

CHAFF-MILLS IN MELBOURNE'S WEST
AN INDUSTRIAL SITES STUDY

FEBRUARY 1987



Researched and Compiled by
Gary Vines
for Melbourne's Living Museum
of the West Incorporated

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Funded by the Ministry for Conservation Forests and Lands

Cover photograph: Workers at Schutt and Barrie's
chaffmill, West Footscray, about 1915.
(courtesy Mrs. G. Walters.)

ACKNOWLEDGEMENTS

This history of chaff-milling is the product of the farmers, workers and others who have passed on their knowledge to me so that I could put it together. All of these people must be thanked for sharing their memories, knowledge and experience. Roy Davis and C. W. Nash of Werribee, Leo and Val Tarleton and Pam and Bernie Trethowan of Melton, Ron Robinson of Truganina, Jack Findlater and Mathew Matich of Footscray, as well as all of those listed in the sources at the end of this paper.

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Gary Vines, 17.3.87

CONTENTS		page
ACKNOWLEDGEMENTS		ii
LIST OF ILLUSTRATIONS		iv
GLOSSARY OF TERMS		vi
1. INTRODUCTION, BACKGROUND TO THE STUDY		1
2. OUTLINE OF CHAFF-MILLING		3
2.1 What is Chaff and why is it used?		3
2.2 Description of the processes involved		4
2.3 Context of chaff production.		13
2.4 Locational factors.		15
3. NARRATIVE HISTORICAL DESCRIPTION OF CHAFF-MILLING IN THE WEST		18
3.1 Chart of mills		19
3.2 Early period in Melbourne city		20
3.3 Chaff-milling in the West: 1870s to 1980s		21
3.3.1 Formation	1870s to 1900s	21
3.3.2 Peak	1900s to 1940s	22
3.3.3 Decline	1940s to 1960s	23
3.3.4 New Structure	1960s to 1980s	24
4. INDIVIDUAL CHAFF-MILL HISTORIES		27
5. ARCHAEOLOGY		48
6. SUGGESTIONS FOR FURTHER RESEARCH		52
APPENDIX A	Plans of Chaff-mills with sidings.	54
APPENDIX B	List of chaff-millers in Victoria from 1880.	65
APPENDIX C	Letter from C.W. Nash	67
APPENDIX D	Albert Evans, 'Working at Trethowan's chaff-mill, Melton 1933-4.'	68
APPENDIX E	Letter from Dorothea Whitford	69
NOTES AND REFERENCES		72
SOURCES		79

LIST OF ILLUSTRATIONS	Page
Pitching hay at Trethowans chaff-mill, Melton.	4
Leo Tarleton hay-making in the Rockbank area.	5
Drays outside Schutt and Barrie's chaff-mill, Footscray.	6
Flow chart of machinery at Trethowan's chaff-mill, Melton.	7
Steam boiler at Trethowan's chaff-mill, Melton, 1987.	8
Cliff and Bunting chaff-cutter at Trethowan's chaff-mill, Melton, 1987.	9
Chaff elevator to riddles at Trethowan's chaff-mill, Melton, 1987.	10
Baggers at Trethowan's chaff-mill, Melton, 1987.	11
Under-floor drive-shaft, belts and pulleys at Trethowan's chaff-mill, Melton, 1987.	12
The workplace of the chaff-mill hand at Trethowan's chaff-mill, Melton, 1987.	13
Site of Diggers Rest chaff-mill showing proximity to the Bendigo railway line, 1987.	16
Locations of known chaff-mills in Melbourne's Western Region, 1870s to 1980s.	17
Chart of chaff-mills in Melbourne's West 1870s to 1980s.	19
An example of Cliff and Bunting's stationary chaff-cutting machine, at Trethowan's chaff-mill, Melton, 1987.	21
Advertisement for Ward and McKenzie, Nth. Melb. and Melton, 1973.	25
Advertisement for Trethowans chaff-mill, Melton, 1973.	26
Schutt and Barrie's Weighbridge, opposite the site of their chaff-mill, West Footscray, 1987.	30
Diggers Rest chaff-mill about 1920.	31

Pearce's 1886 chaff-mill, Bacchus Marsh.	34
Barrie's, later Ward's chaff-mill, Melton, early this century.	36
Railway turnout to site of Rockbank chaff-mill.	38
Trethowan's Chaff-mill, Melton, 1987.	42
Site of Sydenham chaff-mill, 1987. Now occupied by a garden nursery, note the siding in the foreground.	43
Barrie's Travelling chaff-cutter	46
Travelling chaff-cutting team near Toolern Vale.	47
Impressions of sleepers from the siding near Ward's chaff-mill, Melton, 1987.	49
Pearce's chaff-mill, Maddingley, 1987.	50

LIST OF ILLUSTRATIONS	Page
Pitching hay at Trethowans chaff-mill, Melton.	4
Leo Tarleton hay-making in the Rockbank area.	5
Drays outside Schutt and Barrie's chaff-mill, Footscray.	6
Flow chart of machinery at Trethowan's chaff-mill, Melton.	7
Steam boiler at Trethowan's chaff-mill, Melton, 1987.	8
Cliff and Bunting chaff-cutter at Trethowan's chaff-mill, Melton, 1987.	9
Chaff elevator to riddles at Trethowan's chaff-mill, Melton, 1987.	10
Baggers at Trethowan's chaff-mill, Melton, 1987.	11
Under-floor drive-shaft, belts and pulleys at Trethowan's chaff-mill, Melton, 1987.	12
The workplace of the chaff-mill hand at Trethowan's chaff-mill, Melton, 1987.	13
Site of Diggers Rest chaff-mill showing proximity to the Bendigo railway line, 1987.	16
Locations of known chaff-mills in Melbourne's Western Region, 1870s to 1980s.	17
Chart of chaff-mills in Melbourne's West 1870s to 1980s.	19
An example of Cliff and Bunting's stationary chaff-cutting machine, at Trethowan's chaff-mill, Melton, 1987.	21
Advertisement for Ward and McKenzie, Nth. Melb. and Melton, 1973.	25
Advertisement for Trethowans chaff-mill, Melton, 1973.	26
Schutt and Barrie's Weighbridge, opposite the site of their chaff-mill, West Footscray, 1987.	30
Diggers Rest chaff-mill about 1920.	31

GLOSSARY OF TERMS

bags	-string used to tie sheaves of hay
baggies	-the men who work on the baggers and sew bags.
baggers	-machines for filling bags with chaff.
base	-fixed blade against which chaff knives cut
bins	-or hoppers, used for storing cut chaff before mixing or bagging
cavers	-shredded pieces of straw which are returned to the cutter
chaff	-any chopped dried fodder crop
creepers	-or rollers, part of chaff-cutter which guides straw into knives
dray	-four wheel horse-drawn waggon
elevators	-chutes with cleated belts or spiral screws used to raise hay or chaff
face	-part of chaff-cutter up to which chaff is fed
fallow	-method of resting field by ploughing but not cropping for one or more seasons
feeder	-person who feeds the hay into the chaff-cutter
fodder	-any crop grown and processed for animal feed
hay	-dried crop which retains its seed
hydraulic	
hay	-describes a manufacturing process, not a type of hay
knife	-cutting blade of chaff-cutter
lucern	-clover-like plant used for fodder
riddles	-machine for separating good chaff from dust and cavers
sample	-a sample of chaff for testing quality, also a good even quality
sheaf	-bundle of hay tied in the middle
siding	-section of rail track connecting mill to main railway line
stack	-specially built pile of hay, thatched to keep the moisture out
stook	-number of sheaves stood together in field to dry
straw	-dried crop with seed removed
turnout	-part of rail track with points leading off to siding

1. INTRODUCTION, BACKGROUND TO THE STUDY

This study of chaff-mills in Melbourne's West results from a special project grant made by the Victorian Ministry for Conservation, Forests and Lands to Melbourne's Living Museum of the West. The grant was part of a Government program designed to assist groups which cover a broad range of nature, conservation and cultural heritage interests.

In this project we undertook to look at chaff-mill sites and bluestone quarries in Melbourne's West. Both are part of the cultural heritage of the region but also relate to the local environment and the special characteristics of the land and the climate on this side of Melbourne. The Museum had already been involved in studies of historic industrial sites such as the old Angliss meatworks site at Footscray and the Massey Ferguson site, once the Sunshine Harvester Works, at Sunshine. The quarries project will result in a separate report.

Our Museum was introduced to chaff-mills by members of the Melton and District Historical Society. A summary prepared by Leo Tarleton was of immense value in providing an overview of chaff-mills in the Melton district and the links between them. A visit to Trethowan's chaff-mill enabled us to look over the last operating chaff-mill and a tour of the district introduced us to the local farms.

As part of the Living Museum of the West's philosophy of involving the local community in the process of history recording, contacts were made with many individuals through leaflets distributed at festivals and the Museum's own travelling displays, and an article published by the Western Times. The response from this has been wonderful and more information and offers of information were received than could be incorporated in the study in the short time available. Several new contacts were provided by each of the people who contacted the Museum.

We have been fortunate to have Gary Vines as the researcher for this study. Gary is a local resident who is also an industrial archaeologist. His expertise in archaeology and his enthusiasm and commitment to the study have enabled him to locate and piece together fragments of the story that were previously missing.

The Study aims to collect and correlate data from oral, documentary and archaeological sources in order to assess the historical significance of the industry and describe the development of the specific sites and processes connected with the chaff-mill industry. This has been done within the general theme of the relationship between rural and urban industry in Melbourne before the rise of the car.

The study takes the form of a brief outline of the chaff-milling industry, its importance in 19th and early 20th century economics, and general historical trends, followed by detailed

outlines of selected chaff-mills and chaff-milling companies. Other sections are included on the present day remains of chaff-mill sites in the region and suggestions for further research.

A record of the people and places associated with the industry has been compiled through documentary research, oral history recording with ex-workers, farmers and others involved with the mills, photography of present sites and copying of old photographs.

The material gathered in the study- photographs, audio tapes, plans, documents, is being catalogued and will be available in the Museum's Resource Centre. Local people and others may wish to take the study further.

Melbourne's Western Region has a large number of industrial sites of major significance. The chaff-mill sites are the first sites to be listed in a Regional Sites Register being developed by Melbourne's Living Museum of the West. Hopefully, this study will encourage and assist further documentation and research on our heritage and our environment.

Olwen Ford
Museum Director

2. OUTLINE OF CHAFF-MILLING

2.1 What is chaff and why is it used?

Before the Second World War, chaff was the main fuel of transport in the city and country, powering horse-drawn buses, delivery vans, and farm implements.

Chaff was one of the main feeds for working horses for several reasons associated with the economics of feeding and production. Along with oats, maize, barley and wheat it provided a nutritious feed in a short time. Very necessary for a working horse. As a working horse might be required to work most of the day and take its meals in the same period as the farmer or teamster, a short nutritious feed was essential. Oats and other grain provided the nutritious component of the food while straw, grass or 'Cockey' chaff (chaff without grain or seedheads) provided the 'roughage' component. The cutting of the chaff into short lengths, usually around 1/4 to 1/2 an inch did not increase the digestibility of the hay or straw, nor make it more nutritious, but it did reduce waste in feeding and shorten the time the horse took to eat and also reduced the energy expended by the horse in eating. (1)

Oats were the most common crop cut to chaff but a variety of other grasses and legumes were also used including wheat, barley, pasture grasses and lucern. Straw or wheat chaff were insufficient on their own, even for horses which did no heavy work but they helped to supply bulk in the intestines and so aided digestion. A typical daily allowance for working horses may have comprised 16 pounds of chaff, 7 of oats, 7 of maize, 2 of beans, and 2 of bran, although there could be considerable variation in this including leaving out the maize, beans and/or bran altogether. (2)

In general usage, chaff could refer to any crop which had been chopped into short pieces (less than half an inch) after harvesting and drying. However, a distinction was made between hay chaff and straw chaff as well as oaten and wheaten chaff.

Hay is loosely defined as a fodder crop which retains its grain or seed heads, while straw is the opposite. The Chaff and Stock Feed Act of 1909, however, sought to define the terms in a legal sense and to standardise the definitions. 'Hay' meant 'any dried cereal, legume or grass from which the grain or seed has not been removed', while 'straw' meant 'any dried cereal, legume or grass from which the grain or seed has been removed by artificial action, or which has been stripped or threshed.'

But, as the debate in Parliament showed, the definition was obscured due to the problems of producing an even sample of chaff. Under field conditions it might have been necessary to harvest before all of the seed had ripened or after the oats had over-ripened and dropped all of their seed. Under the Act, hay chaff made from oats which had lost their seed before harvest would be technically straw chaff and the seller would be breaking

the law. The act also had a provision for laboratory analysis of protein content but did not and could not define a minimum level again due to the variability of samples over different seasons and regions. (3)

Hay was also fed to stock without being cut and when fed to race-horses a short variety of bundling hay was preferred, which had a high proportion of oats to straw. (4)

Cow chaff was an inferior quality of chaff, either lacking in protein or discoloured by moisture and which horses would refuse. There was not as big a demand for cow chaff, so much of the poorer hay went to waste or was mixed with good hay to produce a better sample.



Pitching hay at Trethowans chaff-mill, Melton. Photo. F. Haffenden.

2.2 Description of the processes involved.

Growing hay.

Leo Tarleton of Melton, has told us that hay is generally planted as any other crop, and is sown between April and June, and cut in December. The harvest used to start the day before Melbourne Cup Day and resume the day after when the farmers returned (less their betting money one assumes) but today the seasons are about a month later. (5)

A fortnight of drying weather was required for the cut hay to be ready to stack, but this varied according to the weather and the number of hands available to do the job. Roy Davis of Werribee employed about six men during harvest and it would take about six weeks to finish cutting, after which they would carry straight on with stacking. (6) Excessive rain while the hay was lying in the field or even in the stack could discolour the hay and reduce its nutrients but the main problem came from the dark parts going through the chaff and spoiling the appearance (horses are rather fussy eaters and refuse such feed). Weeds in the crop are also detrimental to the feed and sometimes hay infested with a noxious weed such as Hoary Cress was prohibited from sale to prevent its spread. (7)



Leo Tarleton hay-making on his farm in the Rockbank area. Photo, courtesy The Age.

Carting.

Carting of hay between farm and mill was done by farmers, chaff-mill company employees and specialist contractors alike. In the third category was C.W. Nash who carried sheaf hay from after World War II, to Geelong and Cressy at Lara, E.C. Robertson, F.H. Oldis and Thompson Brothers at Werribee, Wards and what later became Trethowans at Melton, Schutt and Barries in Footscray, the Sydenham mill, and Jack Dallwitz in Newmarket. Mr Nash carried hay 'from as close as St Albans, Deer Park and Truganina, and as far as Inverleigh, Ballarat and Trentham.' (8)

At Ward's mill in Melton, 'wagons and drays began to line up at 2 A.M. to offload hay which left Melton as chaff for local and export markets. Machinery was run by steam using timber brought

down in cartloads of six or seven tons from Breakneck and illumination for the night shift was provided by hurricane lanterns. (9)



Drays outside Schutt and Barrie's chaff-mill, Footscray. courtesy Footscray Historical Society.

WORK IN THE MILL.

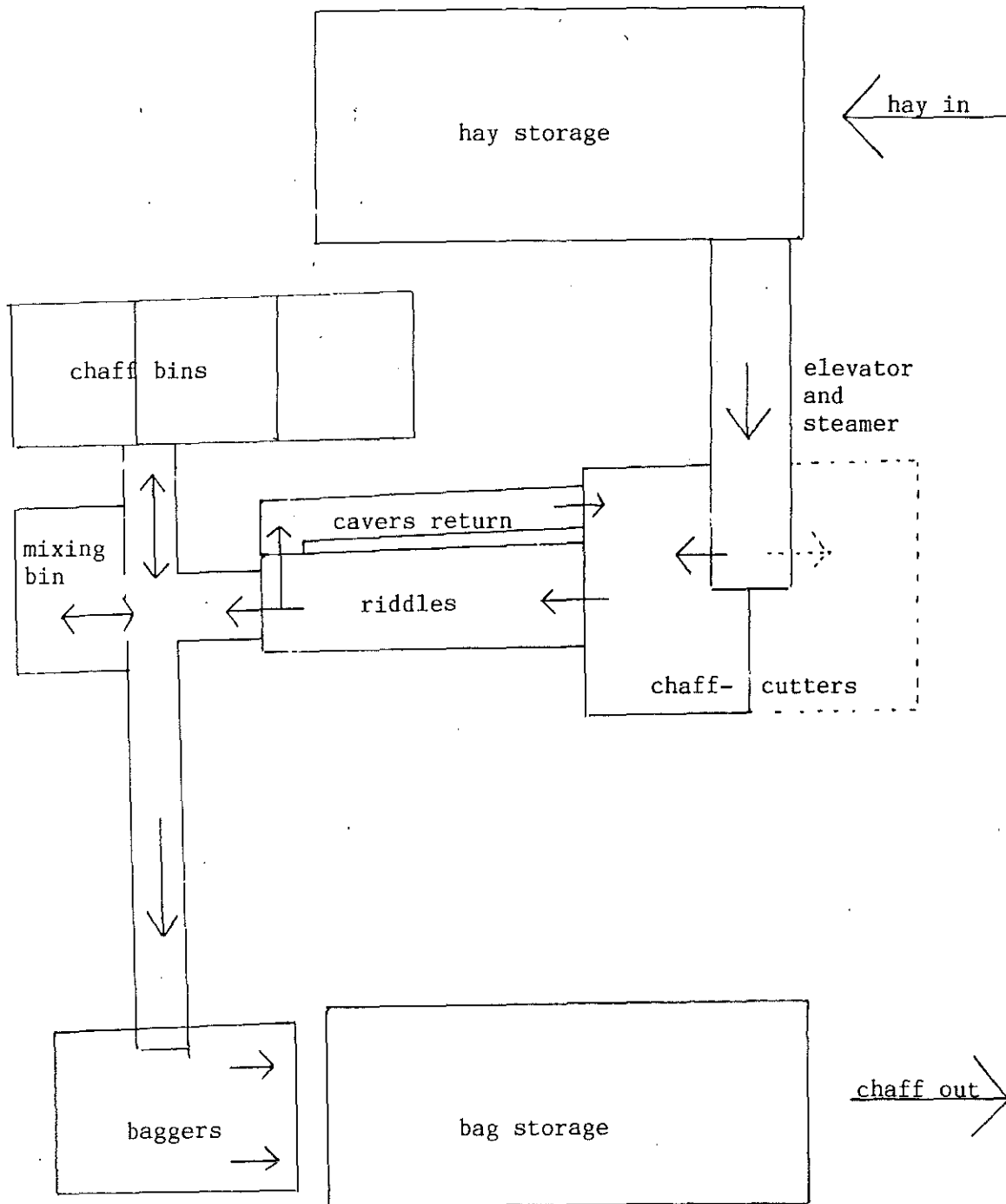
According to Mr Nash of Werribee; 'The men who worked in the mill were tough old blokes who spent most of their working life there. I doubt if many of them would be left. They were much older than me and I am 73.' (10)

Steaming.

Before chaff could be cut efficiently it had to have the right moisture content. Chaff which has been cut from hay that is too dry, is dusty and powdery and produces many cavers (torn shreds of hay which clog the cutters). (11) Sometimes the right moisture content was achieved by cutting it at just the right time after harvest, usually done on farms. Otherwise the moisture had to be added. Leo Tarleton did this by damping the hay down with water the night before, (12) but the method used in the mills was to put the hay through steam chambers.

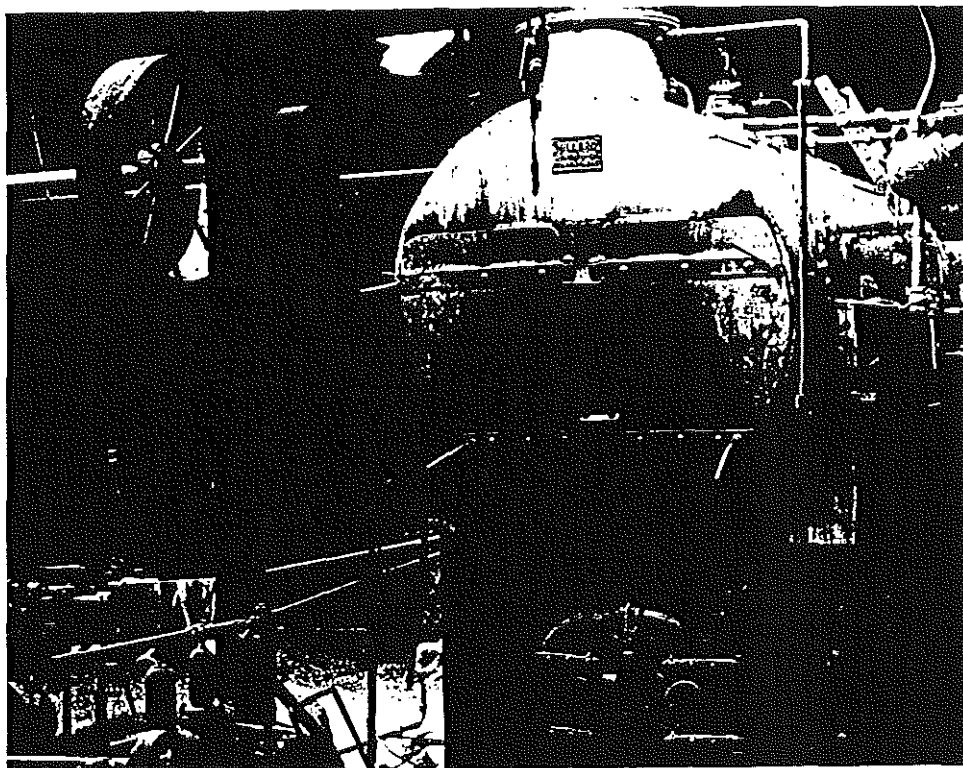
The steamers were of two types, intermittent and continuous. The intermittent steamers required the hay to be loaded, steamed and then removed while in the continuous type the hay travelled along a conveyor through the chamber where valves were opened and live steam was sprayed on the hay as it passed. Such a system was used

Flow-chart of Trethowan's chaff-mill, Melton



at Schutt and Barrie's but if the conveyor stopped while the steam valves were still open, the man pulling the hay out and feeding the cutter could receive severe burns. (13)

The steam had to be a 'dry' steam to control the moisture effectively, and all the mills had steamers of one or other type. The heat from the steam chambers and boilers made the place unbearably hot, even in winter.



