plant not the mill. The mill dam is a popular swimming area and the mill race is still live. A Derbyshire (?) millstone with spindle is in the Mountford yard.²³

10.1.4 Wickford Mill

At about the same time or soon after the Newry Mill was built, another one was erected in the Longford area. This was a steam mill, the first in the district and only the fourth in the north, after Gaunt at Windermere, Griffiths at Launceston and Hunter in Evandale (see 9.4, 9.1.8 & 10.3). It was built by Henry Clayton, a Norfolk Islander who had arrived in 1813 on the *Minstrel* and who had worked hard to increase his fortune. He built an inn, the Norfolk Arms, on his grant and operated a punt across the South Esk, charging one shilling and sixpence for the crossing. He prospered and by the 1830s had bought up many of the small farms originally granted to fellow Norfolk Islanders; eventually his estate of Wickford measured 900 acres and he owned another 1200 nearby. A major wheat grower, Clayton in 1840 produced such an excellent crop of wheat that after it had been turned into flour, sharps and bran at the Cataract Mills it was individually advertised for sale. During the 1840s Clayton bought four ships for trading.²⁴

Just what prompted him to go into flourmilling is unknown. It is quite possible that the difficulty of getting his own wheat to a mill was a major factor, especially as the section of road between his property and Reibey Forest to the north, known as Clayton's Lane, was considered one of the worst roads in the colony, indeed almost impassable. If the old mill at Carrick was at the time being rebuilt, which is likely (see 11.7.1), then a new mill close to home would have seemed not only a good idea for his own wheat but also a profitable venture. In July 1845 he advertised for "a competent person to erect a ten horse power steam engine in a Flour Mill" and in February 1846 he announced that grinding and dressing at the Wickford Steam Mills would cost sixpence a bushel. This price was reduced to fourpence a bushel in 1849 because of the low price of wheat. William Williams, later of the Supply Mills (see 9.3), operated as an agent for Clayton's flour in Launceston.²⁵

[†] William's son Samuel, also a miller, eventually moved to New Zealand and his daughter Phoebe married one Roy Lange. Their son David was to become New Zealand's Prime Minister.

By 1853 Henry's son, Charles, was running the mill. At the same time two more of his sons, Nicholas and Richard, were leasing the new Deloraine Steam Mill which Henry had just built (see 11.11.1), so it can be assumed that Clayton had found the milling business remunerative. However, his family was to run into difficulties, with the two Deloraine millers becoming insolvent by 1855 and Clayton snr advertising sternly that the "public are requested not to give credit to any person whatever on my account without my written authority in future". In 1856 he offered the mill for lease and once again Charles took over, but when in 1858 the Wickford estate was to let, it included the steam mill "driving two pairs of four feet French burr mill-stones; six feet patent dressing and smut machines; a comfortable cottage, men's hut and kitchen, with ten acres of land adjoining. A supply of wood for the use of the mill and house allowed."²⁶

Richard Clegg (who had been at the Supply Mills—see 9.3) and then John Fawnell took the mills for a period in 1859, but in 1861 Henry Clayton announced that he was "about to start the Wickford Steam Mill, which is to be carried on under his own management." His miller was one Stevens, probably the Thomas who was later to work at the Emerald Mill and then Newry (see 10.1.3). But in 1863 Clayton decided to visit New Zealand, taking with him livestock to be sold. The overladen ship left Launceston in August 1863 and was never seen again, although bits of wreckage were washed up at Swan Island and near Waterhouse. His executors offered the mill for lease, but there is no record of the mill ever working again. The estate of Wickford was bought in 1864 by John Kinder Archer, previously of the Carrick mill, and when he offered it for auction in 1869 the steam mill was mentioned in advertisements as still having its two pairs of stones and all other necessary machinery. It appears that John Trethewie bought the estate then; he certainly owned it in 1870. In 1875 he sold Wickford to Humphrey Falkiner for £5500 and a plan of the estate prepared by James Scott in June that year shows the mill.²⁷

In 1947 Karl von Stieglitz wrote that the mill could still be seen, but there is now only a pile of rubble to the south of the miller's cottage on the northern side of Illawarra Road, a little to the north of the Wickford driveway (map reference Longford 068982).²⁸

10.1.5 Emerald Mill

Only a matter of two years after Peter Jacob had converted the Independent Mill to steam, a second steam mill made its appearance in the township of Longford. This was built for John Pooler, about whom little information has been found. It is known that in 1850 he had been the target for attack—twice—when firstly a stack of wheat at his farm was maliciously set on fire, and then just months later he was severely wounded after being shot at by some unknown person. In July 1853 as he was planning to return to England his entire estate was put up for auction, including the 2186 acres of Macrae's Hills and an extensive store in Longford bounded by Archer, Wellington and Smith Streets. The advertisement announcing this went on:

...Mr. Pooler has nearly completed the erection of the only requisite to make this property the most compendious (sic) establishment for an extensive business on the northern side of the island, namely, a Steam Mill, worked by a twenty horse power, high pressure engine, the machinery of which has been supplied, and is now in course of erection, by the well-known engineers, Messrs. Easby and Robertson, of Hobarton. The

greater part of this large establishment is enclosed by a brick wall, from eighteen to twenty feet [5.5-6m] high....²⁹

Both the farm of Macrae's Hills and the stores in Longford had been owned by Charles Reid until he defaulted in payment in 1850, so presumably Pooler had bought them following the Sheriff's Office auction. His decision to build a mill on the Longford premises may have had something to do with the gold rushes. Apparently he was unable to sell the mill as in April 1854 he advertised for a miller, "a good stoneman", but just two months later he was dead. Towards the end of the year the mill and stores were put up for auction again. The mill had four pairs of four-foot French burrs, dressing machines and a smutter, and could grind and dress 2000 to 3000 bushels a week; the stores could hold 30 000 bushels of grain. This was a considerable output for a country mill prior to the arrival of railways, comparable with the Commercial Mill in Hobart. It was not until April 1855 that the mill was bought by John and George Ritchie, although until then it seems to have been worked by a Mr Wren. This was almost certainly Abraham Wren who was later to be involved with many mills in the north (see 11.9.3, 12.3.2 & 12.4).³⁰

John and George Ritchie were sons of Thomas Ritchie whose Scone Mills were of major importance (see 10.2.3), and were therefore brothers of David who was later to move into Launceston and buy the Cataract Mills (see 9.1.6). John was the one who actually ran the mill, now called the Emerald Mill, and he appears to have been somewhat of a hard taskmaster. He took three of his millers (Mullens, Meek and Cables) to court for refusing to obey orders, but when the magistrates—who included Henry Clayton—heard that the men had been at work from 6 a.m. until 7 p.m. and then refused to unload 4 wagons with 600 bushels of wheat, they dismissed the case as they held the request was unreasonable. Cables was later to lease the Harden Mill at Distillery Creek and then move to Sheffield and start his own mill (see 9.1.12 & 12.8.1). Less than three months after the court case, John and Thomas Ritchie had damages awarded against them for an assault on William Beecroft.³¹

In 1859 John and George dissolved their partnership, with George declaring himself not responsible for any of John's debts and taking John to court which ordered the sale of John's interest in the mill. (In 1861 John, described as a farmer of Westbury, was declared insolvent.) The mill was bought by another Ritchie brother, Thomas jnr, and it was to remain in his hands for many years. He had been running the Scone Mill at Perth throughout the fifties with another brother David operating as the agent in Longford in 1857; they now traded places, with David moving in 1861 (after a stint at St Leonards) to run the Scone Mill (see 10.2.3). Thomas seems to have been quite advanced in his milling; in August 1862 he ordered a silk dressing machine "of the latest and most approved plan", the first Tasmanian miller known to have ordered one. In 1867 Thomas leased Newry mill for a year (see 10.1.3) and offered the Emerald for lease; it was taken by Henry Berkley Nickolls, Longford's first warden. Nickolls was in occupation by March 1868, advertising silk-dressed flour, and continued to rent the mill for some years. He was involved in an incident which caused considerable excitement in the town; although the Launceston and Western Railway to Deloraine was unfinished, in 1870 he organised with the contractors for a special train to bring 130 tons of guano from Launceston on 2 May, returning with 100 tons of wheat and flour.³²

However, it was probably nothing compared with the excitement when the boiler at the mill blew up on 8 July 1872. One man, Joseph Richards, eventually died of his injuries while two others, Ronald Saltmarsh and a man called Sam, were fortunate not to be too severely

injured. Nickolls himself was extremely lucky to escape, as he had been standing on top of the boiler just ten minutes before the explosion. At the inquest, and indeed in the newspapers earlier, there was much conflicting evidence about whether the boiler had been recently passed as fit by the engineer W.H. Knight. Nickolls insisted that Knight had inspected it and found it in good condition, even though he (Nickolls) had thought it dangerous and had in fact not renewed his lease in 1871 until Knight had inspected it. Knight testified at the inquest that he had never been asked to pass an opinion on the whole boiler, but merely the ends. In fact, all parties shared some of the responsibility. Nickolls should have required Ritchie to replace the boiler; as he decided to continue with an old and defective boiler he should not have restrained Knight from effecting thorough (and expensive) repairs; and Knight should have clearly stated that the work was undertaken to Nickolls' specifications and not to his (Knight's) recommendations. The jury did not find anyone at fault, but recorded the unanimous opinion:

that the Government should make arrangements for periodical inspection by a competent person of boilers at work in the colony in order, if possible, to prevent the recurrence of an accident so melancholy in its results as that which it has been our painful duty to investigate.

The Government, while acknowledging to a certain extent the desirability of regular inspection, intimated that it saw serious difficulties and was not prepared to introduce the scheme. No doubt expense was at the root of the serious difficulties. It was not in fact until the late 1880s that such regular inspections occurred.³³

Nickolls made repairs and additions to the mill, employing the architect Harry Conway, and in November he was able to advertise that the mill was again in full operation. A shipment Nickolls made to India received the highest price of any colonial flour, beating the Hart firm of Adelaide; it prompted a lengthy editorial from the *Launceston Examiner*, urging all millers to make the strongest possible efforts to ensure top quality flour was exported. Nickolls continued at the mill until 1877 and then when Thomas Ritchie was unable to find a new lessee he was forced to take on the business himself. In 1881 he unsuccessfully put up for sale the property, including a 21 horse power beam engine. The mill was still working in 1883 but by 1888 it was being rented by Ritchie's only remaining Longford competitor Thomas Affleck as a store and this arrangement lasted into the twentieth century.³⁴

The buildings at 52 Wellington Street has been used by various people during the course of the twentieth century including the general merchant Harrap & Son in the 1920s and 1930s, a skin and wool merchant and a soap manufacturer. One part was used as a Scout hall in the 1930s and 1940s. In the second half of the century the mill was used mainly as an electrician's workshop, with an electrical shop in the front buildings. In January 2000 the old store adjacent to the mill was converted into a restaurant to complement the bakery which occupies the stores fronting onto Wellington Street. The four grain hoppers of the mill can still be seen on the bin floor but the bedstones were concreted into the floor about 1990. Some machinery was removed about the same time and taken to Scottsdale, thence to Western Australia. As a large-capacity country mill dating from the early 1850s and associated with the well-known Ritchie family, this mill has considerable significance.³⁵

10.1.6 Affleck mill, Union Street

Following the destruction of the Newry mill by fire, Affleck & Son erected a replacement mill in 1898 in Union St, Longford, immediately behind their store. It was while the new four-storey brick mill was being built that Thomas Affleck unexpectedly took ill and a fortnight later died on the very day the new machinery arrived. John Affleck carried on the business alone, although still under the title of Affleck & Son. The mill was driven by a 25 horse power engine, although like the Crown mill it was lit by electricity, generated on the premises by a Crompton dynamo. F. Harmon was the miller for some years before his wife's ill-health necessitated a move to a Melbourne mill in 1907. The new Robinson rollers were capable of producing five sacks of flour an hour, one sack fewer than the old Newry mill and two sacks below the firm's Crown mill in Launceston (see 9.1.14) although in 1900 Affleck's were said to have in total a 9-sack plant. However, even this gave the firm the largest milling capacity in the north compared with Monds who had a 5-sack plant and Ritchie's with 3½, and Affleck's was only one sack an hour less than Gibson's in Hobart.³⁶

It has not been determined exactly when this mill stopped producing flour. Presumably it was in the 1920s when the firm of Monds & Affleck upgraded the capacity of their Esplanade mill in Launceston by 50% (see 9.1.15). However, the Longford building continued to be used for grain cleaning and was also used as a store. In 1947 von Stieglitz wrote that the building was under the management of A. Blake and the only activities being carried on were seed cleaning and pickling. About 1991 Monds & Affleck sold the building, and one floor has since been converted into a dwelling. On other floors some of the mill's machinery still exists, including a T. Robinson & Son grain cleaner and an O.C. Schumacher Oat Grading machine. The completeness of the building combined with the remaining ancillary equipment results in this mill having a relatively high significance among steam mills of late nineteenth century construction. Its association with the well-known Affleck name adds to its significance.³⁷

10.2 Perth

10.2.1 Perth Mill

The area around Perth, fertile and good for wheat-growing, was settled very early. After 1821 when Governor Macquarie fixed on the site of a township, calling it Perth, the village grew quite quickly. Its position on the main route between Launceston and Hobart helped its growth, as did the punt and then bridge across the South Esk. Several settlers took up large tracts of land in the vicinity; these included David Gibson, Captain John Ritchie and Major Donald McLeod, all names to feature in the story of milling in the area.

The last-named was the first to build a mill. His 2000-acre grant to the north of the South Esk River was taken up in 1821 and by October 1822 he was in the process of having a mill erected. Archibald Ferguson later leased the mill and a Mr Ferguson is mentioned in newspapers at the end of the century as having been the millwright, a strong possibility. It is unclear whether he was the same as Angus Ferguson who was later the millwright for the Supply Mills (see 9.3). The mill is presumed to have been in operation by late 1823 or early 1824 and thus was one of the earliest mills in the north of the state; in March 1824 McLeod of Talisker advertised that he "continues to supply applicants with Flour from his Mills". He

charged one shilling and sixpence a bushel for grinding, or one fifth of a bushel—this would have presumably netted a nice healthy profit. Orders could be left with John Dunn at Hobart Town or Mr Bruce at Ross.³⁸

Widdowson considered McLeod's mill an "excellent" one, and the erection of a good mill near some of the prime wheat-growing areas of the north must have been a godsend for the settlers; the mill is known to have been patronised by people at least as far afield as the Isis. However, as the township of Perth initially developed on the other side of the South Esk, the Land Commissioners pointed out that many of the settlers had to access the mill by punt. In May McLeod advertised that as people had accused his miller of changing corn, he had instructed the miller to grind any smutty or dirty corn only in the presence of the person bringing it. Although the area's first magistrate, he was evidently not a particularly law-abiding man. In 1825 a correspondent from Longford wrote to the *Hobart Town Gazette* that:

I am credibly informed that Donald McLeod, the worshipful grogman at Tallisker (sic), although twice fined for selling spirits without a licence, has not paid one dollar in liquidation of the penalties, whereas other persons, if convicted of a similar offence, would be compelled to pay the uttermost farthing within 8 days....

Nevertheless, he was employed by the government to grind wheat.³⁹

There was a succession of lessees at the mill. Archibald Ferguson took the mill in March 1828. Although Ferguson advertised he would retire from the mill on 29 October 1831, one William Stuart announced on the 8th that he already had the sole management of "The New Perth Mill". Stuart was grinding for ninepence and announced the imminent arrival of a dressing machine. In 1832 John Burnley was at the mill; he was a man of many parts as he was also an auctioneer, general commission broker and land agent, and within days of taking over the mill was applying for a grant of land in Perth. However, he was not at the mill for long. According to Melville the mill was being rented by Burrell in 1832, although this may have been a mistake for Burnley. In any event in 1833 the mill was being leased by James Scott, later of the Harden mill on Distillery Creek. Scott was at the mill until 1838 when, following the death of McLeod, his trustees (George Palmer Ball and John Sinclair) offered the mill and 100 acres for lease.⁴⁰

James Fisk took the mill in September 1838 for seven years at the rent of £125 per annum; it has not been determined if he was any relation to Arnold Fisk of the Waterloo Mill (see 2.2.1). In 1839 he erected a smutting machine. He seems to have been a touchy character. When twelve months later some "evil disposed person" spread the rumour that he had no smutting machine he offered a reward of £5 to any person who helped convict the offender. Furthermore, he warned that people using the road to his mill, which he maintained "at great expense", merely to pass on to Evandale would be prosecuted, as the proper road was on the top of the hill. It is unlikely that this had much effect; Mill Road is still the main route between Perth and Evandale. In 1841 he added another pair of stones to the mill. Fisk became insolvent in 1842, probably another casualty of the depression, and died shortly afterwards; when the assignee to the estate offered the remainder of the lease for sale he asserted that Fisk had spent nearly £1000 on improvements to the mill. It is not known who then took over the lease, but when it was offered again in 1845 it was taken by Christopher Dunning.⁴¹

Christopher Kains Dunning was a miller who had been brought out from England by Captain Ritchie to be foreman at the Scone mills (see 10.2.3). Five weeks after his 1841 arrival in the

Arabian, he was questioned by William Ashburner for the Committee of the Legislative Council on Immigration. He told Ashburner that before he left England he had been engaged by Ritchie for three years for wages of £50 a year plus board and lodging. His wife and child were also provided for by Captain Ritchie, with his wife teaching the younger Ritchie children. (It would be nice to know if this included the later miller David). He pronounced himself perfectly satisfied at his decision to emigrate as in England he would never have received more than one pound one shilling a week, and out of that he would have had to find himself food and lodging. Although he said he could obtain thirty shillings a week if he was not already engaged with Ritchie and several people had endeavoured to entice him away, he was perfectly satisfied with his position. However, it would appear that once his time was up he looked for another place and decided to go out on his own by leasing the Perth mill of McLeod.⁴²

In January 1846 both Perth mills were advertising a grinding rate of sixpence a bushel, and a few months later Dunning was offering a reward when thieves stole 120 bushels of wheat from the mill. However, by January 1848 Dunning had died. It might have been expected that his widow would pack up and go home, but Mary Dunning was made of sterner stuff. The story is told of her that when her husband decided to emigrate, he thought it best to go alone and investigate the conditions in the colony, but when he returned from a farewell trip to relatives he found her packed and ready to go with him. Obviously a woman of some education, once they were at the Perth mill she took over the keeping of the books when an accountant Dunning had employed continually made errors, and after her first accounts went out a Scottish neighbour commented that his account was right for the first time. Such a woman was not ready to quit and in January 1848 she advertised:

Perth Mills. Mrs Dunning, grateful for the support given to her late husband, begs to state to her Friends and the Public, that she intends to carry on the business of the above Mills on her own account and solicits a continuance of their favors (sic).⁴³

A woman alone in an isolated mill must have had some difficult times. It is said that she dismissed a miller who then refused to leave until she called the law; when the miscreant was sentenced to prison he vowed later vengeance. It was possibly as a result of this incident that Mrs Dunning advertised in 1849 for a miller who thoroughly understands his business "and can produce good testimonials as to character." But it was not surly millers which were to prove the undoing of the feisty widow, but the forces of nature. In 1852 one of the biggest floods ever to occur in Tasmania sent a surge of water down the South Esk and carried away the mill. People downstream saw the roof, then the windows and finally the mill floor with flour sacks still standing on it carried past them by the torrent.⁴⁴

A year earlier Louisa Anne Meredith had visited the spot and been charmed by the old building. She wrote that:

The mill was built of wood, irregular in shape, with all sorts of odd excrement lean-tos and projections, and a high peaked roof, with droll little cock-loft windows peering out at the top; and so old that every portion was Time-tinted, mossy, and mellow. Not two lines in the whole fabric ran parallel; the windows sloped one way, the doors sloped another; and the steps, each one slanted away from its brother. In token of its advanced age and infirmities, props, consisting of trees—every one crooked—cut down, and not barked, but merely the branches lopped off, had been stuck up against it for crutches; but these too had been up so long, that they harmonised in tone with the rest. The heavy primitive old wheel, green and grey, and not quite true in its circularity, went tumbling and tumbling around....

Fortunately, she not only painted a word picture but also sketched the mill, one of the few remaining images of any of the early mills. It is apparent from both her sketch and description that the mill was not in any shape to resist a massive flood.⁴⁵

Refusing an offer of a loan to rebuild, Mrs Dunning took her children into Launceston and opened a drapery shop. So successful was she that in 1865 she opened a large store on the corner of Charles and Brisbane Streets. Ten years later she had made a fortune and returned home to England. Her son and then grandson carried on the business, eventually under the title of Dunning and Brown; the Golden Fleece outside was a well-recognised sign of one of Launceston's best-known businesses. Her daughters married two Launceston identities, Ernest Whitfield and William Dodery.⁴⁶

10.2.2 New River Mill

In February 1854 the “unrivalled mill site” where the Perth mill had once stood was offered for sale. This was eighteen months after the flood and it would be interesting to know why the executors had waited so long. The site with its 100 acres was bought by Robert Hunter who had been operating the Evandale mill for some years (see 10.3). Evidently he saw the chance to do better with a large watermill. (Several books, probably basing their work on *The Cyclopedia of Tasmania*, say that Hunter bought the mill in the 1840s, it was washed away in 1849 and was then rebuilt by Hunter. This is not correct.) In December 1854 Hunter advertised for two stonemasons to erect a stone building near Perth, probably the new mill, and in the same year the Scottish millwright James Scott came out from Overstone, Fifeshire, under engagement to Hunter to erect the mill and plant. Presumably the mill was operating by 1855. Louisa Anne Meredith, who had not seen it, was disparaging:

And now, I am told, whenever...people...go to the mill, they find a smart, upright edifice, with patent machinery, and all manner of “improvements;” and very possibly, the flour may be more finely ground, and orders executed with greater dispatch—but I doubt exceedingly . if I shall linger round it, and stay to make three sketches of its various aspects...if I go there again!⁴⁷

However, Hunter was doubtless not so much interested in the mill's charm as its profitability. He operated it himself, calling it the New River mill. Scott stayed with him for a few years before moving to the Forth and building his own mill (see 12.11). Another miller known to have spent some time there was John Reid, a bounty immigrant on the *Commodore Perry*. He died in 1863, but his son William was later a miller there (see below) and after spending time in Deloraine as a baker he returned to milling at Newry (see 10.1.3). A fellmongery was also carried on there, probably by Hunter. Family lore has it that Hunter did well in the 1850s, but with the downturn in milling in the 1860s he ran into financial trouble. In 1860 he had to mortgage the property to the surveyor James Scott (who had evidently decided that investing in mills was more worthwhile than operating them himself.) Financial woes were not Hunter's only problem, either; during the major flood of 1863 his mill sustained some damage, while in 1865 his 16-year old son Harry was accidentally killed when the gun he was carrying to shoot crows discharged while he was crossing a fence.⁴⁸

The following year Hunter defaulted on his mortgage repayments and the mill with its four pairs of four-foot stones was auctioned. Fred Houghton, once of the Independent mill in Longford (see 10.1.2), was selected as auctioneer for the sale which took place in January 1867. The auction had a surprise ending, as the *Launceston Examiner* revealed:

Yesterday, as the Launceston Hotel, Mr F.J. Houghton sold the property known as Hunter's Mill together with 100 acres of land, situated at Perth. After some very spirited bidding, the auctioneer became the purchaser at £2,450.

Two years later Hunter announced he was continuing business at the Longford Fellmongery Establishment; it is possible that he had previously leased his old fellmongery at Perth as Houghton advised it was for lease immediately after the auction. Some time in the early 1870s he joined his son Edwin at Sherwood near Latrobe where Edwin had a mill (see 12.5.1), and in 1873 he died there.⁴⁹

Meanwhile, Houghton personally ran the New River mill, appointing William M. Dean of Cimitiere Street as his Launceston agent. He also had a bakery in Perth. But in 1869 he offered the mill, with a silk dresser and only two pairs of stones now, for lease or sale. William Reid took over the lease, initially in partnership with one Scott (possibly the son of the millwright Scott), but by 1874 was occupying it by himself. He was still there in 1875 but the following year Houghton once again took possession, promising that all orders left at the mill by 12 noon daily would be delivered in Perth the same day. Evidently he expected this to be a time-consuming task, as within a few days of taking over he resigned his seat in the House of Assembly for Norfolk Plains. Houghton continued on at the mill until his death in December 1885.⁵⁰

Following Houghton's death the mill seems to have been vacant for a year, and then it was leased to the firm of Holman & Marshall in February 1887 (not 1888 as Holman's entry in *The Cyclopaedia of Tasmania* states). Little has been found about Marshall for this study, but John Holman was born in Kent in 1859 and trained as a miller before coming to Tasmania in 1886. Although Houghton had owned the mill, he had evidently never managed to pay back the mortgage he had taken over in 1867, as the deeds were still held by Captain George Scott at the end of the 1880s. In March 1889 Holman offered to buy the mill for £1500, alleging that the premises required another £1000 to be spent in repairs. In August of the same year T. Marshall wrote to Scott asking for an extended lease at £140 a year, with an option to purchase for £2400 at the end of the lease. His reason for wishing to secure the mill, he stated, was to give his three sons the work of repairing it so they did not have to move away from home. Interestingly enough, although his address was given as the New River mill, he asked for a reply to be sent to Evandale Post Office to be called for, probably so that Holman would not see the letter. It would appear that Holman and Marshall were not on the best of terms.⁵¹

It comes as no surprise, therefore, to find that in November 1890 Holman wrote to Scott to advise him that the two were dissolving partnership as they could not agree. Moreover, he wrote, they had been losing money for months past because of the competition from the new roller mills (see 1.5). He went on:

You would naturally like to know which of us will have the mill that is where we can't come to terms as although I am willing to give something "a fair value" for the business to my partner or accept from him, he will agree to neither so I stopped the business by leaving off buying wheat but how it is going to be settled I can't say as my partner is a bit cranky I think, thro excessive drinking.

Willing to carry on the business himself and install machinery provided he could get a long lease, he also asked for the price if Scott would sell as Holman could find friends to help him buy it. Scott put a price of £2500 on the mill and Holman, with a little help from his friends, purchased it.⁵²

It was not until 1895 that Holman finally installed roller milling plant, choosing the Simon system which had not been installed in any other Tasmanian mill up till then. The plant was designed to produce 2½-3 sacks of flour an hour. At the same time he replaced the undershot wheel with a Leffel turbine, and it was probably at this time that he renamed the mills; from now on they were known as the Reform Roller Mills. Within a short time his flour was commanding the top price in the market and in 1900 he added more rollers to increase the hourly capacity to four sacks. In 1904 the mill was producing 50-60 tons a week when required, while the fellmongery and wool scouring business was being carried on by Henry Clayton, presumably a descendant of the Wickford Clayton.⁵³

The mill continued to function for some years, one of the few to survive Federation. In 1908 a company was floated to purchase the mill, at the time valued at £3500 including stock, but the company eventually went into liquidation and Holman was left in charge with the right to use it, mainly for gristing. In 1914 he bought the mill back for £800, although a few years later he felt the replacement cost would be £4000. Finally on 27 February 1918 the mill was completely destroyed by fire which seemed to have started at the top of the mill, and as the roof (shingles underneath iron) had soon fallen in nothing could be saved. Only the stone walls were left standing. At the subsequent inquest the jury was unable to determine how the fire started and presumably the insurance company, which was represented in court, had to pay up the £1650 Holman had insured it for. The *Examiner* mourned the loss of “[o]ne more of the old land marks” and felt it would be a big loss to both Holman and the town of Perth.⁵⁴

The mill was not rebuilt. The site was used for a water supply for Perth for some years before a new pump further downstream was installed. Portions of the walls are said to remain between Perth Mill Road and the South Esk (map reference Longford 153984), but the vegetation in the area makes it impossible to determine if this is the case. Remains of the dam can still be seen about 400m upstream.⁵⁵

10.2.3 Scone Mill

The property of Scone was originally granted to Captain John Ritchie, Commandant at Port Dalrymple 1812-14. Following his early death Scone passed to his brother, Captain Thomas Ritchie R.N., who had fought in the Napoleonic Wars and then traded between India and Australia. Thomas continued to trade from Port Dalrymple but after he lost a full cargo in the *Commerce* he turned to farming. By the time of his death he had been granted or bought 3630 acres across northern Tasmania; Scone was 2240 acres. About 1832 he determined to build a mill, utilising the waters of the South Esk River onto which Scone fronted for a distance of nine miles. Melville's *Almanack* for 1833 reported that the mill was under construction. According to the writer of “Our Early Mills and Millers” Ritchie imported the fellow-Scot John Guillan (see 9.3) as millwright to construct the mill. It was operating by 1834.⁵⁶

From 1839 Ritchie appointed an agent in Launceston to handle his flour; in 1845 his agent was John Thompson, later of the Bridge Mills (see 9.1.8), while in 1850 it was Charles Reid whose Longford stores later became the basis of the Emerald Mill (see 10.1.5). In 1841 the mill was temporarily put out of action when part of the masonry on the causeway leading to the Perth bridge collapsed and destroyed the mill race. The same year Ritchie engaged Christopher Dunning as miller (see 10.2.1), and may have been a little non-plussed when,

after his engagement was finished, Dunning moved to Ritchie's chief competition, McLeod's Perth mill. In 1848 the *Launceston Examiner* announced that Ritchie had imported "machinery for adding to the present power of his flour mill at Perth, by which he will be able to work six additional pairs of stones." Just what this entailed is unclear, but it was probably at this stage that Ritchie erected a second mill above the first.⁵⁷

On 9 February 1851 Ritchie died after a long illness and the Scone property was left to his executors in trust for his wife and children. Thomas Ritchie jnr (born in 1820) had been operating the mill for at least some months before his father's death and he continued to run them as lessee. In February 1852 he advertised a grinding rate of ninepence a bushel, up from sixpence in 1846, and then just four months lifted it again to one shilling. The August 1852 floods which washed away Mrs Dunning's mill fortunately did not damage the Scone mills, despite some historians' assertions to the contrary. In 1855 customers were advised that, while larger quantities would still be ground at the rate of one shilling, quantities below 60 bushels would cost eighteenpence. In 1857 Thomas' brother David was acting as the Scone agent in Longford although the following year he leased the St Leonards mill (see 9.1.9).⁵⁸

In 1859 Thomas bought the Emerald Mill in Longford from his brothers John and George (see 10.1.5) and the following year the Scone Mills were offered for lease by the solicitor brother William:

To Let, Scone Mills, near Perth. Tenders for renting the above for 3 or 5 years will be received by the undersigned.... These mills are in first rate order, being fitted with all the most recent improvements and can be worked at very little expense. The 2 mills, each complete in itself, drives (sic) 7 pairs of French burr stones, 3 dressing machines, smutter, separator, hoisting tackle and three set of elevators. 50,000 bushels of grain can be stored in the mill and granary. There is a very commodious dwelling house of 9 rooms, with detached kitchen, servant's rooms, and other conveniences, 3 comfortable men's dwellings, stabling for 10 horses, cart sheds, blacksmith's and carpenter's shops on the premises....