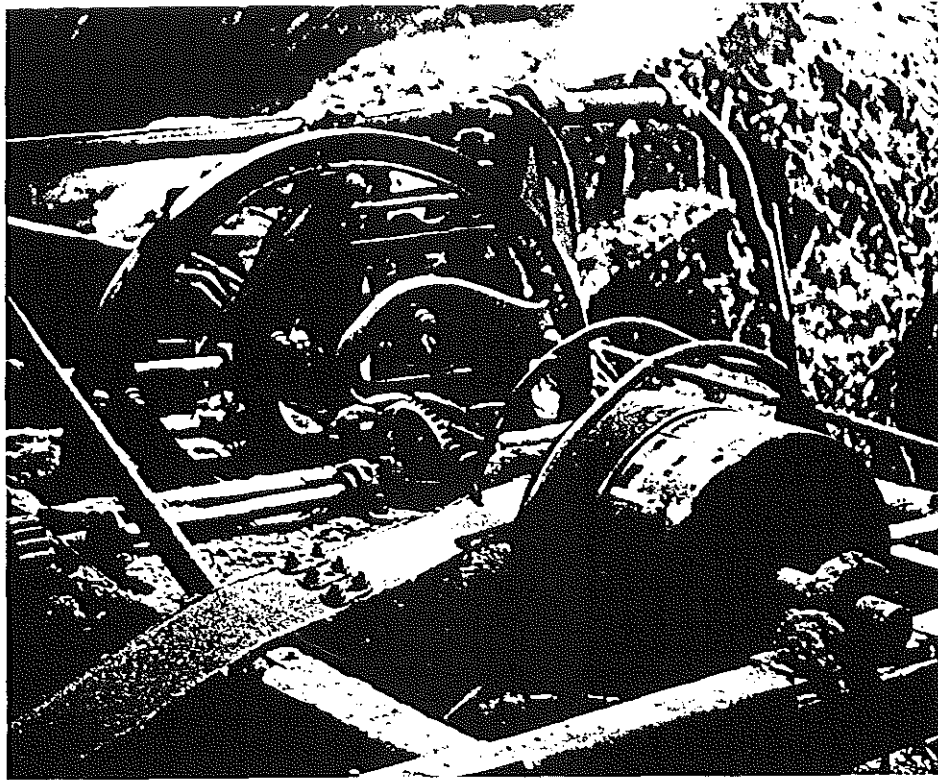
Steam boiler at Trethowan's chaff-mill, Melton. 1987. Photo G. Vines.

A test of the quality of the cut chaff was made by smelling the chaff, (it should have a rich but not mouldy smell) and taking a handfull and squeezing it. If it is a little bit prickly and some pieces stick to the hand, it is right. The final test was to give it to the horse. 'The horse is the judge' is a common remark from chaff-millers and farmers alike. (14)

Cutting.

The chaff-cutter basically comprises a fly-wheel to which are fitted two or more cutting knives, and a device to feed the hay up to the knives. The knives revolve at high speed and cut against a fixed blade known as the 'base'. The hay is fed into the knives by turning rollers and all is powered from the steam or electric engine via drive belts.

Considering the age of the machines and the length of time they operated, breakdowns were surprisingly few. Repairs were usually confined to replacing worn parts, bearings and other friction



Cliff and Bunting chaff-cutter at Trethowan's chaff-mill, Melton, 1987. Photo. G. Vines.

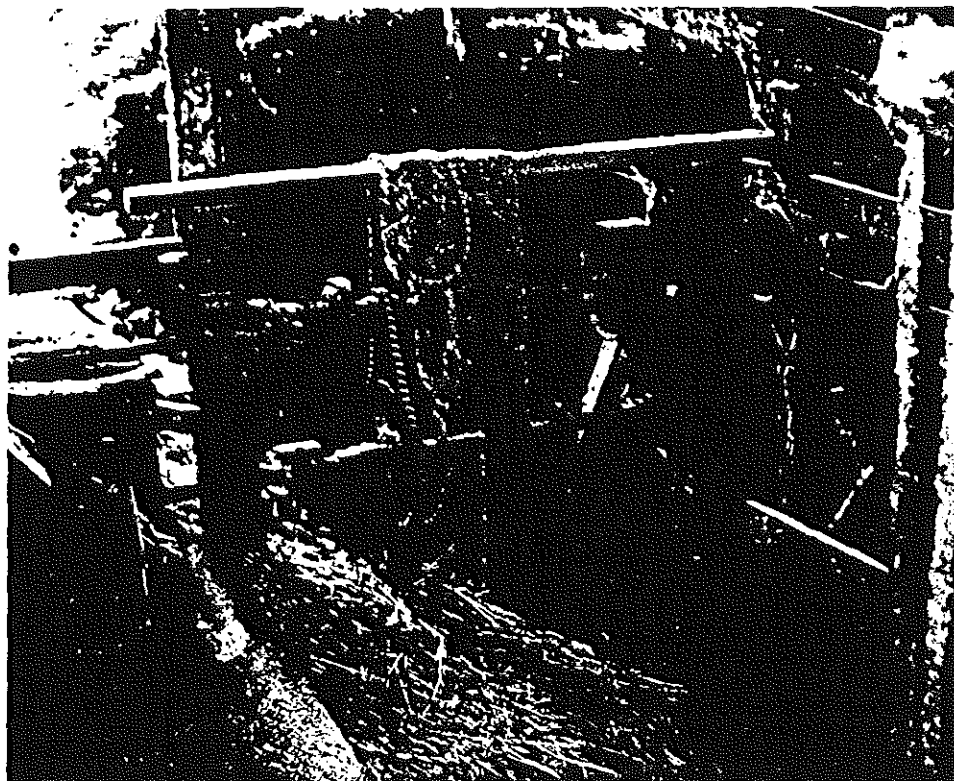
surfaces. Jack Findlater was maintenance foreman at Schutt and Barrie's for many years and tells how he sometimes worked all night to fix a major breakdown. These sometimes occurred when part of a reaper (which might have come off during the harvest) went through the cutters and smashed the machines. (15)

Everyday maintenance involved sharpening and re-setting. The knives were sharpened every 20 minutes. In the older cutters, this was done on the machine with a 12 inch mill bastard file but when Cliff and Bunting brought out a machine with five concave knives they were removed and sharpened on an emery wheel. While one machine was being sharpened they would switch over to another so that production was never halted. The base was sharpened once a week and the machine re-set every night, while the iron rollers were replaced every nine months. Another common repair involved running new white metal bearings into bearing shells on the steam engine, drive shafts and cutters. (16)

The job of the feeder was to place the hay up to the rollers ensuring it was always lapped so that sufficient hay went into the cutter to keep the roller pressure up and avoid producing too many cavers. Guards were sometimes fitted around the cutters and belts but as they made the job of replacing belts or changing speeds more difficult, they were often left off.

Riddles and Mixing.

The riddles were used to separate the good chaff from the dust and cavers and were like large flat sieves which were shaken mechanically. Elevators took the cavers back to the cutters and the chaff to storage bins or baggers. The foreman or riddle man regularly checked the chaff to make sure the machines were working properly and the sample was of the right quality. The bins or hoppers were used to store different qualities of chaff which could then be mixed to produce a standard sample or a specialty stock feed mix.



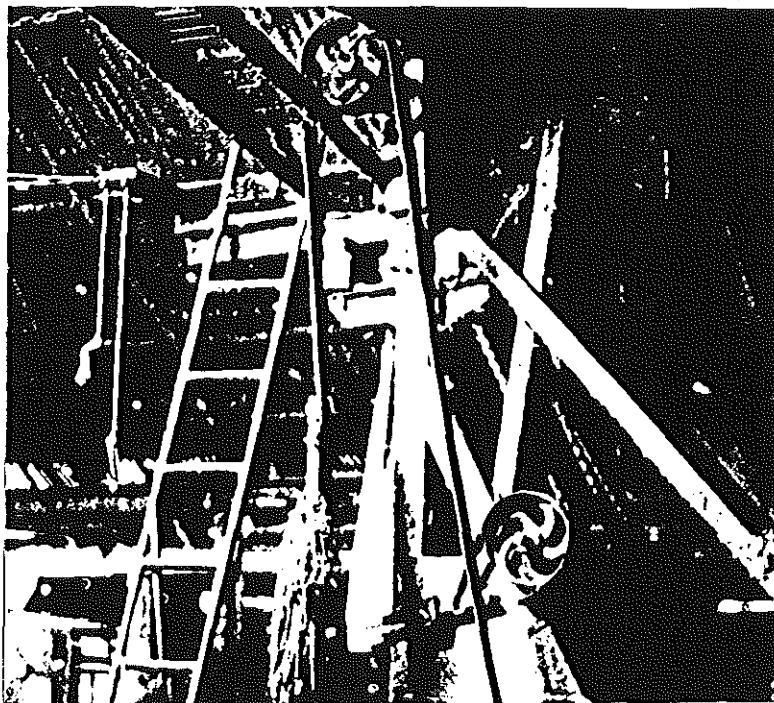
Chaff elevator to riddles at Trethowan's chaff-mill, Melton, 1987. Photo. G. Vines.

Bagging.

The bagging machines were designed to fill two bags alternately so that as one was filling, the other could be dropped down and sewn and a new empty bag put in its place. Due to the light weight and high bulk of chaff, spiral augers were used to press it down into the bags and a system of weights used to regulate how much chaff went in. 22 bags to a ton was the common measure in the past and resulted in a bag weighing one cwt. Today 24 to 25 bags to a ton is more common with some going as light as 27 to 28 bags per ton, even though the same price is charged for a bag regardless of the weight. (17)

Bags were sewn by hand and the sewer had to be fast or he would not last in the job for very long. Even though the mill workers

were not paid piece-rates, the competition amongst them encouraged them to work fast so anyone who didn't keep up slowed the production. They had to work as a team. (18)



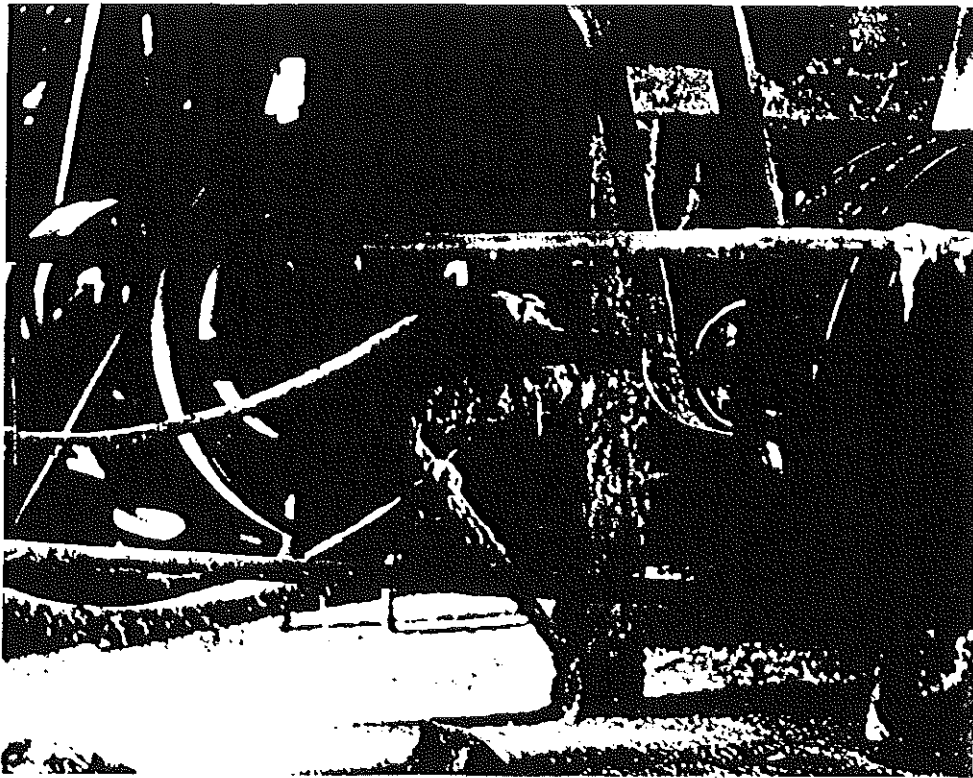
Baggers at Trethowan's chaff-mill, Melton, 1987. Photo. G. Vines.

Engines.

Before the 1920s or 30s nearly all mills were steam-powered, usually having a single engine of sufficient horse-power to drive all the cutters, riddles, elevators, baggers, and any other ancillary equipment such as a generator or work shop tools.

Wide leather or canvas belts transmitted power from the engine to machinery via drive shafts and pulleys for each machine. Sometimes several different size pulleys could be fitted to change gearing and speed. This system resulted in a complex and dangerous work-place with fast-moving belts, usually unguarded and liable to break or fly off. Since stopping one pulley to replace a belt involved stopping the whole mill, belts would be thrown back on while moving, thus increasing the danger. (19)

Electricity eventually replaced the steam engines but at Footscray and Melton the drive system of pulleys and belts was retained and a single large electric motor powered the mill. The alternative to this was for separate motors to be fitted to each machine as was done with the 'Big Cutter' at Footscray.



Under-floor drive-shaft, belts and pulleys at Trethowan's chaff-mill, Melton, 1987. Photo. G. Vines.

Conditions.

Work in the mills was hot, dusty, noisy, cramped, strenuous and generally dangerous. The hours at Schutt and Barrie's were from 7.30 A.M. to 5.00 P.M. Monday to Friday and 7.30 A.M. to 11.45 A.M. on Saturday, although extra hours might have to be put in to meet orders. Two whistles, five minutes apart, signalled getting down to work and starting up but only one whistle was needed to finish. A seven minute smoko was allowed in the morning and 3/4 of an hour for dinner.

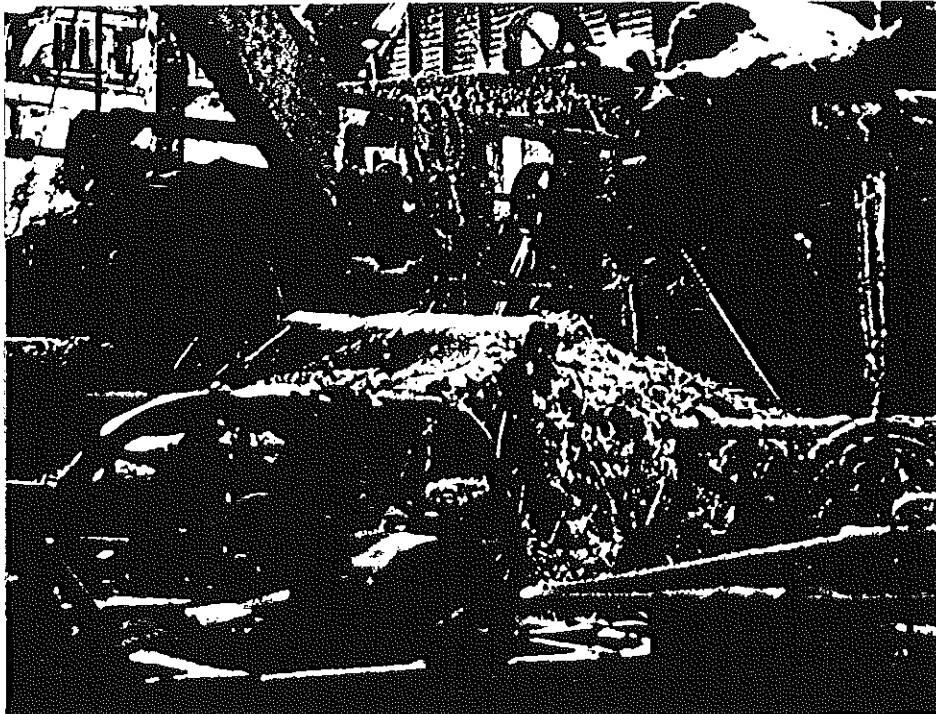
The fireman/engine driver had to have steam up by 7.30 and so was the first to arrive and the last to leave. While work may have been hard to come by at times, the mills do not seem to have closed down during slack times. At Schutt and Barrie's, work was found for the men stacking or cleaning up or even cutting thistles up near the Parwan mill. Sometimes a worker might be given a week off. (20)

You learned the job for yourself by watching and giving a hand. For the men who stayed a long time (and many spent their whole working lives in the mills) progress would be made from cleaning up, to feeding the cutter, to bagging, and possibly to maintenance or even foreman.

The workers took no precautions against the noise or dust and now some complain of deafness or have retired with lung complaints.

After breathing in the chaff dust all day at Schutt and Barrie's you would 'go over the road to the Rising Sun and get a good beer into you and then could you spit it up.' (21)

Accidents were all too common and many mill workers lost a finger or hand or worse. Without much space it was necessary to duck under machinery and sometimes bend double to get past drive belts. The feeder had only a small platform a few feet square to work on.



The workplace of the chaff-mill hand at Trethowan's chaff-mill, Melton, 1987. Photo. G. Vines.

Fires were a constant problem as demonstrated by the number of mills ending their lives by burning down. Over-heated bearings often started chaff smouldering in the bins or around the mill and would require flooding to extinguish.

Wages were reasonable by the standards of the post-war years, but low enough early in the century for a special wages board to be set up in 1909 to investigate what were regarded as sweating shops. Some mills paid 30 to 40 shillings per week and as low as 4 to 6 shillings per day in the case of John Barwise. (22)

2.3 Context of chaff production.

Hay for chaff has always been just one part of the farmers' production in Melbourne's Western Region, but it has been of considerable importance. In the post-war years, when farmers would have half their land under crop and the other half fallow,

the view from the top of Mt Kororoit would have been of a patchwork of fallow fields, ripening hay and armies of stooks. Today, only a few farmers in Melton still grow hay and fallowing is a thing of the past.

The price of hay has fluctuated dramatically from a low of around 30 shillings to 14 pounds per ton at the outbreak of World War II. 8 pounds was a high price following the first war and Ron Robinson was getting 3 pounds 7/6 a ton for his chaff hay around the time of the Second World War. (23)

Since chaff provided fuel for horses and horses were the main form of transport well into the 20th century, Melbourne's Western Region can justifiably be regarded as the Middle East of Victoria in the sense that it provided the fuel to keep our transport moving.

The big users of chaff were the transport companies, the bakeries, dairies, breweries and other delivery agents, and the farmers. Many farms grew and processed their own stock feeds, but still much of the Werribee mills' production was sold to the local area with the remainder being sent to Melbourne and interstate produce stores. Roy Davis, for example kept 14 horses on his farm and even when he purchased a tractor in 1934 he retained a team of horses for gathering stooks, as they would stop and go on command, unlike a tractor. (24)

Bottle-Covers

Other small but significant users of hay were the bottle-cover manufacturers and packing industry.

The mills at Sydenham, Footscray and Newmarket (and probably elsewhere) manufactured these covers which were used in packing bottles, especially beer bottles, until shortly after the Second World War. The change from crates to cartons as the main form of beer bottle packing was the main reason for the closure of the Newmarket mill. (25) The Sydenham mill used 50 ton a week on bottle covers, threshing the grain off the hay and selling it separately. (26)

Schutt and Barrie's mill in Footscray also produced bottle covers according to J.V. Farrow who carted hay to the mill. These were stitched on a machine and put around chemical and ink bottles to prevent breakage during packing and transport. He recalls they were commonly known as 'french envelopes' and were invented by a Mr. Lewis from Malmesbury. (27)

Chaff bags.

An industry closely associated with and to some extent dependent on chaff-milling was the bag trade. As new jute and hessian bags had to come from India and were relatively expensive, a thriving trade developed in cleaning and repairing second-hand chaff bags

along with reconditioning of a variety of stock feed, produce, chemical bags and sacks. Sometimes a bag could be repaired, cleaned and re-used as many as seven times. Special cleaning machines were developed locally for the job and a competitive market kept Mathew Matich and his son in business in Footscray for many years. (28)

Schutt and Barrie bought bags from Matich and also from their own customers, who would return their empties. The mill employed a man full-time to mend bags, and they may have bought bags in order to keep the customers coming back. (29)

2.4 Locational factors.

According to Tim Shea of Bacchus Marsh, before the construction of the Pykes Creek dam only barley grass could be grown in the Bacchus Marsh area. With the dam came irrigation and 'the whole place was sown down to lucern and lucern chaff-mills were established...near the railway.' (30)

In 1909 the State irrigation scheme in Bacchus Marsh started on a small scale and resulted in 470 acres being watered, mostly for lucerne. In 1901 a total of nearly 1000 acres of lucern were grown. This doubled by 1911 to over 2000 acres. The crop helped to ensure a regular milk supply and guarantee the viability of the manufactured milk industry which was then developing in Bacchus Marsh at the time. (31)

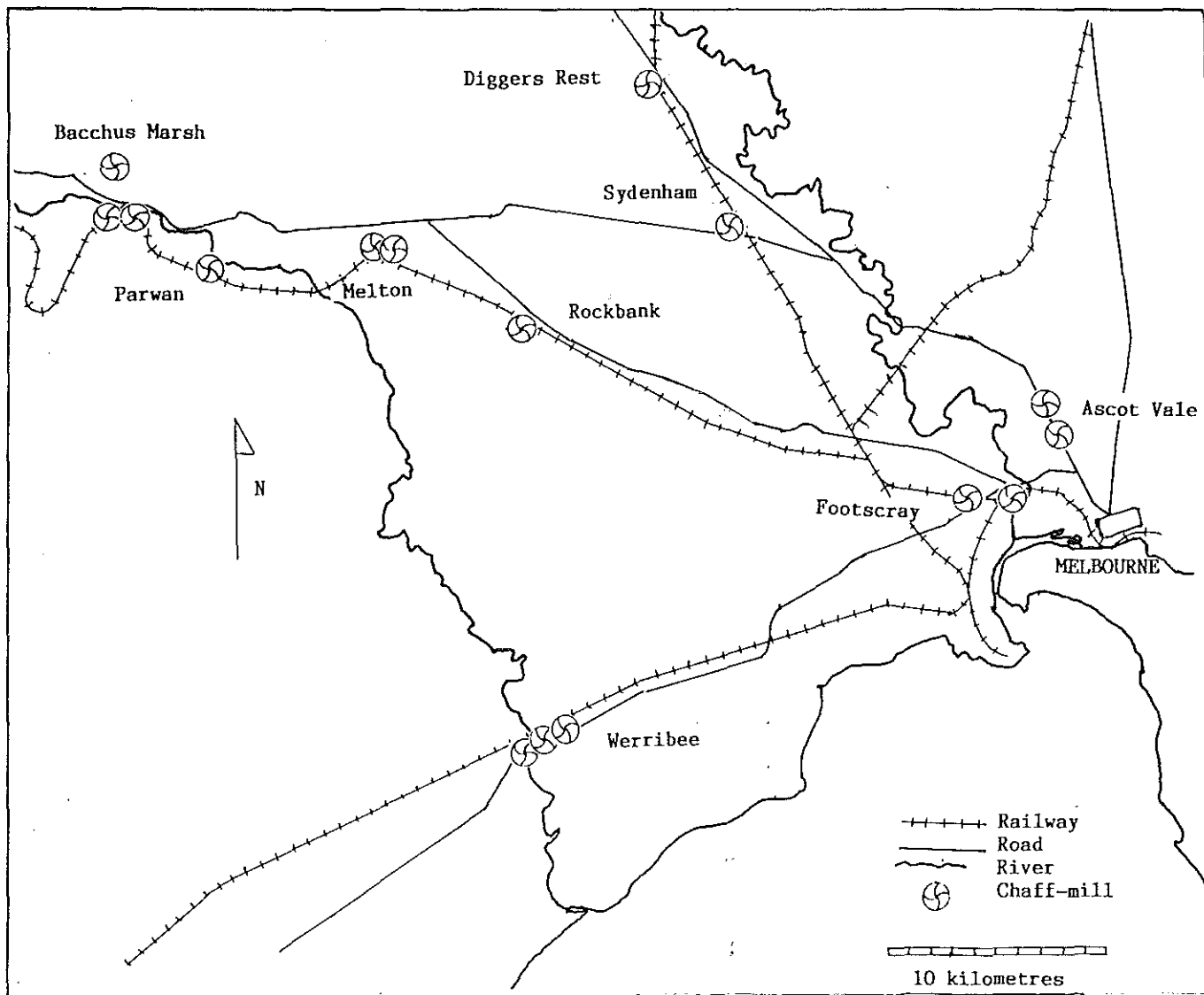
The climate of Melbourne's Western Region is ideally suited to growing hay. The soil is sufficiently fertile and adequate rain falls, but most important, long, warm, dry summers allow the hay to ripen and dry once it is cut. The hay in the Melton area was renowned as the best in the country, as it was slow-growing due to the low rainfall and produced a very hard stem which would cut cleanly. (32) Its hardness was not always appreciated by the chaff-cutters who had to re-sharpen the knives more often. (33)

By the early 20th century many chaff-mills were located in Melbourne's Western Region to take advantage of the hay produced there. Nearness to railways was a vital factor in placing a mill, as rail was the only suitable form of transport for sending chaff long distances. Drays were the only alternative before the arrival of the motor vehicles, but trains were faster, cheaper and had a far greater capacity. Chaff was usually sent to Melbourne but also went to country areas and interstate. (34) Likewise, hay was usually bought from the local area where cartage costs would be lowest, but if the local crop was poor or insufficient to meet demand hay could be brought in from country areas and even interstate. (35) Chaff was even imported from South Africa at one stage. (36)



Site of Diggers Rest chaff-mill showing proximity to the Bendigo railway line, 1987. Photo. G. Vines.

Chaff-mills in Melbourne's West

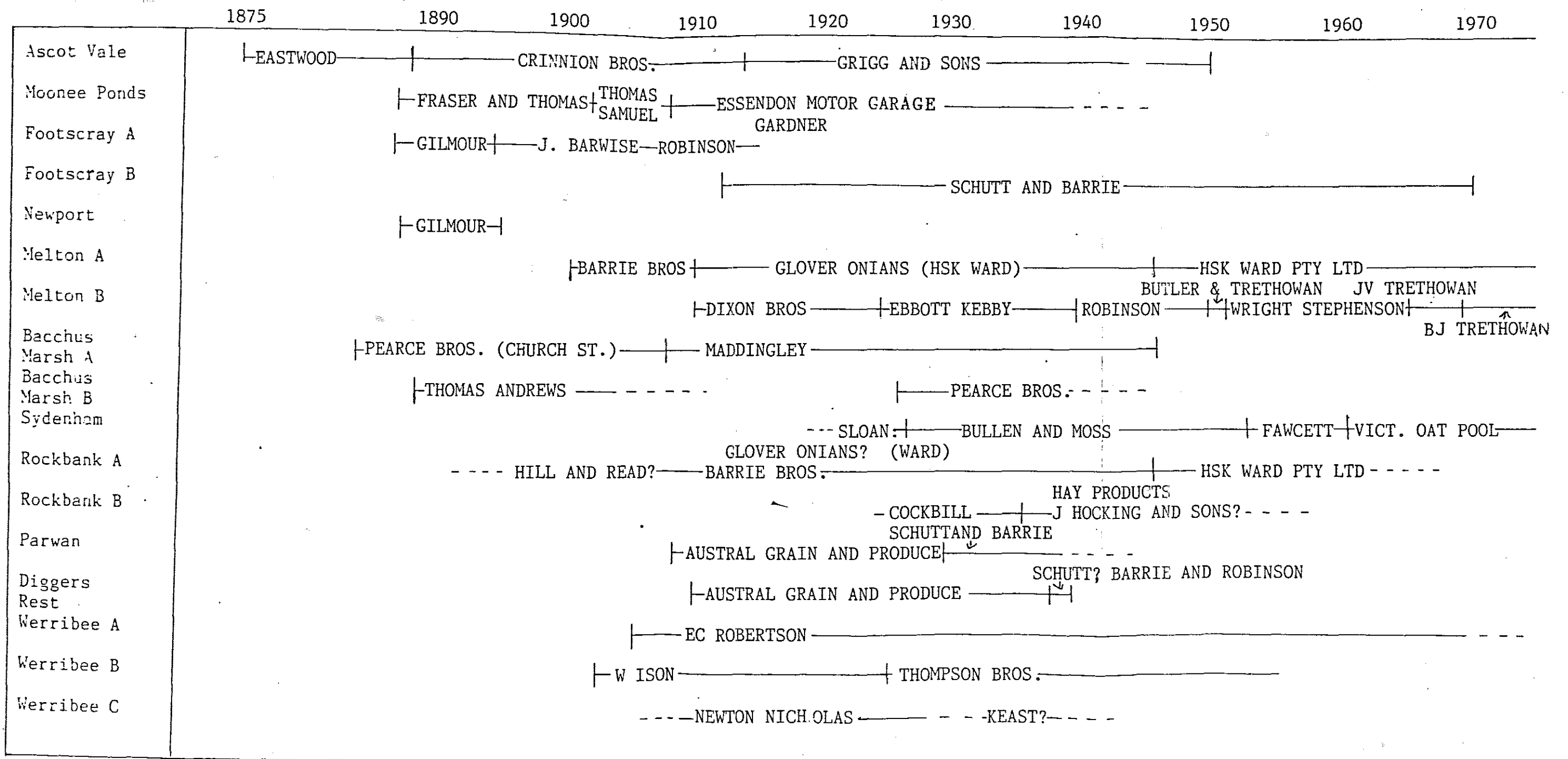


Locations of known chaff-mills in Melbourne's Western Region, 1870s to 1980s.

3. NARATIVE HISTORICAL DESCRIPTION OF CHAFF-MILLING IN MELBOURNE'S WEST.

3.1 Chart of mills

The following chart gives an outline of the periods of operation and the changes of ownership of the chaff-mills which operated in Melbourne's Western Region from the 1870s to today and should be consulted along with the individual chaff-mill histories in section 4.



3.2 Early period in Melbourne city

Records of the earliest chaff-mills in Melbourne have not been found. For the first years of the Port Phillip settlement it is clear that stock-feed would have had to be imported along with all other commodities. Once the first hay crops had been harvested, chaff could be cut with hand operated chaff-cutters, which most farmers would have eventually obtained. Much of Melbourne's stock feed was imported in the first few decades of the settlement although natural pastures were freely available and thus would have provided the bulk of food for horses and stock. (37)

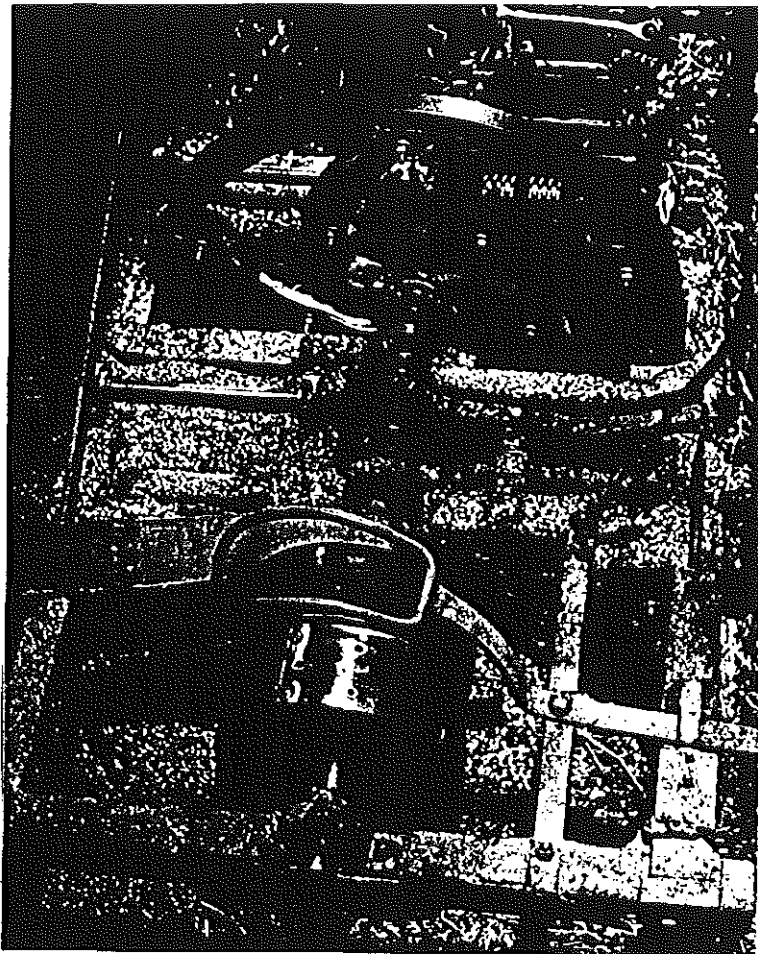
The first manufacturers of stockfeed were established in what is today the central business district of Melbourne and produced chaff as part of a general produce trade.

1868 was the first year in which 'Chaff Cutters' were listed as a separate trade category in the Victorian Directories. In previous years they are listed under 'Corn Factors and Grain Merchants' or 'Corn and Hay Dealers' both of which include businesses which were not chaff cutters. It is evident from this that chaff-cutting was not a specialist or so widespread occupation to warrant separate listing in the directories. Grouping them with the produce dealers suggests it was a small trade at the time.

In the 1860s, the chaff cutters and other stock feed suppliers were generally located in Flemington, North Melbourne and the City.

By 1870 there were four chaff cutting firms in the city and others in Flemington, Prahran, St. Kilda and Collingwood and by 1877 a clear trend had developed for chaff-mills to be centralized in one area. Most were located in the Hotham area, North Melbourne and Carlton. This area was close to the old Hay Market which was on the site of the present hospital at the junction of Royal Parade and Flemington Road. The Fig and Calf Markets were also located nearby. Nearness to the main stock feed market in Melbourne was clearly a major influence in chaff-mill location at this time.

The two main manufacturers of chaff-cutting machinery in Victoria were Cliff and Bunting and John Buncle and Sons and were also located in North Melbourne. The latter company was established in 1854 and in 1905 a newspaper report claimed it was 'the original designers and makers of chaff-cutters and has been associated with this class of implement for 51 years.' The company had also won 650 gold and silver medals and first class awards to that date. They produced 15 different models of travelling chaff-cutters up to a machine with 14 inch feed rollers and a capacity for 50 tons per day. Their machines were noted for their self adjusting knife wheels which enabled very accurate and efficient operation and also for their all-round technical excellence. (38)



An example of Cliff and Bunting's stationary chaff-cutting machine, at Trethowan's chaff-mill, Melton, 1987. Photo. G. Vines.

By the end of the 19th century there were chaff-mills operating in many country towns all over the state. A selected list of some of these is included in Appendix 2.

In 1889 there were 15 chaff-millers listed in Melbourne, still concentrated in the Haymarket area but also developing in suburbs and the fringes of Melbourne. Until 1902 it is difficult to get an accurate idea of the mills working in Victorian country areas but they were wide-spread and growing in number. (see Appendix 2)

3.3 Chaff-milling in Melbourne's West: 1870s to 1980s

3.3.1 Formation 1870s to 1900s

The 1880s were also the time that the first mill in what has become the Western Region of Melbourne was established. This was William Eastwood's mill in South Street, Ascot Vale. Eastwood and his brother also had a mill and store at the top end of Elizabeth Street, near the Hay Market and may have moved out to Ascot Vale to be close to the railway. Along with the mill in South Street they ran a produce store in Mount Alexander Road. They sold out

to Crinnion Brothers in 1889 and the latter firm continued cutting chaff until 1914.

Another mill, Fraser and Thomas's, was opened in the same area in 1889, while in Footscray, H.B. Gilmour erected a mill in Hopkins Street. Gilmour also had a mill in Melbourne Road, Newport for a few years. His business was purchased by John Barwise in 1894, who was a country miller from Kyneton.

The first of the rural mills opened in Bacchus Marsh in 1886 by Pearce Brothers followed shortly after by Thomas Andrew's mill beside the station. Pearce also moved to near the station in 1908.

A great spur to the growing of hay and cutting of chaff came with the breaking up of the large estates in the region, particularly the Chirnside land at Werribee and Staughtons Exford estate and Clarke's property near Melton. In Werribee 8000 acres were purchased for the Metropolitan Farm and leased to tenant farmers who in 1894 grew 4,850 tons of hay, and 12000 bushels of oats. Other large tracts were sub-divided and sold in 2 to 300 acre blocks. (39)

3.3.2 Peak 1900s to 1940s

In the first four decades of this century, hay was the fuel of the transport industry. Like the 'oil crisis' of the 1970s we had the chaff crisis of the late 1900s, when supply dwindled due to drought, the price of hay and chaff shot up and disreputable dealers tried to stretch their supplies by mixing straw and other matter, with the little good hay chaff they could get. The ensuing scandal got to Parliament and the Victorian Government was forced to legislate to protect the supplies of fodder to Melbourne. This resulted in the Chaff and Stock-feed Act of 1909, which prohibited the mixing of hay chaff with any other substance and attempted to define a quality standard for animal feed. It was also an offence to possess or to sell mixed chaff and as part of the Act, provision was made for chemical analysis of feeds to check their composition.

Further land sales in the 1900s brought even more land under cultivation with the major crop being hay. In 1911 nearly 50 per cent of the cultivated land in the Western Region was sown to hay with the largest amount grown in the Shires of Werribee and Melton. Hay had been a major crop for several decades in the 19th century, but nearly doubled from 1901 to 1911. (40)

The Staughton's Estate was producing nearly 5000 tons of hay a year by the late 1900s and formed the basis for the development of the chaff-mills in Melton. Barrie's started in 1902 and Dixon's a few years later. Many mills started up around the time of the closer settlement of the western plains. Barrie's in Rockbank, Austral Grain and Produce in Parwan and Diggers Rest, Robertson and Ison in Werribee. In all, eight new mills opened in the 11

years between 1902 and 1913 if we include Schutt and Barrie's West Footscray mill. All of these mills were on railway lines and most constructed sidings so they could receive hay and dispatch chaff efficiently over any distance.

By 1925 there were at least 13 chaff-mills in the Region which were doing good business and expanding to satisfy a high demand. Schutt and Barrie moved across Geelong Road in 1916 to build a larger mill and have better access to the railway (41). Ebbott Kebby, who had acquired Dixon's mill, added on extra bays to their building and Pearce enlarged the Bacchus Marsh mill.

The industry at this time developed and diversified. Some mills were operated by families who had gone into chaff-cutting as an adjunct to their farming and often the mills were run by family members. As many families were quite large there was little trouble in finding labour among brothers and sons as did the Robinsons and Thompsons.

Another type of mill ownership came from large stock and produce firms such as Glover Onians (which was run by and large by H.S.K. Ward) and the Austral Grain and Produce Company. Small and large concerns were able to co-exist in the lucrative market.

The chaff business was booming and could be said to have been at its peak just before World War II. (42)

3.3.3 Decline 1940s to 1960s

Between 1939 and 1945 no grain at all was grown in the Melton area due to the very strong demand for chaff created by the war. Some horses were still used by the army, but the shortage of motor fuel resulted in the retention of horse-drawn vehicles and farm horses. From 1946 to 1950 hay was slowly replaced by grain as the major crop, as the demand for hay declined. Packing with straw was going out of fashion and bottles were no longer packed with the straw covers. The post-war years were also a time of labour shortages which greatly affected the very labour intensive harvesting of hay. One man could operate a grain header and bulk handling made grain growing even more labour-efficient, but hay still required many hands for stooking and stacking. (43)

According to Mr Nash, the main reason for the mills fading out was the loss of local hay once the bulk silos were built and so the farmers turned to grain (44)

After the war, rail transport to the chaff-mills was severely restricted due to a shortage of suitable rolling stock. The Victorian Railways could not hire their large trucks to the Melton mills in the 1950s because they were needed to haul brown coal from the newly opened mines in Bacchus Marsh. As a result Trethowans had to switch to road delivery, which meant buying a truck and paying a driver and thus increasing their overheads considerably. (45)

At this time the bulk of the chaff was going to produce stores and horse trainers in Melton and to dairy farms in Gippsland. Other developments which further reduced the viability of the chaff-mills were the invention of the baler and hammermill, (giving farmers a cheaper alternative to chaff for feeding their cows), and the introduction of horse pellets and other processed feeds for horses. (46)

These post-war years also saw the demise of the cart horse for milk, bread, ice, and a variety of other delivery jobs.

More fires claimed some of the chaff-mills and with the depressed market at the time it was not financially viable to reconstruct them. The Diggers Rest mill burned down in 1939 leaving its operators, the Robinson brothers, to abandon their partnership with Schutt and Barrie and move to Melton. They were fortunate that Ebbott Kebby were willing to sell their mill so they could remain in the chaff-cutting business for a while longer.

Grigg and Sons, who had some time in the past ceased cutting chaff, closed their produce store in Ascot Vale and Pearce Brothers closed down in 1946, after 60 years in Bacchus Marsh. Ward's mill in Rockbank closed around 1950, followed by Thompson's in Werribee.