At the same time Scone Farm, hitherto leased by George Ritchie, was also advertised for lease. In July the mills were still being advertised but by early 1861 David Ritchie (born in 1829) had taken them and he was to continue in occupation for the rest of the decade, and indeed for the life of the mill. In March he advertised for a miller and it was possibly then that Thomas Affleck, recently arrived in the colony, joined Ritchie. He was to be Ritchie's head miller for ten years before moving to the Newry mill at Longford (see 10.1.3).⁵⁹

David Ritchie was to be a leader in milling and was quite an entrepreneur. His flour was of a superior standard; in 1873 after the Scone mill had been destroyed by fire an editorial in the *Launceston Examiner* asserted that "[t]here was a time when the Union and Scone brands ranked as high as any in Australia" (see 9.4 for the Union brand at Windermere). But Ritchie was not just interested in flour. By the end of 1861 he was advertising colonial oatmeal for sale and his oatmeal and groats received an honourable mention at the Great International Exhibition of 1862. Just a few years later the mills were described as "the principal oatmeal manufactory in the state (sic)" as well as being "one of the most extensive flour mills." In 1863 he ordered machinery for grinding bark for tanning and in 1864 advertised for a limited quantity of wattlebark. About 1868 he began pearling barley, but the stone being utilised disintegrated due to the necessary high rotation speed (exceeding 200 rpm) and wrecked the machinery. Ritchie was more successful with his second attempt; in June 1869 Isaac Wright of Hobart Town advertised that he was expecting a supply of pearl barley from Scone mills

and that the price was much lower than the imported article. However, just when the pearl barley was beginning to sell well the mill was destroyed. (Ritchie finally succeeded with pearl barley in his new mill at St John Street in Launceston—see 9.1.13). He was also presumably quite willing to receive the publicity when 200 people attended to watch Vertelli, the Flying Man, make his Grand Ascent in the mill enclosure in February 1867.⁶⁰

In 1864 a decision to sell the Scone estate was made by the executors of Thomas Ritchie snr's will. Initially these had been the Rev. Robert Russell, Richard McKenzie and William Gibson. The auction notice described a flour mill driven by an iron water wheel of 20 horse power working four pairs of four-foot French hurrs, and an oatmeal mill driven by a (wooden?) water wheel of 16 horsepower working two pairs of stones. The latter also included a pump for supplying the house with water. According to the notice, the "mechanical arrangements are so complete that the whole of the machinery can be attended to by one man and a boy." The drying kiln was described as being "a safe distance from the mills." The mill dwelling house now was said to have only seven rooms, compared with nine in the 1860 advertisement. The mill failed to sell at this time but eventually was sold to William Gibson jnr of Native Point (son of the now-deceased executor), evidently in 1867. He certainly owned it in 1868. He did not, however, have it "for only a few days" before the fire as sometimes written.⁶¹

The total destruction of the Scone Mills occurred on 27 February 1870. Although everything seemed perfectly safe when the night miller closed up at 11 p.m., within half an hour he saw the premises on fire and by the time he could get help from some of the other workers all the buildings were enveloped. At midnight the entire roof fell in and by the morning the only remains of the new and old mills, the grain store and the millers' cottage were blackened walls. All the buildings had been of brick with shingle roofs, and the bricks were so much damaged that they could not be re-used. Some parts of the machinery had actually melted in the intense heat, and all that remained intact were one of the water wheels, the pitwheel and spindle gear. It appears from the newspaper account that Ritchie was preparing to move out of Scone, probably to buy the Cataract Mills (see 9.1.6), as Gibson had recently decided not to re-insure the mills "until the tenancy fell into his hands." The latter was thus the loser by about £4000. The contents of the mill, including stored grain owned by farmers, had been insured and Ritchie's books had been taken to his St John Street offices.⁶²

In July Gibson invited tenders for rebuilding the mill, but evidently the cost was too high or there was no-one interested as the mill was never rebuilt. In 1883 a breastshot wheel 12 feet wide and 12 feet in diameter was used for pumping water; this could well have been the wheel which escaped the fire. Later William Gibson installed on the site an electricity plant powered by water from the mill race. His house was said to be the first home in the southern hemisphere to be lit by electricity. The lights had no switches; they stayed on until Gibson retired for the evening, when he pulled a wire next to his bed which dropped a barrel into the water to stop the flow of water and the lights went out.⁶³

The mill had been built on the flat below the house, now Eskleigh hospital (map reference Longford 154952). The weir still remains just upstream of the bridge and the mill race can be traced. Some brickwork remains, but it is difficult to determine whether it is the remains of the mill or of a later structure related to the electricity plant.

* * *

Due to time constraints the rest of this report has had to be severely truncated. Although from here onwards only the bare details of the history of the individual mills are given, the information about what remains on site is complete.

* * *

10.3 Hunter's mill, Evandale

This steam mill was built by Robert Hunter, later to build the New River Mills at Perth (see 10.2), in partnership with Dr Huxtable. It was operating by December 1843. In 1864 the mill was to be auctioned. At that time it contained three pairs of millstones and a smutting machine, and was powered by a 25-horse power engine. It was empty by 1866. The mill was off Russell Street, to the east of No.36, down what was known until recently as Hunter's Lane which went through to 26 Collins Street (map reference Evandale 209976).⁶⁴

10.4 Strathmore mill

This mill was built by Samuel Bryan, brother of William Bryan who already had a watermill at Carrick (see 11.7.1). It is sometimes written that the mill was built in 1827 based on the unreliable 1886 account in "Our Early Mills and Millers" but this is definitely untrue. In 1830 William Bryan, on behalf of his brother, was requesting permission for water to be taken from the Nile to drive one pair of millstones. However, it was probably not until 1834 that the mill actually began to work, as in that year Samuel Bryan's neighbour Cameron complained of the water being now taken by Bryan. Bryan sold up in 1846, at which time the mill was driving three pairs of stones, making it unusually large for a rural flour mill. By 1858 the mill was owned by James Cox of Clarendon. At some time the Strathmore property was split up, and the section which contained the mill became known as Sunnyside. Later after this section was sold to James Boyes he changed the name to Lochmaben. The mill was still being worked into the twentieth century, with William Dawe the miller in 1902.⁶⁵

Although the water wheel was damaged by the 1929 floods, the brick mill survives near Lochmaben house (which is at map reference Nile 246898). A new roof was added in 1964 by the then-owner, Mrs Sefton Taylor. A series of photographs taken in 1986 and in the collections of the Queen Victoria Museum & Art Gallery show the original heavy wooden gearing of eighteenth century design still in place. Although the current owners do not welcome visitors, it is believed that little has changed since 1986. The mill race is still live, feeding the millpond in front of the Strathmore house. This is the oldest intact flour mill not only in Tasmania but in the whole of Australia. It is of great importance and it is only the absence of the water wheel which prevents it being rated the most significant of all Tasmanian mills.⁶⁶

10.5 Milford Mill, Llewellyn

The Milford Mill was built on the South Esk river by Bartholomew (Bat) Thomas, son of Jocelyn the Colonial Treasurer. In April 1834 he advertised that the mill had begun operating. Later he fell into financial difficulties and other members of the family ran the mill until it was sold, probably in the early 1850s, to James Rigney. The mill was said to be

“destroyed” in the 1852 floods, although by contrast the same article said that Mrs Dunning’s mill at Perth (see 10.2.1) was “completely destroyed”. It is likely that the mill suffered considerable damage, but it was repaired and in 1853 Rigney was advertising grinding rates. In 1877 tenders were called for installing an iron water wheel and pit wheel. By 1885 the Millford property was owned by Edward Dean and the mill was being run by Robert Bean, but in 1889 the mill was indeed washed away in a flood, leaving just the foundations. Dean asked a Launceston engineering firm to quote for replacing the mill, but evidently the quotations were too high and it was never rebuilt. Bean went on to build a mill at Fingal (see 10.7.2).⁶⁷

Millford was built on the western bank of the South Esk river a little to the north of the ford—and now bridge—to Brambletye (map reference Hanleth 435726). The stone foundations of the mill and the wheel pit remain, and the deep channel excavated to form the mill race can be traced to the dam. The gradient of the mill leat together with the provision of a curved entry wall to the wheel pit suggests that an undershot or low breast wheel with a width of approximately six feet [2m] was used to power the mill. The dam itself is still used to provide a water supply to Conara. If it could be proved that what remains is from the 1834 mill, this would improve its rating. However, its association with the important Thomas family, as well as the Bean family who were involved in milling for so long adds to its significance.

10.6 Rockford Mill, Avoca

The Rockford Mill was built on the St Paul’s river near Avoca by Major Gray. According to the Ross *Almanack* of 1830 he had commenced “very extensive improvements”, but no definite mention of the mill is made until the *Almanack* of 1834. In 1839 when the mill was offered for lease it had one pair of 42-inch French burr stones. The mill was operating into the 1850s and when about 1858 it was bought by Roderic O’Connor of the nearby Benham Estate he may well have used it to grind wheat. It has not been determined just when it ceased operating; there is a good chance it did not function after 1860.⁶⁸

The mill site is on the west of the Royal George Road between the road and the St Pauls river (map reference St Paul’s Dome 625709). A few bricks where the bank is cut away a little may indicate the site. The head race can be traced; it is marked on maps as “major flood level”. The water wheel is said to have been rolled into the river early this century.⁶⁹

10.7 Fingal

10.7.1 Tullochgorum Mill

This mill was built by James Grant who dammed the Tullochgorum Creek a little upstream of the house to provide the water supply. The Ross *Almanack* of 1832 mentions his “excellent mill” which had been finished during 1831. Almost nothing more is known of it and in 1856 the mill was described as disused. The Tullochgorum house burnt down in 1886; if the mill was nearby it too may have been destroyed.⁷⁰

The exact position of the mill has not been determined, although the very wide earth dam is still extant (map reference Rossarden 747866-7). What appears to be a mill race runs between the road to the house and the creek.

10.7.2 Bean's mill

Following the destruction of the Milford Mill where he had been the miller, Robert Bean decided to build his own mill, this time in the township of Fingal. In February 1890 a Launceston engineering firm quoted a price of £986 for erecting a wooden and corrugated iron steam mill, including the machinery. It was erected by the end of the year. In 1896 the mill was taken over by Bean's son, Robert H. Bean, who continued to run the mill until the 1940s when old age and reduced profits as a result initially of the depression led to the mill being finally shut down. It was thus the last of the country mills to close its doors, and when it stopped there were only three mills left operating in the state, Gibson's in Hobart and Ritchie's and Monds & Affleck in Launceston.⁷¹

The mill was built on the southern side of the Esk Main Road, on the north-east side of the Fingal Rivulet. The bottom storey survives, although re-clad. Its association with the Bean family, and its position as the fourth-last operating mill, increases its significance.

10.8 St Marys

10.8.1 Millbrook Mills

The first mill to be built in the St Marys district was built on the estate of Killymoon, although it has not been determined exactly when this occurred. A three-roomed miller's cottage which stood nearby had the date of "1848" on it, so this could well have been when the mill was built. It seems that by then the property was owned by Eric and Charles Ransom who had bought the mill from the previous owner, von Stieglitz. An advertisement for a miller for Millbrook, now separate from the Killymoon estate, appeared in 1859. Very little more is known of the mill's history. It presumably stopped working when the second mill was built.⁷²

The second mill was built just a few metres away on the western side of Millbrook creek. A large sandstone block in this mill had the date "1875", presumably the date of construction, and the letters "TR" for the owner Thomas Ransom. This new mill was a small 3-storey timber structure and housed two circular, self-contained iron-framed hurstings, each with a single pair of 44-inch diameter burr stones. In 1883 the mill was being driven by steam, although later it appears as if a pelton wheel was used as the motive force. Just when this mill stopped working is unclear. The timber building, long neglected, was pulled down in the 1950s and the beams used for gate posts in cattle yards. The millstones in their hurstings remained in place until about 1980 when they were removed to Thorpe at Bothwell. They are currently being used to provide flour for specialist bakeries in Hobart.⁷³

The ruins of the rubble stone mill still survive on the eastern side of Millbrook creek (map reference St Marys 913968), along with the embankment for the mill pond. The stone cottage fell into ruins and was pulled down in the mid-1970s. Almost nothing remains of the second

mill. If the pelton wheel was used for the mill then a big dam 600m up the hill and a line of cast iron pipes bringing water down are relevant; they are still in use for a water scheme. The carved date stones from both mills are now near the Millbrook house.⁷³

10.8.2 Rosegarland Mill

The only reference to this mill which has been found comes from an 1892 inquest into the fire which destroyed it. Nothing further is known.⁷⁵

¹ THIRA P&P Nov. 1964, Vol.12 No.2, pp.60-64.

² HTG 26 Oct 1822, p.2/1. HTG 6 Aug 1824, p.3/3. THIRA P&P Nov. 1964, Vol.12 No.2, p.60.

³ Pioneer Index. LA 21 Dec 1829, p.3/3. LJ 28 Mar 1831, p.1/2; 18 May p.1/1. CT 10 June 1834, p.177/1. CT 5 Mar 1833, p.1/5. CC 23 May 1835, p.3/4. CT 25 Mar 1834, p.89/4.

⁴ LE 17 July 1886, p.1/8. AOT LSD 1/H1 p.351. HTC 12 Dec 1834, p.1/1. CC 28 Feb 1835, p.3/5. CC 16 May 1835, p.3/2. CC 12 Mar 1836, p.3/3; 25 June p.3/5. QVMAG 1999 P 0496.

⁵ CC 8 Dec 1838, p.3/7. CC 22 Aug 1840, p.3/3. Bennett, Scott & Bennett, Barbara. *Biographical Register of the Tasmanian Parliament 1851-1960*, Canberra, 1980, p.86. CC 11 Mar 1843, p.1/6. CC 10 Feb 1844, p.3/5. AM 31 May 1907: headstone in Christ Church cemetery. CC 4 Nov 1846, p.854/1. LE 1 Jan 1848, p.2/2.

⁶ LE 9 Aug 1848, p.519/2. LE 14 Oct 1848, p.668/4. CC 28 April 1849, p.545/1.

⁷ LE 29 Jan 1851, p.66/1. LE 3 Sept 1851, p.566/3. LJ: 2 June 1852, p.378/2; 5 May 1853, p.476/4; 1 Mar 1855, p.3/5.

⁸ CC 15 Mar 1856, p.7/6. LE 2 Jan 1858, p.3/4.

⁹ CC 6 Mar 1858, p.1/4+. LE 29 April 1858, p.3/7. LE 29 April 1858, p.3/7. LE 16 June 1859, p.3/4. LE 21 April 1860, p.3/7. LE 23 Oct 1860. CC 10 Nov 1860, p.6/5. LE 24 Dec 1864, p.3/2-3. LE 10 Nov 1864, p.1/2. LE 25 Sept 1866, p.2/2.

¹⁰ ML ZDX 1794. DT 30 Nov 1903, p.6/1. AM 31 May 1907.

¹¹ LJ 19 April 1834, p.2/3. Robertson, E. Graeme, & Craig, Edith N., *Early Houses of Northern Tasmania*. Vol. 1, Melbourne, 1964, p.137.

LE 8 July 1848, p.443/3. LE 6 Dec 1897, p.6/1. LE 17 July 1886, p.1/8.

¹² LE 8 July 1848, p.443/3. CT 22 Jan 1850, p.3/3. LE 27 Feb 1850, p.135/1. LE 5 Feb 1851, p.86/3.

¹³ LE 3 Jan 1852, p.6/2. CC 17 April 1852, p.245/4. HTC 18 Aug 1852. Mountford Diary, QVMAG:1958:79:244, 9 & 10 Aug 1852.

¹⁴ LE 13 Mar 1856, p.5. Mountford Diary, op.cit., April 1856. Briscoe, Jeffrey R., "A Sense of Duty: The Clerkes: An Anglo-Irish Family in Colonial Tasmania", unpublished University of Tasmania thesis, 1996, pp.17, 26 (Note 3), 46, 64. Bennett, Scott & Bennett, Barbara, *Biographical Register of the Tasmanian Parliament 1851-1960*, Canberra, 1980, p.34. LE 14 April 1877, p.3/2.

¹⁵ Briscoe, op.cit., p.10. Mountford Diary, op.cit., 21 April, 6 & 7 May, 18 Aug 1856; 23 July, 24 & 28 Dec 1857; 26 Jan 1858.

¹⁶ Mountford Diary, op.cit., 22 April 1856-24 June 1858 passim. Alexander Gill letter, 1 Sept 1858, in possession of Peter Sims. Letter to von Stieglitz in QVMAG collection. A21. LE 22 May 1858, p.1/1. LE 24 Aug 1858, p.3/3. Identification of the sketch thanks to Hugh & Anne Mackinnon, 21 Mar 1997, & Mick Walker 24 April 1997.

¹⁷ Clerke family tree, in possession of Graeme Campbell, CC 22 Oct 1859, p.6/1. DT 8 May 1905, p.4/3. CC 29 Feb 1860, p.5/6. Mountford Diary, op.cit., 3 Mar 1860. CC 21 Feb 1863, p.5/1. Briscoe, op.cit., p.88.

¹⁸ CC 18 April 1863, p.7/2. LE 30 Jan 1864, p.1/5. LE 6 Oct 1868, p.3/5. LE 2 Feb 1867, p.3/6. LJ: 14 Mar 1867, p.3/3. LE 4 July 1868, p.1/4. Tasmanian Pioneers Index.

¹⁹ Tas Cyc Vol.II, p.125. AM May 1898, p.88.

²⁰ Tas Cyc Vol.II, p.126. LE 14 April 1877, p.3/2. Merc 14 April 1877, p.2/4. LJ: 19 June 1873, p.4/3. LJ: 14 Mar 1882, p.1/4. LE 6 Feb 1877, p.5/7.

²¹ LE 11 Mar 1878, p.3/7. LE 21 July 1893. AOT AC 705 pp.88, 205. LE 6 Dec 1897, p.6/1. AM April 1891, p.73; Oct 1895 p.138; Dec 1897, p.234. Tas Cyc Vol.II, p.125.

²² LE 6 Dec 1897, p.6/1. DT 6 Dec 1897, p.3/3. LE 9 Dec 1897, p.5/2. Donald Reid pers.comm. 15 Feb 1999.

- ²³ DT 23 Nov 1903, p.6/1.
- ²⁴ TIIRA P&P Nov. 1964, Vol.12 No.2, p.65. LE 8 Mar 1958. LE 6 Feb 1858, p.3/7. CC 25 April 1840, p.3/2. Parsons, Ronald (compiler), *Australian Shipowners and their Fleets*, Lobethal, 1992, Book 11, pp.9-10.
- ²⁵ Scott, George, "What Hagley was Like Then", in von Stieglitz papers, QVMAG. LE 16 July 1845, p.449/1. LE 4 Feb 1846, p.73/4. LE 27 Jan 1849, p.65/3. CC 11 May 1850, p.205/3.
- ²⁶ CC 20 April 1853, p.1/2. CC 18 Aug 1855, p.1/6. LE 5 June 1856, p.1/3. CC 19 July 1856, p.7/3. LE 6 Feb 1858, p.3/7.
- ²⁷ CC 26 Mar 1859, p.6/1. CC 24 Sept 1859, p.3/6. CC 16 Feb 1861, p.1/4. LE 4 Feb 1862, p.5/5. LE 11 April 1863, p.5/3. LE 8 Mar 1958. CC 12 Mar 1864, p.7/1. CC 10 Aug 1864, p.1/7. LE 9 Jan 1869, p.6/3. LE 12 May 1870, p.1/3. LE 18 Feb 1875, p.3/1. Scott plan in possession of John Mackinnon.
- ²⁸ Von Stieglitz, K.R., *Longford Past and Present: With Notes on Perth Pateena and Illawarra*, 1947, p.9.
- ²⁹ ITG 16 April 1850, p.33; 26 Nov p.1009. LE 5 July 1853, p.684/2. CC 2 Feb 1850, p.78/2-3. AM 31 May 1907, p.7.
- ³⁰ CC 2 Feb 1850, p.78/2-3. AM 31 May 1907, p.7. CC 10 June 1854, p.4/4. LE 11 Nov 1854, p.4/4. LE 6 Mar 1855, p.3/2. LE 1 May 1855, p.3/4. HTC 16 April 1856, p.3/5-6.
- ³¹ CC 26 Mar 1856, p.5/1. CC 2 July 1856, p.5/6.
- ³² CC 14 May 1859, p.7/1. CC 30 July 1859, p.7/6. LE 4 Oct 1859, p.1/7. LE 26 Oct 1861, p.6/1. VR 1859. CC 7 Mar 1860, p.5/3. August 1862, QVMAG 1997 MS 0007. CC 30 Nov 1867, p.5/7. LE 10 Mar 1868, p.6/1. Chamberlain, Brian R., *The Launceston & Western Railway Co Ltd 1867-1904*, Launceston, n.d., p.26.
- ³³ LE 9 July 1872, p.2/5; 13 July, p.7/3; 16 July, p.5/5; 20 July, p.5/5-6; 15 Aug 1872, p.3/3-6; 27 Aug, p.4/1.
- ³⁴ LE 17 Oct 1872, p.4/4. LE 23 Nov 1872, p.1/3. LE 22 July 1873, p.2/4. LE 19 June 1875, p.1/1. LE 21 June 1877, p.4/3. LE 2 Dec 1876, p.1/2. LE 7 June 1877, p.1/7. Merc 5 Oct 1881, p.1/7. VRs 1880, 1886, 1888. "Through Tasmania", Merc 20 Oct 1883. DT 30 Nov 1903, p.6/1.
- ³⁵ Steve Johnson & Doc Hill, pers.comm. 23 May 1999.
- ³⁶ Tas Cyc Vol.II, p.126. AM May 1898, p.88. DT 30 Nov 1903, p.6/1. AM 31 May 1907, p.6. QVMAG 1987 MS 5.
- ³⁷ Von Stieglitz, K.R., *Longford Past and Present: With Notes on Perth Pateena and Illawarra*, 1947, p.18. Jim Hughes interview, QVMAG 1994 OH 18 p.2. Fiona Bovill & Michael Shelton, pers.comm. 2 Dec 1996.
- ³⁸ Wayn to von Stieglitz 16 Feb 1948, in von Stieglitz papers, QVMAG. HTG 26 Oct 1822, p.2/1. LE 6 Feb 1888. HTG 19 Mar 1824, p.4/2.
- ³⁹ Widdowson quoted in Von Stieglitz, K.R., *A Short History of St Leonards*, Centenary Edition, 1966, p.11. AOT, Sutherland diary, 31 Mar 1825. JLC 8 Mar 1828. HTG 7 May 1824, p.4/3. IITG 20 May 1825, p.3/1. HTG 25 Mar 1826, Supp 2/1-2.
- ⁴⁰ HTG 15 Mar 1828, p.1/1. LA 5 Oct 1831, p.305/1. LI 8 Oct 1831, p.2/1. LI 4 Aug 1832, p.2/1. AOT LSD 1/72, No.33. Melville *Almanack*, 1833, p.145. LA 1 Aug 1833, p.2/1. CC 3 Mar 1838, p.4/4. CT 19 June 1838, p.195/4.
- ⁴¹ CC 7 Oct 1840, p.4/4. CC 6 Mar 1841, p.3/3. LE 4 Jan 1843, p.5/2. LE 11 June 1845, p.367/2. CC 27 Sept 1845, p.200/2.
- ⁴² LC 1841. Report on Immigration, pp.69-70.
- ⁴³ CC 10 Jan 1846, p.29/2; 24 Jan 1846. CC 23 July 1846, p.562/1. CC 22 Jan 1848, p.1/5. Unidentified newspaper cutting in QVMAG Secondary Files, Personal, "D".
- ⁴⁴ Ibid. LE 18 Aug 1849, p.523/2. HTC 18 Aug 1852. Meredith, Louisa Anne, *Over the Straits: A visit to Victoria*, London, 1861, pp.47-48.
- ⁴⁵ Ibid, pp.45-6.
- ⁴⁶ Newspaper cutting op.cit. Tas Cyc Vol.II, p.115. Vernon, F.A. & Sprod, M.N., *The Whitehead Letters: Tasmanian Society and Politics 1872-1882*, Tasmanian Historical Research Association, 1991, p.78.
- ⁴⁷ LE 21 Feb 1854, p.4/2. Tas Cyc Vol.II, pp.204, 279. CC 2 Dec 1854, p.1/6. Meredith, op.cit., p.49.
- ⁴⁸ CC 5 July 1862, p.1/7. Tas Cyc Vol.II, p.279. Don Reid pers.comm. May 1998. CC 25 Feb 1863. Antoinette Ralston pers.comm. April 1997. Thomas Scott papers, QVMAG. CC 19 Dec 1863, p.4/2. LE 25 May 1865, p.4/5-6.
- ⁴⁹ CC 12 Dec 1866, p.6/4-5. LE 19 Jan 1867, p.4/4. LE 22 Jan 1867, p.2/1. LE 18 Feb 1869, p.3/6. CC 23 Jan 1867, p.6/3. HTG 13 May 1873.
- ⁵⁰ CC 23 Jan 1867, p.6/3. CC 20 Mar 1867, p.7/1. *The Whitehead Letters*, op.cit., o.231. LE 8 May 1869, p.5/6. VRs 1871-75. LE 22 July 1876, p.1/1. LE 10 Aug 1876, p.1/6. Bennett & Bennett, op.cit., p.86.
- ⁵¹ LE 14 Feb 1887, p.1/3. Thomas Scott papers, QVMAG.
- ⁵² Thomas Scott papers, QVMAG. Tas Cyc Vol.II, p.204.

- ⁵³ AM Aug 1895, p.100; Sept p.121; Jan 1896 p.12. AM 26 May 1900, p.13. AOT AC 705 p.105. QVMAG 1987 MS 54. DT 18 Jan 1904, p.6/1. Tas Cyc Vol.11, p.204.
- ⁵⁴ LE 1 Mar 1918; 5 Mar.
- ⁵⁵ Harry Bean pers.comm. 20 Dec 1996.
- ⁵⁶ ADB Vol.2. Notes on Eskleigh in National Trust files. Melville *Almanack*. 1833, p.145. LE 17 July 1886, p.1/8. LI 19 April 1834, p.2/3.
- ⁵⁷ CC 30 Mar 1839, p.3/7. CC 9 Aug 1845, p.59/1. LE 5 Jan 1850, p.4/4. LE 27 Sept 1969. LE 21 Oct 1848, p.692/2.
- ⁵⁸ ADB Vol.2. Ritchie's will, courtesy Jo Jensen. LE 17 April 1856, p.6/3-4. LE 7 Aug 1850, p.498/2. Tasmanian Pioneer Index. CC 3 Jan 1846, p.8/2. LE 25 Feb 1852, p.147/3. LE 5 June 1852, p.386/3. HTC 18 Aug 1852. Craig, Clifford, *Old Tasmanian Prints*, Hobart, 1964, p.175. LE 6 Jan 1855, p.4/6.
- ⁵⁹ CC 24 Mar 1860, p.6/1. CC 31 Mar 1860, p.3/7. LE 21 July 1860, p.1/3. LE 23 Mar 1861, p.1/3.
- ⁶⁰ LE 22 July 1873, p.2/4. LE 9 Nov 1861, p.1/4. *Illustrated Melbourne Post*, Tas edition, 18 Dec 1865. 22 Feb 1863, QVMAG 1997 MS 0007. LE 19 Nov 1864, p.1/2. LE 27 May 1871, p.5/1. Merc 12 June 1869, p.1/6. LE 4 Feb 1867, p.3/6.
- ⁶¹ CC 2 April 1864, p.6/1-2. Ritchie's will, courtesy Jo Jensen. CC 7 May 1864, p.4/1. LE 30 May 1868, p.6/1. von Stieglitz on "The story of Eskleigh", in von Stieglitz Evandale files, QVMAG.
- ⁶² LE 1 Mar 1870, p.2/5; 3 Mar p.3/1.
- ⁶³ LE 16 July 1870, p.1/6. "Through Tasmania", Merc 18 Oct 1883. Ned Gibson, pers.comm. 12 Dec 1996.
- ⁶⁴ LE 16 Dec 1843. CC 19 Oct 1864, p.5/7. VR 1866.
- ⁶⁵ LE 17 July 1886, p.1/8. AOT LSD 1/53 p.337. Cameron to von Stieglitz 27 July 1965, quoting a Cameron diary, in von Stieglitz papers, QVMAG. HTC 4 July 1846, p.3/3. VR 1858. Church News (Evandale) 1958. Wise's *Post Office Directory* 1902, p.528.
- ⁶⁶ National Trust files.
- ⁶⁷ HTC 11 April 1834, p.2/4. Thomas, Harold, *Saint Thomas and his Neighbours*, Latrobe 1975, pp.29-49. LE 14 Aug 1852, p.554/1; 29 Mar 1853, p.343/1. Merc 21 April 1877, p.3/6. VR 1885. LE 29 Nov 1889, p.3/3. Salisbury collection 30 Jan 1890, QVMAG.
- ⁶⁸ CT 16 July 1839, p.226/2. CC 14 July 1855, p.7/3. VRs 1858, 59.
- ⁶⁹ Rod Freeman pers.comm. 1999.
- ⁷⁰ Scripps, Lindy. *The Fingal Valley: Historical Study*, 1997, p.108. Robert Marshall pers.comm. 10 Nov 1997.
- ⁷¹ Salisbury collection, QVMAG. Ledger book for Bean's mill, QVMAG.
- ⁷² Jim Napier pers.comm. 10 Nov 1997. Robertson, E. Graeme, & Craig, Edith N., *Early Houses of Northern Tasmania*, Vol II, Melbourne, 1964, p.195. LE 6 Mar 1859, p.3/1.
- ⁷³ Jim Napier pers.comm. 10 Nov 1997. "Through Tasmania", Merc 4 Sept 1883. Merc 8 Jan 1963; 28 Oct 1980; 13 Mar 2000, p.11.
- ⁷⁴ Jim Napier pers.comm. 10 Nov 1997.
- ⁷⁵ TM 2 April 1892, p.11/2.

CHAPTER ELEVEN

MACQUARIE AND MEANDER RIVER VALLEYS

11.1 Arthur Mill, Tunbridge

The Arthur Mill on Millbrook creek was built by the millwright Peter Ferguson for Norfolk Islander Michael Lackey, later to have another mill at Bagdad (see 5.1.3). It was said to be completed by 1827 but evidently did not commence operations until 1829. By 1853 the Arthur Mills Estate was being rented by Pillinger who eventually bought it. In 1863 he advertised for a miller, but this is the last reference found to the operation of the mill. When the Special Correspondent of the *Mercury* described the estate in 1884 he made no mention of a mill. The estate, by 1864 called Millbrook, was bought by Edward Ferrer in the early 1900s and the disused mill was converted to a shearing shed worked by a turbine utilising the mill race. Later the property was known as Cheam.¹

Any remains in the area (map reference Tunbridge 295356) are concrete and obviously of a later era than the mill, but the head race which comes about three kilometres from the hills to the west is still live and used for irrigation, and the course of the tail race can still be seen.

11.2 Ross Mill

In 1832 Robert Kermode was advertising grinding rates for the Ross Mills, the first known reference to this mill. In 1853 Edward Pratt commenced leasing what he called the Mona Mill, so it seems certain that the mill was built on Mona Vale. No later references to milling have been found, and when the estate was auctioned in 1875 there was no mention of the mill. The site has not been determined.²

11.3 Campbell Town

11.3.1 Meadowbank Mill

John McLeod's mill on his estate of Meadowbank to the west of Campbell Town was advertised as operating in August 1829 by John Ayres, presumably the lessee. Following McLeod's death about 1842 Robert Long became the lessee and he was there for some time. He was the lessee in 1868, but from then on till at least 1872 the Valuation Rolls show the mill to be empty.³

The mill was built on the northern side of the Elizabeth River, sou-south-east of Merton Vale. Remains of the mill are still visible (map reference Jacobs 373581). These include two stone walls which seem clearly to be part of the pit for the water wheel, with scattered bricks to the west. The water wheel is said to be submerged in the river, but given the shallowness of the river at this point it is much more likely that if a wheel of some sort survives it was part of the machinery, perhaps the pit wheel. The small weir survives several hundred meters

upstream and the head race can be traced. (In 1830 Wedge noted that McLeod was building a dam 180 feet [55m] across and 20 feet [6m] wide; no evidence of this has been found.)⁴

11.3.2 Campbell Town Mill

In February 1847 the architect James Blackburn was given permission to cut a mill race for a mill he was building to the east of the Red Bridge, and in August he advertised the mill was in full operation. The mill, erected by Easby & Robertson, was a five-storey building and the two pairs of French burrs were operated either by a 15-foot [4.5m] water wheel or by steam. When Blackburn left the colony for Port Phillip in 1849 the mill was bought by Francis Turnbull. By 1861 the mill was owned and operated by John Coombe and it was to remain in the hands of this family until it burnt down in 1898.⁵

Photographs of the mill show it to have been a most interesting Blackburn design. It was built on the eastern side of Forster Street to the north of its junction with Franklin Street. The site is marked by a later building which at one time operated as the town's pumphouse, utilising a turbine. The head race from a weir in the Elizabeth River can be traced, with the upper part of it still live, and the tail race marked by reeds is still quite obvious. The elegant two-storey miller's house survives a little closer to Franklin Street.⁶

11.4 Barton Mills

When Andrew Gatenby immigrated in 1823 he brought with him the workings of a water mill which he soon erected on the Isis river on his property Barton. According to the Land Commissioners it was in full work by August 1826. This mill finally broke down in 1840 and in 1842 the building was cleaned up so that it could be used for accommodation for some of the farm hands. Its site has not been determined.⁷

Obviously realising that the first mill would not last too long, in 1838 Gatenby began the task of replacing it with a new one. In November 1840 the building was finished and once Easby had installed the machinery the mill was started in April 1841.⁷ The mill, still in Gatenby hands, was grinding flour in 1883 but in May 1887 Barton grain was being ground at Connorville so it appears that the mill did not work again.⁸

The second mill was built 50m to the west of Barton Road, 300m north of Macquarie Road (map reference Conara 204659). The building was still in place in 1971 when it was bought by Roger Smith and pulled down and transported to Launceston, where it was used as part of the Penny Royal complex.⁹

11.5 Connorville Mill

Just when this mill was built has not been determined. In 1841 the millwright Easby quoted for building a mill at Connorville, but records show that the estate was buying flour from the

⁴ For a full account of the building of the second Barton mill, see Jill Cassidy, "Flour Milling Trades: A Case Study", in *TIRA* Vol.45, No.2, June 1998.

Lake Mills in the 1840s and 1850s. The earliest reference found to a mill at Connorville is in 1862. The mill outlived the nearby Lake and Barton mills, working into the twentieth century. In 1904 it was still using millstones and was grinding not only for all of Connorville's requirements but for neighbours as well. It is believed to have stopped about the time of the First World War.¹⁰

The brick mill building with its wooden wheel house still survives, part of a complex of buildings on the Connorville estate (map reference Delmont 075707). The early composite breastshot wheel which was used to also drive a saw mill survives, and the mill is still in working order with a live mill race from the Lake River. It ranks as one of the four most important mill sites in the state.