Schutt and Barrie's Parwan mill closed about the same time as the Diggers Rest mill leaving only their West Footscray works. By 1960 there were five mills in the region, Schutt and Barrie, the two Melton mills, E.C. Robertson in Werribee and the Sydenham mill which was shortly to be bought by the Victorian Oat Pool and stopped cutting chaff.

3.3.4 New Structure 1960s to 1980s

Werribee lost its last chaff-mill in the late 1960s and Schutt and Barrie shut down in 1968. Ward's burnt down in a spectacular fire in 1977 leaving only one mill operating today. Trethowan's managed to continue operating through several changes of ownership in the 50s and 60s and today manages to keep afloat because of a reliable source of hay from the few local hay growers, and by diversifying into a produce store.

The demand for chaff has picked up in the last seven to ten years, partly due to the growth of racing and trotting studs in the Melton area, (the Shire now has as its slogan 'Thoroughbred Country'). There has been a rise in the popularity of pony clubs and a fashion among residents of the outer suburbs of Melbourne to keep horses as pets. Subdivision of land for small hobby farms has also brought more horses into the area.

The problem for farmers now is not to find a buyer for the hay they produce but to find the labour to harvest it. The work can be fatiguing and monotonous, and as it is seasonal, each year the

task to find people to do it must be repeated. Various solutions have been tried including a mechanised stooker which picks up the sheaves and sets the stooks on the ground leaving the two operators to build the stooks under the shade of a tarpaulin. In this way one stook can be erected every 70 seconds. This was designed by Bernie Trethowan. (47) Others have employed unemployed youths from the local caravan park and migrants from the hostel in Maribyrnong. (48)

In the 1970s the demand for chaff was such that many farmers planted hay again, paying up to \$2 000 for a second hand reaper/binder. Consequently there was an oversupply of hay and a slump in the price the following year and their machines were sold off for a third of their cost. No company is manufacturing reapers in Australia today so the farmers are forced to keep 40 year old machines going by making their own parts or cobbling them together from wrecked reapers. An imported reaper from Holland was tried but was found unsuitable for the local hard hay. (49)

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31

Golden Jubilee, 1923-1973, Melton South Primary School, 1973. p.31.

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4. INDIVIDUAL CHAFF-MILL HISTORIES

Includes all known operators of chaffmills in the region:

Ascot Vale

William Eastwood was located on the north side of South Street between Ascot Vale and Mt. Alexander Roads, 6 houses from Mt. Alexander Road. (50) The business was described as 'Hydraulic Hay Pressers and Chaff-cutters' and probably included other stockfeeds. Up to 1889 Eastwood Brothers, as they became known, also had premises in Elizabeth Street North and Mount Alexander Road.

Crinnion Bros.

In 1889 Crinnion Brothers took over the business. The Directories at this time give a more detailed address as 16 and 20 South Street Ascot Vale. Number 16 was the residential address and the original house can still be seen standing. Beside it the factory is marked by a carpark behind which is a building which may have once been part of the chaff-cutting works.

The brothers Michael and Patrick Crinnion first registered their company on 19.1.1893 (51) and were described as 'Produce Merchants and Chaff Millers' so the diversity in production evident from the original owners was continued. The records of the Corporate Affairs Office show that the Company was struck off the Register of Business Firms on 3.8.29. (52)

From the Directories we find that in 1922 Grigg and Sons took over the site, and although they are described as Chaff-millers of 16-18 South Street they appear to have discontinued chaffmilling soon after acquiring the site. However, they continued as produce merchants for many years. (53)

Moonee Ponds

In 1889 another chaff-mill opened not far from Ascot Vale. This was owned by Fraser and Thomas and located in Mount Alexander Road, Moonee Ponds. Thomas Samuel was owner for a time and in 1921-2 it was under the name of White and Smiley. In 1930 technology overtook the Moonee Ponds chaff-mill when it was converted to the Essendon Motor Garage and it continued to function as such under a variety of owners until the 1960s.

Williamstown

A hay and corn store was situated at 126 Cecil Street, Williamstown some time around 1915. It was run by the partnership of Goode and Steele originally, but later was known as James Steele and Co and eventually sold to a company called Prous (?).

It had a barn measuring 30 feet high and 80 feet long with a cobbled floor. In 1931 a chaff-cutter and boiler were still on the site as remembered by J.H. Steele, son of James Steele. (54)

Footscray.

Hopkins Street

The first chaff-mill in Footscray was constructed in 1887 by Hugh B. Gilmour and was known as the Excelsior Chaff-cutting Mills. This was in Nicholson St. Footscray and later moved to the corner of Hopkins and Irving Streets. Gilmour also operated as a corn and grain merchant, in Melbourne Road, Newport around the same time. In 1893 Gilmour sold the business to John Barwise who conducted business as a chaff-cutter, grain merchant, produce merchant and a variety of other titles from 88 Hopkins Street, Footscray. He also had a Hay and Corn store in Williamstown Road.

From 1906 to 1910 J. Robinson was associated with the mill followed by Robert Gardner for just one year.

Other chaff-mill operators in Footscray were Hugh McPherson who had a hay and corn store in Hopkins Street, and Fawley, whose hay and corn store was on the corner of Irving and Hopkins Streets. The latter firm had a chaff-cutter in operation, according to a local resident and although no dates for the companies have been established it is possible the business of John Barwise was continued by one or both of them after 1910. They may also have been managers at the mill. (55) In the directory for 1912, 88-92 Hopkins Street is described as vacant land indicating that by this time all chaff-milling had ceased on the site.

Schutt & Barrie

John R. Schutt had a dairy farm off Williamstown Road, Spotswood where he grew his first corn and cut his first chaff. He also owned land in Maidstone, on the south east corner of Hampstead and Williamson Roads as well as Lots 48-51 & 56-59 bounded by Hampstead, Emu, Mitchell and Richard Streets. These all date from the 1890s.

He constructed a chaff-mill on the corner of Geelong and Williamstown Roads, West Footscray in 1913 and began chaff-cutting and oat-crushing. In 1916 C.E. Barrie of Melton (see below) entered full partnership with Schutt and in the following year, due to 'limitations for expansion on their present site and lack of easy accessibility to a railhead...[they decided to] purchase a more favourable site -directly opposite- on the corner of Geelong and Sunshine Roads. The West Footscray railway station and sidings were only 50 yards distant.' (56)

In 1918 a railway siding was installed, providing direct rail access to the main lines to the north, north-west, west and

south-west. It was extended in 1919, a rail truck weighbridge was purchased from the Victorian Railways and moved from the Pickett Street siding and was installed on Sunshine Road in April 1920, at a cost of 285 pounds. Further extensions to the sidings were made between 1933 and 1936 resulting in two lines running across Sunshine Road and right through the factory to Geelong Road. Extensions into Geelong Road were removed in 1958 and four years later the railtruck weighbridge was out of commission. The last link with rail transport was finally broken when the sidings were purchased by Victorian Railways and the lines across Sunshine Road were closed. (57)

Schutt and Barrie diversified in 1927 when they commenced wheat gristing or flour milling. (58) Rail trucks were pulled in by horse, sometimes with 80 to 100 waiting on the siding. The hay was forked out of them into the lower storey of the mill which was built over a quarry. The chaff-cutters were also down in the hole and 100 ton of hay could be stored on either side of the machines for use during a wet spell or when no hay was coming in. The mill was built on three levels with elevators taking hay to the cutters and chaff up the mixing and storage bins on the middle floor or to the baggers on the top floor. A loading platform was also constructed on the middle level for loading railway trucks which could come right into the mill. Schutt & Barrie also had stables in Geelong Road, Footscray beside the residence of H.R. Schutt on the south-east side of the road and later had an interest in a motor garage on the site of their original mill. (59)

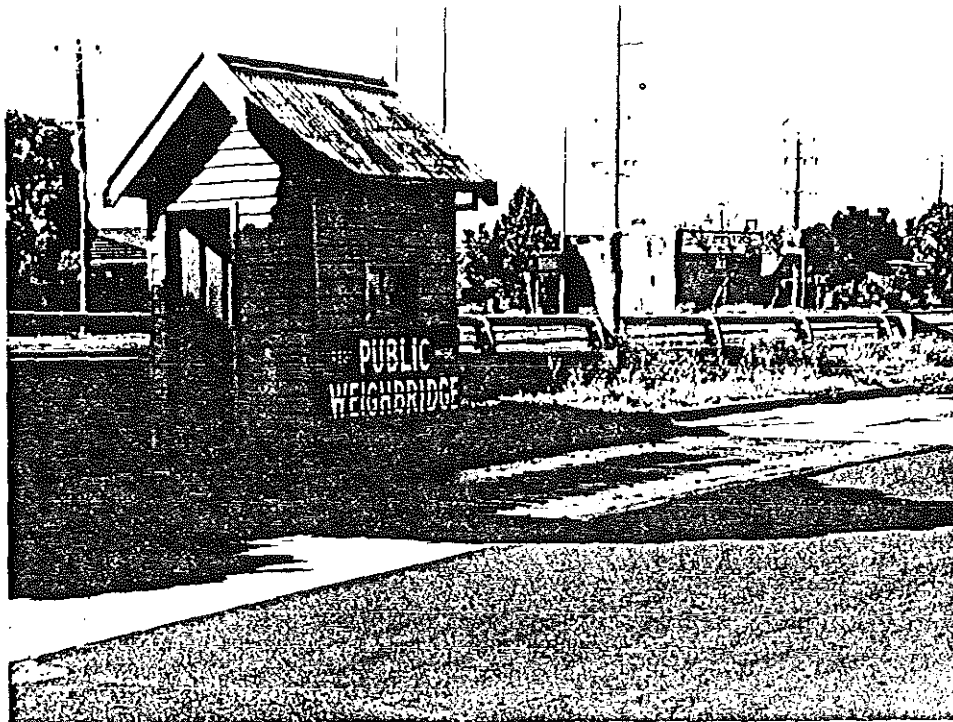
The original horizontal steam engine was replaced by a high speed steam engine some time before 1933 and this was in turn changed to electric in about 1956. The overhead shafting was retained except for the cutters which were driven by their own motors via V-belts.

Up to 45 men were employed at the mill with two or three girls working in the office. Women were few at the mills but Miss Reynolds, an office secretary, is remembered by everyone who had dealings with the mill and was there for nearly as long as the building. Six baggies were sewing all the time upstairs, and bags were stacked by hand. Elevators helped move bags to the rail trucks but road vehicles were loaded through a hole in the bagging floor through which bags were simply dropped down with a thump. (60)

In later years they diversified by building a flour mill next door which produced bran, pollard and wheatgerm for stock feed, and flour for bakeries. Their 'Green String' brand chaff was, according to Jack Findlater, 'renowned for its quality and won all the big prizes at the show'. (61)

A second weighbridge was installed for road vehicles and became Public Weighbridge 'no 86' on the service road on the north side of Geelong Road. It was first tested by the Department of Weights and Measures in May 1953 but was in use much earlier than this.

It is presently operated by Mr Roberts and is in original condition with the old beam balance and mechanism. (62)



Schutt and Barrie's Weighbridge, opposite the site of their chaff-mill, West Footscray, 1987. Photo. G. Vines.

Mr Barrie was killed in a car accident on the Ballarat Road on 23.7.1931 and Jessie May Barrie became a Director in lieu of C.E. Barrie as from 24.7.31 (63)

From 15.1.40 the directors were J.R. Schutt, D.S. Robinson and Jessie Barrie while the Company was described as Schutt and Barrie Flour Mills Pty Ltd as well as Schutt and Barrie Pty Ltd. The Company finally closed down about 1968. (64)

Diggers Rest and Farwan

Austral Grain and Produce Pty Ltd. later Austral Grain and Ambler Pty Ltd.

This company was formed in 1911, its articles of association being dated 3.4.11. These state that the Company was established as 'grain and produce merchants for retail, wholesale, import-export of grain and produce of every kind including onions potatoes butter cheese, manures, every kind of food for cattle and other animals; also to manufacture all the above'.

The initial directors were Frederick John Cato, W.H. McFarlane and J.E. Rowe and the Company was based originally in Collins St

and from 1915, at 46 King St Melbourne.

From 15.6.1915, when Oliver Ambler came into the Company along with Alfred Barwan and J.A. Viscon, the Company's holdings were transferred to Austral Grain and Ambler Pty Ltd and Austral Grain and Produce was wound up. (65)

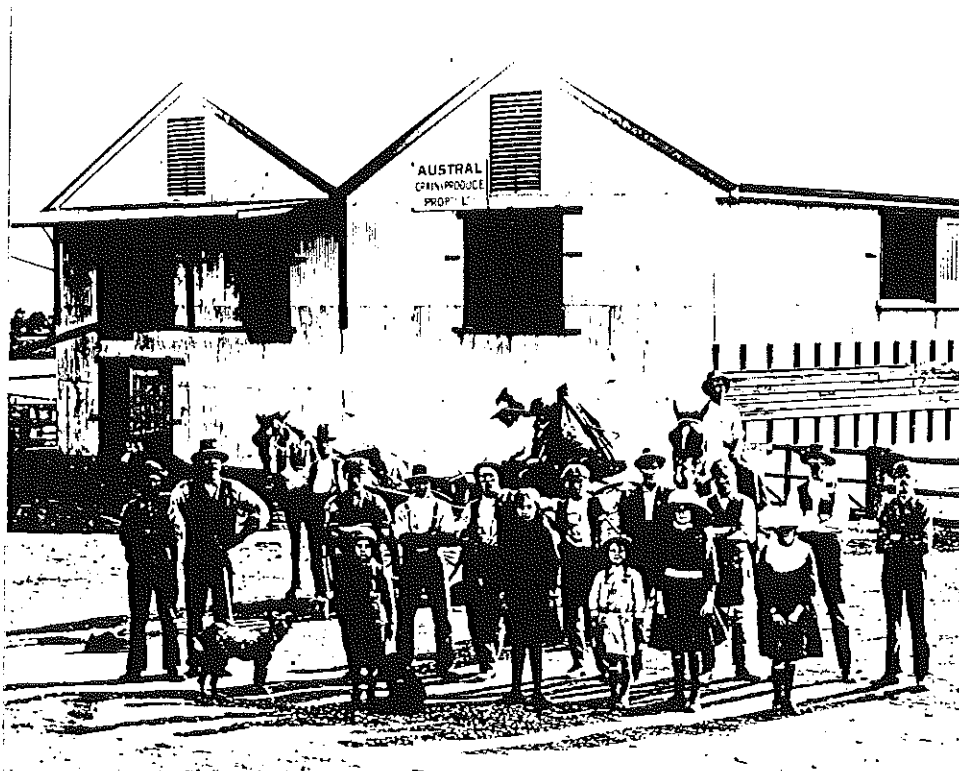
Diggers Rest.

The Diggers Rest mill was originally built by Austral Grain and Produce in 1912 and was located adjacent to the railway line. (66)

A directory reference for 1922 lists George Dixon as a foreman for Austral Grain and Ambler chaff-mills in Diggers Rest. Donald McDonald was manager of the mill in the early years and lived with his family nearby. In 1926 the mill was taken over by Schutt, Barrie and Robinson.

The chaff bags were sewn with red string to distinguish them and when they were brought down to Schutt and Barrie's Footscray mill it was sometimes the practice to replace the string with the green string of their mill. (67)

It eventually burned down in 1939.



Diggers Rest chaff-mill about 1920, Donald McDonald, second from the left. (courtesy of Ron Cameron)

Schutt Barrie and Robinson Pty Ltd

In 1926 J.R. Schutt and C.E. Barrie joined with Henry Robinson of May Farm, Truganina to form a company to acquire land at Diggers Rest and deal in dairy, farm and garden produce. They were described as chaff buyers, cutters and dealers, corn straw and fodder merchants, and dealers in a variety of agricultural products. The company of Schutt and Barrie Pty Ltd is mentioned several times in articles of association etc. and Schutt, Barrie & Robinson's registered office is the same as Schutt and Barrie's Geelong Road, West Footscray chaff-mill.

From 17.9.26 Henry's sons, David Stanley and Douglas Ernest Robinson were taken into the Company and allotted 333 shares each. Both were described as contractors as was H. Robinson who now had 334 shares. The members of the Company were listed in correspondence with the Corporate Affairs office dated 16.10.1929. as follows;

Schutt J.R.	Geelong Road, Footscray	Director
Barrie C.E.	Darlingsford, Melton	Director
Robinson H.F.	Barkley St. Footscray	Manager
Robinson D.E.	Diggers Rest	Chaff-miller
Robinson D.S.	Diggers Rest	Chaff-miller

It appears from this that David and Stanley were working at the mill while their father managed it, although this arrangement changed when David took over from Henry as manager from 14.11.31 and Henry transferred his shares to his sons equally as of 10.12.32.

Schutt Barrie and Robinson Pty Ltd. continued to be listed in the directories until 1945 even though the Diggers Rest mill was burned down in 1939, after which the Robinsons moved to Melton where they bought out Ebbott Kebby and commenced running that mill. (68)

Parwan.

In 1911 Austral Grain and Produce built a chaff-mill at Parwan opposite the station and beside the Ballarat railway line. The building measured 90 feet by 60 feet, had a concrete floor and is said to have had one of the first telephones in the district in its office. Donald McDonald was the one-time manager of this mill. (69) McDonald is also credited with managing the Sydenham chaff-mill. (70)

In January 1923 C.E. Barrie constructed a siding to the mill and in the following year the lease for the siding was transferred to Schutt and Barrie Pty. Ltd. This indicates that Schutt and Barrie already had an interest in the mill although the exact date of the change in ownership is not known.

An interesting feature of the operation of the siding was the

requirement that the Company get permission and a key to the chock blocks from the station-master before moving trucks between the chaff-mill and the shed road. This was probably achieved by hauling the trucks with horses, as was common on the lightly constructed chaff-mill sidings.

The siding was blocked off in 1939 and a one pound fee for keeping the siding in place was waived by the railways. This suggests that the chaff-mill was no longer in use and so may have burned down around the same time as the Diggers Rest mill.

The siding continued to be used by the railway department in the 1960s and the Australian Barley Board considered using the siding in 1963 but found the condition of the track too poor. Schutt and Barrie's still had a lease for the siding although they were not paying the fee. This was finally cancelled in December 1969 and the trackwork was removed in the New Year, obliterating the last trace of the mill. (71)

Bacchus Marsh.

A. Gisborne Road

Pearce Brothers

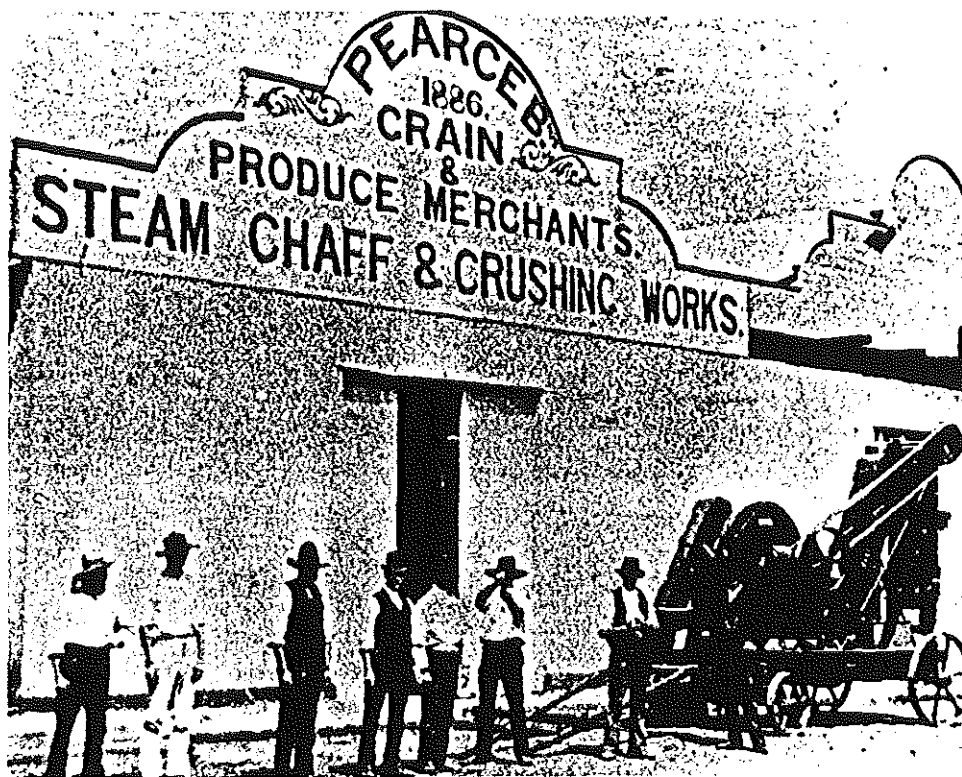
Pearce Brothers established their first chaff-mill on Gisborne Road (Church Street) in 1886. In 1903 Pearce Bros. also had a hay and corn store in Main Street, Bacchus Marsh as well as other ventures in farming including pioneering irrigation and chicory production. (72)

B. Maddingley, west of railway gates

In 1908 the mill was moved to Maddingley, just south of the railway gates and diagonally opposite the Bacchus Marsh station. The move and choice of location was clearly designed to enable more efficient transport of hay and chaff via the railway line, and to this purpose the new mill had its own siding, also constructed in 1908. Again, engines were not allowed on the siding and trucks had to be shunted by horses. A new agreement with the railway in 1920 transferred the lease of the siding to Frederick C. Pearce, who managed the mill and appears to have conducted the business separately from the other parts of the family enterprise (73)

Tim Shea remembers, '39 loads of lucern would come in to Pearce's chaff-mill before twelve o'clock. Pearce had a big business in it; a tremendous business. He'd supply it to all the dairymen around Melbourne.' (74)

Pearce Brothers had been general merchants in Bacchus Marsh and Jeparit since the mid to late 19th century. Ebenezer and Thomas



Pearce's 1886 chaff-mill, Bacchus Marsh with a mobile chaff-cutting machine in front of their works. courtesy Bacchus Marsh Historical Society.

George Pearce, both farmers of Bacchus Marsh, originally registered the Company on 14.2.1893. T.G. Pearce died on 26.11.14, and Thomas Hodgson Pearce of Main Street, Baccus Marsh joined the firm in his place. Next, Ebenezer Pearce retired on 21.7.1919. A letter dated 26.11.19 to the Registrar General indicates the Company discontinued business in Jeparit over 10 years previously but still retained the Bacchus Marsh business. This was signed by Alfred Pearce, solicitor at Bank Place Melbourne and Bacchus Marsh, indicating another of the diverse skills of the Pearce family. (75)

A note in the Defunct Business File dated 26.6.30 indicates that the Company was still carrying on business at that time and in 1931 the mill was enlarged, but in 1946, Pearce Brothers was struck off the register. (76)

M.H. Joske, trading as Joske Grain Products, took over the mill in 1946 and reconditioned the siding but this venture was short-lived and by 1951 the siding was dismantled and the site became part of the Maddingley Brown Coal Company's land. (77)

In 1930 the Pearce family extended its business interests further, this time into motor cars when Pearce and Simpson's motor garage was established. By 1940 it was known as Pearce Motors and eventually became P.S. Carey Motors.

In living memory, the Pearces played a dominating role in the life and commerce of Bacchus Marsh. Tom Pearce had the grocery store which was where the 'Rite Way' now stands, Fred Pearce took care of the car sales and was responsible for selling many of the first cars in the area through their General Motors agency. This was later sold to Percy Carey. Pearce Brothers also ran the chicory kiln in Bacchus Marsh and were prominent in the Baptist Church and the Maddingley Park trust. (78)

A company which may have been connected with the Pearces of Bacchus Marsh ran a chaff-mill in Werribee from the 1890s. This was Pearce and Hancock which is dealt with below under Werribee.

C. East of station

In 1890 Thomas Andrews constructed a chaff-mill in Maddingley to the east of and opposite Bacchus Marsh Station. The siding agreement with the railways department was made on 27.4.21 and again required that no engines be allowed on the siding, but the siding may have been operating before then. This mill may also have taken advantage of the lucern grown in the area and the demand of the dairy industry.

In December 1925 the siding was assigned to F.C. Pearce who was expanding his business but five years later fell victim to the Depression and closed the mill, paying for the Victorian Railways portion of the siding to be dismantled into the bargain. (79)

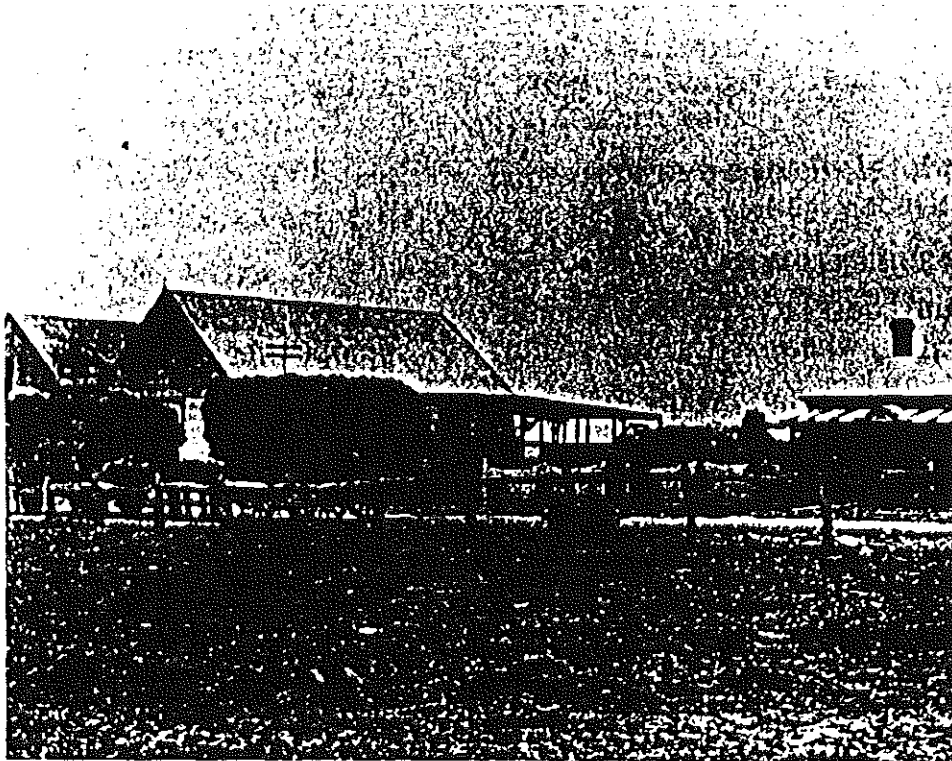
Melton South. Barrie/Ward.

Corner of Brooklyn and Station Roads.

C.E. Barrie, who later went into partnership with J.R. Schutt in Footscray, constructed a mill in Station Road, Melton, in 1905. This was a co-operative effort with his brother Alex and was known as Barrie Brothers' mill. (80) The 1903 Sands and McDougal Victorian Directory lists, under Chaff Cutters: 'Weselman, F, late Alex Barrie, Steam chaff cutting and grain crushing mills, 23 Courtney Street, North Melbourne'. It appears from this reference that Barrie's involvement in chaff-cutting extended beyond the local district even though both A.W. and C.E. Barrie continued farming in Melton along with their milling interests.

In 1908 Barrie Brothers moved the mill to Rockbank. (81)

Later, around 1910, C.E. Barrie built another mill on the same site and resumed chaff-milling in Melton. The mill was extended and improved substantially with sidings being constructed in 1907 and acetylene lighting installed. (82)



Barrie's, later Ward's chaff-mill, Melton, early this century.
courtesy Mrs. Edna Barrie.

A change in ownership came some time after the new mill was constructed. Victorian Railways records give Glover Onians and Co. as the owner of the mill in 1907, but contain another reference indicating the lease for the siding was transferred from C.E. Barrie to H.S.K. Ward on 11.3.1910. (83) Other sources suggest that Ward bought the mill in 1916 and shortly after was owned by Ward and McKenzie with Joe Dixon as manager. (84)

In 1915 the mill was producing 70 tons of chaff daily and on one occasion 17 trucks were loaded in two hours of overtime. On 11 March 1916, Ward's mill worked from 7.30 a.m. on Friday to 4 p.m. on Saturday to fulfil a shipping order and in March that year an order of 1000 tons of hay was filled by keeping two hay presses working continuously. (85)

A fire in 1920 destroyed the mill but it was soon reconstructed. As no engines were allowed on the siding, horses were used by Mr Ward to pull trucks to and from the shed road at Melton station, and tractors were used from 1962. The cost of maintaining this siding varied considerably and was payable to the Railways Department as an annual fee. From 1930 to about 1950 it was 79 pounds 5 shillings and 4 pence; then 24 pounds in 1956 and 31 pounds in 1963.

In 1946 H.S.K. Ward became H.S.K. Ward Pty. Ltd. and the mills in Melton and Rockbank were transferred to the new company.

The building comprised two large bays with what was known as a right of way between them, through which the hay would be delivered and then stacked in the loft which measured 18 by 20 feet. From here the hay was taken across by elevators to the cutters then up from the cutters to be bagged in the other loft. The loft was five feet above the tray of the trucks so the bags could simply be dropped down on the tray. A truck of chaff went out by rail every day to Brown's of Deniliquin until the mill burned down. (86)

After Leo Tarleton had lost his hand in a chaff-cutter accident, he made an agreement with Ward's that he should grow hay for the mill and Ward's would cut it. Leo's brother-in-law, Jack Tolhurst managed the mill for a while and then Neil Rocks managed it. Around 1973, it was operated under the name of Ward and McKenzie Pty. Ltd. (87)

The mill was again destroyed by fire in 1977, but this time the cost of rebuilding was too great for the owners to bear, due to the diminished sales and profits. Ward, however, kept paying for the siding lease and appears to have kept his options open. When the land was re-zoned as residential in 1978 a further obstacle to reconstruction was met and in the same year the turnout to the siding was removed. On 2.2.84, not long after Brooklyn Road was reconstructed and reconnection of the rail access made impossible, the agreement with the railways was terminated. (88) The railway was still in use when the mill burned down, mainly for bringing briquettes in for the boiler.

Rockbank.

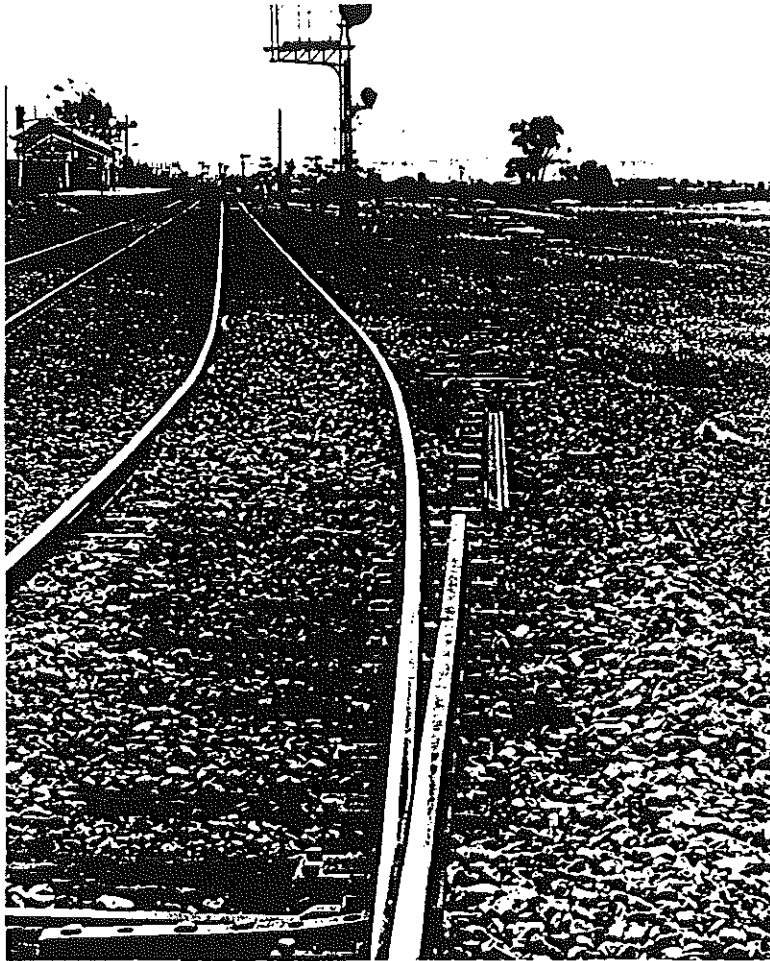
The Rockbank mill was built in 1908 by the Barrie Brothers opposite the railway station and its machinery brought from Melton by horse and dray. (89) Moving large machinery and buildings appears to have been something of an accomplished art for the Barries as they were also responsible for moving their Djerriwarrah home to Ferris Lane Melton by truck in 1941 (90) and Jack Findlater's house from Rockbank to Footscray West. (91)

Hill and Reid, chaff-millers who operated from King Street Melbourne in 1915, had an interest in the mill at some stage although when and how they were involved is not known. (92)

H.S.K. Ward trading as Glover Onians and Co. also bought this mill around the same time as the Melton mill and constructed a siding in 1914, which was extended in 1915. The manager was Archie McEachern. (93)

By 1.7.55 the mill appears to have been out of action as Victorian Railways were using the siding and waived the annual maintenance charge. In 1959 the siding was purchased by the railways. (94)

The Rockbank mill also burned down.



Railway turnout to site of Rockbank chaff-mill, in right background, 1987. Photo G. Vines.

Glover Onians and Co. (HSK Ward)

On the 3rd of January 1893 William Glover of Woodend and Richard Onians of Armidale, Auctioneers and Grain Merchants with offices at 54-56 King St. Melbourne, first registered the business of Glover Onians & Co. Four years later Harold Seymour Kellam Ward (HSK Ward) who was a Grain Merchant and Commission Agent of 304-306 King Street, Melbourne, and William Alexander Reid, a Grain Merchant and Corn Agent of Aberfeldie in Essendon, become members of the firm while W. Seymore and R. Onians retired.

In September 1902, when Reid retired, Edwin Henry Clark from South Melbourne became a member. His time with the Company was also short as he retired in June 1904.

The Company appears to have had another change in its directorship in June 1909 when James Arthur Berwick of Caulfield declared that he was authorised to carry on the business of Chaff and Grain Merchants at Werribee as Glover Onians and Co. (The letter-head contains the words: 'Glover Onians and Co. (HSK Ward) grain and produce salesmen 54-60 King St Melbourne.') This is the last record of the firm until it was struck off the Register of Businesses in July 1929. (95)

Ward appears to have continued in the chaff-milling business on his own from this time until 1946 when he formed a proprietary limited company.

East of Rockbank station.

John Hocking and Son

Another chaff-mill operated in Rockbank for a short time. This was established in 1925 by G. Cockbill who leased land from the railways for a chaff-cutting business and a siding. It continued until 1931, when the points and crossing were removed and the site appears to have been vacant for some years. In 1936 the siding was reconnected by J. Hocking and Sons who later sold out to Hay Products Pty. Ltd. They in turn ceased business about 1940 and the siding was again disconnected. On 16.6.72 an inspection by railway staff revealed no evidence of the siding or a business on railway land. (96)

John Hocking and Sons were Hay, Corn, Chaff, Wood and Coal Merchants of Dandenong Road, Malvern and Nepean Road, North Brighton and were established on 1.2.1908. Hocking was a resident of 'The Grange' East Malvern, and was a produce merchant by trade. His venture into chaff-milling in the west appears to have been a sideline or subsidiary to his main business in the eastern suburbs.

The Company ceased on 21.12.1919. (97)

Melton

Brooklyn St.

The origin of the second Melton mill is a little obscure. Leo Tarleton believes it was constructed by Ebbott and Kebby (their company was registered as Ebbott Kebby) who were certainly operating the mill in the mid 1920s, (98) but Railway Department records indicate the land was leased by Dixon Brothers as early as November 1917 when the original siding was constructed. (99) A photograph in Starr's Plains of Promise which shows workers on construction of 'Dixon's Chaff-mill' about 1910 again points to Dixon Brothers as the proprietors of the mill, (100) and Bill Cahill recalled in 1976 that the two chaff-mills in Melton were Dixon Brothers and Wards, producing up to 1800 tons per month and each employing 20 men. (101) According to Leo Tarleton, Dixon managed the mill when it was owned by Ebbott Kebby, but as Ebbott and Kebby did not form their company until 1923 it is likely that Dixon was the builder and first owner of the mill and continued on as manager after selling it to Ebbott Kebby. (102)

The Directory for 1911 lists A. Gillies as a chaff-miller in Melton, but it has not been discovered which mill he was involved with or whether he managed or worked in the mill.

Dixon Bros. were also prominent chaff-millers during the 1910s and '20s in other parts of the state and ran mills in Corio

Street, Geelong, Doveton Street, North Ballarat, Burrumbeet and Blowhard and had a produce store at 548 Flinders St, Melbourne. They were still listed as Produce Merchants in Melbourne in 1956.

A siding was constructed from the Number 3 Road, (another siding at Melton station), across Brooklyn Street to the mill. One line ran through the centre of the mill while another passed to the south. Horses only were allowed on the siding to pull wagons from the special hay loading platform to the mill.

In 1963 the annual maintenance fee was 58 pounds and at this time the rail trucks were pulled by tractor and chain. The mill's rail siding is recorded as being transferred from Dixon Bros. to Ebbott Kebby in 1924. (103)

Ebbott Kebby

Ebbott Kebby was established on 31 July 1923 as grain and seed merchants; hay, straw and fodder merchants; meat merchants; corn, flour, jute merchants; manufacturers, millers, chaffcutters, grain and seed crushers, fodder compressers, fruiterers, greengrocers, butchers, bakers, grocers, wine and spirit merchants, etc. etc.

Both directors, F.B. Ebbott and E.J. Kebby were described as chaff and grain merchants, and had been conducting such businesses separately for some time. Just prior to the formation of the Company, in 1922, Arthur H. Ebbott resided in Bamfield St. Sandringham and E.J. Kebby was a 'Grain and Merchant Banker' of 528 Collins Street, Melbourne. Clearly they had little to do with the actual operation of the mill but instead they provided capital and collected profits.

On 17.8.31 E.J. Kebby died and was replaced in the firm by R.H. Ebbott, Arthur's son. The Company's capital in 1940 was 10 000 shares, each worth 2 pounds. They were still listed in the Melbourne Telephone Directory under Chaff Merchants in 1939, but must have ceased business by 1947 as this is the date of the last file entry. (104)

The mill was changed over from steam to electricity for driving the cutters, riddles, elevators and baggers in 1939. Steam has, however, been retained for treating the hay before it is cut. (105)

The mill was built up to its present size over many years with bays being added on to cope with expansion and the need for more hay storage. Up to 200 tons of hay could be stacked in the mill for cutting up during the winter months. (106)

In 1940 Ebbott Kebby were bought out by Robinson Bros. (trading under the name of S. and D. Robinson), who had worked the Diggers Rest mill until it burned down. The Robinson family had come from Truganina and still own land in the area. They have been hay growers for over 50 years and carted hay to Schutt and Barrie's in Footscray from 1938 as well as the other mills in the area.

(107)

The Robinsons ran the mill for 10 years and in 1950 it was taken over by B.J. Trethowan and Jack Butler. Butler provided the finance for the mill and when he decided to sell his interest in the mill it was taken up by Wright Stephenson and Co. (Aust) Pty. Ltd. B.J. Trethowan continued at the mill as manager for Wright Stephenson. (108)

Wright Stephenson

This firm's history goes back to the firm of Adamson Mackinnon and Cox Pty Ltd., auctioneers of racing and other types of horses. It was registered on 15.9.22. W.S.Cox was the famous horse breeder and racer at Moonee Valley Racecourse and M.P. Adamson and Mackinnon were both in the bloodstock business and their move into chaff-milling appears to have been to provide a guaranteed supply of feed for their race horses.

In 1927 the Company name was changed to MacKinnon and Cox and then in 1951 Tom Reynolds Wright was appointed to the Company and W.S. Cox resigned as director but continued to hold shares. At the same time the name of the Company was changed to Wright Stephenson Bloodstock (Aust) Pty Ltd. and the Cox and McKinnon shares were sold to Wright Stephenson and Co. in August of the same year.

Wright Stephenson were seed and grain merchants of 34 Queen Street, Melbourne in 1952 and were expanding their business into feed manufacture through purchase of the Melton mill as well as Dixon Brothers' mill in Burrumbeet. The growth of the firm at this time is indicated by a sale of shares which increased capital to 45 000 pounds. In the 1950s T.R. Wright died and several new appointments were made including directors based in New Zealand.

In 1963 a statement of assets included the land and buildings at the Newmarket stables but no mention was made of the chaff-mills at that time. On 25.7.65 the Company was wound up. (109)

B.J. Trethowan's son and grandson purchased the mill off Wright Stephenson in 1962, returning it to family ownership. It then went under the name of J.V. Trethowan and Son. This was changed in 1967 to B.J. Trethowan and Co. Pty. Ltd. and continues in operation today, run by Bernie Trethowan. (110)

In 1983 the railway siding was dismantled along with the siding to Ward's mill, due to reconstruction of Brooklyn Road.



Trethowan's Chaff-mill, Melton, 1987. Photo. G. Vines.

Sydenham.

Sydenham is one mill we know little about. It was erected around 1919 by J. Sloan and Son on land leased from the Railways for 4 pounds a month. Sloan and Son went into liquidation in 1933 and the site was put up for auction. Thomas Browne Slaney bought the site for 1110 pounds and carried on business under the name of Bullen and Moss. Slaney managed the mill. Then the Victorian Oat Pool bought it to manufacture oatmeal and in 1972-3 the inevitable fire destroyed it. It is presently a garden supply depot. (111)



Site of Sydenham chaff-mill, 1987. Now occupied by a garden nursery, note the siding in the foreground. Photo. G. Vines.

Werribee. Ison/Thompson.

Cherry St. top end of Watton St.