11.6 Lake Mill

The Lake Mill was built on the Lake River by Thomas Fletcher of the Tallentyre⁷ Estate, evidently with the Longford-based Thomas Tucker as millwright (see 10.1.2). It was operating in 1834 and the *Hobart Town Almanack* of that year described it as recently erected. Initially it worked one pair of stones, but later another pair was added. The mill continued to be worked by members of the Fletcher family until the mill was sold to James Thirkell in 1867. It has not been determined exactly when the mill stopped functioning, but in 1884 a lengthy description of the estate makes no mention of a mill. The stone and brick building was demolished in 1949 for its materials.¹¹

The mill was built on the western side of what is now called Pisa Creek, just inside the eastern boundary of the property (map reference Delmont 091756), with a race from the Lake River. Two parallel sandstone walls perhaps a meter apart survive, along with some scattered bricks.

11.7 Carrick

11.7.1 Bryan's/Monds' Mills

The Irishman William Bryan built a wooden mill on the Pennyroyal Creek, now the Liffey, in 1828. It was operating by February 1829 and contained one pair of stones. In 1846 this mill was replaced with a much larger bluestone structure. In 1851 it was leased by John Archer, and following his death the following year John Kinder Archer took over. He was still there in 1866. When William Bryan died in 1867 the mill with its three pairs of millstones was auctioned and was bought by Thomas Monds who turned it into one of the best mills in the colony. The mill was still working in 1908 but following the formation of Monds & Affleck in 1918 (see 9.1.15) it was used only for pearling barley, although it made flour briefly in 1923 while the Launceston mill was being renovated, the last water mill to operate in the state.¹²

The mill was built on the eastern side of the Liffey River, on the eastern side of what is now the Bass Highway just to the east of the bridge over the Liffey. The four-level bluestone

⁷ This spelling of Tallentyre was always used by Fletcher, although modern maps spell it with only one "l".

building remains, although several buildings at the front have long disappeared. Stones from the dam still survive, as does the short head race with occasional brickwork. Its association with one of Tasmania's best-known milling names adds to the site's significance.

11.7.2 Rudge's mill

The steam mill was built by Frederick Rudge and began operating in 1855. After he defaulted in payment the mill was put up for auction in 1862. Thomas Monds leased the mill in 1875 then bought it in 1878 to use when there was not enough water to operate his water mill. The brick building was being used by a store in 1908. Built in Liffey Street, opposite where Ashburner Street joins, the mill was pulled down at an unknown date.¹³

11.8 Hagley Mills⁴

The origins of the hexagonal brick and stone horse mill at Hagley have not been determined, although it is most likely to have been built between 1830 and 1840. It was almost certainly built as a flour mill, as it is most unlikely that such a building would have been erected just for threshing grain, but no confirmation has been found. This is the only horse mill in Tasmania known to have been powered internally: in other words, the horse was inside the building and the machinery was above. The only other remaining example in Australia, erected by 1837 near Goulburn in New South Wales, retains original wooden gearing and machinery but the timber-framed farm building has been refurbished in recent times.

Later in the century another building was erected adjacent to the horse mill and a steam engine installed. In 1861 Mrs Elizabeth Noake advertised that her steam mill was in operation. The mill is referred to in Bailliere's Gazetteer of 1877, but is not specifically mentioned in Valuation Rolls after 1875, so it is unlikely that it operated for long. This building also survives, although long converted for general farm use. Both buildings are on Mill Farm, 50m to the north of the railway line (map reference Westbury 916017).¹⁴

11.9 Westbury

11.9.1 Egmont Mill

The water mill at Egmont was being built in 1842. In late 1848 the mill and 57 acres was sold by James Haydock Reibey, evidently the person who initially built the mill, to James Greenhill and it has remained in the hands of this family ever since. The mill was still in use into the twentieth century and is thought to have stopped around the time of the First World War. At some time in the 1930s the mill burnt down.¹⁵

⁴ For a detailed history of the Hagley mills, see Tim Jetson, *Bass Highway-Hagley Bypass, Hagley Mill: Historical Study*, Department of Roads and Transport, February 1993. See also Clive Lucas, Stapleton and Partners Pty Ltd, *Hagley Mill, Hagley, Tasmania: Assessment of Architectural Significance*, Department of Roads and Transport, April 1993.

The mill was built on the north side of the Meander River, about 350m west of Egmont Bridge on what is now the Birralee Road (map reference Westbury 843061). Stone ruins survive and the head race can be traced.

11.9.2 Westfield Mill

In 1864 Charles Harris bought some of the machinery of the Longford Steam Mill, originally the Independent (see 10.1.2), and set it up in Westbury at the property of the insolvent Thomas White. Eventually Harris bought the property. He ran the mill for some years and then let it to John McKay in 1877. McKay was still in occupation in 1896.¹⁶

The mill, part of the White House complex, still survives, although one of its storeys has been removed. The millstone curbing for two pairs of stones remains in-situ, and a pair of French burrs are in the garden. A smutter is retained on the bin floor.

11.9.3 Other Westbury Mills

References to two other steam mills in Westbury have been found but more work needs to be done to differentiate their history. One was in Mary Ann Street and was destroyed by fire in 1882. The other was in Westbury Road and was run in the 1850s by Abraham Wren. It is believed that there are no remains of either.¹⁷

11.10 Exton

Almost nothing is known of this mill, except that in 1877 Bailliere's Gazetteer noted that Noakes' mill was still operating. Presumably this was the Noakes who ran the Hagley steam mill.

11.11 Deloraine[§]

11.11.1 Clayton's Mill

The first mill in Deloraine, operating in 1853, was built by Henry Clayton of Wickford (see 10.1.4). His sons operated the steam mill for some years, but following his death it was bought by Samuel Henry who added a brewery. In 1873 the interior was destroyed by fire and the mill was not rebuilt.¹⁸

The two-storey brick building with loft and iron roof remains at 16 Beefeater Street, now converted into a home and with some structural alterations.

[§] For a detailed account of the Deloraine mills, see Jill Cassidy, *Deloraine's Industrial Heritage: a survey*, Launceston, 1986.

11.11.2 Bowerbank

In 1855 it was announced that the Bowerbank steam mill, built by the Horne family, was completed and at work. At some time a turbine was added. It remained in the hands of the Horne family until 1873 and then had a succession of owners and lessees until 1907 when John Taylor became the occupier. He was still there at his death in 1935. The mill was still grinding grain in 1914, but its milling machinery was sold about 1919 to the Lucks in Devonport (see 12.7.2). The mill continued to be used for grain crushing at least until 1929. In 1952 it was converted to a garage, while from 1975 it has operated as an art gallery.¹⁹

The three-storey stone mill with slate roof along with the separate engine house and circular brick chimney survives on the southern side of the Bass Highway to the east of Deloraine (map reference Deloraine 733026). A persistent legend that it was originally a water mill until steam was later added is refuted by the building structure, which clearly shows that the chimney was built as an integral part of the mill. Some of the original internal features survive, as does the mill pond up the hill with the pipes leading underground to the turbine pit.

11.11.3 Shorey's Mill

In 1863 Samuel Shorey built a store in front of his house, Cotehele, and in 1872 he installed milling machinery and a boiler and commenced flour production. William Harvey became the manager and in 1894, some years after Shorey's death, he bought the mill. The production of flour ceased in 1917, but it continued to be used for grinding animal feed for some time.²⁰

The two-storey bluestone and brick building survives on the north-western corner of Westbury Place and River Road. Although now a dwelling, some internal features from the milling era survive in the loft.

11.11.4 Davern Mill

Considering that the Meander River runs through Deloraine it is perhaps surprising that only one mill was built as a water mill, but it did not last long. Edward Davern was given permission to build in 1888 but by 1894 the mill was in the hands of the mortgagee. It was bought by Furmage in 1900 and used as a store. It appears to have been pulled down in the 1930s. There are no remains.²¹

¹ HTG 19 May 1827, p.2. HTC 5 Dec 1829, p.3/2. MMR 1853. VR 1872. Merc 29 April 1863, p.1/7.

"Through Tasmania", Merc 19 Jan 1884. Merc 4 Feb 1864, p.2/5. Weeding, *A History of Tunbridge and Woodbury*, 1978, pp.10-11.

² HTC 7 Sept 1832, p.1/1. LE 26 Nov 1853, p.99/3. Merc 15 Sept 1875, p.4/7.

³ HTC 29 Aug 1829, p.3/3. HTC 27 May 1842, p.3/3. CC 15 July 1843, p.3/4. VRs 1858-72.

⁴ Duncombe, Geoff, *History of Campbell Town*, Launceston, n.d. (1996), p.17. Wedge diary 13 June 1830.

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- ⁵ AOT SC304 27 Feb 1847, & 1850. HTC 14 July 1847, p.3/3. LE 3 Mar 1849, p.203/3. ADB Vol.1. VR 1861. Duncombe, op.cit., p.47.
- ⁶ Smilay to Dallas 20 Jan 1960, in Dallas Papers. UT 516/1-3.
- ⁷ Holman, quoted in Robertson, E. Graeme, & Craig, Edith N., *Early Houses of Northern Tasmania*, Melbourne, 1964, Vol. I, p.117. J.C. 16 Aug 1826. Barton diaries 28 Sept 1840, 9 April 1842.
- ⁸ Barton diaries 28 May 1838, 11 Nov 1840, 5 April 1841, 11 April 1883, 12 May 1887.
- ⁹ *Tasmanian Travelways*: April-May 1978.
- ¹⁰ Connorville Papers, passim. Tallentyre ledger passim. WC 4 June 1904.
- ¹¹ LE 17 July 1886, p.1/8. HTC 7 Feb 1834, p.1/1. CC 12 Feb 1867, p.6/4. LE 22 June 1867, p.6/3. "Through Tasmania", Merc 29 Sept 1883. Merc 19 Nov 1949.
- ¹² J.C. 29 Feb 1828. LA 23 Feb 1829, p.4/1. LE 16 April 1859, p.2/5. Stevenson, B., *Water under the Bridge: A Story of Carrick*, Carrick, 1995, p.9. LE 27 Dec 1851, p.865/3. LE 11 Dec 1852, p.826/3. LE 13 Jan 1853, p.42/2. VR 1866. LE 23 April 1867, p.6/6-7/1. Tas Cyc Vol.II, p.220. WC 10 Nov 1908, p.4. LE 29 July 1950. LE 8 Sept 1923.
- ¹³ LE 22 Mar 1855, p.1/2. LE 14 Aug 1862, p.6/6. VR 1875. LE 16 Feb 1878, p.1/3. Monds' will, QVM 1997 MS 44.
- ¹⁴ LE 16 Mar 1861, p.5/6.
- ¹⁵ MMR 1842. Title deeds and Greenhill diaries courtesy Bill & Virginia Greenhill.
- ¹⁶ LE 14 Feb 1865, p.6/5. VR 1866. LE 6 Jan 1877, p.6/2. AM Jan 1896, p.3.
- ¹⁷ VR 1873. LE 14 Mar 1882, p.2/5. LE 20 May 1858, p.4/3.
- ¹⁸ Cassidy, Jill, *Deloraine's Industrial Heritage: a survey*, Launceston, 1986, pp.8-10.
- ¹⁹ LE 1 Sept 1855, p.5/6-7. Dallas to von Stieglitz 18 Oct 1960, von Stieglitz Papers. QVMAG. Cassidy, Jill, *Deloraine's Industrial Heritage: a survey*, Launceston, 1986, pp.13-18. Greenhill diary 1914 passim. Adv. 30 Dec 1972. LE 20 Aug 1929. LE 28 Nov 1952.
- ²⁰ Cassidy, Jill, *Deloraine's Industrial Heritage: a survey*, Launceston, 1986, pp.18-20.
- ²¹ Cassidy, Jill, *Deloraine's Industrial Heritage: a survey*, Launceston, 1986, pp.20-22.

CHAPTER TWELVE

NORTH-WEST COAST and SARAH ISLAND

12.1 Elizabeth Town¹

John Spicer, the local hotel-keeper, built a wooden watermill to the north of Elizabeth Town in 1885 but in 1894 it was totally destroyed by fire and was not rebuilt. It had been on the triangle of land formed where the Rubicon River leaves the vicinity of the road and then comes back again (map reference Parkham 635103). A house now occupies the site. However, the weir still survives a few hundred metres upstream.¹

12.2 Sassafras

12.2.1 Skelbrook Mill

The Mills and Manufacturing Returns indicates that a new watermill began operating in the Port Sorell area in 1861 and this was almost certainly Skelbrook, built on his farm by Henry Rockcliff. In 1874 it was driven by an overshot wheel and a portable steam engine, but in 1884 only steam was used. The mill was still operational in 1889.²

The wooden building, still in reasonable condition, remains to the north of Kings Road (map reference Railton 592285). Moreover, it contains all its machinery with the exception of the steam engine, making it the most complete of Tasmanian steam mills and therefore of considerable significance.

12.2.2 Robin Hood

Henry Rockcliff's brother Francis built a mill on his property Robin Hood's Well (now Robin Hood), the first known reference being in the Valuation Roll of 1875. It too was a watermill with two sets of French burrs. It seems to have been working in 1890 but only sparingly, and is thought to have been unable to compete with Henry's steam power.³

The timber mill which had a bluestone basement and wheel pit is now in ruins, with little of the mill building apart from the rear stone wall remaining (map reference Latrobe 576307). A little ruined machinery is still on site. The 40m-wide concrete dam also survives.

¹ For a detailed account of the Elizabeth Town and Mole Creek mills, see Jill Cassidy, *Deloraine's Industrial Heritage: a survey*, Launceston, 1986.

12.3 Port Sorell

12.3.1 Panatana Rivulet

George Robson built a dam across the rivulet (also called Muddy Creek) and had started building a "small wooden Mill House" in 1847. It appears likely that the mill was never finished, however. A weir still in existence across the rivulet is said to have been built in the 1930s.⁴

12.3.2 Heidelberg Mill, Green's Creek

The mill at Greens Creek (Heidelberg) was nearing completion in March 1859 but it was April 1860 when Abraham Wren announced that he required wheat for the Heidelberg Mills. The mill was owned by Henry Douglas and by 1863 it was occupied by George Smith who eventually bought the property. The mill appears to have stopped working in the 1870s but the wooden building with its overshot wheel remained until the 1930s when it was burnt down.⁵

The site of the mill is barely visible on the northern bank of Greens Creek immediately to the south of the Frankford Highway, and parts of the head race can be traced.

12.4 Mole Creek

In 1864 Abraham Wren built a small steam mill on Wingfield Creek. It was soon in the hands of William Reed How who married one of Wren's relatives and he was running the mill in 1883. By 1887 it had been converted to a sawmill run by a turbine. There are no remains.⁶

12.5 Latrobe

12.5.1 Sherwood (Kiacca)

The first reference to this mill is in the 1867 Valuation Roll, where Thomas Johnson is listed as having a flour mill at Sherwood. In 1868 the mill was occupied by E.B. Hunter, evidently a son of Robert Hunter of the Evandale and Perth mills (see 10.3 and 10.2). He continued there for a few years, and then in 1873 R. Bauld seems to have been the lessee. Robert Hunter died there in 1873 and the rest of the family appears to have moved away. In 1876 Heron and Vincent were converting the mill to a sawmill, with a new water wheel and race from Caroline Creek. The site has not been determined.⁷

12.5.2 Bonney/Rudge Mill

James Bonney built a flour mill on his farm just outside Latrobe in the 1870s; the first reference in the Valuation Rolls is in 1875. By 1886 the water wheel had been replaced by a turbine which worked two pairs of stones. By 1888 the mill was occupied by William Rudge

and he converted the mill to rollers. By 1900 he had bought the mill. By 1905 H. Lord was the manager, and in 1908 he converted the mill to supply electricity to the township. The building continued to be used for this purpose until 1933 when the Hydro Electric Commission took over.⁸

Concrete foundations remain in Mill Lane (map reference Latrobe 500344) along with two Leffel turbines, although these are likely to be from the power station. The tail race can be traced for 300m to its junction with Bonney's Creek.

12.6 Kelcey's Mill, Spreyton

This mill was built by Stephen Kelcey on an arm of Figure of Eight Creek in what is now called Flour Mill Bay. It is the only known tidal mill to have been built in the colony, and was operating by August 1856, making it the first flour mill on the Mersey. Kelcey also had a tide-operated sawmill nearby. He continued to operate the mills until the early 1890s. In 1963 remnants of the dams for the mills could still be seen, but in that year the Devonport Council decided to open a new refuse tip on the site. The area has now been reclaimed and is a recreation ground.⁹

12.7 Devonport

12.7.1 Stewart's Mill, Torquay (East Devonport)

Robert Stewart built a sawmill at Torquay by 1854. In 1867 he advised that his steam flour mill on the same site was operational. The mill had various lessees for a few years before and also after Stewart's death in 1877, and in 1883 Aaron Clark from the Woodside Mill at Franklin (see 7.2) was operating it. In August 1884 the mill burnt down and was not rebuilt. The site of the mill in Tarleton Street (approximate map reference Latrobe 471395) is now occupied by the Argosy Motel.¹⁰

12.7.2 Luck's Mill, West Devonport

John Luck, sawmiller and builder, erected the wooden and corrugated iron North-Western Roller Mills in Upper Rooke Street in 1890, thus ranking with some of the colony's most progressive millers in using rollers so early. Luck won medals for his roller flour but Federation opened his business to too much competition and a few years later the mill stopped working. About 1919 John's son Aubrey re-opened the mill, buying machinery from Deloraine's Bowerbank Mill, and he was later joined by his brother Norman. However, the mill worked for only a few years and in March 1925 they sold the machinery at auction. They continued in business as hardware merchants and the enterprise, later renamed Luck & Haines, continued for most of the twentieth century. What remained of the original building appears to have been demolished in the last few years.¹¹

12.7.3 North-Western Flour Mill, Devonport

The third mill in Devonport, between Formby Road and the river, was built about 1961 by Gibson's to provide flour to bakeries on the coast. When Monds & Affleck took over Gibson's in 1974 they also took over the North-Western Flour Mills. Within a year they had begun the production of flour for starch, with the flour being blown next door to Tasman Starches which separated the starch from the gluten. The starch was sold to the two paper makers at Burnie and Wesley Vale, and the gluten was exported. As the paper makers expanded production the Devonport mill also increased in capacity, using rollers and a plansifter from the Morrison Street mill when this closed down. The mill was working around the clock in 1994 but in 1995 there were problems in the international gluten market and in July 1996 the mill, by then owned by Pivot, was closed down with the loss of six jobs. The building remains on the wharf, but the machinery was sold to various buyers interstate.¹²

12.8 Sheffield

12.8.1 Cables' Mill

James Cables arrived from Scotland in 1859 and, after a stint at Harden and Emerald Mills (see 9.1.12 & 10.1.5), settled to the west of Sheffield in 1861. At some time he built a watermill on his farm, utilising the waters of the Don River, but found this unsatisfactory as the water supply was not good enough in summer and in winter the wheat was too damp to grind satisfactorily. In 1872 he built a steam mill closer to his house, but this closed in 1884. The millstones were later taken to James Hope's new mill near Barrington Road (see 12.8.2).¹³

The first mill was on the Don River to the north of Cables Road (approximate map reference Sheffield 413190). Traces of the mill race coming from the bridge are still visible. The second mill, just to the north of the farm buildings (map reference Sheffield 412190), has left just the excavations showing where it stood.

12.8.2 Hope's two mills

With the district of Sheffield well known for its grain growing, it is not surprising that another flour mill was soon built. The owner this time was James Hope, who had worked at Bowerbank for 14 years and then had managed Shorey's Mill for 16 years. He built a watermill on the Don River and it was probably this which the *Launceston Examiner* announced in April 1888 had just been completed. When the millstones were dragged from Cables' Mill (see 12.8.1) it was said that the friction caused a fire in the scrub. Within ten years Hope was finding the mill too small and about 1895-6 it was closed and replaced by a new mill (see below).¹⁴

The mill was to the south-west of the bridge over the Don River on the Sheffield Road (map reference Sheffield 415195). A slight depression marks the mill race near the mill site, but another part of the mill race further upstream is quite clearly visible and part of the dam survives (map reference Sheffield 414193).

Hope's new steam mill was built in 1895 on the north-east corner of West Nook Road and the Sheffield Main Road. The mill was of corrugated iron over a wooden framework and was completed by January 1896, with the Cornelius rollers added and working by March. The mill was still working in 1911 but had evidently ceased production by 1913. The machinery was converted for grain seed dressing and grain crushing and was still being run by Hope descendants until about 1968. In 1973 the dilapidated building was demolished. There are no remains.¹⁵

12.9 Kelcey's Mill at Nook

Stephen Kelcey, son of the Spreyton Kelcey (see 12.6), built a flour mill on the Don River close to the waterfall at Nook. It is first mentioned in the Valuation Rolls in 1875. The mill burnt down, evidently in 1894. There are no remains.¹⁶

12.10 Forth Mills

Charles Wellard built the first mill in Forth, then called Hamilton-on-Forth, in 1880. The wooden mill was operated by a turbine using water from Hamilton Creek, with possibly additional steam power as required. At some time he built a replacement weatherboard mill a little further downstream to get a greater fall of water. This mill was powered by both turbine and steam, and used Cornelius rollers. The first mill was utilised for grain storage until it was demolished. The second mill was still supplying the district with flour well into the twentieth century—a descendant estimated about 1918—and then was pulled down in the early 1920s.¹⁷

There are no remains of either of the mill buildings. The first was at approximately Kindred 375396 and the second approximately 374396, directly opposite Grove Street. The miller's house, now called Mill House, survives with parts of French burr stones in the yard. The upper and lower dams also remain: at Kindred 378394, above George Street, and at 376395 where a valve survives immediately to the south of the driveway.

12.11. Leith Mill, Clayton's Rivulet

James Scott, millwright for Hunter's Perth mill (see 10.2), later moved to Clayton's Rivulet and erected a water-powered flour mill there. The *Launceston Examiner* announced in October 1861 that it was ready to begin operations, and in 1874 it was reported that oatmeal had been produced for many years. The mill was later operated by his sons, until the late 1890s when they erected a new steam mill in Ulverstone (see 12.12.1). No remains of this mill have been found. It was located between the main road and the railway bridge, near Turner's Beach (earlier called Scott's Beach).¹⁸

12.12 Ulverstone

12.12.1 Scott Brothers' Mill

In 1897 the *Australian Miller* announced that the Cornelius roller plant at the Leith Mill was to be moved to a new mill. By 1900 the three-storey weatherboard steam mill had been built on the western side of Ulverstone's Main Street between Alexandra Road and Finch Street. The mill was still operating in 1913 when Robert Scott died, but seems to have stopped working by 1925. The exact location of the mill has not been determined.¹⁹

12.12.2 Castra Road mill

A water powered mill was built by Thomas Shaw and P.C. Maxwell between Castra Road and Buiton's or Serpentine Creek, a few kilometres out of Ulverstone. The mill utilised a turbine and was operating in 1874. In 1876 the partnership was dissolved and Shaw remained, the job of miller being eventually taken over by his son, also Thomas. The mill had stopped working by 1925, and the mill was pulled down after the Second World War and the timber used for making two barns. No remains have so far been located of the mill, which was on the flat ground right next to the creek (approximate map reference Kindred 315392).²⁰

12.13 Fielding Brothers' mill, Penguin

James and Charles Fielding operated a steam flour mill in conjunction with a sawmill in Penguin from 1888 to 1914. In 1896 they added a Cornelius roller mill to their plant. The buildings were half-way between the present Deviation Road and Mission Hill Road, with the flour mill in the gully below 66 Mission Hill Road. All trace of the building has gone.²¹

12.14 Sulphur Creek mill

The Sulphur Creek watermill was built by George Ling on his property. Nothing more is known of it, except that it was likely to have been where the new Bass Highway crosses the creek.²²

12.15 Somerset mill

According to a 1925 account in the *Advocate*, one Richard Byrne in the 1860s built a small water-powered mill on a small creek on the Cam Road. Even though he was offering steel cut, silk dressed flour, the flour was not as good as Launceston flour and the mill stopped working after only a few years. The location of this mill has not been determined.²³

12.16 Wynyard mill

E.O. Blackwell had erected a flour mill on the western side of Big Creek by 1892. About 1904 Tyrell and Callaway took over the mill from the Blackwell Brothers and by this time

the mill had rollers. The mill was still operating in 1915 but in 1925 when the mill, owned by S.W. Margetts, was destroyed by fire it was said that flour had not been produced for many years. Remains of foundation walls remain on the side of Big Creek, about 100m to the south of Inglis Street.²⁴

12.17 Stanley

12.17.1 Highfield horse mill[†]

A four-horse flour mill was set up at Highfield for the Van Diemen's Land Co. between July 1831 and June 1832. By October the metal horse wheel had broken which put the mill out of action for some time. The only other reference found is from 1840, although according to Bolt & Lennox the mill was still in use into the twentieth century but driven first by steam and then diesel. The Mill Barn from 1836 is still extant.²⁵

12.17.2 Highfield steam mill

In 1834 a flour mill and steam engine were sent from England, but the cast iron wheels were broken during landing. It seems that the mill never worked and in 1840 the machinery was sent to Port Philip.²⁶

12.17.3 Highfield windmill

A windmill was sent to Highfield in 1844 by the *Elizabeth and Jane*, along with two pairs of French burr stones and one pair of English stones for barley, etc. It appears to have been working in 1845. By 1849 the windmill was let to William Allen who seems to have continued to lease it until his death in 1857. It is not known if it continued to work after his death. The mill was erected to the north-east of Highfield (map reference approximately Stanley 558881), directly to the north of the ruins on the road into Highfield. The position is now ploughed and there are no remains.²⁷

12.17.4 Stanley windmill

A windmill in Stanley is first recorded in the Mills and Manufacturing Returns for 1839. By 1855 it was owned and was being run by Joseph Alexander. For much of the 1860s Alexander was in Wynyard and the mill was unoccupied but in 1868 Thomas Henderson was advertising from the Stanley Flour Mills. Nothing further has been found. The mill was on the eastern side of Main Road/Wharf Road south of Victoria Street; there are no remains.²⁸

[†] Information on Highfield mills courtesy of Geoff Lennox, DPIWE.

12.18 Forest mill

According to the usually reliable book, *Back to Circular Head*, an early settler at Forest, Stuchberry, harnessed water to drive a flour mill. This was near the foot of Stuchberry's Hill. Nothing more has been found.²⁹

12.19 Sarah Island[†]

The existence of a flour mill on Sarah Island is known from the list of offences for convicts. The first reference is from 8 May 1824 when a convict was charged with stealing wheat from the mill, and the last certain reference from July 1831. It would seem likely that the mill continued in use until the settlement closed in January 1834. It is most likely that the mill was a capstan-type mill operated by the convicts, although it is possible that it was a small treadmill.³⁰

¹ Cassidy, Jill, *Deloraine's Industrial Heritage: a survey*, Launceston, 1986, pp.22-23.

² CC 25 Sept 1858, p.5/6. Diary entry courtesy Rosie Marshall. LE: 27 April 1869, p.3/4. Merc 5 May 1874, p.2/7. AOT AC 705, May 1889.

³ Letters, diaries & mill books courtesy Rosie Marshall.

⁴ Meredith Letterbook, AOT, 1 Oct 1847. Len Fisher pers.comm. 29 April 1996.

⁵ LE 24 Mar 1859, p.3/2. LE 14 April 1860, p.5/1. VR 1863. Len Martin pers.comm. 24 June 1996.

⁶ Cassidy, Jill, *Deloraine's Industrial Heritage: a survey*, Launceston, 1986, p.22. AOT AC 705 p.127.

⁷ LE 20 May 1873, p.4/1. LE 31 Aug 1876, p.3/4. "Through Tasmania", Merc 15 Mar 1884.

⁸ AOT AC 705 c.1886. VR 1888. Tas Cyc Vol.II p.242. National Trust of Australia (Tasmania) Latrobe Group, *Prints from the Past: Latrobe Photographic Collection*, Latrobe, 1981. AM 28 Oct 1905, p.11.

⁹ CC 30 Aug 1856, p.8/2. Ramsay, Charles, *With the Pioneers*. Hobart, n.d., p.130. Adv. 29 July 1925. Devonport Council notice 25 Nov 1963.

¹⁰ Thomas, B.W., *The Appledore Papers: The Farming Journals, Papers & Letters of Bartholomew (Bat) William Thomas 1845-1894*, a transcription by the Devon Historical Society. Devonport, 1988. 20 May 1854. CC 16 Feb 1867, p.1/7. LE 30 Aug 1877. VRs 1872-1883. LE 22 Aug 1884, p.3/1.

¹¹ Tas Cyc Vol.II, p.257. NWP 19 July 1890. Adv 29 July 1925. Adv 30 Dec 1972.

¹² Transcript of oral history interview with Jim Hughes, QVMAG 1994 OII 18 A-C, pp. 9 & 30. Jim Hughes & Russell Fyfe pers.comm 17 April 2000. LE 9 July 1996.

¹³ Gordon Cables in Haberle, Mary, *Mountain Reflections*, Don, 1993. *Kentish Times*, May-June 1986.

¹⁴ Tas Cyc Vol.II, p.350. LE 14 April 1888, p.2/7. *Kentish Times*, May-June 1986.

¹⁵ AM Jan 1896, p.11; Mar p.50. John Hope pers.comm. 29 Oct 1997. WC 21 Dec 1911. Undated newspaper cutting (autumn 1973).

¹⁶ Caption to photograph of the ruined fluming, undated newspaper cutting.

¹⁷ Tas Cyc Vol.II p.267. An article by Vic Riggs in the Ulverstone Local History Museum. Ted Pointon pers.comm. 31 Oct 1997.

¹⁸ Tas Cyc Vol.II p.279. LE 26 Oct 1861, p.2/6. LE 21 Mar 1874, p.5/3.

¹⁹ AM Oct 1897, p.194. Tas Cyc Vol.II p.279. NWP 21 Aug 1913, p.2. Adv 29 July 1925.

²⁰ LE 14 July 1874, p.4/2; 13 Jun 1876, p.4/1. Pam Shaw pers.comm. 8 May 1997.

²¹ Barker, A.O., *Penguin Pioneering Days*, 1956, p.14. Lisa Hutton pers.comm. 15 Dec 1997. AM July 1896, p.132.

²² Barker, A.O., *Penguin Pioneering Days*, 1956, p.14. Jim Lade pers.comm. 7 May 1997.

²³ Adv 27 June 1925.

[†] Information on Sarah Island courtesy of Richard Davcy and Hamish Maxwell-Stewart.

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- ²⁴ *Wellington Times*, 12 Mar 1892. *Wise's Post Office Directory*, 1902. *Western Advocate & Emu Bay Times*, 16 Mar 1904. Tyrell letters at the Wynyard Historical Centre. Adv 4 July 1925.
- ²⁵ AOT VDL 178 Curr's Letterbook, p.63. AOT VDL 5/4, 6 Oct 1832: 19. Return of Improvements 23 Oct 1840. Bolt & Lennox, *Highfield Papers*. Department of the Environment and Land Management, 1990, p.2.
- ²⁶ AOT VDL Vol.193/1, p.329, No.77, 9 Mar 1833; p.464, No.118, 26 July 1834; 193/3, p.245 No.203, 4 June 1840.
- ²⁷ AOT VDL 193/3, p.368, No.230, 18 April 1844; 19, agreement between Allen & VDL Co. 31 Mar 1849; 343 33/1, Gibson dispatch 216, 23 Feb 1852.
- ²⁸ MMR 1855. VR 1858-66. LE 4 Feb 1868, p.3/4.
- ²⁹ Trethewie, H., *Back to Circular Head*, Circular Head, 1952, p.17.
- ³⁰ References supplied by Hamish Maxwell-Stewart.

CHAPTER 13

REMAINING FLOUR MILL SITES: ASSESSMENT OF HERITAGE SIGNIFICANCE

The comparison of remaining flour mill sites listed in Tables 1-4 contains 34 sites where the mill building is essentially intact and a further 19 sites where incomplete structures or building foundations have been located. Of the complete mills, some 62% (21 sites) contain remains of machinery connected with providing power, transferring power or processing grain and meal. In terms of mill type, water mills are dominant with 9 sites exhibiting substantial machinery remains; 3 were combined water/steam mill sites, 2 were horse mills, with the remaining 7 being steam or electrically driven mills generally containing minor remains of ancillary equipment. Only watermills retain examples of the power source, in all cases by means of water wheels. No complete example of a wind powered flour mill has survived, although a substantially built brick tower mill at Oatlands is representative of the more sophisticated and technologically advanced design that evolved in Britain during the first half of the nineteenth century.

This comparative assessment highlights the relative significance of the Tasmanian flour milling heritage when compared with the mainland states. Only two sites established prior to 1840 on the mainland are known to have survived with the original building or machinery largely intact (South Perth windmill, Western Australia, and the Springfield horse mill, New South Wales), whereas Tasmania has 6 such sites (5 watermills together with the Oatlands windmill). Tasmania therefore retains the only collection of relatively complete water powered flour mills established pre-1840, which include the earliest examples of industrial buildings containing components of the original machinery. These sites when assessed in their entirety are therefore of national significance, and demonstrate many of the evolutionary advances in water wheel design and grain processing technology during the nineteenth century.

The mill sites have been compared on the basis of five principal criteria:

- construction date,
- extent and condition of the remaining structures, and
- surviving remains and condition of the power source, the drive machinery for transferring power and ancillary equipment which processed the grain and meal.

When ratings are applied to each of these criteria (see 13.1 for further details), the mill sites may be grouped into four levels of importance when assessed in terms of the total rating:

Table 1 Includes sites of considerable heritage significance (*total rating of 8 or higher*) in terms of the date established or the machinery and /or equipment retained. Watermills erected in the period 1830-1860 are dominant, but this table also includes the sole remaining windmill that is complete externally (Callington Mill, Oatlands); the most complete example of a country mill demonstrating the transition from water to steam power (Skelbrook, Sassafras); and two small farm mills originally operated by means of horseworks.

- Table 2** Includes important sites where the building remains essentially complete or early sites of considerable historical significance having a *total rating of 6-7*. Steam mills erected post-1840 are largely represented, including both smaller country mills utilising traditional millstones and larger urban mills converted to large capacity roller plant powered by electricity. Also includes the oldest identifiable mill site at New Norfolk (Terry's Mill), two important mid-nineteenth century mills utilising water turbines that were converted to roller milling (Carrick and Bowerbank), the oldest remaining example of a large urban steam mill (Gibson's Mill, Hobart) and what is probably the oldest remaining mill building in Hobart (Davey Street).
- Table 3** Includes important early sites where the mill structures are incomplete, often marked only by the foundations, together with smaller post-1860 steam mills and the Port Arthur treadmill/watermill complex, all having a *total rating of 5*.
- Table 4** Sites of minor significance (*total rating of 4 or less*) generally marked only by partial foundations but includes the last constructed mills in Launceston (Cataract IV) and Hobart (Salamanca Place), and the re-located Barton Mill.

Although the remaining flour mill heritage detailed in the tables is impressive, not all types of mills have survived, most notably examples of post or smock windmills of wooden construction or a tidal mill, only one example having been erected in Tasmania. Despite the extensive use of water turbines, particularly along the North-West Coast, no representative mills retaining the power source in-situ are known. With the dispersal of milling equipment from Gibson's Salamanca Place mill, only one site in Tasmania now retains complete roller milling plant together with examples of early nineteenth century processing equipment, that of Pivot's Esplanade complex in Launceston.

13.1 Assessment Criteria

The comparison of remaining flour mill sites is based on an assessment of the following factors:

- 1. Construction Date** – Four categories have been adopted reflecting the different phases of mill construction and introduction of mill technology:

Pre-1840 Includes a period of establishment and rapid expansion of both urban and rural sites where predominantly small watermills invariably having two pairs millstones, wooden post mills (of which none have survived), and the larger tower windmills were erected.

1840-60 Spans a vigorous period of mill construction which culminated in 1860 with the largest number of operational sites as recorded by the Mills & Manufactories Returns. Many of the existing watermills were rebuilt or enlarged with additional millstones and steam power was added to ensure continuous production in drought periods. Medium to large steam mills were erected or expanded during this period, the larger mills having up to 7 pairs of millstones, although 3-5 pairs was more typical.

1860-1900 Marks a period of continuous technological advancement in the development of alternative power sources (water turbines, improved steam engine design, introduction of oil engines etc.), and improved flour processing equipment culminating in the introduction of roller mills from the mid-1880s. Large capacity steam powered mills were established primarily in Longford, Launceston and Hobart following the development of railways. This period records a marked decline in the number of traditional wind and water powered mills, with steam (later electricity) mills equipped with roller plant becoming dominant post-Federation.

Post-1900 A period of consolidation, the industry being dominated by a small number of high capacity mills fitted with improved machinery operated round the clock.

Note: When several mills have the same total rating, the mills are placed in the table according to date of construction.

2. Building Condition – based on the extent and condition of the remaining structures, as follows:

No visible remains of the buildings although the mill race may be partially intact.

Mill foundations remain which may include subfloor stone or masonry walling around the building perimeter, the wheel pit of watermills, or the engine house of steam mills. For windmills, foundations for post mills may include blocks of stone or masonry for the timber trestle; or for tower mills, remains of the ground floor walling.

Partially complete describes structures where the perimeter walls largely remain but the roofing has largely disintegrated or has been removed entirely.

Complete though altered structurally includes sites where the mill buildings remain recognisable as having been utilised for industrial processing but which may have an altered external appearance due to the removal of attached structures such as the engine house or chimney, or parts of the original building; alteration of windows and doorways during conversion to offices, warehousing or dwellings; or in extreme cases, re-location of the entire building.

Complete, largely original condition includes sites where re-development has not occurred or has been undertaken in a controlled manner to retain the essential characteristics of an industrial building.

3. Power Source – based on the extent and condition of the remaining water wheel, water turbine or steam engine. No examples of in-situ horse wheels, horseworks, tread wheels, windmills complete with sails, or steam engines were encountered during the study. Although examples of water turbines used in Tasmanian flour mills have survived, they have all been removed from the original sites. The categories adopted, therefore, largely refer to water wheels, although water turbines or steam engines are noted where they survive off-site.

No remains

Fragments only typically includes watermill sites where parts of the iron components remain in-situ to enable the dimensions and original construction details to be determined with reasonable accuracy. In the case of steam engines, only parts of the framework are known to have survived.

Incomplete, derelict refers to water wheels where the wooden components have partially or completely disintegrated, but enough of the structure remains to enable the wheel to be rebuilt to the original design.

Complete, replacement, possible changed characteristics also refers specifically to water wheels which have been rebuilt during their working lives where constructed of wooden components, or where replacement wheels (often fabricated in iron) replaced earlier wooden wheels.

Complete, original condition, or retaining original characteristics includes water wheels which remain largely as originally installed except for the loss of wooden components, such as the buckets. There is a degree of uncertainty in some cases, as it is not always possible to precisely determine the fabrication date.

4. Drive Mechanism – refers to the gearing and shafting required to transmit the power from the prime mover to the means of grinding. As for the section on the power source, remains of the drive machinery are largely confined to water mill sites, although fragments of gearing to horse or steam powered mills have survived in-situ.

No remains.

Incomplete, hursting or millstones may remain refers to sites where minor components remain in-situ, which may be intact or damaged.

Largely complete includes sites where most of the gearing and essential shafting to the millstones remains, but where fabrication of additional components, not necessarily to the original design, would be required during restoration.

Complete, modified condition refers to sites where the drive machinery has been altered during the working life of the mill, but which is complete, enabling the machinery to be restored to working order.

Complete, original condition includes site where the original drive machinery can be identified due to the design and construction characteristics. Only one such site is assessed with confidence as meeting these criteria, although possible modifications in a further two mills may be of minor extent and could be assigned to this category following further assessment.

5. Ancillary Equipment includes that required for processing of the grain or meal such as grain drying, cleaning, scouring or smutting machines; flour dressing, grading or purifying equipment; or machinery for movement of grain or flour around the mill such as sack hoists, elevators or creepers/augers. In twentieth century mills that are still operating, or have recently ceased production, only machinery that can be dated from the period of the original mill

construction has been included in the assessment. The categories adopted including *no remains; minor remains; incomplete or in poor condition; and significant remains in good condition*, are self explanatory.

Note: The impossibility of giving a numerical rating for an association with important names in milling means that it is not considered in the ratings table. However, this information is included in the relevant sections of each chapter.

13.2 Site Comparison

13.2.1 Construction Date

When the remaining mill sites are compared in terms of construction date (see Table 5) each of the selected periods are seen to be well represented throughout the nineteenth century. Of the total number of sites, those where the building is complete are also consistently represented at 55-60% of the sites. The situation for remaining machinery when assessed in terms of a combination of the power source, power transmission and processing equipment, is seen to be heavily weighted in favour of the pre-1840 sites. The five remaining watermills identified in Table 1 not only form 50% of those retaining significant machinery for the pre-1840 period, but also constitute 50% of the total number of nineteenth century sites. These sites together with those erected later in the nineteenth century therefore should be afforded the maximum protection as heritage-listed structures and assigned the highest priority for eventual conservation funding.

Table 5 – Summary of Remaining Sites of Heritage Significance

Construction Period	Number Sites	Building Complete No/Percentage of Total Sites ¹		Significant Machinery No/Percentage of Total Sites ²	
Pre-1840	10	6	60%	5	50%
1840 – 60	23	13	57%	2	9%
1860 – 1900	18	11	61%	3	17%
Post – 1900	4	4	100%	0	0
Totals	55	34	62%	10	18%

Note 1: Includes those with a Rating of 3 or 4 in Tables 1 to 4.

Note 2: Includes those with a Rating of 2 or higher.

13.2.2 Buildings

Buildings formerly utilised for grain processing that remain largely complete have been confirmed at some 34 sites during the course of this study, these being categorised by a 3 or 4 rating in Tables 1 to 4. Although this study has not assessed the architectural features in

detail, it is considered that at least seven of these mills remain largely unaltered externally from the cessation of milling. These include three watermills (Nant II, Ouse and Strathmore); Callington windmill; Rheban horse mill; Bowerbank steam/hydraulic mill; and the Union Street steam mill at Longford. The later mill sites that continued to operate into the twentieth century have been subjected to extensive modification and expansion and have therefore been assessed as having a 3-rating. Mills erected during the latter half of the nineteenth century such as Gibson's City Mill, Hobart and the Crown Mill, Launceston, may also be included in the "*largely original condition*" category but have been assigned a lower 3-rating as it was not possible to assess the extent of structural alterations during the time available for the study. Additional steam mills, such as Burn's Mill, Richmond may similarly be eligible for a 4-rating following detailed assessment.

The structural condition of some of the older mills, particularly the watermills due to being sited adjacent to flood-prone rivers, is a cause for concern for long term preservation. Sites with a past history of structural movement requiring remedial stabilisation works include Gala, Mayfield, Riversdale and Strathmore. The perimeter walls of the Riversdale Mill have been extensively rebuilt in the 1990s which has stabilised this important structure. Extensive restoration and maintenance has been undertaken at sites such as Connorville and Thorpe II in recent times. Sites with potential for continuing deterioration, due to the building being of wooden construction or the roofing having disintegrated, include Clarendon and the important steam converted watermill at Sassafras.

Whilst most of the post-1840 steam mills have been converted for residential or community uses, some important sites remain largely unaltered, for example Bowerbank Mill, Deloraine; Emerald and Union Street Mills, Longford. The enforcement of planning controls is required to ensure that the character of these important industrial sites is not affected by unsympathetic alterations following possible future rezoning for alternative uses.

13.2.3 Power Source

Remaining examples of the power transmission are largely confined to watermills with nine confirmed sites comprising partial remains of an undershot wheel (Clarendon), two overshot wheels (Fenton Forest, Thorpe II) and six breastshot wheels (Connorville, Gala, Mayfield, Nant II, Ouse and Riversdale). Wheels of wooden construction are difficult to date due to the requirement for rebuilding after a working life of 20 – 30 years. The examples at Gala and Riversdale are therefore expected to be of late nineteenth century construction but are considered to have retained the dimensions and characteristics of the original wheels. The breastshot wheel at Riversdale is in relatively good condition but the Gala example has partially disintegrated due to regular inundations. Stabilisation and ultimate re-construction of this wheel is required to ensure the retention of this site as one of considerable significance.

Available historical material indicates that Buxton's Mill at Mayfield could well have been built with ring or rim gearing, an early application of this method. This arrangement enabled the millstones to be arranged 'in-line', being driven by means of a horizontal shaft. The ring gearing was attached to the outside perimeter of the water wheel. Mayfield is the sole remaining example of many such applications in Tasmania. The wooden wheel has now collapsed but the segmented iron gearing remains in the earth-filled wheel pit, although the castings may be damaged. This wheel could be rebuilt as a detailed photographic record has survived.

Water wheels of composite construction (typically wooden buckets and arms with cast iron hubs and shrouds) are represented by examples at Connorville, Fenton Forest and Thorpe II, the latter examples being overshot wheels. The wheel at Thorpe is believed to be the oldest remaining example in Australia and is therefore of considerable significance. The cast iron frames of this wheel have characteristics of early nineteenth century castings, possibly originating from the first mill constructed on the site in the early 1820s. It is possible that the iron frames were utilised to build a wider wheel with dual compartment wooden buckets in 1836 when the mill was rebuilt as a brick structure with stone foundations. A later example at Fenton Forest, of probable late-nineteenth century construction, is largely fabricated in iron but retained wooden buckets which have now rotted away. The well preserved and maintained breastshot wheel at Connorville has early to mid-nineteenth century design features and may pre-date the mill's construction which evidently took place in the early 1860s.

The remaining breastshot wheels at Ouse and Nant II of 1880s construction can be reliably dated as the suppliers are known. The Ouse wheel of composite construction with wooden buckets was supplied by Ford & Pye, timber merchants based in Hobart, but probably fabricated in Melbourne foundries where James Pye had previously established ironworking facilities. The Nant wheel of all iron construction was fabricated by the Hobart-based Robert Kennedy & Sons who acquired the Derwent Ironworks & Engineering Company in 1885. This is of sophisticated design being fitted with curved wrought iron buckets and crank-driven reciprocating pumps operated from the wheel shaft.

Few examples of water turbines from former flour mill sites are known to have survived in Tasmania. A small Stillwell & Bierce turbine of American manufacture removed from Monds' Carrick Mill was utilised to operate reciprocating pumps for water supply at the Vacluse property. No known examples of the Leffel turbines used extensively when mills were converted to roller milling have been located during this study. Larger examples of the same type and manufacturer, used for electricity generated at the site of Bonney's Mill at Latrobe, remain in-situ. A pelton wheel of probable late nineteenth century manufacture, probably used to operate two iron framed stones at the Killymoon II Mill, St Mary's is stored at the Queen Victoria Museum & Art Gallery.

A wide variety of steam engine types are known to have been installed in Tasmanian flour mills, of which imported beam engines were dominant pre-1850. In the smaller country mills, horizontal or vertical engines provided adequate power to operate one or two pairs of millstones. In the latter part of the nineteenth century a number of portable steam engines were also utilised, examples including Skelbrook Mill, Sassafras and Shorey's Mill, Deloraine. In the larger mills equipped with roller plant from the late-1880s, the increased power requirements led to the introduction of tandem compound horizontal engines.

Following mill closures, steam engines as prime assets were sold off and consequently no examples of engines remaining in-situ are known. Fortunately however, two engines formerly used in flour mills have survived. The McNaught beam engine manufactured by A & W Smith & Co, Glasgow and now preserved at the Hobart TAFE Institute, is documented as operating the Commercial Mill in Hobart when the property was advertised for sale in 1863. The iron base and cylinder of a vertical steam engine, probably of mid-nineteenth manufacture, was recently recovered from the Jericho Mill site for conservation and future display at the Queen Victoria Museum & Art Gallery.

13.2.4 Drive Machinery

Remaining examples of power transfer systems comprising gearing and shafting are largely confined to water mill sites, although minor components have been recorded at horse and steam powered mills. The drive machinery in traditional eighteenth century mills involved the construction of wooden gearing and shafting. Following British practices, technological advances during the nineteenth century made available cast iron, wrought iron, and later steel components of increased quality and refinement, which were substituted in part, or completely, for worn out or damaged wooden parts. Few complete examples of pre-1850 gearing now remain due to the gradual decay and disintegration during the ensuing century since the decline of watermills.

Only two mills retain the original wooden gearing/shafting largely intact (Strathmore and to a lesser extent, Riversdale), of which that at Strathmore appears to be unchanged since the mill was erected in the early 1830s. This gearing is of massive proportions, which is largely of late eighteenth century design incorporating a spur wheel of compass arm construction, unique in Australia. Iron castings were utilised for the wallower and hubs of the pit wheel, having early nineteenth century characteristics, and are similarly rare at remaining industrial sites. The collapse of the water wheel shaft, possibly following the 1929 flood, has resulted in damage being sustained by the wallower and pitwheel, the latter being partially buried in silt within the cog pit. The gearing at Riversdale is of a compact design that has required possible replacement of some components but appears to be largely original. The mill retains the enclosed water wheel and original wooden shaft and is therefore relatively complete being one of only three such mills together with Thorpe and Connorville. Incomplete examples having wooden gearing include Gala and Clarendon, the pit wheels remaining at both sites, but these are in danger of continuing degradation due to being partially buried in silt or being exposed to the elements.

The drive machinery at Thorpe and Connorville, although complete, is of a later construction date and design. The gearing at Thorpe appears to have been extensively re-designed and replaced, the final modifications in the late nineteenth century probably undertaken when an early Turner and Carter roller mill was installed. The gearing is now largely of iron or steel construction, the wooden wheel shaft being replaced during the 1970s restoration. The power transmission at Connorville is of an unconventional design, having been adapted or modified to service saw milling operations in addition to the flour mill, which may have pre-dated any modifications. A plaque on the hursting attributes the machinery to the Launceston based millwright William Knight, and is therefore of post-1858 construction. The iron hursting at the Skelbrook water/steam mill exhibits similarities of castings with those at Connorville, and it appears that the drive machinery for this mill was probably supplied by the same foundry.

Further examples of late nineteenth century iron gearing remain at Nant and Mayfield, both being incomplete. Most of the gearing from the Ouse mill was removed when it was converted for water pumping purposes, but fragments of the damaged cast iron pit wheel remain in-situ.

13.2.5 Ancillary Equipment

The relative paucity of nineteenth century ancillary machinery remaining in Tasmanian flour mills is reflective also of mainland mills. Generally the equipment that has survived is incomplete and in poor condition, with notable exceptions being the collections at Ouse and to a lesser extent Connorville and Sassafras. These sites retain examples of mid-nineteenth

century grain cleaning and flour dressing equipment that were typical of smaller country milling operations. At Ouse an early example of a large timber framed grain cleaner is complemented by flour dressing equipment supplied by Otto C. Schumacher including an hexagonal silk reel and a later 'rapid round reel' model ordered in October 1895. At Connorville and Sassafras, Eureka vertical smutters of American manufacture are retained together with large hexagonal silk reels.

An important collection of late nineteenth equipment retained at the Swansea Mill, includes an extremely rare Cornelius porcelain roller mill, Schumacher 'horizontal bran duster' and a combined grain cleaner/scourer of unknown manufacture. A large hexagonal reel flour dresser, Eureka smutter and two pairs of balanced French burr millstones are retained at Sassafras. The equipment at Thorpe includes a grain cleaner/smutter supplied by Thomas Tyson, a Melbourne agent for largely British manufacturers, and a collection of elevators and creepers, generally in poor condition. Incomplete collections of twentieth century equipment remain in the larger steam mills that continued in production until the second half of the century, but these are at considerable risk of uncontrolled disposal in the absence of adequate planning constraints for former industrial sites, e.g: Affleck's Union Street Mill at Longford, and Gibson's Hobart Mills at Morrison Street. The equipment from the last operating mills at the North-Western Mill, Devonport, and Salamanca Place, Hobart, has recently been dispersed to the mainland, leaving the Pivot facility in Launceston as the final remaining Tasmanian example of an integrated roller milling plant.

13.3 Further Sites

Additional sites of significance include the Scone Mills, Perth, and Newry Mill, Longford, which were both destroyed by fire and the sites re-developed. At Scone the mill race was adapted for electricity generation, probably by means of a small turbine, and it is now unclear whether the remaining foundations relate to the mill or are of later construction. At Newry where the site was used by the Longford Water Trust for a pumping plant until the 1920s it seems likely that the remains are of the pumping plant. It is also unclear whether an operational flour mill was established at Landfall for the reasons detailed in Section 9.5. Due to the uncertainty surrounding these sites, they have been omitted from the following comparative assessment of all known sites.

Further sites where minor remains of the foundations cannot be assigned with certainty to flour mill processing have been omitted from the tables, e.g., Wattle Hill steam mill which may relate to the brewery and McLeod's Mill at Perth which is known to have been used for water pumping purposes. Sites marked only by the embankment or weir for water retention, or by the mill race, have also been excluded from the tables, e.g., Newry Mill, or Gatehouse's Mill at New Town.

COMPARISON OF REMAINING TASMANIAN FLOUR MILL SITES Table 1

Mill	Type	Date	Building	Power Source	Drive Machinery	Ancillary Equipment	Total Rating	Significant Features/Comments
Thorpe II, Bothwell	Wa	4	3	3 or 4	3	2	15-16	Overshot water wheel of early (1820s) design. Early Turner & Carter 3 roller mill. Extensive restoration 1970s, retains live water supply.
Millbrook, Ouse	Wa	4	4	3	1	3	15	Retains the best collection of mid to late-19 th century dressing machinery and millwrighting equipment. Utilised for pumping/irrigation.
Connorville	Wa	2?	3	3 or 4	3 or 4	3	14-16?	Early composite breastshot wheel, unconventional drive dynamo. Estate mill with combined saw mill, separate turbine driven dynamo. Maintained in working order. Retains live water supply.
Strathmore	Wa	4	4	1	4	1	14	Oldest surviving intact flour mill in Tasmania (& Australia). Unusually large rural flour mill having 3 pairs stones when erected. Retains wooden gearing of 18 th century design & live water supply.
Riversdale, Swansea	Wa	4	3	3	3 or 4	0	13-14	Early wooden breastshot wheel application, present wheel later replacement. Complete gearing of early 19 th century design.
Mayfield	Wa	4	4	2	2	0	12	Only remaining mill retaining the rim gearing/ layshaft drive to the millstones.
Nant II, Bothwell	Wa	3	4	3	2	0	12	Retains replacement iron breastshot wheel of mid-1880s Tasmanian manufacture which incorporates crank driven pumps. Live water supply.
Skelbrook, Sassafras	Wa/S	2	3	0	3	2	10	Most complete steam driven mill via portable engine (converted from water).
Gala, Cranbrook	Wa	3	3	2	1	0	9	Early wooden breastshot wheel application.
Callington, Oatlands	W/S	4	4	0	0	0	8	Only remaining windmill that is largely complete externally.
Rheban	H	3	4	0	0	1	8	Retains the only known example of a kiln & grain drying floor.
Woodesden Mill, Buckland	H	3?	3	0	1	1	8?	Wire dressing machine & millstones extant.

Notes:

1. Mill Type: T = Treadmill, H = Horse mill, W = Windmill, Hy = Hydraulie (turbine) mill, S = Steam mill, E = Electric powered.

2. Key to the Rating Criteria.

Construction Date: 1 - Post 1900 2 - 1860-1900 3 - 1840-60 4 - Pre 1840. For pre existing buildings, the conversion date adopted for rating purposes.

Building Condition: 0 - No visible remains of building, mill race may be partially intact 1 - Mill foundations remain 2 - Partially complete or having been extensively re-modelled, or re-located 3 - Complete though altered structurally or converted 4 - Complete, largely original condition.

Power Source: 0 - No remains 1 - Fragments only 2 - Incomplete, derelict 3 - Complete, replacement, possibly changed characteristics 4 - Complete, original condition, or retaining original characteristics.

Drive Machinery: 0 - No remains 1 - Incomplete, hursting or millstones may remain 2 - Largely complete 3 - Complete, modified condition 4 - Complete, original condition.

Ancillary Equipment: 0 - No remains 1 - Minor remains 2 - Incomplete or in poor condition 3 - Significant remains, good condition.

3. Bold entries indicate the most important mills in each category. The higher the number of bold entries, the greater the importance of the mill site, although this may not be reflected in the Total Rating.

4. Entries in parentheses indicate the building or machinery parts removed from the original site. Values for the building or machinery excluded from the Total Rating.

COMPARISON OF REMAINING TASMANIAN FLOUR MILL SITES Table 2

Mill	Type	Date	Building	Power Source	Drive Machinery	Ancillary Equipment	Total Rating	Significant Features/Comments
Hagley	H/S	3	3	0	0	1	7	Only remaining horse mill that was internally powered.
Clarendon	Wa	3	2	1	1	0	7	Only remaining undershot wheel application, also utilised for irrigation, machinery unenclosed, remains partially buried in silt/rubble..
Carrick II	Wa/Hy/S	3	3	(1)	0	1	7	Important site, converted to rollers c1890, one of last operational water mills. Oat mill & engine house demolished. Turbine at Vaucluse.
Bowerbank, Deloraine	S/Hy	3	4	0	0	0	7	Complete externally, retains separate engine house & circular brick chimney, roller mill conversion.
Emerald, Longford	S	3	3	0	0	1	7	Large capacity country mill, comparable output to urban mills.
Union St, Longford	S/E	2	4	0	0	1	7	Oat cleaner, cockle cylinders, reel dressing machine etc extant, roller mill.
Crown Mill, L'ton	S/E	2	3	0	1	1	7	Retains best collection of late-19th century ancillary machinery, roller mill.
Fenton Forest	Wa	2	1	3 or 4	0	0	6-7	Overshot wheel extant.
Terry's, New Norfolk	Wa	4	2	0	0	(1)	6	Oldest identifiable flour mill site, erected from 1821-2, millstones extant locally.
Davey Street, Hobart	S	3	3	0	0	0	6	Early urban steam mill. Probably oldest remaining mill building in Hobart.
Wellington St, L'ton	S	3	3	0	0	0	6	Oldest surviving mill building in L'ton.
Clayton's, Deloraine	S	3	3	0	0	0	6	Country mill. 3 pairs stones, house conversion.
Burn's, Richmond	S	3	3	0	0	0	6	Country mill. 3 pairs stones.
Hardwick, Colebrook	S	3	3	0	0	0	6	House conversion.
Westfield, Westbury	S	2	3	0	0	1	6	Converted 1864, smutter extant.
Gibson's Mill, Morrison St, Hobart	S/E	2	3	0	0	1	6	Mill conversion 1864. Oldest remaining example of large urban steam mill, converted to rollers c1889. Retains wooden grain storage bins.
Morey's, Swansea	S	2	2	0	0	2	6	Important late-19 th century machinery including Cornelius porcelain roller mill.

Notes:

1. Mill Type: T = Treadmill, H = Horse mill, W = Windmill, Wa = Watermill, Hy = Hydraulic (turbine) mill, S = Steam mill, E = Electric powered.

2. Key to the Rating Criteria.

Construction Date: 1 - Post 1900 2 - 1860-1900 3 - 1840-60 4 - Pre 1840. For pre-existing building, the conversion date adopted for rating purposes.

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Power Source: 0 - No remains 1 - Fragments only 2 - Incomplete, derelict 3 - Complete, replacement, possibly changed characteristics 4 - Complete, original condition, or retaining original characteristics.

Drive Machinery: 0 - No remains 1 - Incomplete, bursting or millstones may remain 2 - Largely complete 3 - Complete, modified condition 4 - Complete, original condition.

Ancillary Equipment: 0 - No remains 1 - Minor remains 2 - Incomplete or in poor condition 3 - Significant remains, good condition.

3. Bold entries indicate the most important mills in each category. The higher the number of bold entries, the greater the importance of the mill site, although this may not be reflected in the Total Rating.

4. Entries in parentheses indicate the building or machinery parts removed from the original site. Values for the building or machinery excluded from the Total Rating.

COMPARISON OF REMAINING TASMANIAN FLOUR MILL SITES Table 3

Mill	Type	Date	Building	Power Source	Drive Machinery	Ancillary Equipment	Total Rating	Significant Features/Comments
Supply River	Wa	4	1	0	0	0	5	Important early mill site, flourishing from late 1820s to the 1860s.
Meadowbank	Wa	4	1	0	0	0	5	Early traditional powered country mill.
Lake Mill, Tallentyre	Wa	4	1	0	0	0	5	Important early traditional powered country mill.
Saltwater River	W	3	2	0	0	0	5	Truncated brick tower extant.
Bath Mill, Jericho	Wa/S	3	1	(1)	1	0	5	Early vertical steam engine stored at QVM. Minor gearing remains in situ.
Port Arthur	T/Wa	3	2	0	0	0	5	Mill converted to penitentiary, underground stone culvert extant.
Degraves II	S	3	2?	0	0	0	5?	Extent of original building difficult to ascertain.
Killymoon I, St Mary's	Wa	3	2	0	0	0	5	
Stratford II	Hy/S	2	2	1	0	0	5	Early application of hydraulic power. Brick culvert & iron boiler extant.
St John St, L'ton	S/E	2	3	0	0	0	5	Mill conversion 1870, remained in production for oatmeal until 1960s.
Shorey's, Deloraine	S	2	3	0	0	0	5	Country mill 2 pairs stones, converted 1872, later roller mill conversion.
Peet's Mill, Hobart	S	2	3	0	0	0	5	Converted 1877, 3 pairs stones.
Broek's, Campania	S	2	3	0	0	0	5	Large 3 storey stone building, first purpose-built roller mill, school conversion.
Murdoch's, Hobart	S/E	2	3	0	0	0	5	Mill conversion early 1890s for roller milling.
Monds' Mill, Esplanade, L'ton	E	1	3	0	0	1	5	Major machinery upgrade in 1993, early-mid 20 th century plansifiers, wheat cleaner, bag cleaner & flour packers retained.
North Western Mill	E	1	4	0	0	0	5	Erected 1961 for flour, later starch production.
Millford, South Esk	Wa	3 or 4	1	0	0	0	4 or 5	Possibly rebuilt following flood damage in 1852.

Notes:

1. Mill Types: T = Treadmill, H = Horse mill, W = Windmill, Wa = Watermill, Hy = Hydraulic (turbine) mill, S = Steam mill, E = Electric powered.

2. Key to the Rating Criteria.

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Power Source: 0 - No remains 1 - Fragments only 2 - Incomplete, derelict 3 - Complete, replacement, possibly changed characteristics 4 - Complete, original condition, or retaining original characteristics. Zero rating adopted for mains electric supply.

Drive Machinery: 0 - No remains 1 - Incomplete, hunching or millstones may remain 2 - Largely complete 3 - Complete, modified condition 4 - Complete, original condition.

Ancillary Machinery: 0 - No remains 1 - Minor remains 2 - Incomplete or in poor condition 3 - Significant remains, good condition.

3. Bold entries indicate the most important mills in each category. The higher the number of bold entries, the greater the importance of the mill site, although this may not be reflected in the Total Rating.

4. Entries in parentheses indicate the building or machinery parts removed from the original site. Values for building or machinery excluded from the Total Rating.

COMPARISON OF REMAINING TASMANIAN FLOUR MILL SITES Table 4

Mill	Type	Date	Building	Power Source	Drive Machinery	Ancillary Equipment	Total Rating	Significant Features/Comments
Egmont	Wa/Hy	3	1	0	0	0	4	Roller mill conversion 1894.
Calder's, New Town	Wa	3	1	0	0	0	4	Important early site of Tasmania's first flour mill erected by Robert Nash?
Bean's Mill, Fingal	S	2	2	0	0	0	4	Last operational country mill in 1940s.
Cataract IV, L'ton	E	1	3	0	0	0	4	Retains structures from the 1880's mill, early concrete silos 1910.
Salamanca Pl, Hobart	I	1	3	0	0	0	4	Milling equipment dispersed on the mainland 1998-99.
Darlington, Maria Is	W	2	1	0	0	0	3	Sole remaining identifiable post mill site.
Robin Hood, Sassafras	Wa	2	1	0	0	0	3	
Wynyard	Wa	2	1	0	0	0	3	
Barton II	Wa	3	(3)	0	(2)	(1)	3	Re-located to Pennyroyal complex, 1.1 ton. Building dimensions altered during hotel conversion. Iron gearing removed & displayed in a re-construction of the earlier weatherboarded mill erected in 1825.
Killymoon II, St Mary's	S/Hy	2	0	(4)	(1)	(1)	2	Possible (rare) application of a pelton wheel to flour milling. Two iron framed hurstings moved to 'Thorpe'. Pelton wheel stored at QVM, 1.1 ton.

Notes:

1. Mill Type: T = Treadmill, H = Horse mill, W = Windmill, Wa = Watermill, Hy = Hydraulic (turbine) mill, S = Steam mill, E = Electric powered.
2. Key to the Rating Criteria
Construction Date: 1 - Post 1900 2 - 1860-1900 3 - 1840-60 4 - Pre 1840. For pre-existing building, the conversion date adopted for rating purposes.
Building Condition: 0 - No visible remains of building, mill race may be partially intact 1 - Mill foundations remain 2 - Partially complete or having been extensively re-modelled or re-located 3 - Complete though altered structurally or converted 4 - Complete, largely original condition.
Power Source: 0 - No remains 1 - Fragments only 2 - Incomplete, derelict 3 - Complete, replacement, possibly changed characteristics 4 - Complete, original condition, or retaining original characteristics. Zero rating adopted for mains electric supply.
Drive Machinery: 0 - No remains 1 - Incomplete, hursting or millstones may remain 2 - Largely complete 3 - Complete, modified condition 4 - Complete, original condition.
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4. Entries in parentheses indicate the building or machinery parts removed from the original site. Values for building or machinery excluded from the Total Rating.