William Ison was born in Cambridge, England in 1832, and came to Australia in the 1860s. He constructed a chaff-mill as part of a wood yard and grain store business and fitted it with all the necessary machinery. (112) The mill was located on Cherry Street beside the railway crossing and lasted until recent years when it was demolished to make way for a new supermarket.

Ison had a house on Bulban Rd. near the race course and was prominent in the Racing Club and as a farmer and supplier of hay and chaff to Melbourne he and died about 1935. (113)

15000 tons of grain and hay were loaded at Werribee station each year after the Chirnside land had been subdivided for tenant farms and sold to the MMBW in the early 1900s and 'Werribee became known as the principal hay growing district in the colony' (114)

Some time between 1925 and 1930 the mill was purchased by D. W. Thompson, trading as Thompson Brothers Chaff and Produce Ltd. In 1950 the Thompsons also ran the firm of Thompson Bros. Timber and Hardware Ltd..

At some stage Thompson took over the mill run by Freddie H. Oldis in

Werribee on the site of the present Powers Hardware store. This was, at earliest, after WW II (115)

Thompson Chaff and Produce Pty. Ltd. continued to operate at Cherry Street, Werribee until 1967, after which no record of the mill has been located.

B. E.C. Robertson.

In about 1904 E.C. Robertson began cutting chaff in Werribee on a site on the railway reserve near the Werribee Street level crossing. At the same time he built a siding which was extended in 1917.

The land for the mill and siding was leased from the Railways and an annual fee was payable. This amounted to 72 pounds in 1957, 93 pounds in 1963, 57 pounds in 1964, and \$114 1978-80. (116) The 1960 telephone book lists Robertson E.C. Pty. Ltd. at 52 Collins St. and Station Road, Werribee.

Messrs. E.C. Robertson and Co.

The firm was first registered in 1893 (but certainly was established before that date (117)) by Ernest Clarence Robertson of 'Solway', Grace Street, Moonee Ponds to conduct business as chaff, grain and general farm produce merchants. At this time the firm's business address was 56 Spencer Street, Melbourne. In 1904 a new registration was lodged for the firm of E.C. Robertson and Co., Chaff-Cutters and Grain Crushers, Werribee. In 1909 E.C. Robertson's address was at Ardmillan Road, Moonee Ponds and was listed as a Commission Agent and Hay and Corn Salesman. In August 1929 the Company was struck off the Register, (118) but Robertson continued to operate regardless.

E.C. Robertson produced the 'Orange String' brand of chaff which distinguished it from Melton's 'Blue String' and 'Black String' brands and Schutt and Barrie's 'Green String' brand. (119) In 1954 R.M. Watson subleased some of the land and used Robertson's siding. This may have been the Watson who managed the Werribee Park butter factory which was built by Thomas Chirnside. (120)

The siding lease was transferred to E.G. Phelps Pty. Ltd. in 1961 and a weighbridge was constructed on the site at some stage. This went out of service in 1972-3 when the siding maintenance fee was waived due to damage to the weighbridge, probably as a form of compensation.

The siding was finally dismantled in 1982, some time after the mill had closed.

According to a local farmer 'Robertson operated as a grain mill after the chaff gave out.' (121)

Other chaff-mills

Other names crop up as chaff-millers in Werribee but insufficient information has been found to establish what their involvement was with the known mills; at least three mills did operate in Werribee. This information has been included as a starting point for further study.

Fearce and Hancock

A chaff-cutting works in Werribee was registered in November 1897 under the name of Fearce and Hancock and may have been connected with the Fearces of Bacchus Marsh. H. Hancock was a produce merchant with business premises at 160 Commercial Road, Prahran and a private residence at Charles Street, Prahran. William Fearce resided at 180 Montague Street, Albert Park. Little is known of this company except that on 17.11.04, H.Hancock retired. (122)

Murray records a note, probably from the Werribee Banner, that around 1903 Mr. W. McMurray requested a siding on the west side of the railway line for a grain mill. (123)

The directories also list a number of Werribee chaff-millers although they do not indicate whether they are mill owners, managers or workers.

Glover Onians & Co. are listed at Railway Reserve Werribee from 1907 to 1923. This appears to have been at or near Robertson's mill which was also described as 'Railway Reserve'. Possibly Glover Onians had financial interest in Robertson's mill.

Newton Nicholas is listed between 1917 and 1928 but no details of the mill's location are given beyond 'Werribee'.

From 1911 to 1915 Robert Walker and J. Woodcock were chaffmillers in Werribee

In 1915 George Will was a chaff-miller in Werribee

Mobile Chaff-mills.

A number of mobile chaff-cutters were operating in the region in the early part of the 19th century. Mobile chaff-cutters were manufactured in large numbers by two Melbourne companies, John Buncle, and Cliff and Bunting. They were also used by farmers for producing their own chaff, but some operators travelled around the area cutting chaff at a fee per ton.

Melton area

The Harkness mobile chaff mill worked in the Melton area and was operated by William Scott Harkness along with David Robertson, a band-cutter, and William Morrow, a bag hand, who had lost his left hand in a chaff-cutter and wore a hook in its place. (124)

Another photograph in Flains of Promise shows a mobile chaff-cutter beside a hay stack and is captioned, 'Barrie's travelling chaff-cutter' but no other details of this are known. The Barries were growing hay for many years and were apparently also operating a mobile chaff-cutter on their own farm around the area. (125)

The mobile chaff-cutting teams cut for so much per hundredweight plus the men's wages, the same system as used by mobile threshing teams. A steam engine carted the plant out and powered the cutter and then carted the hay to rail trucks in Melton. In one job taking six days, 1200 bags of chaff were sent out. (127)



Barrie's travelling chaff-cutter, Courtesy Mrs. Edna Barrie.

Rockbank area

In 1918 E.J. Greig of Rockbank was working a travelling chaff-cutter and continued to do so to 1926. His production was as high as 1200 bags in a week. (127)

Jack Findlater has also provided a photograph of a mobile chaff-cutting team in the Toolern Vale area around 1920. His father and uncle are in the photo which also shows five other workers, a portable steam engine, dray loaded with chaff bags, water cart and the chaff-cutter itself.



Travelling chaff-cutting team with Jack Findlater Snr. third from right, and his brother on left. (courtesy Jack Findlater).

5. ARCHAEOLOGY

Most of the chaff-mill sites discussed above have been visited by the writer in January or February 1987. In some instances useful information could be found in the remnants of foundations and floors, signs of earthworks, roads and railway lines and the general features of the locality. The most striking feature of all but the Ascot Vale and Moonee Ponds sites was the proximity of the mills to railways. All but the two above were within a few metres of railway lines and within 100 meters of a railway station. Signs of sidings into the mills could also be discerned at many sites.

As the last surviving mill in the region, Trethowan's in Melton should be the first dealt with. It is also the most valuable for examination from an archaeological perspective as it retains nearly all the elements of a 19th or early 20th century chaff-mill. The building consists of a series of six gable-ended bays of varying widths, constructed of wooden frames and roof trusses and clad with corrugated iron. The three central bays appear to be the oldest and contain the cutters, steamers and bagging machines. Additions have been made to either side of these. A shed at the rear, now used as a workshop, is probably the last addition to the building. At present, the eastern bay is used for hay storage and the western bay is used for storage of bagged chaff and other feeds, each storage area having a through driveway for trucks. The present layout possibly reflects the original use of the building and considering the age of the machinery, has remained substantially unchanged for several decades. A private weighbridge is next to the mill, still operating and the associated building is used as an office.

Traces of the railway siding can be found across Brooklyn Road, which connected with the stock siding opposite the mill, west of the goods shed.

In the main working area of the mill, the bagging and mixing area, is raised to the level of the loading platform with the main drive shaft and pulleys directly below the floor. The cutters and riddles are also below the floor level so that the chaff must be raised about 3-4 metres overall to the top of the baggers. (128)

The completeness of this mill and the age and integrity of the equipment offer enormous potential and a unique opportunity for detailed analysis of the engineering and operation of the chaff-milling process.

The remainder of the sites have very few intact features by comparison and pose many difficulties for location and interpretation of the original structure. Many of the conclusions made must be tentative and we must rely on some guess-work in order to mentally reconstruct the mills.

Ward's Melton mill was still in operation as recently as 1977, but very little remains today on the site. The line of the siding

can be traced as a series of sleepers, sleeper depressions, dog spikes and the occasional rail, from the hay-loading siding across Brooklyn Road through a vacant lot and turning 90 degrees to Station Road. Boxthorn also marks the line of the track.



Impressions of sleepers from the siding near Ward's chaff-mill, Melton, 1987. Photo. G. Vines.

The chaff-mill is delineated by a line of mature peppercorn trees and gravelled roads around the mill. A water tank has been filled in and the site has been levelled, but scattered artifacts such as nails, pieces of steam pipe and machinery and some charred timber can still be found on the site.

Sydenham mill we know, was located on the site of the present MGS nursery diagonally opposite the station between the railway line and Victoria Road. (129) The concrete floor of the mill appears intact, part of it being raised about one metre and still retaining mounting bolts for machinery. Other areas have been filled with soil or obscured by new structures, such as the railway carriages currently used as offices for the nursery. The concrete floor of the mill also appears to have been extended, so now the original outline of the mill is difficult to trace. This might be possible if the site was clear of potplants and other stock of the nursery. The raised section suggests a loading platform and something like the raised machinery area at Trethowans.

A railway siding is still extant along the east of the site. This connects with stock-loading ramps across the road and appears to have been out of use for some time.

The site of the Diggers Rest mill, has been obscured by filling and grading parallel to the railway, south west of the station, but a few details indicate the mill's location. The siding joins the north-bound track just south of the passenger platform and has its own earth and timber platform which may have been used for hay and chaff loading. An area to the west of this contains several timbers which may also have been part of a loading platform, this time for trucks. The tall grass present on the site made it impossible to trace any surviving building features such as post holes, but scattered and half-buried bricks, wood and iron suggests the area has been bulldozed sometime in the past.

Farwan station was demolished in November 1986. (130) The chaff-mill was located north-east of the station across Whelan's Road. No trace of the siding can be seen west of Whelan's Road, but to the east, the site of the mill is marked by mature Sugar Gums and a modern house. As this is private property, access to the site was not gained but it has a good potential for preservation of remains due to isolation and little activity in the area.

Pearce's Maddingley mill may survive, as a building on the site, now owned by Maddingley Brown Coal, looks remarkably similar to the photo of the mill taken in 1908, (131) although the front wall has been opened up with four roller-doors added. This



Pearce's chaff-mill, Maddingley, now converted to garages by Maddingley Brown Coal, 1987. Photo. G. Vines.

building is of timber and corrugated iron construction with a low-pitched gabled roof. The siding plan (132) shows a deeper building but it is possible that a second bay once existed behind the surviving structure but has since been demolished. This would not be visible in the 1908 photo.

The siding cannot be seen but the turnout on the coal-mine siding shows where it once connected.

No sign of Pearce's 1886 mill could be found, as historical records only locate it generally in Church Street. The present Mobil petrol station is a possible location, but this is only an educated guess based on a comparison of the photograph in A Pictorial History of Bacchus Marsh (133) with the present topography and likely sites.

The location of Ward's Rockbank mill can be established from historical reports and siding records, but little can be seen of the site today. The turnouts for the siding can be seen although the remainder of the siding has been ripped up. Boxthorn and a few mature gum trees have grown over the mill site and obscured the ground entirely, but beneath the prickly cover, some features may be preserved.

At Werribee, Thompson's mill has been demolished and the site obscured by the reconstruction of Cherry Street and the building of a super-market. Robertson's mill is also demolished, but the siding remains and the access roads around the site remain to indicate the general location of the building. The Oldis mill has not been located but may be the surviving building now operating as a pea store by Stockley Holdings, north of Cherry Street.

Schutt and Barrie's West Footscray mill is now a carpark for Containers Limited. The extent of the gravel defines the original plan of the mill and the concrete foundations of the railway viaduct (constructed 1934-6) can still be seen on the Geelong Road service road (134). The other end of the sidings can still be seen across Sunshine Road. The most tangible evidence of the mill is the weighbridge on the other side of the service road which is still operated and registered as Schutt and Barrie's. With the sidings, it shows where and how hay and chaff was brought in and out of the mill and helps reconstruct the scene of a few decades ago when rail and road trucks were coming and going all day at the mill.

6. SUGGESTIONS FOR FURTHER RESEARCH

The research compiled for this project has come from a wide range of sources. Very little of the history of chaff-milling has been written up. Local histories of Melton, Werribee and Bacchus Marsh have made mention of chaff-mills in the local context but the data is sparse. Documentary sources consulted include files from Corporate Affairs, Defunct Business Register, the Lands Department, Department of Agriculture, V Line, Department of Weights and Measures and the Probate Office. Each of these has been able to add a little to the overall story, whether in terms of ownership of mills, production figures, transport arrangements or family connections.

The Victorian Commercial and Post Office Directories have been used extensively and have provided a good overview of the spread of chaff-milling. One of their draw-backs, however, is that they are incomplete, and sometimes inaccurate, and do not distinguish in their descriptions of trades and occupations, between owners, managers and employees of chaff-mills. Sometimes a mill is not listed for several years after it had started up or else continues to be listed a year or two after it had closed down. Country trades are absent from the main directory, Sands and McDougal, until 1902.

Newspapers, books on farming and horse breeding and picture collections have also been gleaned for possible references to hay and chaff. An appeal for local memories had a great response and resulted in snippets of information from some and long detailed descriptions from others.

Inspection of sites has added to the understanding of the operation and location constraints of the mills.

In all of these source areas further work can be done. A list of contacts has been compiled which could provide more oral history, private records and possibly lead to further sources. The archival sources could be examined much more closely; for example, the V Line files consulted were summaries and maps of each mill. Reference in these is made to correspondence files in the Department's own archives which would certainly provide new and more detailed information.

Probate records exist for some of the deceased mill owners, and an examination of these could show inventories of mills as well as family connections. As many of the people involved in the chaff and hay-farming industries were related to others in the industry, it would be a valuable avenue of research to follow up these family connections and analyse their importance for the development of the industry as a whole.

Council Rate Books, Lands Files, Titles searches and Department of Agriculture files could all be used to refine our knowledge of the structure of the industry and the details of ownership. Parliamentary Papers need to be systematically gleaned for

references to the hay growing and stockfeed industry.

Statistical records are available for agricultural production and manufacturing and could be used to establish long-term trends in the industry as well as details of size of mills, number of employees and chaff-cutting machines, production figures, etc.. These are held in the Australian Bureau of Statistics library in Melbourne.

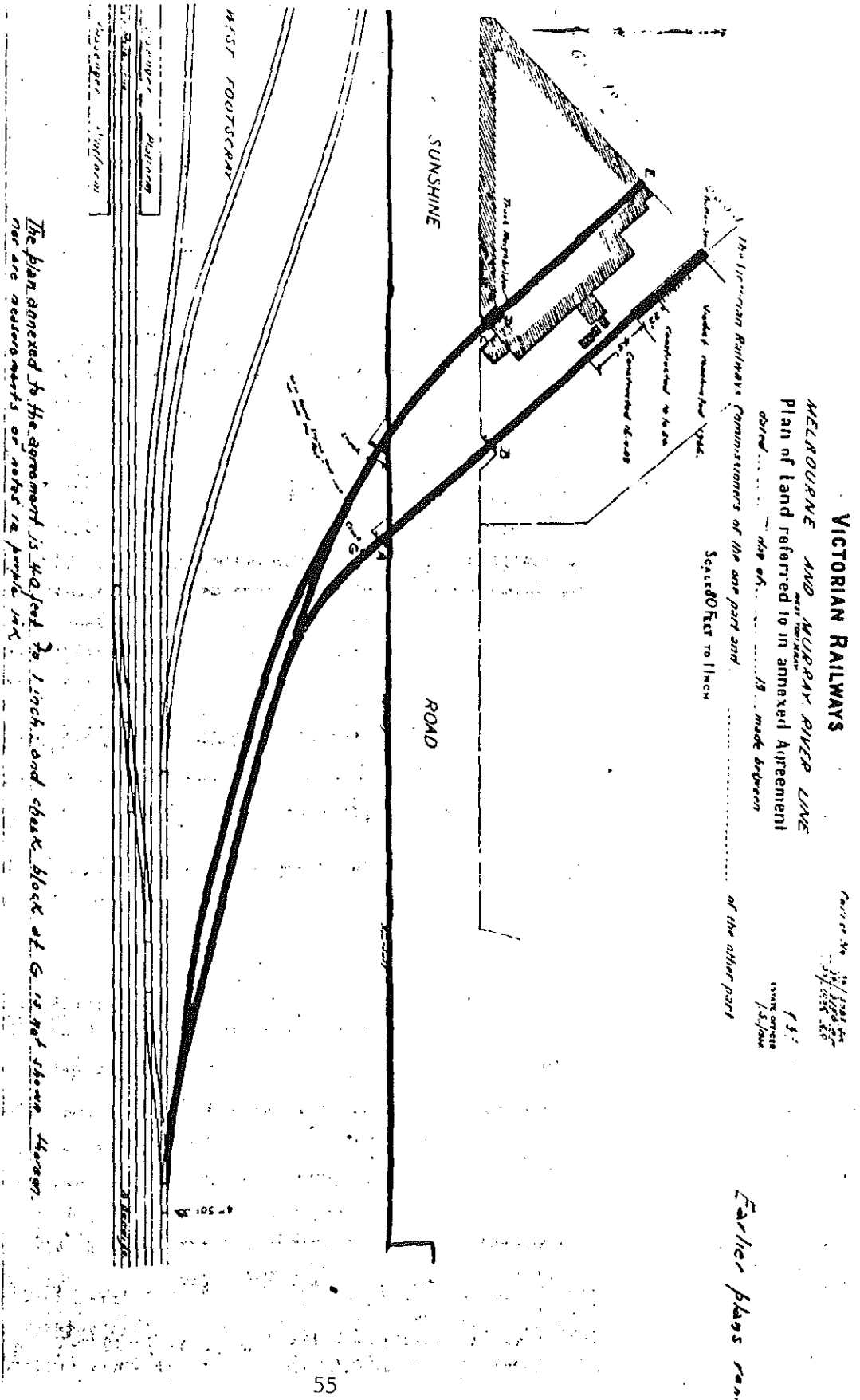
Further study could be concerned with putting the local chaff-cutters in a national or international context and establishing their overall contribution to industrial development and economics, particularly in relation to the transport industry. The connection between chaff-millers and motor garages has been mentioned in relation to Schutt and Barrie's, Pearce's and the Moonee Ponds mills. This would also be a good line to follow with further research.

A multidisciplinary approach has been taken so far in researching chaff-milling involving documentary, oral and archeological sources. The result has been to give a broad coverage of many aspects of the industry in the short time available. Any further research would benefit from a similar approach. Further archaeological research might involve recording the physical structure of the surviving mill in Melton and possibly other mills in or out of Victoria, as well as locating and recording any surviving features of the demolished mills, such as foundations, floorplans or railway sidings and access routes. Finding, recording and possibly collecting artifacts associated with chaff-cutting such as machinery, tools, special clothing, etc. would add to our understanding of the industry.

APPENDIX A Plans of chaff-mills with sidings.

Coppied courtesy of V Line, Sidings Administration Section. From Dismantled Sidings Register and Indexes.

Schutt and Barrie's chaff-mill, West Footscray
corner of Sunshine and Geelong Roads.