PHOTOGRAPHS

OF

REMAINING

MILL SITES



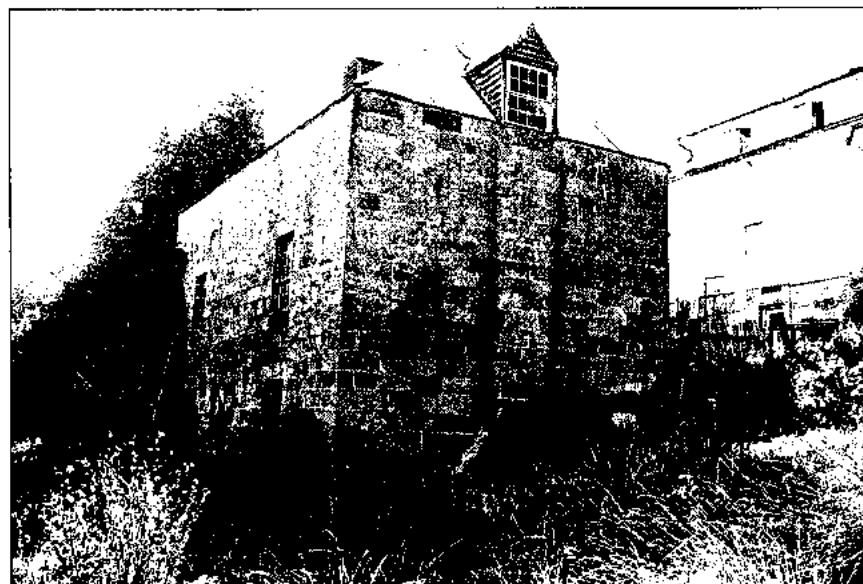
The second Thorpe Mill, Bothwell, 1998, showing the head race coming in from the right.

(QVMAG:1999:P:0590:34/35)



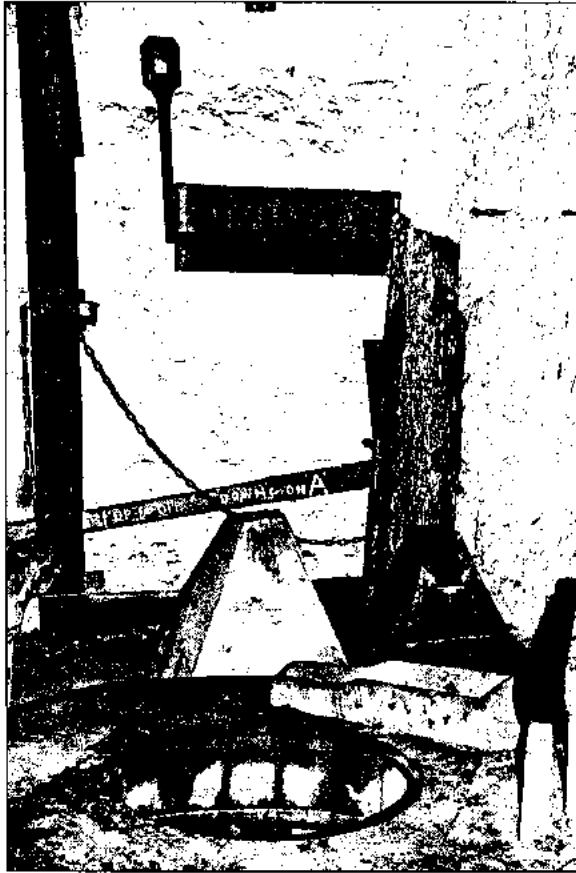
Thorpe overshoot wheel (reconstructed).

(QVMAG:1999:P:0598:20/22)



Millbrook Mill, Ouse 1997, with remains of wheel.

(QVMAG:1999:P:0578:11/35)



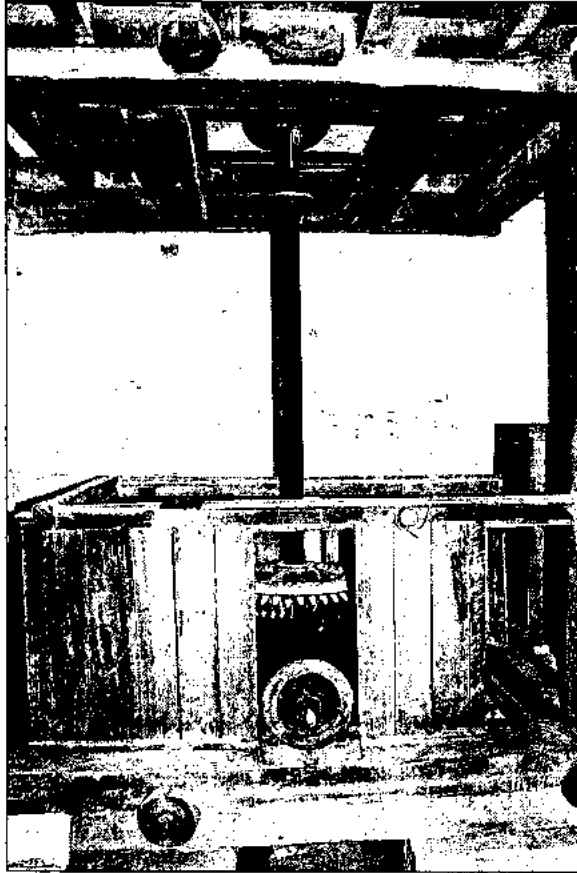
Interior Millbrook Mill, with millstones in foreground, mill bills on wall and lever used to operate the sluice gate from inside the mill.

(QVMAG:1999:P:0578:1/35)



Connorville Mill showing wooden wheelhouse at rear, 1997.

(QVMAG:1999:P:0577:25/35)



Interior Connorville Mill, showing stone spindle which supports millstones and tentering gear, ground floor. The plaque at the top reads 'W.H. Knight, Launceston'.

(QVMAG:1999:P.0577:22/35)



Interior Strathmore Mill 1985, showing gearing.

(QVMAG:1998:P.0012:19/30:397)



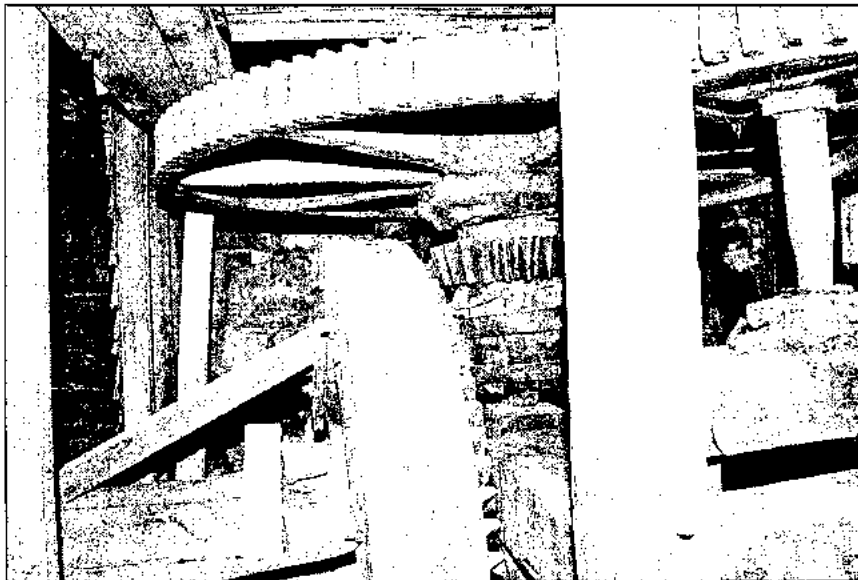
Strathmore Mill, now Lochmaben, near Evandale 1985.

(QVMAG:1998:P.0012:14/30:397)



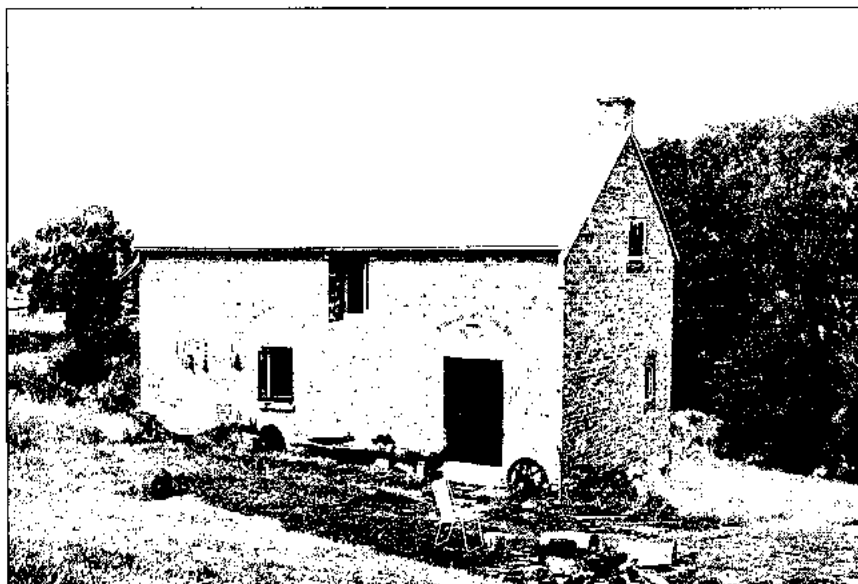
Riversdale Mill, Swansea,
1997.

(QVMAG:1999:P:0579:15/35)



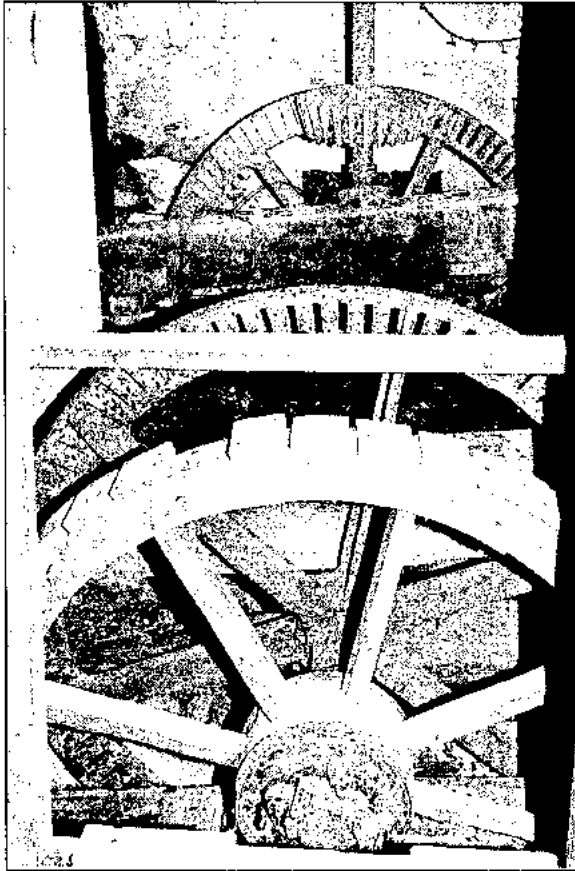
Interior Riversdale Mill,
showing John Amos' wooden gearing.

(QVMAG:1999:P:0579:9/35)



Mayfield Mill, south of
Swansea, 1997.

(QVMAG:1999:P:0579:26/35)



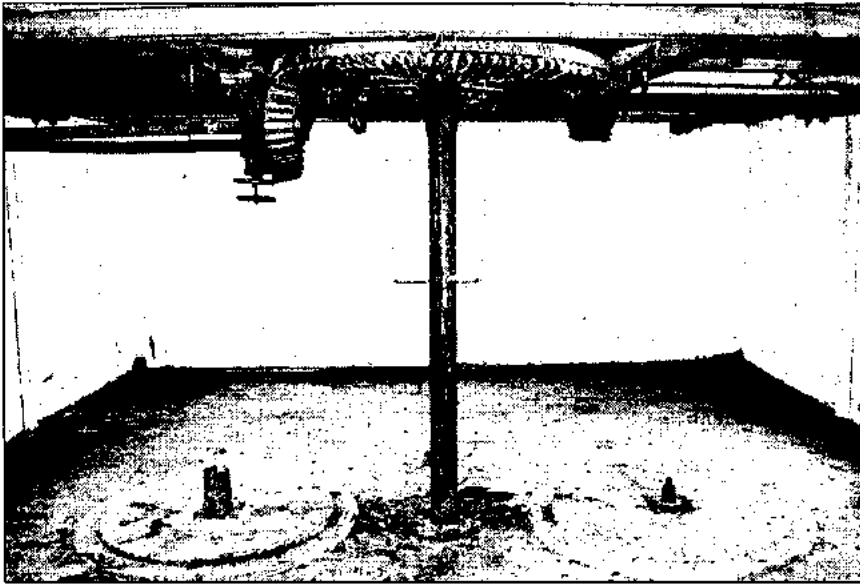
Interior Mayfield Mill, showing the layshaft, lower ground floor.

(QVMAG:1999:P:0579:29/35)



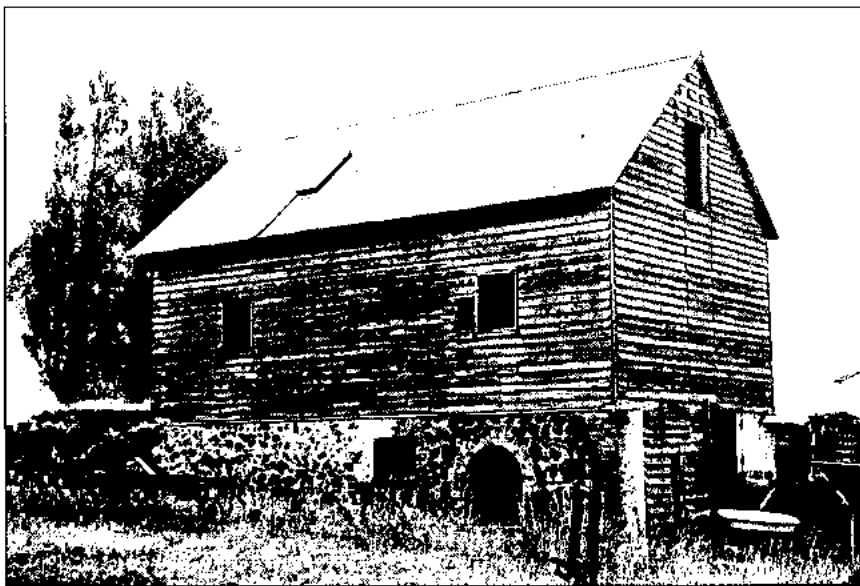
The second Nant Mill, Bothwell, 1998, with millpond in front and water wheel through the arch. The brick building behind is possibly part of the first Nant Mill.

(QVMAG:1999:P:0590:25/35)



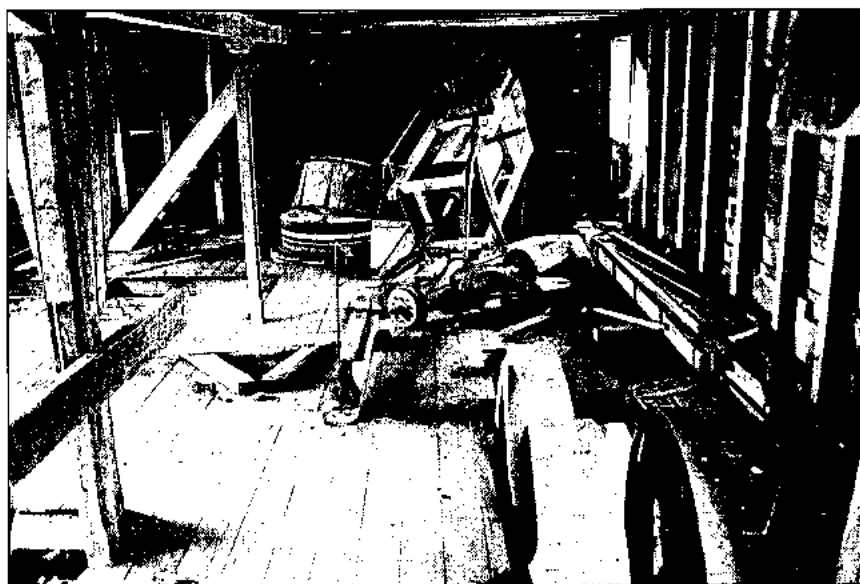
Nant Mill first floor,
showing crown wheel
and the two bedstones.

(QVMAG:1999:P:0590:12/35)



Skelbrook Mill, Sassafras,
1997.

(QVMAG:1999:P:0574:36/36)



Interior Skelbrook Mill,
showing millstones and
chaff cutter second floor.

(QVMAG:1999:P:0575:29/37)



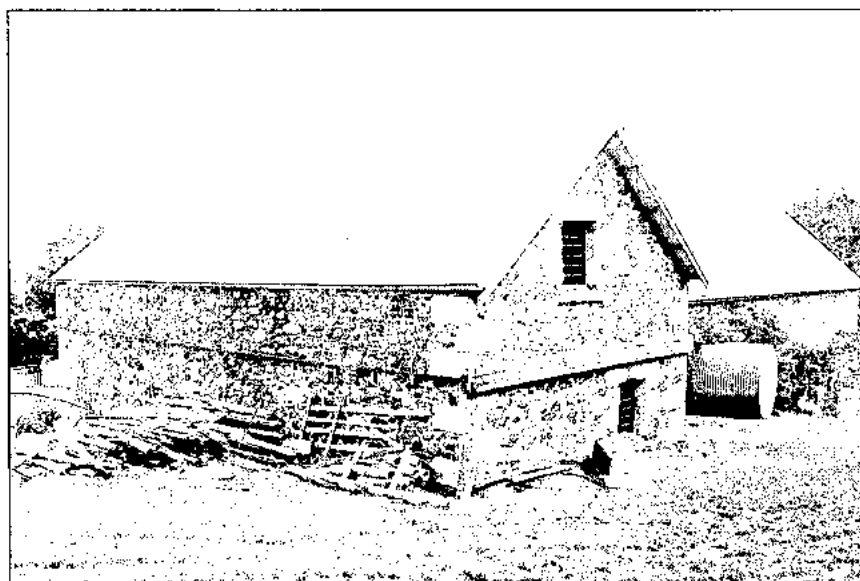
Gala Mill, Cranbrook,
with water wheel.

(QVMAG:1999:P:0585:27/35)



Callington Mill complex,
Oatlands, 1997. The wind-
mill, with reconstructed
cap, is flanked by the steam
mill (left) and the miller's
cottage (right).

(QVMAG:1999:P:0585:2/35)



Rheban Mill 1997. The
stack of wood to the left
marks the area where the
horse walked around.

(QVMAG:1999:P:0586:1/33)



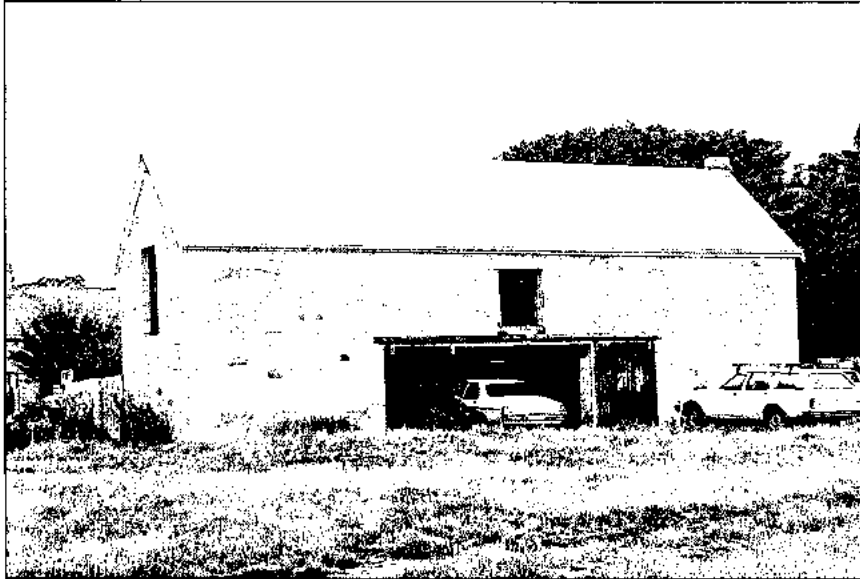
Interior Rheban Mill, showing remains of cast iron tiles in kiln.

(QVMAG:1999:P:0589:6/35)



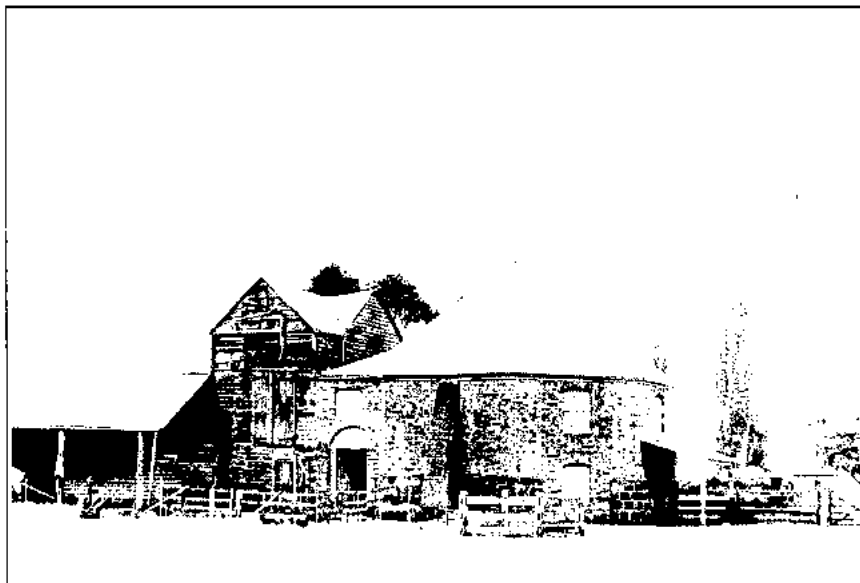
Remains Clarendon Mill, Derwent Valley, 1997, showing pit wheel.

(OVMAG:1999:P:0576:26/36)



Woodesden Mill,
Buckland, 1997.

(QVMAG:1999:P:0573:16/35)



Hagley Mill, showing the
horse mill in the centre
and the later steam mill
to the left. Although this
photograph was taken in the
early twentieth century, the
buildings are little changed.

(QVMAG:1998:P:0010)



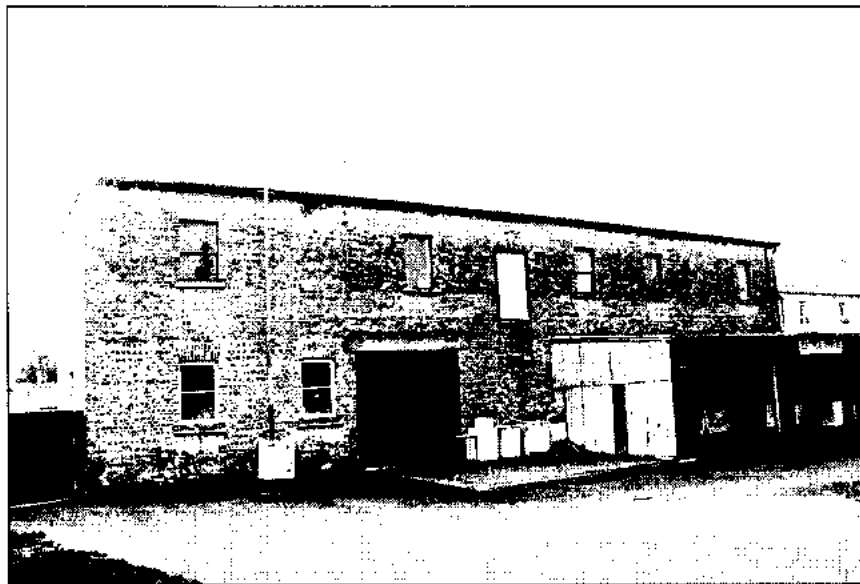
The second
Carrick Mill, 1997.

(QVMAG:1999:P:0587:11/36)



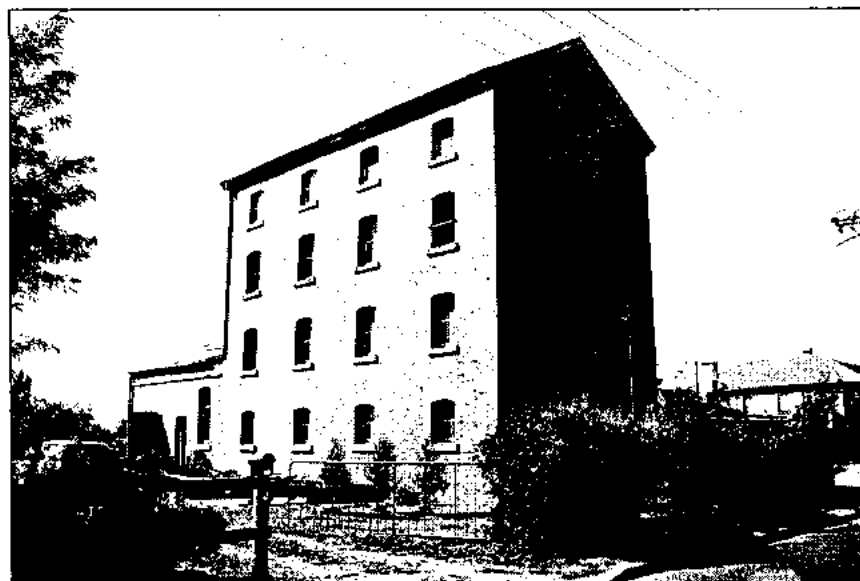
Bowerbank Mill, Deloraine,
1999, showing adjoining
engine house.

(QVMAG:1999:P:0594:13/38)



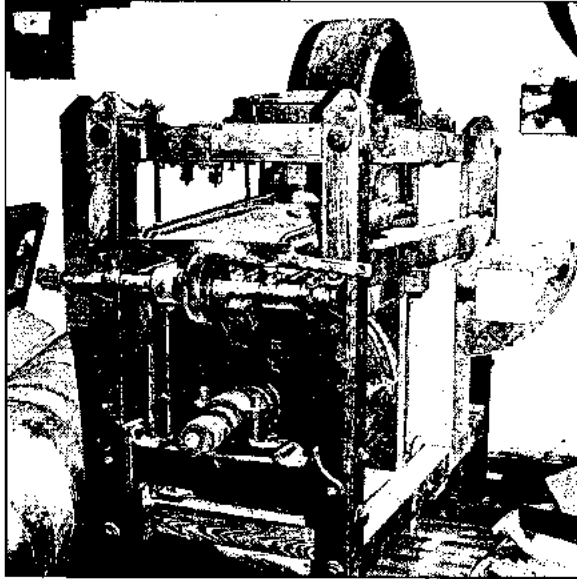
Emerald Mill,
Longford, 1999.

(QVMAG:1999:P:1245:12/14)



Affleck's mill, Union
Street, Longford, 1997.

(QVMAG:1999:P:0571:16/35)



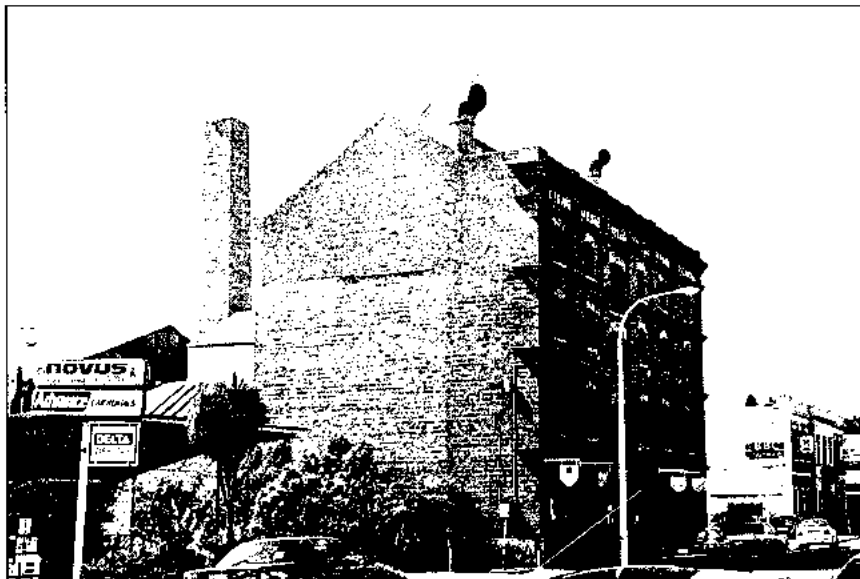
Interior Affleck's mill, Longford, showing Robinson grain cleaner.

(QVMAG:1999:P:0571:2/35)



Fenton Forest iron water wheel, Glenora, 1997.

(QVMAG:1999:P:0576:2/36)



Crown Mill, Launceston, 1998. The top part of the chimney was lost in a lightning strike.

(QVMAG:1999:P:0593:12/29)



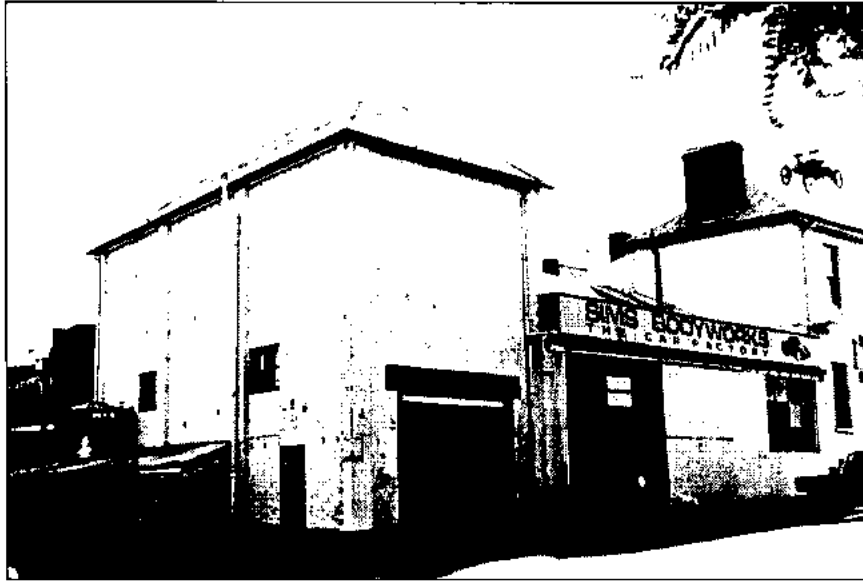
Remains of Terry's mill,
New Norfolk, 1997.

(QVMAG:1999:P:0585:6/35)



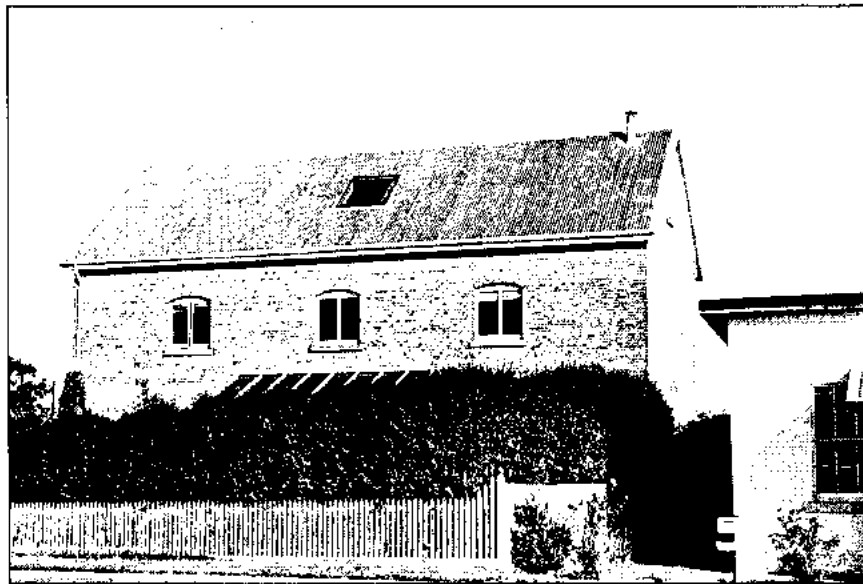
Davey Street steam mill, Hobart, 2000.

(QVMAG:1999:P:1313:1/2)



Wellington Street mill,
Canning St, Launceston
2000.

(QVMAG:1999:P:1330:1/7)



Clayton's mill, Deloraine,
1999, now a dwelling.

(QVMAG:1999:P:0594:2/38)



Burn's mill, Richmond,
now a dwelling.

(From The Heritage of Australia: The Illustrated
Heritage of the National Estate, Melbourne,
1981, p.7/67.)



Hardwick Mill, Colebrook,
1997, now a dwelling.

(QVMAG:1999:P:0570:20/36)



Remains of Westfield Mill,
Westbury, 1997. The top
storey was removed some
years ago.

(QVMAG:1999:P:0581:31/35)



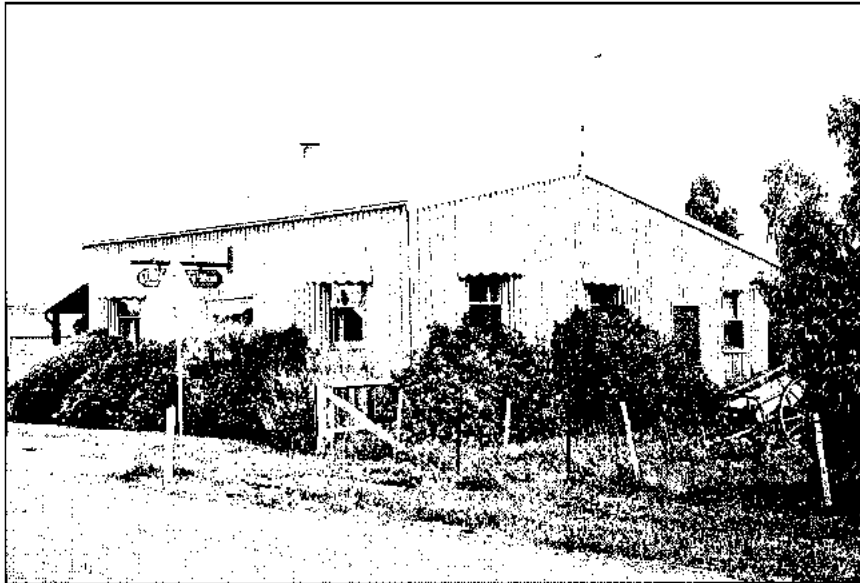
Gibson's City Mill,
Hobart, 1998.

(QVMAG:1999:P:0592:4/26)



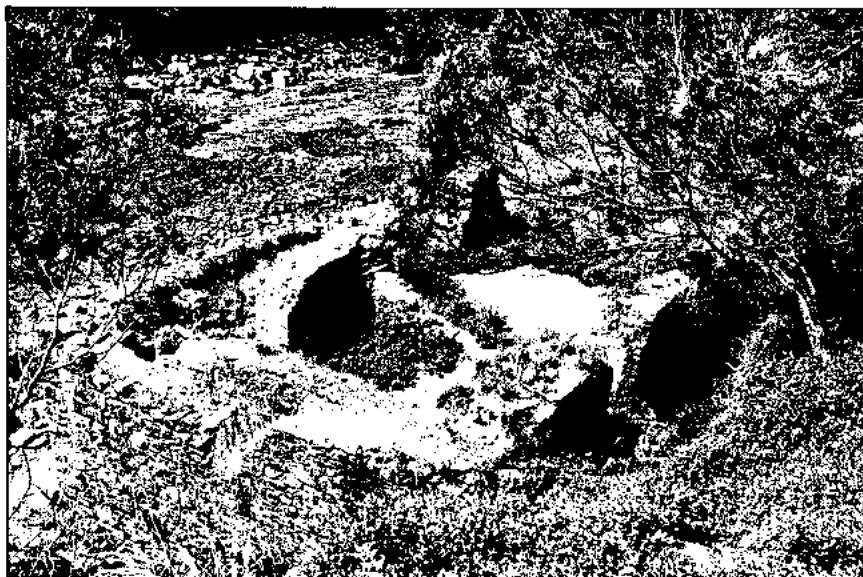
Interior City Mill, showing remaining wooden silos.

(QVMAG:1999:P:0568:7/15)



Re-clad remains of Swansea Steam Mill, 1997.

(QVMAG:1999:P:0586:23/33)



Remains of mill at
Supply River, 1998.

(QVMAG:1999:P:0593:3/29)



Remains of Meadowbank
Mill, near Campbell Town,
1997.

(QVMAG:1999:P:0582:22/30)



Remaining wall of Lake
Mill, near Cressy, almost
hidden in vegetation, 1997.

(QVMAG:1999:P:0582:28/30)



Remains of Saltwater River
windmill, Tasman
Peninsula, 1997.

(QVMAG:1999:P:0586:13/33)



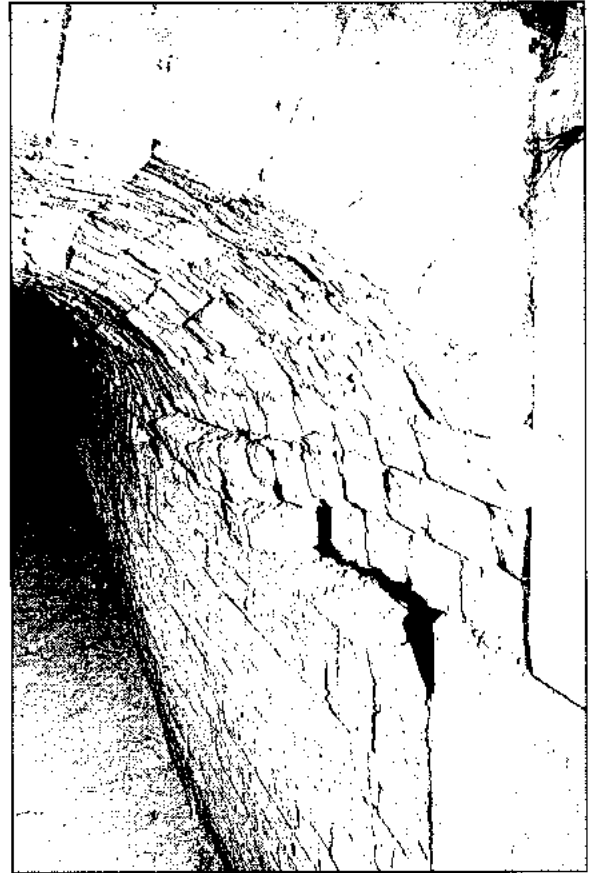
Remains of Bath Mill, Jericho, 1997,
showing marks made by the water wheel.

(QVMAG:1999:P:0571:26/35)



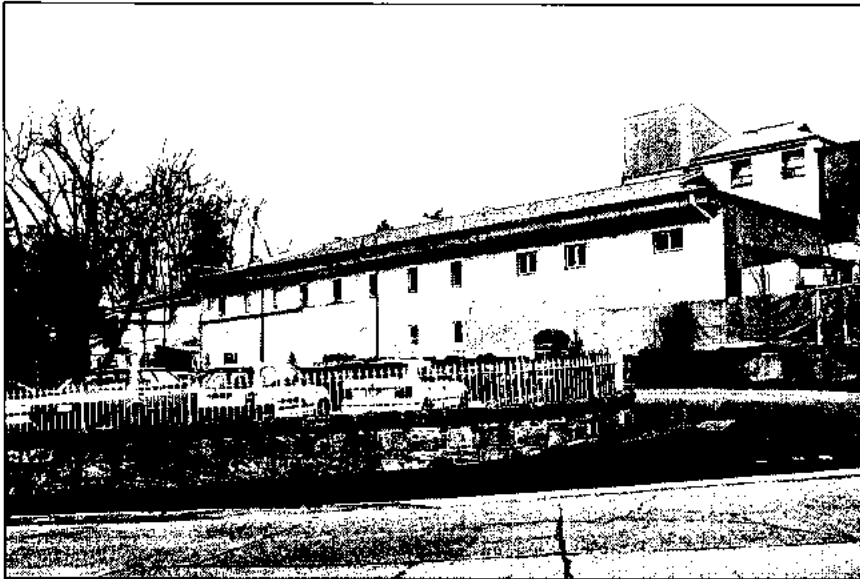
**Remains of the Port Arthur penitentiary,
originally the flour mill.**

(From *The Heritage of Australia: The Illustrated Heritage of the National Estate*, Melbourne, 1981, p.771.)



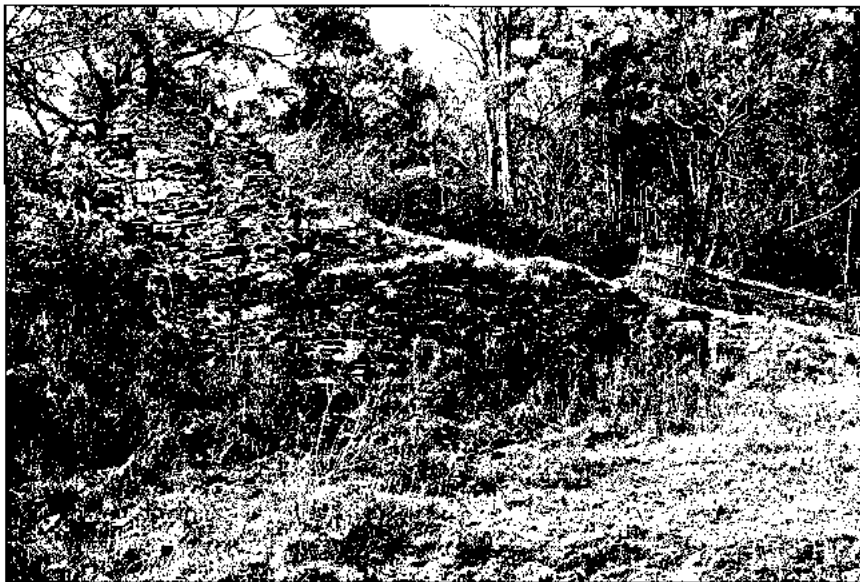
**Underground stone mill race,
Port Arthur, 1998.**

(QVMAG:1999:P:0589:12/35)



Part of Degraves' Cascade steam mill, with additions, Hobart 1999.

(QVMAG:1999:P:1246:4/11)



Remains of first Killymoon Mill, now Millbrook, St Marys, 1997.

(QVMAG:1999:P:0587:28/36)



Stone and brick remains of second Stratford Mill, Campania, 1997.

(QVMAG:1999:P:0574:1/36)



Ritchie's Mill, St John Street, Launceston 1998.

(QVMAG:1999:P:0593:16/29)



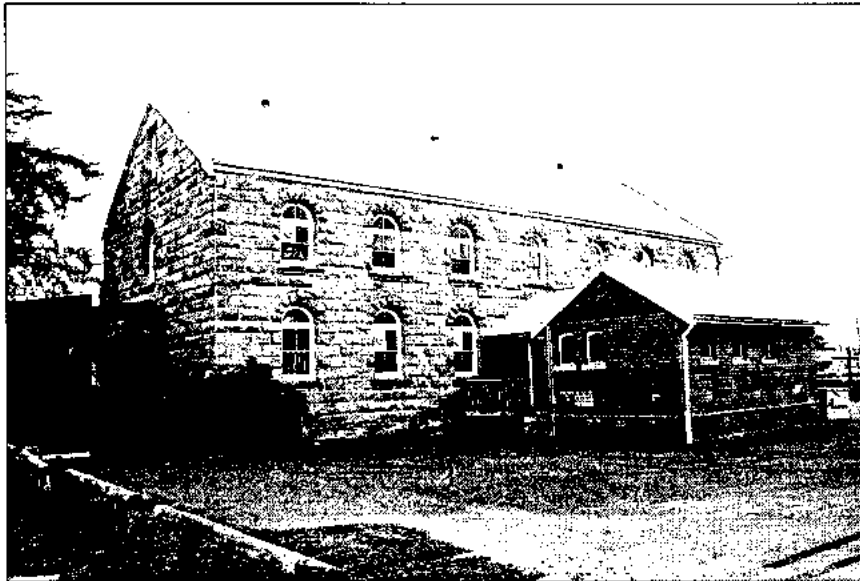
Shorey's/Harvey's mill, Deloraine, c.1900. The engine house and other surrounding buildings have now gone, but the mill building survives in good condition.

(From The Cyclopaedia of Tasmania, Maitland and Krone, Hobart, 1900, Vol.II, p.233)



Peet's mill, Gladstone Street, Hobart 1998.

(QVMAG:1999:P:0592:12/26)



Brock's mill, Campania,
now a school, 1997.

(QVMAG:1999:P:0581:19/35)



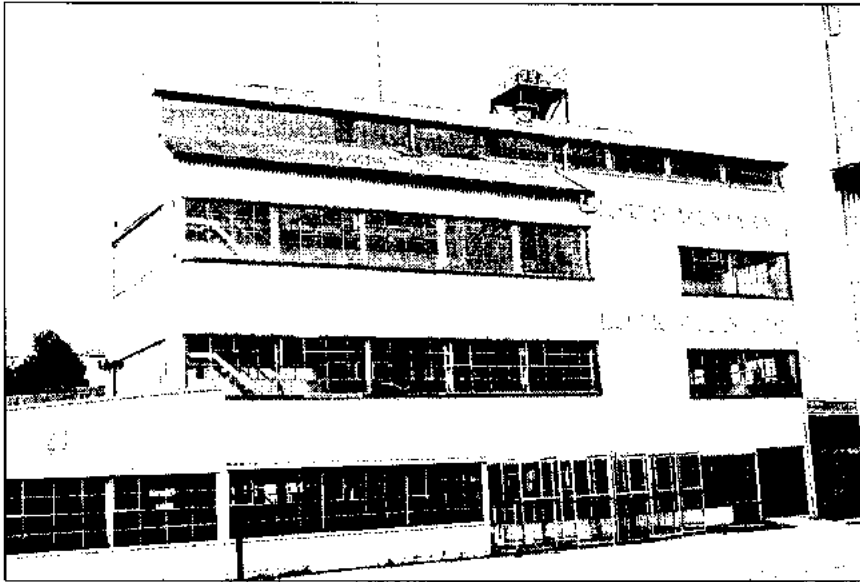
Murdoch's mill
(now the Drunken Admiral
Restaurant), Hunter Street,
Hobart, 1998.

(QVMAG:1999:P:0592:14/26)



Monds' mill, later Monds
& Affleck (now Pivot),
Launceston, 1998.

(QVMAG:1999:P:0593:20/29)



North-Western Flour Mills,
Devonport, 1999.

(QVMAG:1999:P.0597:14/14)



Remains of Milford Mill,
Llewellyn, 1999.

(QVMAG:1999:P.0596:7/9)



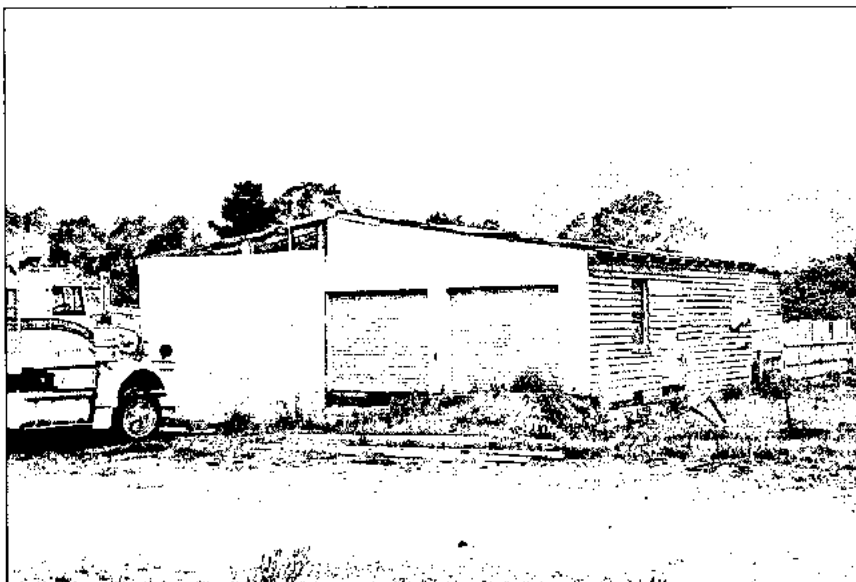
Stone remains of Egmont Mill, Westbury, 1996.

(QVMAG:1999:P:0572:36/37)



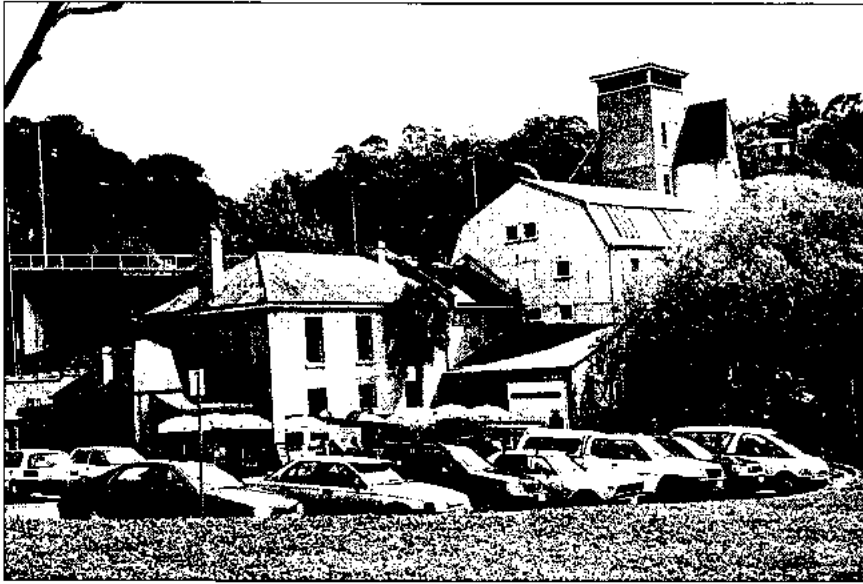
Remains of building on site of Calder's Mill, New Town Creek, 1998.

(QVMAG:1999:P:0567:1/5)



Remains of Bean's mill, Fingal 1997.

(QVMAG:1999:P:0587:36/36)



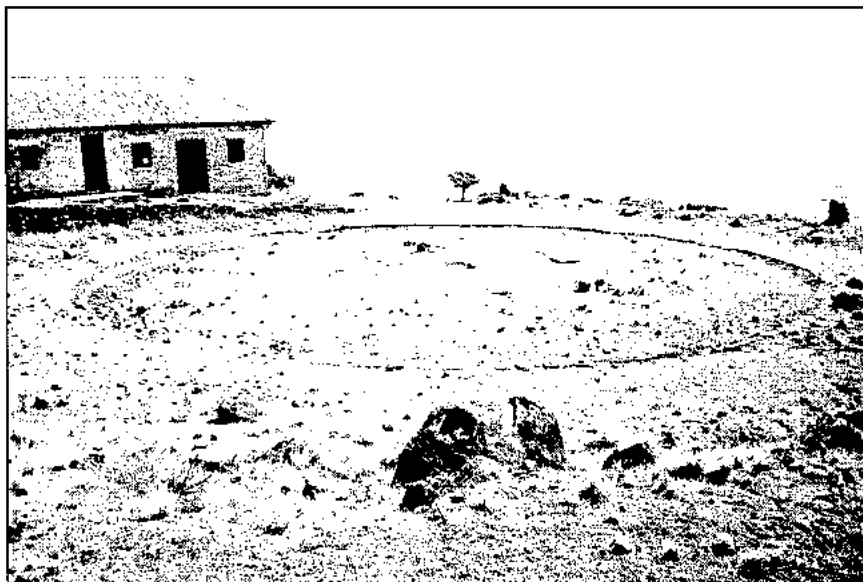
Cataract IV Mill,
Launceston, 1998.

(QVMAG:1999:P:0752:2/10)



Salamanca Place mill,
Hobart, 1998.

(QVMAG:1999:P:0592:9/26)



Remains of Darlington
post mill, Maria Island,
1995, with miller's cottage,
turning circle and concrete
footings (in centre) for post.

(Cassidy photo)



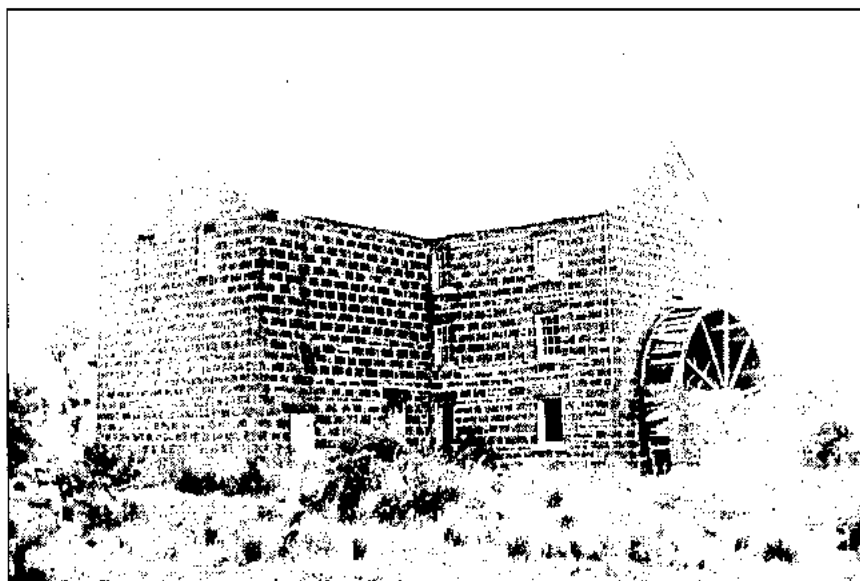
Remains of bluestone mill wall at Robin Hood, Sassafra, 1997.

(QVMAG:1999:P.0574:22/36)



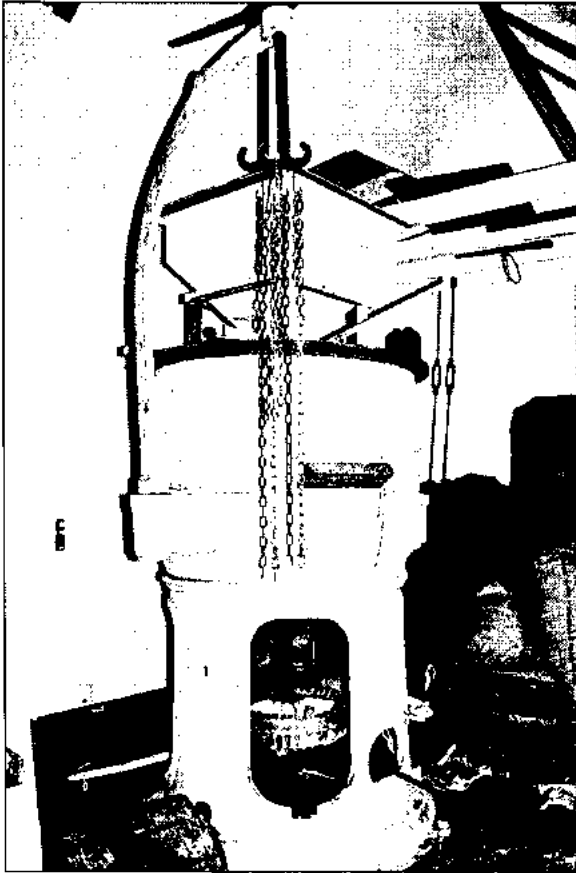
Remains of Wynyard flour mill, 1997.

(QVMAG:1999:0581:28/35)



The second Barton Mill c.1900, now relocated to the Penny Royal complex, Launceston.

(QVMAG:1987:P.0321)



One of the pair of iron-framed hurstings (or portable mill) from the second Millbrook Mill, St Marys, at Thorpe, Bothwell, 1998.

(QVMAG:1999:P:0590:28/35)

APPENDIX A

TASMANIAN FLOUR MILL TECHNOLOGY

In the following section it is necessary to introduce a considerable number of technical terms in order to outline the developments in flour milling that were relevant to Tasmania in the nineteenth century. These terms are highlighted when first mentioned. All dimensions are given both in imperial units, as was appropriate at the time of construction, and the metric equivalent.

1. INTRODUCTION

The mechanisation of corn milling has been achieved essentially by the application of rotary motion or power to a grinding medium. The earliest form involved the application of man or woman power to a small pair of shaped grindstones or *millstones*, which has become known as a *quern*. In its most primitive form, this consisted of an upper or *runner stone* that was rotated by means of a wooden handle over a stationary lower stone, or *bedstone*. The grain was fed through a central hole or *eye* in the runner stone, being ground during the outward migration to the periphery of the stones. The quern was refined by raising the runner stone slightly above the bedstone by incorporating a wooden bar or *rynd* across the eye of the runner stone, which was located over a central wooden spindle in the bedstone. This *centering* process was to remain an essential component of milling as it enabled the fineness and quality of the ground product or *meal* to be regulated.

The quern evolved into hand mills of various forms, in which the millstones were enclosed within a wooden frame and often fitted with simple wooden gearing as a means of increasing production. In the nineteenth century, later developments such as iron gearing and small wire dressing machines (see Section 6.3) were added. These hand mills were subsequently adapted to be driven by horse engines or horse works (see Section 2) and were particularly suited for farm use. Steel mills fabricated from iron components had been developed by the end of the eighteenth century and these were widely adopted in all of the infant Australian penal colonies, including Tasmania. These machines rapidly became ineffective as the hardened iron or steel flukes became worn and in the absence of established iron working facilities, could not be re-sharpened or machined. These steel mills were, however, the only means of meal production during the initial years of Tasmanian settlement, prior to larger animal, wind or water powered mills being erected. No examples of querns or hand mills were located within Tasmania during the course of this study.

The operation of a quern or other forms of hand mill was labour intensive, with the limited meal output adequate only for local consumption. For higher meal outputs, alternative energy sources were utilised, initially animals (horses, bullocks etc.) and water power; and later, wind, steam and electricity. All of these methods were to be employed in the nineteenth century development of flour milling in Tasmania. The evolution of mill machinery proceeded independently during the last 2000 years in several main centres, principally Europe, the Middle East and in China. The rate of progress and the resultant technological developments varied greatly, even in adjacent countries or regions. The dominance of British and Irish settlers among the nineteenth century colonists

determined that the flour mills erected in Tasmania followed the established practices in those countries. The late eighteenth century, from 1760 onwards, marked a period of rapid technological advance in most of the traditional industries of Britain, during what became known as the Industrial Revolution. These developments, particularly those applied to wind, water and steam powered industries, were gradually transferred to Australia including Tasmania, as the availability of skilled tradesmen, metal working facilities and finance permitted. The characteristics and operating procedures typical of flour milling at the beginning of the nineteenth century in Britain, are outlined in the following sections to enable the importance of the remaining flour mill heritage in Tasmania, to be fully assessed.

2. ANIMAL MILLS

Flour mills operated both by domestic animals, and by people convicted of relatively minor misdemeanours, were erected in limited numbers in Tasmania. Animal powered mills varied greatly in form, but the following types are known to have been erected, although construction details have not been recorded in many cases:

- **Horse Mills or Horse Engines** where the animal moves in a circle about a central rotating upright shaft or pivot that provides the drive to the millstones. Two basic types of horse mills can be distinguished, an earlier form constructed of wooden components, where the gearing is located level with, or above the animal (a high level horse engine or *horse wheel*); and a later development utilising iron gearing that is positioned on the ground. The latter, low level form, is usually referred to as an *horse engine or horse works*, being commonly utilised in the nineteenth century for a wide variety of farm tasks, particularly threshing.
- **Treadmills** operated by convicts treading boards positioned around the outside of a wide wheel. In this form of mill the rotary motion is obtained from a vertical wheel which provides the initial drive to the millstones by means of a horizontal axle, or *shaft*. A variation on this design which has been referred to as an *oblique treadmill*, involves a tethered animal walking along a primitive conveyor that rotates in an horizontal plane away from the animal.

The development of horse wheels is believed to have followed the introduction of the collar-harness into Western Europe in the eleventh or twelfth centuries. They had been adopted for milling and mining applications by the sixteenth century, illustrations appearing in Agricola's *De Re Metallica*, published in 1556. The power available from animal mills was generally limited and inadequate to drive more than a single pair of small diameter millstones (approximately 18-36 inches, 0.46-0.91m) or another application at any one time. Horse wheels utilising up to six animals were built in Britain, but two animals would have been more commonly adopted. Horse works usually employed a single animal, as did the oblique treadmill. No intact examples of the older horse wheel machinery are known to have survived in Tasmania, but an hexagonal brick building having the characteristics of such a mill remains at Hagley.

Treadmills as a form of punishment were introduced into England after 1818, following the adaptation of the vertical wheel, which is normally credited to William Cubitt. The principal of small animals, such as dogs or donkeys, walking within a wheel (a *tread wheel*), is much older in origin, but there have been no known applications in Tasmania. Treadmills have the potential for

much greater power outputs, as the number of participants could be increased by adding multiple wheels to a common shaft, as was the case at the Port Arthur treadmill, where five wheels were utilised enabling up to 60 people to operate simultaneously. Treadmills of similar construction were erected at the Hobart and Launceston gaols.

3. WATERMILLS

The existence of water powered flour mills is known to extend back to the Roman era in Europe. There are two basic types of operation of watermills, in a similar manner to that of animal powered mills:

- A **Norse mill** where a horizontal water wheel rotates around a vertical shaft, enabling the millstones to be directly driven without a requirement for intermediate gearing. In order to achieve the required rotation speed, in excess of 50 revolutions per minute for satisfactory grinding, the wheel is driven by a high velocity water jet. The limited power available from this primitive wheel design, however, was normally sufficient for only a single pair of millstones. These mills were used extensively in some Mediterranean countries, but their use in Britain was confined to the more isolated regions such as the Western Isles of Scotland. No applications of this mill type are known in Tasmania.
- A **Vitruvian mill** where a vertical water wheel requires the provision of gearing to transfer the rotary power from a horizontal shaft to vertical spindles on which the millstones are located. This is the traditional form of watermill that was widely adopted in Britain, and many other European countries, by the eighteenth century. Prior to the Industrial Revolution, the water wheel and gearing were of all wooden construction, the basic design of which had remained unchanged since Roman times. The increasing availability of wrought and cast iron of consistent and reliable quality, enabled improved designs of water wheels and power transmission to evolve rapidly. The introduction of these technological advances during the second half of the eighteenth century in Britain, ensured that these millwrighting and iron founding skills were gradually transferred with the settlers arriving during the early colonisation of Tasmania. The main technological changes are briefly outlined below.

3.1 Pre-1750 Development

Vertical water wheels prior to 1750, were of two basic types:

- The **undershot** wheel where the flow of water strikes the base of the wheel. The wheel motion in response to the impact of water against the **paddles**, resulted in a wheel rotation in the same direction as the water flow.
- The **overshot** wheel in which the water flow was directed over the top of the wheel, so that the wheel motion was effected by the weight of water filled **buckets**, i.e. wheel motion was gravity activated. In order to retain water in the buckets overshot wheels were provided with deep rims or **shrouds** extending around the perimeter of the wheel.

Typically undershot wheels were utilised where regular streams of fast flowing water occurred, overshot wheels being adapted to areas where only limited water supplies were available, but required a water head exceeding some 10 feet (3.05m).

The transfer of circular motion from the water wheel to the upright shaft was originally accomplished by means of a primitive *pit wheel* known as a *trundle wheel* located on the wheel shaft, which engaged a *wallower* of *lantern pinion* construction, located at the base of the upright shaft. The trundle wheel consisted of pegs or *cogs* mortised into a vertical wheel which meshed with staves or *teeth* of the lantern pinion, which were also simply constructed from rods secured between two wooden discs. This step-up gearing enabled the required rotation speed for grinding to be achieved such that the lantern pinion typically completed 4 or 5 revolutions for each revolution of the trundle wheel. By this means, a water wheel making 10-20 revolutions per minute (rpm) enabled the millstones to rotate at between 50-100 rpm.

The commonly adopted configuration of most British flour mills powered by a vertical water wheel in the eighteenth century introduced the following refinements:

- Additional gearing (a *great spur wheel* and *stonenuts*) was inserted below the millstones, which offers two significant advantages. Firstly, multiple pairs of millstones could be operated simultaneously with the potential for increased production and the use of different types of millstones, enabling both flour and coarse meal for animal feed to be produced. Secondly, the rotation speed of the millstones was further increased leading to enhanced grinding capacity.
- The gear wheel construction was improved by utilising shaped cogs or teeth of increased strength which enabled increased rotation speeds to be sustained and a smoother, more regular motion to be attained. The mathematical formulae for shaping gear teeth, based upon the use of epicycloidal and hypocycloidal curves were derived between 1752 and 1760 by Camus & de la Hire in France, and Leonhard Euler in Germany.
- The construction of the water wheel was improved, with the earlier *compass-arm* method, in which the spokes or *arms* are mortised through the shaft; being supplanted by a *clasp-arm* arrangement, where pairs of arms straddle the square shaft. The wheel shaft is considerably weakened by a compass-arm wheel, and the potential for rot and degradation is greatly increased. In the event of failure of the shaft to a compass-arm wheel, complete dismantling of the water wheel and removal of the pit wheel were required, prior to replacement. When compass-arm wheels failed they were often replaced by clasp-arm wheels that were constructed around the existing wooden shaft, if it was still serviceable. A similar process of replacement occurred with gear wheel construction, such that clasp-arm wheels gradually supplanted compass-arm examples.

The gearing arrangement outlined above, where the millstones are driven from beneath, an *underdrift* mill, became widespread in Britain. Mills with the millstones driven from above (*overdriven* or *overdrift*) were more numerous in some districts, for example the Midlands.

3.2 Post-1750 Development

Following detailed experimentation in 1752-53, John Smeaton established that the efficiency of overshot wheels (greater than 60%) was between two and three times that of undershot wheels (20-30%). He also concluded that the effects of both impulse and gravity may be obtained from *low breastshot wheels*. Smeaton is known to have designed a low breast wheel of 20 feet diameter for a flour mill at Wakefield in 1754, and to have made extensive use of this wheel type during the following 40 years. By the beginning of the nineteenth century low breast wheels, with a 40-50% efficiency, had been widely adopted for applications where limited falls were available.