VICTORIAN RAILWAYS
FOOTSCRAY AND BACCHUS MARSH LINE

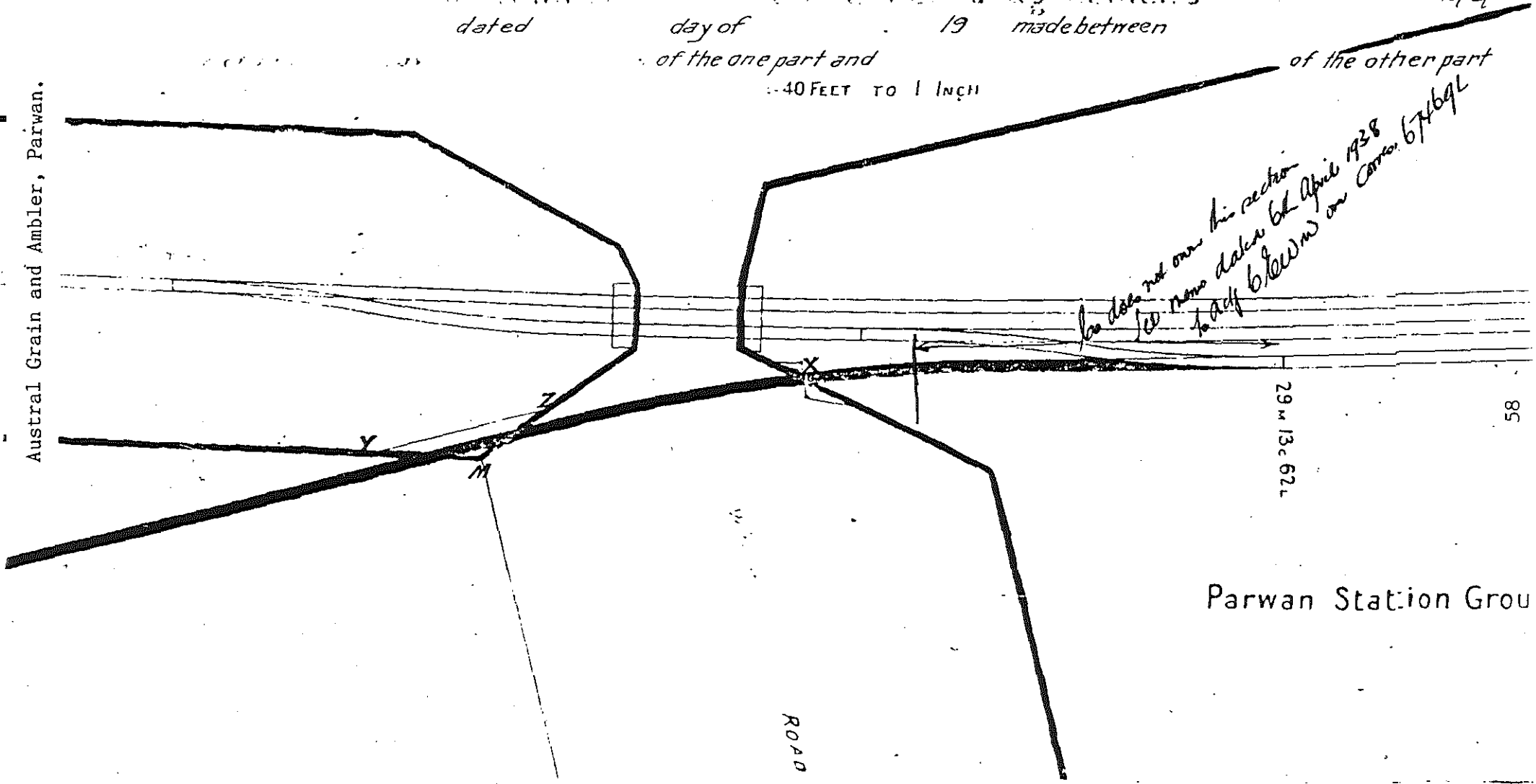
Plan No. 1221/2462

of land ... agreement
dated ... day of ... 19 ... made between

12/2/24

of the one part and of the other part
1:40 FEET TO 1 INCH

Austral Grain and Ambler, Parwan.



Parwan Station Group

ROAD

85

Tootscray to Bacchus Marsh Line

Plan of Land referred to in annexed agreement .

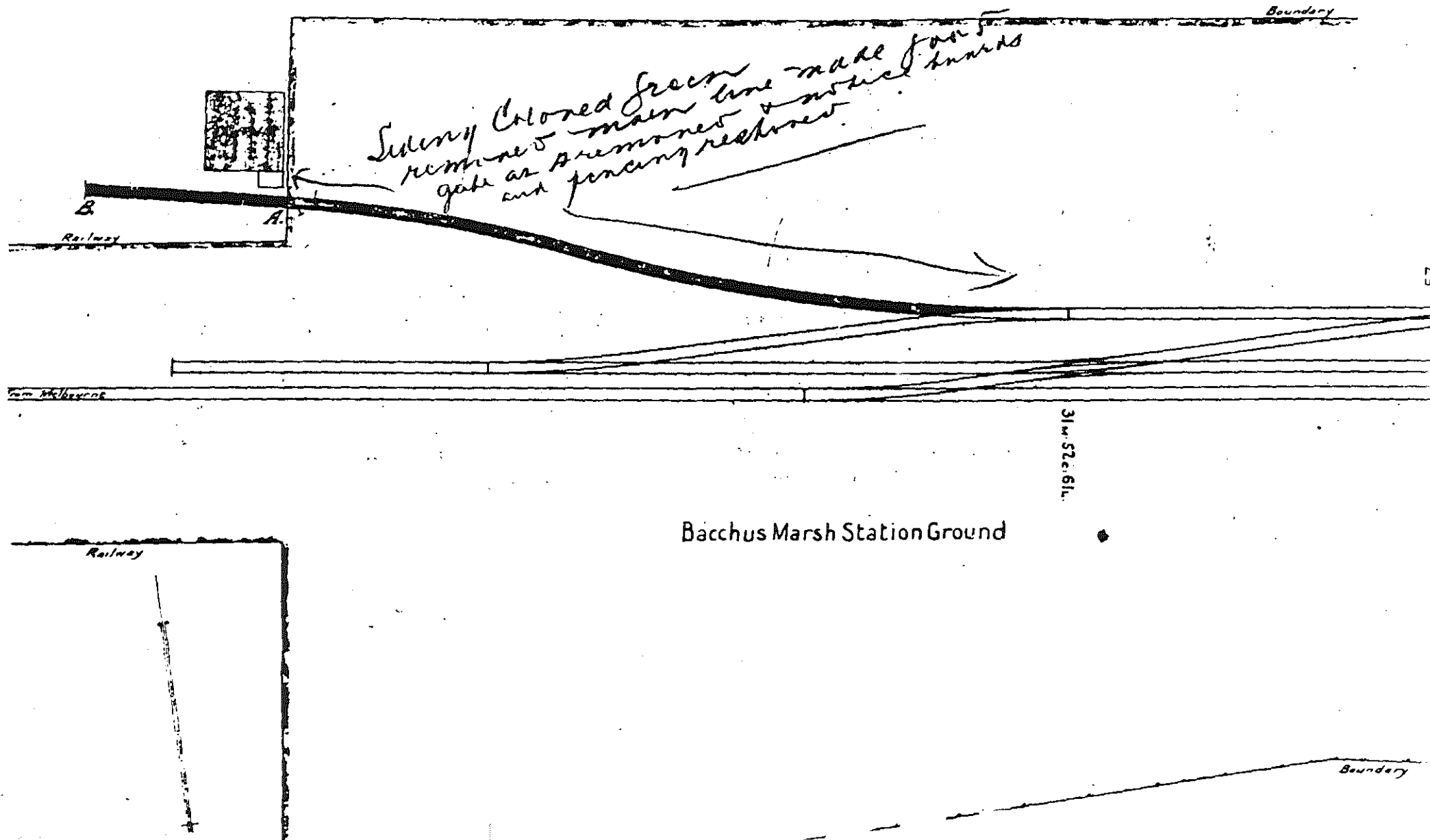
ESTATE OFFICER

dated _____ day of _____ 19__ made between

The Victorian Railways Commissioners of the one part and _____ of the other part.

SCALE: 40 FEET TO 1 INCH

Thomas Anderson mill, Bacchus Marsh.



VICTORIAN RAILWAYS

TOOLSCRAY AND BACCHUS MARSH LINE

Corr^{ce} N^o 1923 / 20163 Secy
2120 W & W
114611

[Signature]
CHIEF OFFICER
4/12/25

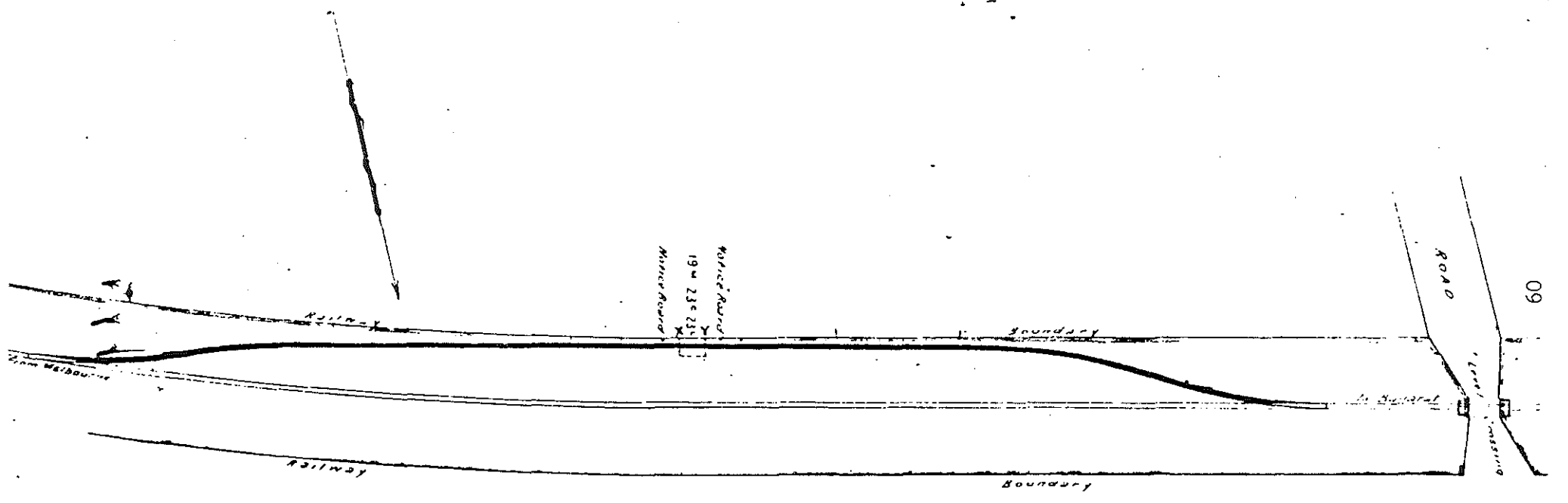
Plan of Land referred to in annexed agreement

dated _____ day of _____ 19 _____ made between

The Victorian Railways Commissioners of the one part and _____ of the other part

SCALE 100 FEET TO 1 INCH

G. Cockbill mill, Rockbank, east of station.



VICTORIAN RAILWAYS

Footscray and Bacchus Marsh Line

Plan of Land referred to in annexed agreement

dated _____ day of _____ 19__ made between

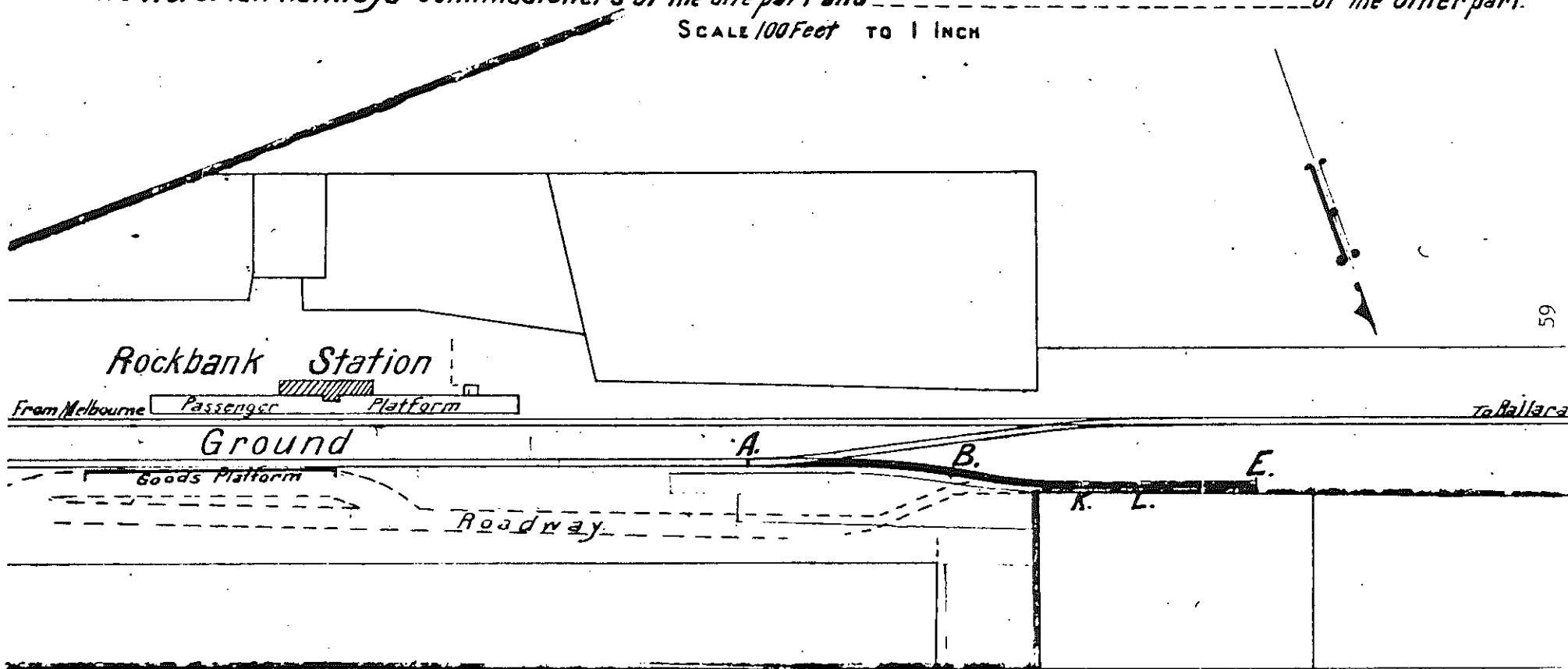
The Victorian Railways Commissioners of the one part and _____ of the other part.

SCALE 100 Feet TO 1 INCH

128
Corr^{ce} No 1915 / 11845 Sec
1152 L 116
384 E.O.

ESTATE OFFICER
13

Ward's chaff-mill, Rockbank.



59

From Melbourne Passenger Platform Platform to Ballara

Ground A. B. E.

Goods Platform Roadway K. L.

Pt Allot 6

Parish of Kororoit

Prepared
Examined C.A.M.

2609:19

VICTORIAN RAILWAYS

25/8/92
Contract No 1910. 10156 S. 13752 1/4 R.

Footscray and Bacchus Marsh Line

Plan of Land referred to in annexed agreement

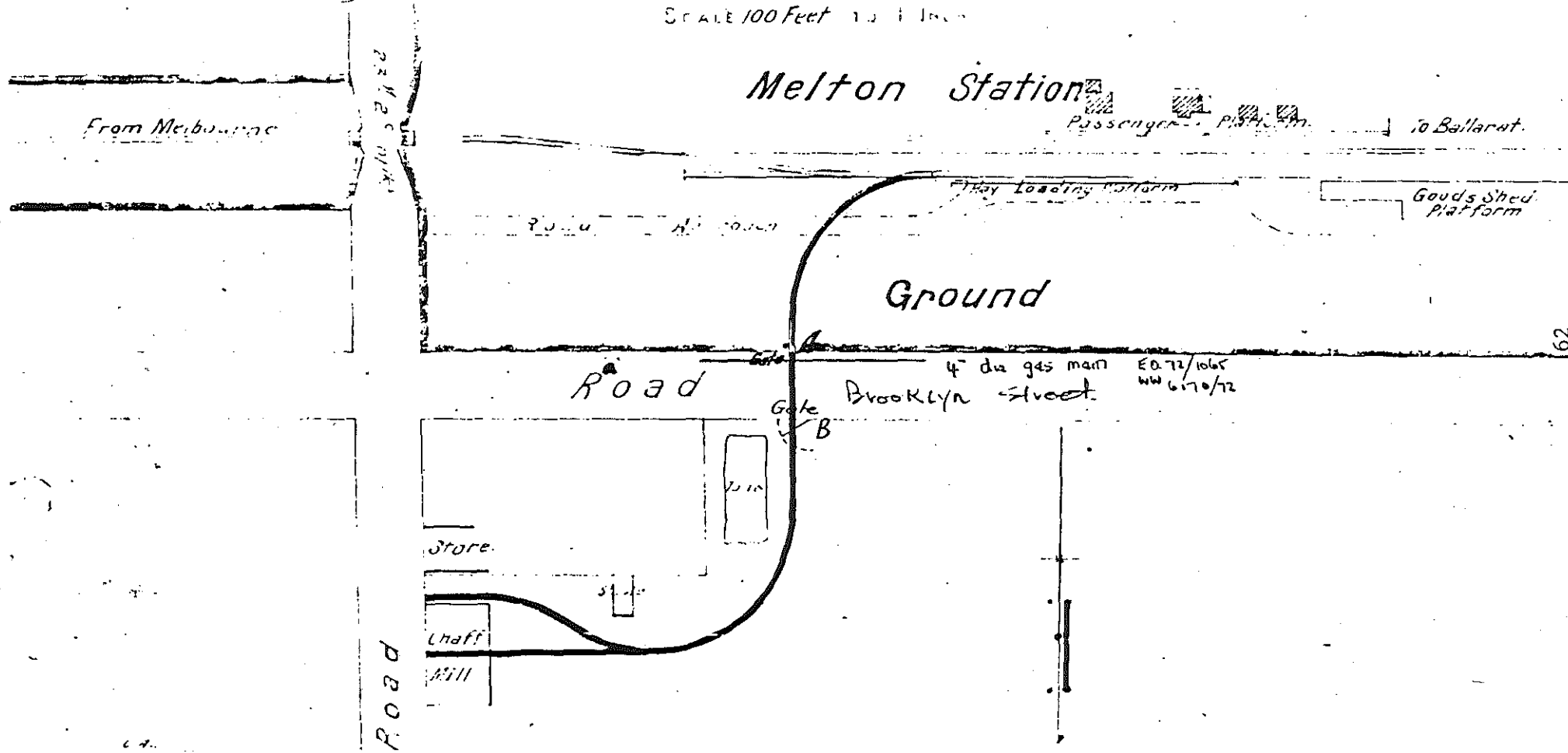
dated day of 19 made between

The Victorian Railways Commissioners of the one part and

of the other part

SCALE 100 Feet to 1 Inch

Ward's Melton chaff-mill, Station Road.



Trethowan's mill, Brooklyn Road, Melton.