The introduction of the *overflow sluice gate or sliding hatch* by John Rennie in the mid-1780s enabled the flow of water on to the water wheel to be controlled and varied to accommodate different stream conditions. This resulted in *breast* and *high breast* wheels to be developed having a similar efficiency to that of traditional overshot wheels, but without the disadvantage of back watering in times of high water, due to the wheel rotating against the flow direction of the stream. The high breast wheel began to replace overshot wheels after 1800 in Britain and reached a peak of development after 1850 following the substitution of iron for wood as a construction material. The undershot wheel was later improved by the introduction of the *Poncelot wheel* after 1824, which is credited with an efficiency of 65%. This was achieved by constructing the paddles from curved iron sheets and controlling the flow of water onto them by means of an inclined sliding hatch. This development was not widely adopted in Britain and no confirmed applications in Tasmania are known, although proposals for a water supply scheme on a property near Campbell Town were mooted in 1885.

Cast iron of reliable quality became available relatively slowly following the first successful use of coke for smelting at Coalbrookdale, Shropshire by Abraham Darby in 1709. The hollow casting method, using dry sand packed around wooden patterns in moulding boxes, was first patented in 1758 by John Wilkinson, who was also established in Shropshire. The first recorded application of a cast iron wheel shaft was by John Smeaton in 1769 at the Carron Ironworks in Stirling. John Smeaton also introduced cast iron gearing in the 1760s, constructed wheel shrouds of cast iron segments from 1770 and utilised wrought iron buckets in 1780. John Rennie is credited with erecting the Albion Mills in London in the mid-1780s which was fitted with all iron gearing. By 1810 the first all iron water wheels had been assembled, utilising cast iron for the shaft, arms and shroud, and wrought iron plates for the buckets.

The introduction of cast iron shafts of increased strength and length enabled alternative power transmission configurations to evolve. The use of *layshafts* driven from gearing around the perimeter of the water wheel (*rim or ring gearing*), enabled millstones to be positioned in lines along the building walls, with better access for maintenance. The main advantage of the layshaft/rim gearing arrangement was that the torque on the wheel shaft was reduced, enabling the diameter of the shaft to be substantially reduced. In addition high rotation speeds of the layshaft were achieved as a result of the high gear ratios between the rim gearing and the small pinion on the end of the layshaft. This arrangement also dispensed with the pit wheel and the provision of a deep wheel pit adjacent to the water wheel. As water wheel technology advanced, the layshaft drive arrangement permitted more millstones to be operated from a single water wheel of increased power. This system is known to have been employed in a significant number of Tasmanian flour mills, but only one has

survived relatively intact at Mayfield. The wooden breastshot water wheel has now collapsed into the wheel pit and the condition of the ring gearing castings is not currently known.

3.3 Siting of Watermills

Watermills were adapted to a wide variety of water conditions by means of careful site selection, regulation of the water flow within or from the creek, or by the type of water wheel adopted. Where suitable sites existed adjacent to regular and strongly flowing water courses, undershot wheels could be employed, with a sluice gate positioned to divert the water flow at the completion of milling. To avoid mills being affected excessively by flood conditions, a diversion channel (a *mill race* or *leat*) was constructed. In England, where mill sites were in great demand, particularly in industrialised areas, the mill races were usually short in length, and hence the fall at the water wheel was often of limited extent. In Australia, by contrast, where overcrowding of sites was rarely a problem with the exception of the Hobart Town Rivulet, long mill races were used to maximum benefit, enabling large diameter overshot or breast wheels to be erected. Where the water flow was limited or irregular, *mill dams* were frequently constructed to retain sufficient water for a day's operation. In the event that large diameter water wheels were constructed in lowland areas, an overhead mill race or *launder* was often required. This usually consisted of a timber or wrought iron channel supported on timber, stone or cast iron columns or trestles, being the most economical method of construction instead of a high earth embankment.

Watermills were adapted to tidal conditions found adjacent to coastal or river estuaries. A large pondage was necessary to capture sufficient water on an in-coming tide, which was then released on an ebbing tide to permit mill operation. Undershot wheels were normally utilised for tidal mills enabling milling to commence some two hours after high tide when the wheel was free to turn. The maximum period of operation between successive high tides was typically about seven hours, the regular water supply being the main attraction for erecting tidal mills, if suitable protected sites could be found. The main disadvantage of tidal mills was therefore, the irregular operating hours dictated by the tidal cycles, and few were constructed in Australia, only one site at Spreyton on the Mersey River being known in Tasmania.

4. WINDMILLS

Three types of windmill for flour production had become established in Europe by the eighteenth century, as follows:

- **Post Mill.** The earliest developed form, constructed with a timber frame work, in which the whole body or *buck* of the mill is rotated into the wind around an upright shaft. Post mills are first documented in Britain and France towards the end of the eleventh century, and spread rapidly throughout Northern European countries. A gradual evolution of post mill design, in terms of size, power output and sophistication, occurred in many of these countries, but the pinnacle of development for flour mill applications was attained in Britain in the first half of the nineteenth century.
- **Smock Mill.** Also with a timber framework originally, but differs from a post mill in that *winding* or *luffing* is achieved by means of a rotating *cap* assembly on top of a static body, to

bring the mill to face the wind. The buck of smock mills was usually hexagonal or more commonly, octagonal in plan, and evolved to have a brick or stone base. The date of introduction of the smock mill has not been reliably established, but the earliest remaining mills in Britain were erected in the early seventeenth century.

- **Tower Mill** Of similar overall form of construction to that of a smock mill, but built with a brick or stone tower. Early examples were of limited height, having one or two floors and cylindrical shaped towers. The design of tower mills also evolved considerably by the early eighteenth century particularly in Britain, Belgium and Holland, where tapered brick towers in excess of 100 feet in height having seven or eight floors, were fitted with up to four or five pairs of millstones.

Each type was represented in Tasmania during the nineteenth century, the post mill being the first established and the most numerous. Unfortunately, no complete windmill has survived (apart from the gutted brick tower of the Callington Mill) and few details of the internal machinery were recorded. All of the surviving images of the exteriors of Tasmanian windmills indicate that traditional British millwrighting practices were adopted, and these are outlined in the following sections. Trials with horizontal windmill designs also took place in Tasmania, following similar experimentation in Britain during the first quarter of the nineteenth century. These mills, where the sails are attached to a vertical shaft, had been developed in the Middle East by the tenth century. Only one example of such a mill constructed to full size in Tasmania (at Davey Street, Hobart) is documented, few details being recorded however, to indicate if a similar form of construction to those in Britain was adopted.

A great variety of forms of the three windmill types were developed in Britain, with considerable variations in the external shape and size, sail types, and particularly in the construction of the power transmission. In watermills, the majority were provided with underdriven stones where the millstones were driven from below and positioned above the power source, the water wheel. In windmills where the power source, the sails, are located at the top of the structure, the power transmission is naturally downwards, and the normal arrangement is for the millstones to be driven from above, or overdriven. However, there are many examples of underdriven windmills, including post, smock and tower mills. The power transmission in all of these British windmill types involves intermediate gearing, which would have evolved in a similar manner to that of watermills. The gearing in early post mills is likely to have consisted of trundle wheels and lantern pinions, which were gradually replaced by cogged and toothed wheels, which had largely supplanted the earlier forms in Britain by the eighteenth century. In a similar manner, gear wheels of compass-arm construction were gradually replaced by clasp-arm wheels.

4.1 Post Mill

Early images of post mills in Europe show that they were originally quite small structures, the buck having two floors of limited height, and the supporting structure or *trestle*, resting directly on the ground, or originally embedded in the ground. The trestle is required to support the entire weight of the buck, gearing, milling equipment and sails, to maintain stability in strong winds, and to enable the buck to be winded by rotating it about the upright shaft, upon which it is pivoted. The construction of a post mill demonstrates the skills of the medieval millwright in achieving a stable,

balanced structure, that was built almost entirely of wood prior to the Industrial Revolution. This early form of post mill is known as an *open trestle* type.

Where details are known, the first post mills erected in Tasmania pre-1830 were equipped with a single pair of millstones that were overdriven from the *brake wheel*, which was positioned towards the front of the *windshaft*. In the larger post mills of post-1830 construction such as Campbell Street, Hobart and Constitution Hill, a second pair of millstones were probably driven from a *tail wheel* located towards the rear of the windshaft. This 'head and tail' arrangement was quite widespread in Britain and required a substantial windshaft, which was usually formed from a single piece of timber, square or circular in section, and having a maximum thickness or diameter of approximately 24 inches (0.61 m). The bearing blocks beneath the front of the windshaft were initially shaped from hardwood or stone, such as granite or basalt. These were gradually replaced by brass or gun metal castings, particularly when cast iron windshafts and retaining brackets were introduced. Following the introduction of cast iron, tail bearings were commonly formed by inserting a cross or wing tailed *gudgeon*, in a similar manner to that adopted for water wheel shafts. Ancillary equipment such as the sack hoist and dressing machinery (see Section 6) could be driven from either the brake or tail wheels by means of additional gearing.

Until the eighteenth century, all post mills were fitted with *common sails*, consisting of a canvas sail cloth spread over a wooden framework of *sailbars* that was attached to the main spar or *whip*, which in turn was fastened to the arms or *stocks*. Traditionally, two stocks were mortised through the windshaft, a major cause of weakness which was only improved following the introduction of cast iron. Originally common sails were simply constructed, being uniformly flat, or having *constant pitch or weather*. By the mid-eighteenth century Dutch millwrights had established that the best sail performance was obtained when the inclination of the sailbars (the *angle of weather*) was increased in passing from the outer to the inner end or *heel* of the sail. This was to take account of the increasing rotation speed towards the outer end of the sail, and resulted in a distinctive twist to the sail profile. Experiments undertaken by John Smeaton in the 1750s confirmed the advantages of weathered sails, which became widely adopted in Britain during the nineteenth century. The area of sail cloth that was spread was varied according to the strength of the wind; a *full sail* in light wind, and with winds of increasing strength through the *first point*, *dagger point* positions, and finally, *sword point* in very strong winds. The main disadvantage of common sails was the requirement for the mill to be stopped and each sail adjusted individually, when a change in wind strength or milling requirements occurred.

Once the sail cloths had been unfurled at the commencement of milling, the only method of slowing the sails was by means of tightening a band around the brake wheel by means of a wooden lever. This *brake lever* was normally located on the right hand side of the buck when looking from the rear of the mill, in which case the sails rotated in an anticlockwise direction when viewed from the front of the mill (a right-handed mill). Mills where the sails rotated in a clockwise direction required the brake lever on the opposite side of the buck, in what is referred to as a left-handed mill. The brake lever could be operated from the lower *spout floor* (where the meal was directed from the millstones), or the ground, by means of a rope which enabled the miller to operate the mill or *reef* the sails at the end of milling, without returning to the upper, or *stone floor*, each time. When the mill needed to be brought into the wind, the steps at the rear of the mill were lifted clear of the ground, and the mill rotated by pushing on the *tail pole*.

In the eighteenth century the lack of storage space in a post mill was solved by raising the trestle off the ground on piers, and enclosing it to form a **roundhouse**. This could be achieved by a wooden enclosure, but was more commonly constructed of brick or stone. In England two storey brick roundhouses were adopted, particularly in Essex and Suffolk, which resulted in structures exceeding 50 feet (15.25 m) in height to the top of the cap. This also had the advantage of providing additional wind for the sails to overcome the encroachment of houses, trees etc. Several applications of roundhouses to post mills in Tasmania are known including the Providence Mill at Richmond possibly of timber construction, and the Campbell Street, Hobart and Constitution Hill mills where masonry or stone was used.

Post mill design in Britain evolved in a similar manner to that of watermills during the nineteenth century, following the introduction of cast iron gearing, which enabled alternative transmission arrangements to be adopted. Improved sail designs after 1772 and the introduction of the fantail for self winding were also widely adapted to post mills in Britain. Surviving images of Tasmanian windmills indicate that these advances were not similarly applied, but several tower mills were so fitted. These developments are therefore outlined in the following section.

4.2 Smock and Tower Mills

Early smock and tower mills in Britain are likely to have had a similar internal arrangement to that of post mills, with a single pair of stones driven directly from the brake wheel by means of a wallower. These mills were utilised in many Southern European countries until the cessation of traditional milling. As these mills increased in height (and diameter), additional pairs of millstones could be driven from a great spur wheel in a similar manner to watermills. The spur wheel could either be located above the millstones, an overdrift mill, or below, in an underdrift mill. The upright shaft connects the wallower to the spur wheel as in watermills, but was of increased length where a storage or **bin floor** was present above the stone floor.

The cap of smock and tower mills had a great variety of shapes, including a simple gable with a triangular cross section, modified gable as utilised for post mills, boat shaped (profile of an up-turned dinghy), conical, domed or with an ogee profile, which was the most refined and commonly applied in Eastern England. The windshaft of smock and tower mills was secured to the cap frame, which revolved around the top or **curb** of the wooden, brick or stone tower. In early mills the cap frame and curb were in direct contact (a **dead curb**), being greased and rotated externally by means of a braced tail pole, or internally by simple winches. A later development utilised large diameter iron ball bearings which were located in channels on top of the curb (a **shot curb**). This arrangement significantly reduced the friction, and when used in conjunction with a toothed rack around the circumference of the curb, enabled the cap to be rotated from the ground by means of a chain wheel located on the outside of the cap. The rotation of the cap to bring the sails into, or facing the wind, was automated by the introduction of the **fantail**, which followed Edmund Lee's patent of 1745. The fantail consists of a small vaned wheel fitted in a frame at the rear of the cap, so that it is perpendicular to the plane of rotation of the sails. It is connected to the toothed rack around the curb by means of simple gearing, similar to that utilised for a chain wheel arrangement. Due to the high gear ratio normally adopted, between 1-2000:1, the fantail is highly responsive to even slight changes in wind direction. Rapid changes in wind direction however, were a serious hazard, and high tail winds acting on reefed or shuttered sails could result in the sails and cap being displaced or even physically removed before the miller had time to adjust the sail settings. Several Tasmanian

tower mills are known to have been fitted with fantails including the Trafalgar Mill at Richmond; Callington Mill, Oatlands; and the Battery Point Mill, Hobart.

To overcome the requirement of having to periodically stop the mill and re-set the sail cloths of common sails to account for varying wind strength, Andrew Meikle invented the spring sail in 1772. This combined the application of shuttered sails which could be opened to spill the wind, with a regulating mechanism that relied on the tension of a spring. This was originally elliptical in shape but later semi-elliptical or coiled types were also utilised. The spring was mounted on the heel (inner) end of the sail and connected by means of a sail rod to a setting bar or plate located at the outer end of the sail. Once the spring was set, the shutters remained closed until the force of the wind exceeded the pre-set tension and spilled the wind. The spring sail still retained the disadvantage that each sail had to be adjusted by the miller at the commencement of milling, but it was a considerable improvement over common sails. No documented examples of spring sails being applied to Tasmanian windmills are known, and the few surviving images of the early post mills are insufficiently detailed.

A more significant development in sail design occurred in 1807 when William Cubitt introduced the *patent* sail, the main components being of iron. This ingenious system also employed shuttered sails but significantly, enabled the sails to be adjusted whilst the mill was working. This was achieved by linking the sail rods from each sail to rocking levers in a *spider* assembly installed on the front end of the windshaft. A single rod (the *striking rod*) from the spider passed through the centre of the windshaft, to the rear of the mill, where it was connected to a wheel and chain assembly. By attaching the appropriate weights for the wind conditions, on the end of the chain that extended down to the spout floor, the miller could ensure a regular operating speed. As older mills were improved with replacement patent sails, hollow cast iron shafts were often installed to facilitate the passage of the striking rod. Mills with solid wooden windshafts, particularly post mills, could be adapted for patent sails by boring a hole through the entire length of the windshaft. The size of patent sails was often increased by adding additional bays of shutters along the leading edge of the sail, being referred to as a *double-shuttered* sail. Several tower mills in Tasmania were equipped with patent sails, the Callington Mill at Oatlands and the Battery Point Mill at Hobart being the best known.

As older mills constructed of wooden components required repair from the late eighteenth century, iron components were increasingly utilised. An example is provided by the end of windshafts where mortises were made for the sail stocks. The life of a wooden windshaft could be prolonged by securing a cast iron *cannister* or *poll end* to the end of the windshaft. The development of multi-sailed mills having 5, 6 or 8 sails as a means of increasing the sail area, and thereby the power available, required complex iron castings for the attachment of the increased number of sail stocks. These multi-sailed tower mills were erected in significant numbers in Eastern England, particularly Lincolnshire, but there were no known applications in Tasmania.

5. STEAM POWER

Beam engines of the Newcomen model, also referred to as 'atmospheric engines', were used extensively in Britain during the eighteenth century for water pumping applications. Pumping was achieved by attaching reciprocating pump rods to one end of the beam, a piston attached by means

of a chain to the other end of the beam, enabling the pump rods to be raised following the admission of steam above the piston. The downward stroke resulted simply from the weight of the pump rods pulling down on the opposite end of the beam, i.e a *single acting* engine. In the Newcomen engine, steam at normal atmospheric pressure was utilised, in what later became known as a low pressure engine. These engines were quite inefficient, consuming excessive amounts of coal, and constructed from poor quality iron castings, which limited further development until the advances of the Industrial Revolution. The development of the rotative engine, which was an essential requirement for grinding, followed the application of a number of developments of the beam engine during the last quarter of the eighteenth century. James Watt is associated with most of the crucial developments of the rotative steam engine, which included:

- the development of the separate *condenser*, patented by James Watt in 1769, which resulted in a dramatic increase in the efficiency of beam engines.
- the use of the crank to produce rotary motion from the beam, following the patent of James Pickard in 1779.
- the *double acting* engine in which the top of the cylinder was enclosed enabling steam to be admitted alternately, to both sides of the piston, thereby doubling the number of power strokes.
- the *parallel motion* developed by Watt to enable the piston rod to be supported throughout its stroke and prevent distortion under load.
- the use of *expansive working*, where the steam admission is cut off early in the piston stroke and the expansive properties of steam utilised as the temperature and pressure dropped.
- the *slide valve* invented by William Murdock in the 1790s, which enabled the admission and exhaust of steam to be precisely controlled.
- the adoption of the “*flyball or centrifugal governor*” in the 1780s to regulate the speed of the engine.

Following the expiration of the Watt patents in 1800 a great variety of engine types were constructed and the problems of utilising high pressure steam and compounding were gradually overcome. Smaller, more compact versions of the beam engine were developed which were more suited to the restricted spaces of existing water powered mills. Horizontal engines, where the cylinder was mounted horizontally, had been developed by about 1830, and were also adapted for flour mill use. The horse-drawn portable steam engine which was wheel mounted (the forerunner of the traction engine) was extensively developed from the mid-1840s in Britain and widely used both for agricultural applications and small scale factory operations. All of these types were utilised in the Tasmanian flour milling industry, but unfortunately few details were recorded in contemporary accounts, and no engines have survived in-situ. The following descriptions of the main engine types are therefore of representative engines that are known to have been available or imported from Britain, and which would have influenced the local engine manufacturing industry that was established from the late 1840s in Hobart and Launceston.

5.1 Beam Engines

The basic form of the rotary beam engine consists of a vertical cylinder connected to one end of a rocking beam, while a rod at the opposite end was attached to a crank enabling a flywheel to be driven. The adoption of the pre-1800 developments from the Watt era together with the use of high pressure steam and compounding developed in the first decades of the nineteenth century, enabled beam engines of greater power and improved economy to evolve. Of the many types that were developed, the following were suited for use in flour milling with examples known to have been installed in Tasmanian mills:

- **Single Cylinder** type, as originally developed, either single or double acting.
- **Woolf Compound** where high and low pressure cylinders were positioned together at one end of the beam, the high pressure exhausting into the low pressure cylinder. Both cylinders acted together during the power stroke.
- **McNaught Compound** where the low pressure cylinder was located in the normal position but the high pressure cylinder was positioned on the opposite end of the beam, between the supporting columns and the crank rod. Besides improved economy, this design reduced the stresses about the beam centre as the high pressure cylinder pushed up while the low pressure cylinder was pulling down. Some older single cylinder engines were converted to the McNaught model after 1850.

Beam engines were obtained from Britain until the middle of the nineteenth century, examples including a 16 horse power high pressure engine by Steel & Sons of Dundee imported in 1854 and the 40 horse power McNaught type engine by A & W Smith & Co of Glasgow, at work in the Commercial Mill, Hobart by 1863. By 1859 the established millwrighting partnership of Easby & Robertson is recorded as having manufactured a 20 horse power beam engine for the Old Mill at Hobart indicating that the required iron founding and machining capability had been established in Hobart by the 1850s. Beam engines continued to be produced locally until the 1880s when a 20 horse power engine by the Launceston-based millwrights W H Knight is recorded as having been installed in Monds' Carrick Mill. Although these engines were largely replaced by horizontal engines in the high capacity mills where roller milling plant was introduced from the late 1880s, in at least one smaller operation, that at Ritchie's St John Street Mill at Launceston, a beam engine was possibly retained until the mill ceased production in the 1960s.

5.2 Vertical and Horizontal Engines

In these engine types, the beam is dispensed with, enabling more compact designs to be developed for industrial applications where limited power outputs were required. The vertical engine first appeared at the beginning of the nineteenth century, the piston still mounted vertically but the connecting rod coupled directly to the crankshaft and flywheel, which were mounted above the piston. A more practical arrangement, the table engine, followed in which the assembly is inverted, the piston being mounted above the crankshaft, on a platform or table. This principal was first patented by Henry Maudsley in 1807. The extent of the application of vertical engines to Tasmanian flour mills is difficult to quantify, as engines of the type are not referred to in historical sources. However, their application to smaller milling operations is illustrated by the remains recently

recovered from the Jericho site by the Queen Victoria Museum & Art Gallery, where a small engine of 5-6 horse power had been utilised to supplement the power provided by an overshot water wheel.

The horizontal cylinder steam engine was first patented by Richard Trevithick in 1802 but remained undeveloped for 20-30 years. After 1850 the type was widely utilised, being manufactured in a variety of forms to enable compounding and multiple cylinder arrangements to produce greater power outputs. Early applications in the Tasmanian flour milling industry are likely to have retained the single cylinder arrangement, an example being provided by the Westfield Mill, where an 8 horse power engine driving two pairs of stones was installed when the mill conversion occurred in 1864. Later tandem compound types were introduced in the 1880s, often in conjunction with the installation of roller milling plant with increased power demands, e.g., at Affleck's mills at Newry (Longford) and Cameron Street (Launceston); and Murdoch's Hobart mill, where engines of 25-40 horse power manufactured by T Robinson & Son, Rochdale were purchased.

5.3 Portable Engines

The portable engine is a self contained unit, in the same manner as a railway locomotive, having a firebox, boiler and piston(s) connected via a crankshaft to a rotating wheel or flywheel. It is not self-propelling, however, being originally developed for agricultural applications where movement over long distances was not required. The first portable engine to be developed with the conventional arrangement of an horizontal cylinder mounted above a horizontal boiler, is believed to have been produced by Clayton and Shuttleworth of Lincoln, in 1845. The engine operated in a similar manner to that of stationary engines.

Portable engines were widely adopted in Britain as a means of providing additional power for watermills, and also windmills of masonry construction, i.e., tower mills. For tower mills this was achieved simply by providing a pulley on the outside of the tower, and providing an additional pinion for the spur wheel, the engine being installed in a separate building alongside the mill. In the case of watermills the addition of auxiliary steam power often involved extensive alterations in order to separate the engine from the flour processing area. A total steam conversion could involve the removal of the water wheel and a revised drive arrangement, usually involving the introduction of cast iron gearing of improved design. These practices do not appear to have been widespread in Tasmania, but this may in part be a function of the paucity of detailed historical accounts. Where steam mills were added to the existing windmill sites at Oatlands and Battery Point, Hobart, these were separate structures equipped with additional millstones. An example of a portable engine being added to an existing watermill is provided by the Skelbrook Mill at Sassafras where an engine house was erected adjacent to the mill building in 1874. Portable engines are also known to have been used at Shorey's and Bowerbank mills at Deloraine.

5.4 Boiler Design

The improved engine designs required increasing quantities of steam, and later at higher pressures, which provided the impetus for the evolution of boiler design. The earlier Newcomen and low pressure Watt engines could be adequately supplied by small haystack or wagon boilers consisting of domed water tanks made of riveted wrought iron plates, that were largely enclosed in brickwork. The waste fumes and smoke were drawn around the boiler in channels or flues, which connected with a chimney to provide the draft. The stronger tubular boiler with semi-circular or egg shaped

ends followed, before the major breakthrough with the Cornish boiler, developed by Richard Trevithick prior to 1812. The Cornish boiler consists of a double cylinder in which the water and steam is contained within the outer sealed chamber. The firegrate was positioned at one end of the central furnace tube, from which brick flues directed the heat around the base of the boiler before being exhausted to the chimney. The Lancashire boiler was an improved and enlarged version of the Cornish boiler, having two furnace tubes, first introduced by William Fairbairn in 1844.

6. GRAIN CLEANING, GRINDING, DRESSING & HANDLING

These processes are common to all types of flour mill, although the more sophisticated and improved processes were naturally associated with steam powered mills, due to their later development. At the time the first flour mills were erected in Tasmania, machines for cleaning and dressing were available from overseas, although not readily obtainable. The introduction of new smutting or dressing machinery was often announced in newspapers in an attempt to gain an advantage over a competing business nearby, by inference that a better quality product was available. Gradually local millwrights commenced manufacturing these machines, and after 1850 larger scale production was established on mainland Australia, notably Melbourne, where O.S. Schumacher became established. Details of the manufacturer are often unrecorded however, so that a clear picture of the introduction of new processes is difficult to establish.

6.1 Grain Cleaning

This is necessary to remove foreign matter, such as stones, weeds, wild seeds, chaff etc prior to grinding, and also to ensure that any fungal infestation, most notably spores of smut, is separated from the grain. The first process was normally achieved by means of vibrating sieves or screens that separated out the stones by means of gravitation. A fan or winnower was often utilised to remove any light weight chaff, either separately, or in conjunction with vibrating sieves. Remaining examples of grain cleaners at Tasmanian sites are probably of late nineteenth century design, e.g., Ouse, Union Street at Longford and Morey's Mill, Swansea.

Smutters were in use in Tasmania from the late 1820s but few details of these early machines are known. These would have been of British design, having a horizontal cylinder, which was developed and marketed as the Ashby patent model from the 1850s. Improved designs of American manufacture became available in the 1870s, of which the Eureka Smutter is the best known, several examples having survived in Tasmanian mills e.g., Connorville, Skelbrook and Westfield mills. In this machine the smut spores were removed by rotating brushes or beaters that forced the grain against a vertical cylindrical screen.

In damp climates, kilns were often required to enable the moisture content of the grain to be reduced to between 12-18%, so that milling could proceed. Kilns with drying floors were also utilised where oats were processed, to ensure that the husks became brittle and separated from the seed. The requirement for drying grain from the main growing areas in the Midlands of Tasmania, does not appear to have been necessary however, the only recorded applications being in conjunction with mills used for oatmeal production e.g., the Scone Mill, Monds' Carrick Mill and the late nineteenth century mills established in Longford, Launceston and Hobart. Only one

remaining example of a grain drying floor was located during this study, at the small Rheban farm mill.

6.2 Grinding

The traditional method of grinding by means of millstones remained unchanged until the introduction of roller mills from the mid-1880s. Grain was introduced into the eye of a runner stone which rotated over a stationary bedstone, the quality of the meal being controlled by the separation of the millstones, a process known as tentering. The increase in the available power provided by wind, water or steam power allowed the size of the machinery to be scaled up thus increasing production, and the introduction of iron components enabled meal of consistent quality to be maintained, by means of improved tentering arrangements.

The essential requirements of a good millstone were a high quartz content to produce sharp and durable cutting edges, and a strong natural cementation to prevent excessive amounts of individual grains being removed during grinding. Each of the main geological rock categories i.e., igneous metamorphic and sedimentary, were successfully utilised for millstones, those used in the Tasmanian flour industry following established British practices, with two main categories being distinguishable:

- **Peak Stones or Greys** obtained from the “Millstone Grit” formation that outcrops along the Pennines of England. Millstones from these beds of sedimentary rocks were widely quarried in Derbyshire and Yorkshire, being obtained in single pieces weighing in excess of a ton for a 4 feet (1.22 m) diameter stone.
- **French Burrs** obtained from the Paris basin at La Ferte-sous-Jouare and Epernon. The stone is a type of sedimentary quartzite which was normally quarried in small pieces that were graded, shaped, and cemented together, before being bound with iron hoops, and finally the outside surfaces coated with plaster of paris.

French burrs were particularly suitable for the finest grades of flour and were almost universally adopted after the eighteenth century in British and Australian mills. A pair of burr stones was an essential part of the tools of trade for the first millers that migrated to Tasmania in the 1820s. Peak stones were generally used alongside a pair of burrs, to produce the coarser flour products used for animal feeds, or for grinding barley, oats, beans or peas. Millstones of local manufacture were used in Tasmania in small numbers, usually being referred to as “*Colonial Stones*”. Few details of these are known, but quarries were established on Rocky Island and Green Island in the Bass Strait in about 1847. Millstones used in flour mills varied greatly in size, those employed in wind, water or steam mills of Tasmania were typically 36–54 inches (0.91–1.37m) in diameter, with 4 feet (1.22 m) stones being the most common. Smaller diameter stones were normally utilised in horse mills or horse works, where production was for local consumption.

The grinding process is facilitated by the opposing millstone surfaces being dressed. This highly skilled craft could be undertaken by the miller or often by millwrights, and involved three stages:

- **Facing** which entailed producing flat or planar surfaces by removing any high spots. These were located by means of coating the base of a **paint staff** (a perfectly planar timber staff of slightly

longer length than the diameter of the millstones) with red oxide or *raddle*, which was moved across the millstone surface.

- **Furrowing** which involved cutting a regular pattern of radiating grooves or furrows of consistent width and profile. The traditional English pattern established by the early nineteenth century consisted of ten sections or harps, each of which was cut by four furrows arranged tangentially to the eye of the millstone. The furrows with a typical width of 1 1/8 inches (28mm), increased in depth towards the outer edge, being provided to ensure the passage of ground meal towards the periphery of the stones.
- **Stitching** (cracking or scratching) which entailed cutting fine cracks on the outer section of the strips or lands between the furrows, at a density of 12-16 per inch (5-6/cm). These cracks were responsible for the fine grinding of the grain.

Each millstone of a pair was dressed in the same manner, for the direction of rotation required, so that when the runner stone was inverted into its operating position, the furrows crossed at an acute angle to produce the 'scissor-like' action required for the successful grinding of wheat. Stone dressing was conducted with a mill bill made of high-carbon steel, having a chisel point at each end. Frequent re-grinding was required during dressing, a grindstone usually being found in working flour mills for this purpose.

Prior to milling, the settings of the stone spindle and runner stone were checked to ensure that the runner stone was balanced and running true. The introduction of the *bridging box* in the nineteenth century enabled the verticality of the stone spindle to be quickly adjusted by means of four hackle screws. Bridging boxes were universally adopted as mills were upgraded. Balancing of the runner stone was initially achieved by adding molten lead to holes on the periphery of the stone. This procedure was improved following the invention of the *balance box* by Henry Clarke in 1859, which enabled the fine adjustment to be quickly undertaken by means of lead weights threaded onto a vertical spindle within the recessed box.

The grain was fed into the eye of the runner stone from a small hopper mounted above the millstones, along a wooden feed shoe that was shaken by the *damsel*, an iron rod usually fitted with flat sides or projecting bars. The feed shoe was held against the damsel by a cord attached to a rod made traditionally of ash or hazel, resulting in a loud, rhythmic clatter when working, which is reputedly how the damsel became so named. The rate of feed of the grain was controlled by adjusting the inclination of the feed shoe, by means of a cord extending through to the spout floor, where the miller normally worked when milling was underway. A bell-alarm was normally fitted to the base of the feed hoppers by means of a leather strap, being activated when the grain emptied sufficiently, so alerting the miller.

The tentering equipment for adjusting the separation of the millstones, by means of raising or lowering the runner stone, varied considerable in design and sophistication. In its simplest form an arched bar or *rhynd* fixed across the eye of the runner stone is balanced on a frame or *mace* that is located on top of a vertical iron rod, or *stone spindle*. The stone spindle extends through the *neck box* in the bedstone to rest in a bearing or *bridging box* located on horizontal wooden beam (the *bridge tree*) that is pivoted at one end. The fine adjustment necessary to the opposite end of the

bridge tree was achieved by means of a threaded rod, or originally by means of tapered wooden blocks or wedges.

With the introduction of wrought and cast iron, the tentering mechanism could be made more compact and it was frequently combined with a centrifugal or flyball governor in nineteenth century British mills, particularly windmills. By this means any slight increases in the speed of the mill (due to variations in the water supply, or wind gusts) that resulted in a higher rate of feed of grain to the stones, were countered by the lowering of the runner stone(s), and thereby maintaining a more constant rotation speed of the stones for grinding. This was achieved by supporting the free end of the bridge tree on another pivoted beam, the *brayer*, that was linked to the governor by iron bars or *steelyards*. Any increases in speed of the mill were conveyed to the governor by a leather belt from the stone spindle. This increase in speed resulted in the balls of the governor flying outwards, thus lowering the steelyard where attached to the brayer, and leading to the runner stone being lowered. When accurately set, the weight of the flyballs was sufficient to maintain the runner stone clear of the bedstone due to the 200 or 300:1 leverage of the various components. This significantly reduced the potential fire hazard resulting from stones overheating in the event of interruptions to the grain supply.

6.3 Meal Dressing

Meal or wheatmeal obtained from grinding normally requires grading to separate the bran to a varying extent from the other products, which were normally sold as (in increasing order of particle size): first flour, seconds, sharps, pollards, semolina and bran. First flour, better known as white flour, is the best quality, and was in limited supply until the sixteenth century as all grading was performed manually. Mechanical dressing machinery began to appear in the eighteenth century in two main forms:

A) Sifting machines which consisted of a tiered arrangement of flat sieves of decreasing mesh size that were vibrated by means of a central shaft or eccentric. This system was patented by John Milne in 1770, but was probably already in use in a more limited form, as the jog-scry, which was retained in some districts of England, such as Cumbria, into the twentieth century. This process was developed into the plansifter and used extensively towards the end of the nineteenth century.

B) Rotating Dressing Machines in which the meal was fed through an inclined, rotating, cylindrical or polygonal drum that was covered or enclosed, with cloth or wire mesh of varying grades. Three types evolved which differed in minor details, as follows:

- **Bolters**, were the simplest, and possibly the earliest form, consisting of a cloth covered wooden frame that sagged under the weight of the meal. When rotated, the flour was driven through the calico, or later silk cover, as it rubbed against wooden bars surrounding the frame. Bolters had a slow rotation speed of less than 50 rpm and were widely adopted as the meal could be dressed direct from the millstones, the meal cooling as dressing proceeded. The main disadvantage was that only one grade of product, usually flour (first or second), was produced during a single operation.
- **Wire Machine**, first patented by John Milne in 1765, where the inclined drum was covered with wire mesh, which increased in coarseness towards the lower end of the drum. The passage of

flour through the mesh was assisted by brushes on the inside of the cylinder. Several grades of product could therefore be obtained in one operation but the ground meal had to be allowed to cool prior to dressing. The rotation speed of a wire dresser was much higher than that of a bolter, 2-300 rpm, enabling a greater throughput, but also requiring more power to operate, which may have been at the expense of continued grinding. An example is retained at the Buckland horse mill site.

- **Reel Separators or Reels**, similar in construction to bolters but of larger dimensions, up to 30 feet (9.2m) in length, usually having a polygonal frame and equipped with a horizontal screw conveyor in the base of the enclosing case to convey the flour to the discharge spout. Introduced from France during the nineteenth century, reels rotated at low speeds (approximately 20 rpm) enabling high quality flours to be produced with minimal disintegration of the bran component. Several examples remain in Tasmania at Connorville, Skelbrook and Thorpe. Towards the end of the nineteenth century, beaters revolving at up to 200 rpm were added inside a circular reel to increase the area of the reel being utilised and thereby increasing production. These machines became known as *centrifugal dressing machines* or *centrifugals*. An example manufactured by O C Schumacher is retained at Ouse.

The rotating dressing machines were widely used throughout Tasmania commencing in the 1820s, many of the larger mills being equipped with two or more machines, enabling different products to be obtained where bolters or reels were employed. They were frequently referred to simply as “dressing machines” however, without distinguishing between types. Among the surviving dressing machines, reels predominate, bolters and wire machines being present in smaller numbers. The importation of wire machines can be inferred from the availability of a variety of wire mesh grades that were stocked by many stores, ironmongers and millwrights, but the poor representation among surviving equipment probably indicates that they went out of use during the latter part of the nineteenth century.

6.4 Grain and Flour Handling

Following the delivery of grain sacks to a mill, the sacks had to be hoisted up to the stone floor (or a higher floor) in preparation for cleaning, or alternatively, up to the *bin floor* (the top floor) for temporary storage. Traditionally, this was achieved by means of a *sack hoist*, which was located normally at towards the top of the mill, or in the case of watermills, it could be contained within a projecting *lucam*, enabling carts to be unladed from the roadside. In post type windmills the sack hoist was most conveniently driven from the top of the brakewheel. In smock or tower mills, a friction drive from the wallower or other convenient point on the upright shaft, was normally employed.

In watermills the upright shaft was commonly extended through the stone floor, or even up to the bin floor, and fitted with a *crown wheel* towards the upper end. The sack hoist was frequently operated directly from the crown wheel, but in later mills, the use of long iron shafts running the length of the mill allowed the sack hoist and other *ancillary equipment*, such as cleaners, smutters, dressing machines etc., to be driven from pulleys. The sack hoist could be operated from the ground or spout floor by means of a tensioned rope to engage the friction drive. The sacks were drawn up through the sack traps on each successive floor, until the miller released the rope. An assistant was required to unchain each sack to avoid the miller having to walk upstairs each time.

The movement of grain and flour around mills, particularly water and steam mills, was improved by the introduction of *elevators* and *rotating augers or creepers*. This is usually attributed to an American engineer Oliver Evans who published a standard reference text, "*The Young Millwright & Miller's Guide*", in 1795. Elevators employed plated cups attached to an endless leather belt to lift grain between floors within enclosed chutes. These were widely employed in Tasmanian mills during the nineteenth century. Rotating augers utilised the medieval "archimedean screw" principal to transport meal or grain between the various stages of cleaning, grinding and dressing. Elevators and creepers were widely adopted in Tasmanian mills from the late 1850s but are now poorly represented in remaining mills as most of the steam mills erected post-1840 have been gutted for conversion purposes. Fragments are largely confined to the more complete watermills listed in Table 1 of Chapter 13, that were up-graded during the latter part of the nineteenth century.

BIBLIOGRAPHY

General texts

- Abbott, G.J. & Naim, N.B., *Economic Growth of Australia 1788-1921*, Melbourne, 1969.
- Alexander, Alison, *Glenorchy 1804-1964*, Glenorchy, 1986.
- Andel, Lucille V., *Clerk of the House: the reminiscences of Hugh Munro Hull*, 1984.
- Angus, Max, *Simpkinson de Wesselow: Landscape Painter in Van Diemen's Land*, Sandy Bay, 1984.
- Ashwood, John et al, *St Mary's! Where's That: A Brief History of the Area*, St Mary's, [1991?].
- Austral Archaeology, *Conservation Plan: Ritchies Mill Historic Site*, DELM, Dec 1997.
- Austral Archaeology, *Supply River Flour Mill: Site Inventory & Archaeological Recording Project*, Hobart, 1998.
- Australian Academy of Technological Sciences and Engineering, *Technology in Australia 1788-1988*, Melbourne, 1988.
- "*Back to Sorell' Celebrations*", (souvenir programme), March 1960.
- Barker, A.O., *Penguin Pioneering Days*, 1956.
- Bennett, Scott & Bennett, Barbara, *Biographical Register of the Tasmanian Parliament 1851-1960*, Canberra, 1980.
- Bennett, R., & Elton, J., *History of Corn Milling Vol.1 - Handstones, Slave & Cattle Mills*, London, 1899, reprinted Wakefield, Yorkshire, 1973.
- Bethell, L.S., *The Story of Port Dalrymple*, Hobart, n.d.
- Bethell, L.S., *The Valley of the Derwent*, Hobart, n.d.
- Bigge, *Report of the Commission of Inquiry on the State of Agriculture and Trade in the Colony of New South Wales*, 1823 (the Bigge Report).
- Birmingham, Judy et al, *Industrial Archaeology in Australia: Rural Industry*, Victoria, 1983.
- Bischoff, James, *Sketch of the History of Van Diemen's Land*, London, 1832.
- Bolt, Frank, *Old Hobart Town Today*, Kingston, 1981.
- Bolt & Lennox, *Highfield Papers*, Department of the Environment and Land Management, 1990.
- Bowring, Emily, *Sketches in Early Tasmania and Victoria*, ed. by K.R. von Stieglitz, Hobart, 1965.
- Brammall, Eileen (ed), *The Shoobridges in Australia: A History*, 1985.
- Brand, Ian, *The Brand Papers*, held at Port Arthur Historic Site.
- Brand, Ian, *Penal Peninsula: Port Arthur and its Outstations, 1827-1898*, West Moonah, 1978.
- Brand, Ian (ed), "Letterbook of Alexander Clark", held at Port Arthur Historic Site. The original letterbook is held at the University of Tasmania.
- Brand, Ian, *The Port Arthur Coal Mines 1833-1877*, Launceston, n.d.
- Briscoe, Jeffrey R., "A Sense of Duty: The Clerkes: An Anglo-Irish Family in Colonial Tasmania", unpublished University of Tasmania thesis, 1996.
- Broughton, Lindsay, Burrows, George & Lada, Elizabeth, *A Place for Art: A Century of Art, Craft, Design and Industrial Arts Education in Hobart*, Hobart, 1988.

- Brown, P.L., *Clyde Company Papers*, London, 1941.
- Brown, P.L. (ed), *The Narrative of George Russell of Golf Hill with Russellania and Selected Papers*, London, 1935.
- Brown, Tony, & Kolenberg, Hendrik, *Skinner Prout in Australia 1840-48*, TMAG catalogue, Hobart, 1986.
- Burn, David, *A Picture of Van Diemen's Land*, Hobart, 1973, first published in the *Colonial Magazine* 1840-41.
- Button, Henry, *Flotsam and Jetsam*, originally published 1909, facsimile edition Launceston, 1993.
- Button, John, "The Rise and Fall of the Hobart Town Rivulet: an historic preservation study", unpublished thesis, Department of Environmental Design, TCAE, Hobart, 1978.
- Callington Mill Historic Site Oatlands: Conservation Management Plan*, 1993.
- Campbell, Colin McDowall, *"The Colonial Campbells": A Family History*, Bothwell, 1987.
- Cassidy, Jill, *Dairy Heritage of Northern Tasmania: A Survey of the Butter and Cheese Industry*, QVMAG, Launceston, 1995.
- Chamberlain, Brian R., *The Launceston & Western Railway Co Ltd 1867-1904*, Launceston, n.d.
- Chapman, Peter (ed), *The Diaries and Letters of G.T.W.B. Boyes*, Vol I, 1820-32, Melbourne, 1985.
- Chick, Neil (ed), *Van Diemens Land Heritage*, Genealogical Society of Tasmania Inc, November 1988.
- Clark, D.F., *Woodside Descendants: A Sesqui-Centenary*, Burleigh Heads, 1991.
- Clive Lucas, Stapleton and Partners Pty Ltd, *Hagley Mill, Hagley, Tasmania: Assessment of Architectural Significance*, Department of Roads and Transport, April 1993.
- Cobcroft, M.D., *Brought to this Distress: The Life of Captain Arnold Fiske, A Colonial Loser*, Ipswich, 1987.
- Collins, David, *An Account of the English Colony in New South Wales*, reprinted Sydney, 1975.
- Cotton, Francis, *Kettle on the Hob: A Family in Van Diemen's Land 1828-1885*, Orford, 1986.
- Craig, Clifford, *The Engravers of Van Diemen's Land*, published by the Tasmanian Historical Research Association, 1961.
- Craig, Clifford, *More Old Tasmanian Prints*, Launceston, 1984.
- Craig, Clifford, *Old Tasmanian Prints*, Hobart, 1964.
- Crawford, the Hon Mr Justice, Ellis, W.F. & Stancombe, G.H. (eds), *The Diaries of John Helder Wedge 1824-1835*, [Hobart], 1962.
- Cree, Nicholas, *Oyster Cove*, Latrobe, 1979.
- Cree, Nicholas, *Sir William Crowther: Collector of Tasmaniana*, 1987.
- Dallas, K.M., "Water Power in Tasmanian History", paper read to the Institution of Engineers, Australia (Tasmanian Division), 1960.
- Davenport, Bill & Amos, Ruth, *Glamorgan Tasmania: The Oldest Rural Municipality in Australia*, Glamorgan Municipal Council, 1988.
- Davis, Elizabeth, *Flour Milling in South Australia: A History*, Adelaide, 1988.
- Devonport Historical Society Inc, *Devonport 1890*, Devonport, n.d.
- Donnelly, A.J., "Early Tasmanian Flour Milling Industry", undated manuscript, QVMAG.

- Dougharty, Kate Hamilton, *A Story of a Pioneering Family in Van Diemen's Land*, Launceston, 1953.
- Dow, Gwyneth M., *Samuel Terry, the Botany Bay Rothschild*, Sydney, 1974.
- Downward, Richard, *The Case of Mr Richard Downward, of Pittwater, in Van Diemen's Land*, Hobart Town, 1846.
- Duck, Sandra (compiler). *Crocker Chronicles 1670-1999*, Launceston, 1999.
- Dumont d'Urville, Jules S.C., *Two Voyages to the South Seas*, ed by Helen Rosenman, Melbourne, 1987.
- Duncombe, Geoff, *History of Campbell Town*, Launceston, n.d. (1996).
- Dyer, Alan F., *God was their Rock*, Sheffield, 1974.
- Easteal, B.V., "The Chinese in Tasmania 1870-1900", unpublished Honours thesis, University of Tasmania, 1966.
- Easteal, B.V., "Farming in Tasmania 1840-1914", unpublished Masters thesis, University of Tasmania, July 1971.
- Ellis, Bruce, *Ulverstone: An Outline of its History, Latrobe?*, 1988.
- Evans, George William, *A Geographical, Historical, and Topographical Description of Van Diemen's Land*, first published 1822, facsimile reprint London, 1967.
- Evans, Kathryn, *Hop Industry Historical Research Project*, 1993.
- Farrer, K.T.H., *A Settlement Amply Supplied: Food Technology in Nineteenth Century Australia*, Melbourne, 1980.
- Farrer, K.T.H., "Historical Perspectives of Food in Tasmania" in *Food Technology in Australia*, Vol 24, No.3, March 1972, pp116-131 (reprinted).
- Fenton, James, *Bush Life in Tasmania, 1891*, facsimile edition Launceston.
- Flower, Cedric, *The Antipodes Observed: Prints & Print Makers of Australia 1788-1850*, Melbourne, 1975.
- Gardam, Julie, *Brown's River: A History of Kingston and Blackmans Bay*, Kingston, 1988.
- Godden & McKay Pty Ltd, *Highfield, Stanley Precinct Study*, June 1992, revised Nov 1992.
- Gray, F. J., *Old Pontville: A Seamless Web*, Cambridge, (1995?).
- Gray, F. Oliver, *Further Recollections of North Bruny Island*, Blackman's Bay, n.d.
- Griffiths, Tom (ed), *The Life and Adventures of Edward Snell*, 1988.
- Haberle, Mary, *Mountain Reflections*, Don, 1993.
- Hackforth-Jones, Jocelyn, *The Convict Artists*, Melbourne, 1977.
- Hammond, David & Rushton Ness, Anne, *Franklin: Settlement in the Huon*, Hobart, 1987.
- Harris, Simon, *A Magnificent Failure: Governor Arthur's Water Supply Scheme for Launceston from the South Esk at Evandale: 1835-7*, Hobart, 1988.
- Harris, Simon, *Callington Mill Research Project Stage 1*, National Trust, May 1987.
- Harrison, Lindsey, *Flour Mills in South Australia*, Working Paper 3, Department of Architecture, University of Adelaide, June 1979.
- Harvey, Ailsa, "The Stonehouses of Stratford: The Story of John Stonehouse, an Early Tasmanian Free Settler, and his Family," December 1980, unpublished ms. in the possession of Carol and John Hubbard.
- Hills, Richard L., *Power from Wind: A History of Windmill Technology*, Cambridge University Press, pp.11-24.
- Historic Tasmania Sketchbook*, Hobart, 1977.
- Historical Committee of the National Trust of Australia (Tas), *Campbell Town Tasmania: History and Centenary of Municipal Government*, Campbell Town, 1966.

- Hookway, Eileen, et.al. (eds), *Scott's New Country*, 1980.
- Hooper, Beverley J., "Peter Degraives: Pioneer Tasmanian Industrialist (1821-1852)", unpublished BA (Hons) thesis, University of Tasmania, 1969.
- Huon and Derwent Times*, "Huon Centenary Settlement", December, 1936.
- Housego, Fiona, *Jerusalem to Colebrook: with its People, Places and Sentiments*, 1987.
- Hudspeth, A., & Scripps, L., *Battery Point Historical Research*, National Estate Grants program, 1990.
- Hudspeth, A., & Scripps, L., *Sullivans Cove Historical Research: Hunter St*, 1988.
- Jetson, Tim, *Bass Highway-Hagley Bypass. Hagley Mill: Historical Study*, Department of Roads and Transport, February 1993.
- Johannes, Christa E. & Brown, Anthony V., *W.C. Piquenit*, TMAG catalogue, Hobart, 1993.
- Jones, Elizabeth, *Richmond - Tasmania: A Crossing Place*, Richmond, 1973.
- Jones, Lewis and Peggy, *The Flour Mills of Victoria 1840-1990: An Historical Record*, The Flour Millers' Council of Victoria, 1990.
- Kennedy-Tyson, Keith, "Supply River Mills Site", 1997.
- Kolenberg, Hendrik & Julianna, *Tasmanian Vision: The art of nineteenth century Tasmania*, TMAG, 1988.
- Kostoglou, Parry, *Historic timber-getting between Glendevie and Franklin*, report to Forestry Tasmania, 1995.
- Kroehnert, Rhonda & Taber, Betty, Lucas Family History Committee, *Nathaniel & Olivia: The Lucas Family*, 1987.
- Launceston City & Suburbs Improvement Association, *Picturesque Tasmania*, printed by Henry Button, n.d. (after 19.12.1893)
- Lester, Suzanne, *Spring Bay Tasmania: A Social History*, Hobart, 1994.
- Linge, G.J.R., *Industrial Awakening: A Geography of Australian Manufacturing 1788-1890*, Canberra, 1979.
- Lord, Richard, *Inscriptions in Stone: Street David's burial ground, 1804-1872*, Battery Point, 1976.
- McConnell, Anne, & Servant, Nathalie, *The History and Heritage of the Tasmanian Apple Industry: A Profile*, Queen Victoria Museum & Art Gallery, 2000.
- Macfie, Peter, "Progress Report on Mills in Van Diemen's Land", report for the National Estate and for Committee of Engineering Heritage, The Institution of Engineers, Australia (Tasmanian Division), Sept-Oct 1981.
- Macfie, Peter, *The Miller's Cottage (Milton Cottage 1837) and Tower Windmill, Richmond (1831-2)*, report for the National Estate Tas, Hobart, 1986.
- Macfie, Morris-Nunn and Dudley, *The Pontville Historic Environment Study*, Parts I & II, A National Estate Project for the Brighton Council, 1995.
- Major, J. Kenneth, *Animal Powered Machines*, Shire Album No.128, 1985.
- McKay, Anne (ed), *Journals of the Land Commissioners for Van Diemen's Land*, Hobart, 1962.
- McLaren, Alex, "Alexander Clark (1809-1894): Colonial Engineer", in Winter, Gillian (ed), *Tasmanian Insights: Essays in Honour of Geoffrey Thomas Stilwell*, Hobart, 1992.
- McLeod, T.R., *A History of Green Ponds*, Hobart, 1962.
- McManus, Tim, *Thanks to Providence*, Falmouth, 1993.
- Masters, David, *St Paul's Plains Avoca 1834-1984: A History of the Avoca District*, Avoca, 1984.

- Melville, Henry, *The History of Van Diemen's Land: From the Year 1824 to 1835 inclusive. During the Administration of Lieutenant-Governor George Arthur*, edited by George Mackaness, Sydney, 1965.
- Meredith, Louisa Anne, *Over the Straits: A visit to Victoria*, London, 1861.
- Monds, T.W., *Autobiography of Thomas Wilkes Monds*, Launceston, 1907 (typescript in QVMAG).
- Morgan, Sharon, *Land Settlement in Early Tasmania*, Cambridge, 1992.
- Morris-Nunn, Miranda, and Tassell, C.B., *Launceston's Industrial Heritage*, Launceston, 1982.
- Murphy, H.T., "Callington Mill, Oatlands - Its History and Restoration", in Mills file, The Institution of Engineers, Australia (Tasmanian Division), Hobart.
- National Trust of Australia (Tasmania) Latrobe Group, *Prints from the Past: Latrobe Photographic Collection*, Latrobe, 1981.
- Newitt, Lyn, *Convicts and Carriageways*, [Hobart, 1988].
- Nicholls, Mary (ed), *The Diary of the Reverend Robert Knopwood 1803-1838, First Chaplain of Van Diemen's Land*, Hobart, 1977.
- Nicholls, Mary (ed), *Traveller under concern: the Quaker Journals of Frederick Mackie on tour 1852-1855*, Hobart, 1973.
- Nicholson, N.A. & Finlay, G.A. (compilers), *Centenary History of the Midland Agricultural Association 1838-1938*, Launceston 1938.
- Norman, L., *Haunts of the Blue Whale*, Hobart, 1978.
- Norman, L., *Pioneer Shipping of Tasmania*, Hobart, 1938.
- Norman, L., *Sea Wolves and Bandits*, Hobart, 1946.
- Nyman, Lois, *The East Coasters*, Launceston, 1990.
- O'May, D. G., *Song of Steam*, Tas, 1976.
- Parsons, Ronald (compiler), *Australian Shipowners and their Fleets*, Lobethal, 1992, Book 11.
- Pearce, Kim, "Mills and Milling in Southern Tasmania (19th Century)", 1985, in Mills file, The Institution of Engineers, Australia (Tasmanian Division), Hobart.
- Pearson, Warwick, "Water Power in a Dry Continent: The Transfer of Watermill Technology from Britain to Australia in the Nineteenth Century", unpublished Ph D thesis, Department of Archaeology and Palaeoanthropology, University of New England, June, 1995.
- Pinch, Merle E. *De Stanfield - Standfield - Stanfield 1788-1991*, 1992.
- Plomley, N.G.P., *Friendly Mission: the Tasmanian journals and papers of George Augustus Robinson, 1829-1834*, Hobart, 1966.
- Public History Partners, *Hamilton: The Way to the West: A History of the Hamilton District*, 1991.
- Rait, Basil, *Story of Hamilton*, 1974.
- Ramsay, Charles, *With the Pioneers*, Hobart, n.d.
- Ratcliff, Dr Eric & Jellyman, John R., *A Brief History of Ritchie's Mill*, Ritchie's Mill Art Centre, undated (c.1978?).
- Rayner, Tony, *The Hobart Rivulet Historical Study*, Hobart City Council, July, 1988.
- R.C.K., *Ross Centenary: Glimpses of its History*, Hobart, 1921.
- Reid, O.W., *Excursion to the Huon 11 October 1980*, THRA.
- Rimmer, W.G., "The Economic Growth of Van Diemen's Land 1803-1821", in Abbott, G.J. & Nairn, N.B., *Economic Growth of Australia 1788-1821*, Melbourne, 1969.

- Robertson, Braham (Bruce) William, "A Brief History of the Robertson Family in Tasmania from 1832", Midway Point, [1998].
- Robertson, E. Graeme, *Early Buildings of Southern Tasmania*, Vols I & II, Melbourne, 1964.
- Robertson, E. Graeme, & Craig, Edith N., *Early Houses of Northern Tasmania*, Vols I & II, Melbourne, 1964.
- Robson, Lloyd, *A History of Tasmania*, Vols I & II, Melbourne, 1983.
- Rockcliff, Norman C., *The Rockcliff Saga*, Ulverstone, 1974.
- "Royal Commission on the Wheat, Flour & Bread Industry" in *Papers & Proceedings of the Commonwealth of Australia*, Session 1932-33-34, Vol IV, & Session 1934-35-36-37, Vol IV.
- Rowlands, W.J., *Richmond's 100 Years of Municipal Government*, 1961.
- Rowntree, Amy, *Battery Point Today and Yesterday*, published by the Adult Education Board of Tasmania, 1968.
- Sassafras School Parents and Friends Association, *Sassafras: A History of its Settlement and People*, Latrobe, 1988.
- Savery, Henry, *The Hermit in Van Diemen's Land*, ed. Hadgraft, Cecil & Roe, M., St Lucia, 1964.
- Schaffer, Irene, *Bothwell Excursion 20th October 1991*.
- Schaffer, Irene, *Bridges and early buildings Hobart to Broadmarsh: excursion 1st November 1992*.
- Schaffer, Irene, *Excursion: Rokeby, Cambridge, Sandford, New Town*, 1995.
- Schaffer, Irene, *Pontville, Kempton, Jericho, Colebrook, Richmond: Excursion 28 March 1993*, New Town, 1993.
- Schaffer, Irene, *Sorell Excursion*, March 1991.
- Scott, E.G., *A Short History of the Early Days of the Village and District with Notes on the Pioneer Families*, Launceston, 1994? [On Hagley]
- Scripps, Lindy, *The Fingal Valley: Historical Study*, 1997.
- Scripps, Lindy, *The Industrial Heritage of Hobart: 1. Historical Study*, (draft), Hobart City Council, 1995.
- Scripps, Lindy, *The New Town Rivulet Historical Study*, Hobart City Council, July 1993.
- Sharland, Michael, "Mill Hunting in Tasmania", *Walkabout*, September, 1964.
- Sharland, Michael, *Oddity and Elegance*, Hobart, 1966.
- Shelton, D.C. (ed), *The Parramore Letters*, Epping NSW, 1993.
- Sprod, Dan, *Victorian and Edwardian Hobart from Old Photos*, St Ives, NSW, 1977.
- Stancombe, G. Hawley, *Highway in Van Diemen's Land*, Western Junction, 1974.
- Stephens, Geoffrey, *Knopwood: A Biography*, Hobart, 1990.
- Stephenson EMF Consultants, *Bass Highway Westbury-Hagley: Hagley Mill Planning Study: Options Report*, June 1995.
- Stevenson, B., *Water under the Bridge: A Story of Carrick*, Carrick, 1995.
- Stokes, H.J.W., "North-West Tasmania 1858-1910: The Establishment of an Agricultural Community", unpublished thesis for ANU, March 1969.
- Stone, Carolyn R. & Tyson, Pamela, *Old Hobart Town & Environs 1802-1855*, Lilydale, 1978.
- Terry, Ian, "Bagdad Valley Planning Study Historic Report," A Report for the Department of Infrastructure, Energy and Resources, November 1998.
- The Cyclopedia of Tasmania*, Maitland and Krone, Hobart, 1900.

The Heritage of Australia: The Illustrated Heritage of the National Estate, Melbourne, 1981.

The History of Kingston, (no pub.details).

Thomas, B.W., *The Appledore Papers: The Farming Journals, Papers & Letters of Bartholomew (Bat) William Thomas 1845-1894*, a transcription by the Devon Historical Society, Devonport, 1988, Vols 1, 2 & 3.

Thomas, Harold, *Sam Thomas and his Neighbours*, Latrobe 1975.

Tipping, Marjorie, *Convicts Unbound: The Story of the Calcutta Convicts and their Settlement in Australia*, Ringwood, 1988.

Trethewie, H., *Back to Circular Head*, Circular Head, 1952.

Turner, H.G. (compiler), *Turner's Beach 1839-1963* (no other details).

University of Tasmania Department of History, *Reports on the Historical Manuscripts of Tasmania*, Numbers 1 - 5, Revised edition, 1964.

Van Diemen's Land Interest Group, *Hobart Excursion* 1992, 26th July 1992.

Van Diemen's Land Norfolk Island Interest Group, *Hamilton Excursion*, Sunday 28th July 1991, New Town.

Vernon, F.A. & Sprod, M.N., *The Whitehead Letters: Tasmanian Society and Politics 1872-1882*, Tasmanian Historical Research Association, 1991.

Von Stieglitz, K.R., *A Short History of Cressy and Bishopsbourne: With Some Notes on the Lake River Pioneers*. Evandale, 1947.

Von Stieglitz, K.R., *A Short History of Latrobe, Port Sorell and Sassafras with some notes on the Pioneers*, Evandale, 1947.

Von Stieglitz, K.R., *A History of New Norfolk and the Derwent Valley*, Evandale, 1961.

Von Stieglitz, K.R., *A Short History of Ross: With Some Tales of the Pioneers*, Evandale, 1949.

Von Stieglitz, K.R., *A Short History of St Leonards*, Centenary Edition, 1966.

Von Stieglitz, Karl, *Centenary of Christ Church, Cullenswood, with notes on some of the South Esk pioneers*, Andorra, 1948.

Von Stieglitz, K.R. (ed), *Early Van Diemen's Land 1835-1860: Sketches by Emma von Stieglitz*, 1963, Hobart.

Von Stieglitz, K.R., *Longford Past and Present: With Notes on Perth Pateena and Illawarra*, 1947.

Wapping History Group, The, *'Down Wapping': Hobart's vanished Wapping and Old Wharf districts*, Hobart, 1994.

Weeding, *A History of Tunbridge and Woodbury*, 1978.

Whishaw, Mary Kinloch, *History of Richmond and Recollections from 1898-1920*, published by the National Trust, n.d.

Whishaw, Mary Kinloch, *Tasmanian Village: A Story of Carrick*, 1963.

Wood, Trish, & Snell, Rick (ed), *The Convict and the Carpenter: The History of Mary Springham and William Hambly and their Descendants*, North Hobart, 1990.

Wright, Reg, *The Youngs of Rokeby and their friends*, 1992.

Selected technical texts

Agricola, G., *De Re Metallica*, 1556 Translated H. C. & L.H. Hooper, Dover Publications, 1950.

Atkinson, F, *The Horse as a Source of Rotary Power*, Trans of the Newcomen Society, Vol 33, pp 31- 55, 1960.

- Bennett, R., & Elton, J., *History of Cornmilling: Vol 2 Watermills and Windmills*, 1899, Reprinted 1973, EP Publishing Ltd.
- Buchanan, R., *Practical Essays on Mill Work and other Machinery*, 3rd Ed, John Weale, 1841.
- Buckland, S., *Lee's Patent Windmill 1744-1747*, SPAB Wind & Watermill Section, 1987.
- Cossons, N., (Ed), *Rees's Manufacturing Industry (1819-20)*, Reprint David & Charles, Vol 3 & 6, 1979.
- Crowley, T. E., *Beam Engines*, Shire Publications, 1976.
- Dickinson, H.W. & Jenkins, R., *James Watt and the Steam Engine*, 1920? Reprint Moorland Publishing, 1981.
- Evans, O., *The Young Millwright and Miller's Guide*, 1795, Reprint of 13th Ed 1850, Ayer Co, 1989.
- Freese, S., *Windmills and Millwrighting*, David & Charles, 1971.
- Fairbairn, W., *Treatise on Mills and Millwork*, 2nd Ed, Part I & II, Longmans, Green & Co, 1865.
- Gray, A., *The Experienced Millwright*, 2nd Ed, Archibald, Constable & Co., 1804.
- Hayes, G., *Stationary Steam Engines*, Shire Publications, 1979.
- Hills, R.L., *Power from Wind: A History of Windmill Technology*, Cambridge University Press, 1994.
- Kick, *Flour Manufacture: A Treatise on Milling Science & Practice*, Translation of 2nd Ed by H. H. P. Powles., 189?
- Major, J K., *Animal Powered Machines*, 1985 Shire Publications.
- Major, J K., *The Horse Engine in the nineteenth Century*, Trans of the Newcomen Society, Vol 60, pp 31 - 48, 1988.
- Reynolds, J, *Windmills and Watermills*, Hugh Evelyn, London, 1970.
- Reynolds, T.S., *The Emergence of the Breast Wheel & Its Adoption in the United States*, In *The World of the Industrial Revolution: Comparative & International Aspects of Industrialization*, Ed P. Weible, Museum of American Textile History, 1986.
- Reynolds, T.S., *Stronger than a Hundred Men, A History of the Vertical Water Wheel*, John Hopkins University Press, 1988.
- Shearman, L. R., *Portable Steam Engines*, Shire Publications, 1986.
- Smeaton, J., *An Experimental Enquiry Concerning the Natural Powers of Water and Wind to turn Mills and other Machines depending on Circular Motion*, Royal Society of London, Philosophical Transactions, Vol. 51 pp 100-74, 1759.
- Smith, L., *Flour Milling Technology*, 3rd Ed, Northern Publishing Co., 1944.
- Smith, N.A.F., *The Origins of the Water Turbine and the Invention of its Name*, History of Technology, Vol 41 pp 215-59, 1977.
- Syson L., *The Watermills of Britain*, David & Charles, 1980.
- Watkins, G., *The Stationary Steam Engine*, David & Charles, 1968.
- Wales, R., *The English Windmill*, Routledge & Kegan Paul, 1954
- Ward, O., *French Millstones: Notes on the Millstone Industry at La Ferte-sous-Jouarre*, Bibliotheca Molinologica Vol 11, The International Molinological Society, 1993.
- Watts, M., *Corn Milling*, 1983, Shire Publications.
- Wilson, P. N., *The Waterwheels of John Smeaton*, Trans of the Newcomen Society, Vol 30, pp 25-47, 1955.