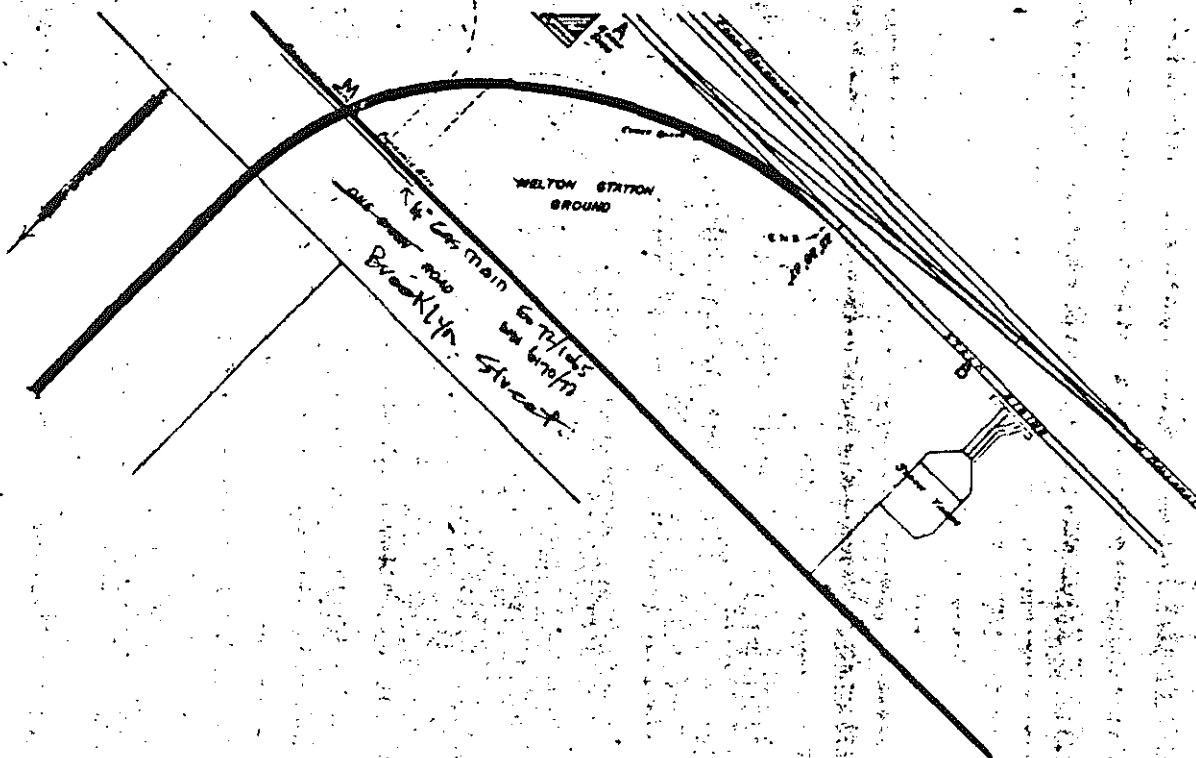
VICTORIAN RAILWAYS FOOTSCRAY AND BACCHUS MARSH LINE

Plan of Land referred to in annexed Agreement
dated day of .19. made between

The Victorian Railways Commissioners of the one part and

of the other part

SCALE BY FEET TO 1 INCH



Survey No. 83 / 1880 1880

STATE OFFICE
1881

EARLIER PLAN
REMOVED + FILED

VICTORIAN RAILWAYS

Melbourne & Murray River Line

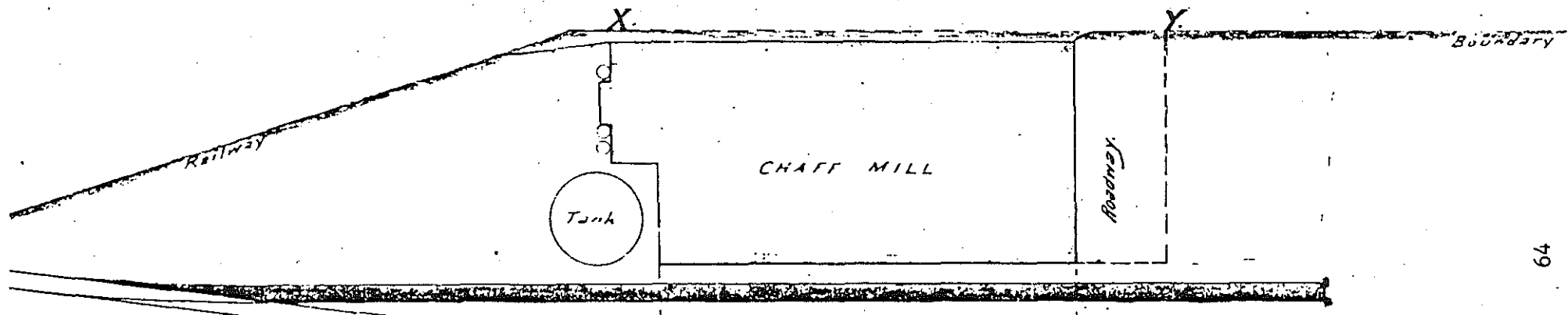
Corr ⁶ ce /

Plan of Land referred to in annexed agreement

dated _____ day of _____ 19____ made between

The Victorian Railways Commissioners of the one part and _____ of

SCALE:-40 FEET TO 1 INCH



64

Sydenham Station Ground

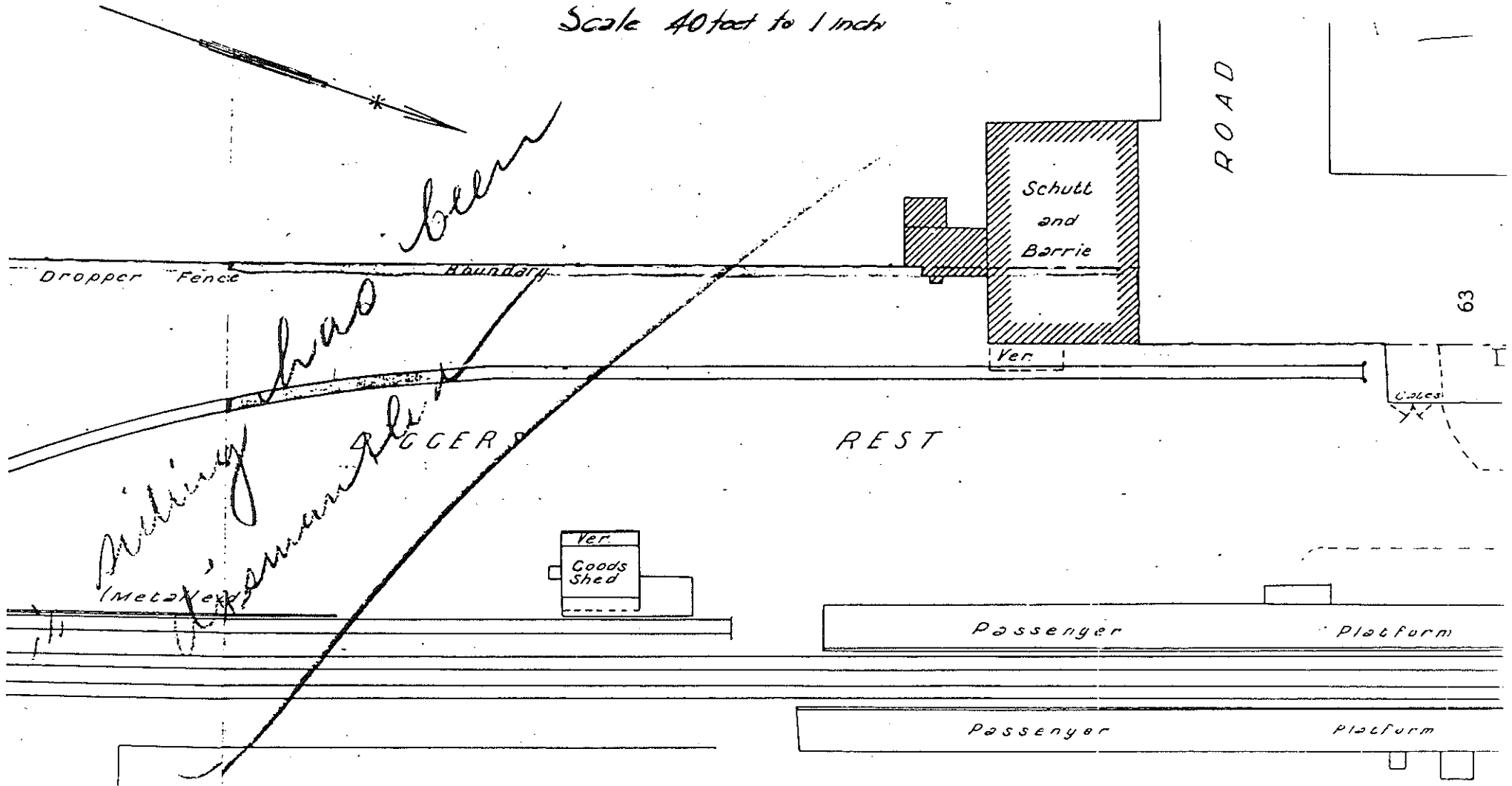
Austral Grain and Produce, Sydenham

14.75.75

15.0.05



Scale 40 feet to 1 inch



Siding has been removed

63

Passenger Platform

Platform

Passenger Platform

Platform

Schutt and Barrie

ROAD

Dropper Fence

Boundary

Ver.
Goods Shed

Ver.

REST

DIGGERS

Gate

APPENDIX B Select list of chaff-mills in Victoria, 1880s to 1980s

From various Victorian Directories, (see Sources)

1880s to 1900s

Ballarat	1882 Mrs J Dunstan; Ballarat Firewood and Timber Co; Cargeeg; closed 1914.
Dunstown	1885 Greenfields, Kennedy and Box, Trethowan and Box.
Kyneton	1888 Humphrey's, J. Glen.
Kingston	1890 Morish Brothers.
Newlyn	1892 Stewart and Co. Donning and M ?

(J and R Tyner had a chaffmill at Newlyn and constructed a siding in 1892 which was extended in 1902 They also had chaffmills in Kingston, and Allendale.)

Wallace	1893 Holden
Geelong	1893 Geelong Co-operative Chaff Cutting and Produce Society Ltd.

(It is interesting to see a co-operative in chaffmilling. Could this be a farmers co-op? Why would it be formed?)

Blowhard	1900 E.C. Robertson
----------	---------------------

(1902 was the year in which country trades were first listed in Sands and McDougal's Commercial Directory of Victoria. They included mills in Colac, Kyabram-2, Numurkah, Stawell, Bonnie Doon, Kyneton, Geelong and Clunes by 1903.)

Others which have been found from records of Victorian Railways sidings include:

Learmonth	1902 Reid Bros. HSK Ward removed 1920
Bungaree	1906 Keaste & Co
Kyneton	1910 Barwise and Co.
Lara	1910 Lara chaff cutting mills
Malmsbury	1910 Omeara Bros. Molison of Malmsbury
Burrumbeet	1911 Dixon Brothers. continues in Burrumbeet to 1964
Allendale	1911 J.Mills, Tyner Bros.(9)

In 1913 to 1915 there were only 4 chaff mills in Melbourne while others in the country included:

Lara	1913 Kneale and Gerrard
------	-------------------------

1915

Kyabram	J. Barnett
Kyabram	H. Trevaskis
Shepparton	D. Calder
Mansfield	P. F. Cummins
Bridgewater	

-on-Loddon,	Cook & Sons
Raywood	A. Johmson; A. Reid; C. Ross
Elmore	H.J. Kortum
Yarawonga	F. Kyffin
Murchison	J. Miller
Clunes	W. Turnbull
Willaura	W.J. Walker
Kilmore	H. Walter
Kyneton	A. Watson
Nurmurkah	A. Williams
Kyneton	J. Barwise
Melbourne	Hill and Reid

1916 to present.

Berrybank	1916 R.A. Onians
Lancefield	1917 Kneale and Gerrard
Geelong	1918 Barwan Chaff Cutters continues to 1942
Greenvale	1920 Brown, John R.
Robbs Lane, Melb.	1921 Gilbert
Preston	1921 Marshal
Geelong	1922 Dixon Bros F.L. 90 Corio St.

(In 1923 the chaff cutters listing was dropped, and they were included in 'Produce Merchants.')

Sunbury	1924 Fagan, William continues to 1926
Sunbury	1928 Tyner W. continues to 1953
Lara	1950 Lyall & Sons Pty Ltd. continue to 1957
Lara	1959 Geelong and Cressy Trading Co. continues to 1964
Burrumbeet	1967 Wright Stephenson & Co Ltd.
North Melbourne	1987 J & R Tyner

APPENDIX C

Letter from Mr C.W. Nash, 7 Hackett Rd. Werribee, 9.2.1987

"I was interested in your article in Western Times concerning chaff-mills in the west. After World War 2 I began a business as a cartage contractor specializing in the cartage of sheaf hay from farms to chaff-mills. In that time I knew all the mills operating. They were Geelong Cressy Trading at Lara. (E.C. Robertson, F.H. Oldis and Thompson Bros at Werribee) (Ward's and what later became Trethowans at Melton) Farwan and Rockbank had already gone. There was a mill at Sydenham called Sydenham Mill at Newmarket, there was a mill owned by a Mr. Jack Dalwitz, he used quite a lot of hay to make straw beer bottle covers.

The largest mill of all was run by a Mr. John Schutt and a Mr. Walter Barrie a farmer from Melton. Mr Barrie was killed in an accident on the Ballarat Road. I carted hay for this mill for well over 20 years. Mr. Barrie's sons E.W. Barrie, C.E. Barrie and J.L. Barrie were farmers at Melton and were long time friends of mine. Only J.L. Barrie is still alive and lives on Ferris Road Melton. The manager of Schutt's mill was Bill Walters, the foreman was Bill Scott. The men who worked the mill were tough old blokes who spent most of their working lives there. I doubt if many of them would be left. They were much older than me and I am 73. A Mister Les Brown who lives at 39 Benjamine St. Sunshine worked for many years in the mill could tell you quite a bit about Schutt's mill.

Mr Jack Dalwitz of Newmarket mill lives at Brewster St. Essendon. His mill closed down when the breweries started backing the beer in cartons. Oldis mill at Werribee was taken over by Thompson Brothers. E.C. Robertson operated as a grain mill after the chaff gave out. I used to cart hay from as close as St. Albans, Deer Park and Truganina and as far as Inverleigh, Ballarat and Trentham. The main reason for the mills fading out was loss of local hay, once the bulk silos were built the farmers changed to grain. The only mill I knew of at Ascot Vale in my time was in a very small way. I don't know if any of this information is of use to you but good luck and excuse writing and spelling.

(signed) C.W. Nash

APPENDIX D

'Working at Trethowan's chaff-mill, Melton 1933-4.'

By Albert Evans of Braybrook, June 1986.
Held in Living Museum of the West Resource Centre.

'When it was Ebbot and Robinson I worked there for 18 months. The elevator that was shown on the slide was just inside the door on the west side that was the entrance for the railway trucks to be unloaded that took the hay up to the other end of the steamer so they could mix the hay with the local hay that came on the trucks from other parts of the country was very soft fluffy straw. The idea was to mix the local hay with it to build up the quality because the local hay was of a very hard texture and could not be matched with anything elsewhere, so it is a shame nothing can be done to avoid this good land being built on and leaving the poorer land to be left for cropping.

The land south of the Calder Highway to the sea is the best land for grazing and cropping and up to Ballan to the west. Harry Robinson was the Hay Buyer and his two brothers worked in the mill. The team were Stan Robinson, Doug Robinson, Jack Pearcy, Harry Allen, Bill Hirt, Norm Hurley, Stan Arthur, Arch McDonald, Rupert Tinkler, Albert Evans. The Union you worked under was the Fuel and Fodder. The wages were six pound ten shillings a week. The tax out of that was eighteen shillings, leaving five pound twelve shillings. When they wanted extra labour they called on Harry Minn's three sons Tom, Fred, Alex.

The working hours were 7.30 AM until 5.00 PM with 40 minutes off for lunch. Tom was the last baby delivered by Hannah Jane Watts, in her private hospital.

The two large bins in the middle of the building held 16 ton of chaff when full. Towards the evening they turn the chaff into this bin and use the bag sewers to rope down the trucks. Some days there would be four, some three. The large trucks which they called sixteen tonners would hold 210 bags and the smaller trucks 140 bags. There were always two men bagging and when they had the bins full they speed up the chaff from the bin and put four men on. Guess who was the fourth? Me. The east end entrance was for the local motor transport. There was a council weighbridge on Station Road a few yards north of the entrance to Ward's mill. The farmers weighed their loads here, but Ward's mill and the weighbridge no longer exist.'

APPENDIX E

Letter from Dorothea J. Whitford of Brown Hill, 25.2.1987.

'Living Museum of the West.

Dear Sir or Madam,

I have just read the "Western Times" of Feb. 4th '87 and the request for memories of chaff-mills in Footscray. I worked in the office of Schutt and Barrie from Sept. 1946 to June 1950.

Mr. J. R. Schutt was Managing Director and although an old man still worked in the office every day. Each afternoon he put overalls on and went out into the mill to have a look around and speak to the men.

William (Bill) Walters was the manager and he often donned overalls and worked with the men, if someone was absent or if there was a rush to unload or load a truck or waggon.

Charles (Charlie) Witters (who was a J.P.) was the traveller and he travelled by train and called on the different customers all around Melbourne and as far as Lilydale, taking orders or collecting accounts or just paying a friendly visit.

George Quine was the hay buyer and he had a car and would call on the farmers, mostly in the Rockbank-Melton district, Parwan-Toolern Vale, have a cup of tea and a chat and see how the crop was going and then report it back to the office. When it was ready, mostly it was prime oaten or prime wheaten, he would offer so much a ton or Bill Walters would phone up and offer the price. Sometimes it was carted straight out of the paddock, that price would be 'on the ground' sometimes loose or sheaf.

Lots of it was 'stacked' probably with the idea that the price would be higher later in the year. George could estimate how many tons of hay would be in a stack by looking at it. Robert (Bob) Moore also did some buying, mostly in the Inverleigh-Winchelsea district.

Mr. McEvoy (I think Jim) drove the trucks, one tray and one semi. At busy times Reg Yearling drove a truck owned by Mr J. McMaster and Mr. Robinson (I think George) who had his own truck would also cart in for them.

Schutt and Barrie had their own weighbridge on the service road on Geelong Road, and everything was weighed there. Outsiders were also welcome to use it for a small fee.

Schutt and Barrie were famous for their prime quality "Green String" chaff.

Ken Mathieson was the storeman and he weighed every bag of chaff

and wrote the weight on a ticket and handed it into the window of the office. For each sale the weight had to be worked out at so much per ton to arrive at the price of one bag. For a truck-load of course it was put over the weighbridge and worked out in total.

I can remember odd times a load of hay would come in and it would be steaming and there would be a real panic to get it off quickly and spread it before it ignited and burst into flames. They had a good sprinkler system (Wormald Brothers) installed throughout the building, which were very old and quite a number of times something set the sprinkler and alarm off accidentally. Sometimes it was caused by a truck with a very high load of hay hitting it. Anyway the Fire Brigade would arrive and then see it was a false alarm and turn the siren off and the water etc.

The hay was loaded and unloaded with pitch-forks. A bag of chaff was carried on the back and stacked or loaded using a bag hook to lift it with (like a handle).

To load a truck or waggon they had a lane with the floor of the loft over it with a trap-door and they dropped the bags of chaff down onto the tray and the driver would stack it. Nearly all the deliveries were done by E. Richards, cartage contractors of Barkley Street, who were always available.

There was only one serious accident in the time I worked there when Reg Yearling fell down the pit (I'm not sure what it was used for). He suffered very serious head injuries and I can remember very clearly Bill Walters rushing into the office and ringing for the ambulance and then driving to Reg's home in Ballarat Road to get his wife (who was very pregnant at the time) and taking her to the hospital in Melbourne (Footscray wasn't open then). After some months he returned to work, not quite as good as he was before.

Minor injuries such as cuts, fork in the foot, foreign substance in the eye were either treated at the office or maybe driven to a doctor.

Miss Minnie Reynolds was head of the staff and there were Miss Jessica Campbell, Mr. Dick Wiltshire, Athol Lyall (who later went to Olympic Cables), Mrs. Rhook, Hazel Holst, Ralph J. Schutt was Manager of the flour mill but at this time you are asking about chaff-mills. Arthur the other son was not in the business and he was the founder of Schutt Aviation in Moorabin and formerly Essendon.

The one daughter Min, lived at home with her parents in the lovely two-storey house in Geelong Road, just west of Droop Street.

Some of the employees not mentioned were:

Jack Burgess and son Bill

Brown brothers, Bert and Norm (I think)
Jack Finlayson
George Adams

Some of the farmers who grew the hay:

Hugh Barrie	Melton	} These were sons of the Barries
Bonnie Barrie	Melton	that went with Schutt.
Jack and George Harrison	-Rockbank	
Ernie Missen	-Rockbank	(I think)
Ernie Robinson	-Toolern Vale	"
Jack Robinson	-Melton	"
Jim Trethowan	-Melton	"
Don and Jack Myers	-Truganinni	"
Fred Minns	-Melton	"
McCorkell	-Mt Wallace	"
Everard	-Inverleigh	"

Some of the Customers I remember:

Tommy Galt	Produce Merchant	Gordon Street
Fred Menadue	" "	Barkley Street
George Sath		
Neville and Brian	Horse trainers	Brooklyn (I think)
Miss Irving	Waverly Riding School	
W. Harris & Son	Produce Merchant	Newmarket
W. Berger & Sons	" "	Flemington
E.J. Moulton	" "	North Melbourne
W.J. Enticott	" "	Dandenong
Buigoine Bros.		
Mr. Rooney	Storekeeper	Braybrook

Second-hand bags and sacks were sold to:

Walter Cant	Carlton
A. Maggs	Ringwood

I don't know if I've told you anything you really wanted to know but these are my memories of a happy time spent working for a very kind and generous gentleman- Mr J. R. Schutt.

Yours sincerely,
(signed) Dorothea J. Whitford.

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11. Recorded interview with Jack Findlater, 5.2.87 LMW
12. Recorded interview with Leo Tarleton, 6.2.87 LMW
13. Recorded interview with Jack Findlater, 5.2.87 LMW
14. Recorded interview with Jack Findlater, 5.2.87 LMW
15. Recorded interview with Jack Findlater, 5.2.87 LMW
16. Recorded interview with Jack Findlater, 5.2.87 LMW
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74. Tim Shae, in Bacchus Marsh by Bacchus Marsh: an anecdotal history compiled by Geoffrey Camm, Shire of Bacchus Marsh, 1986, p. 50.
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77. Lists of dismantled private sidings, No. 134, Pearce, held by Sidings Administration Section, V Line Melbourne; Moore, G. and Domes, J. Bacchus Marsh: A Pictorial Chronicle Bacchus Marsh and District Historical Society, p. 145.
78. Joyce Lane, Eddie Toole, Lucy Light, in Bacchus Marsh by Bacchus Marsh: an anecdotal history compiled by Geoffrey Camm, Shire of Bacchus Marsh, 1986, pp. 35-8, 144, 350.
79. Lists of dismantled private sidings, No.133, Andrews, held by Sidings Administration Section, V Line Melbourne.
80. Starr, J. Melton Plains of Promise Melton Shire Council,

n.d. and Leo Tarleton, 'Summary of chaff-mills in the Melton area, held by LMW.

81. Starr, J. Melton Plains of Promise Melton Shire Council, n.d. and Leo Tarleton, 'Summary of chaff-mills in the Melton area, held by LMW.

82. Recorded interview with Leo Tarleton, 6.2.87 LMW

83. Lists of dismantled private sidings, No. 130, Ward, held by Sidings Administration Section, V Line Melbourne.

84. Starr, J. Melton Plains of Promise Melton Shire Council, n.d. and Leo Tarleton, 'Summary of chaff-mills in the Melton area, held by LMW.

85. Recorded interview with Leo Tarleton, 6.2.87 LMW

86. Recorded interview with Leo Tarleton, 6.2.87 LMW

87. Recorded interview with Leo Tarleton, 6.2.87 LMW

88. Lists of dismantled private sidings, No. 130, Ward, held by Sidings Administration Section, V Line Melbourne.

89. Recorded interview with Leo Tarleton, 6.2.87 LMW; Starr, J. Melton Plains of Promise Melton Shire Council, n.d.

90. Starr, J. Melton Plains of Promise Melton Shire Council, n.d. p.217.

91. Recorded interview with Jack Findlater, 5.2.87 LMW

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95. Defunct Business File 933/1/2, Victorian Public Records Office.

96. Lists of dismantled private sidings, No. 129, Cockbill, held by Sidings Administration Section, V Line Melbourne.

97. Defunct Business File, 933/44/14204, Victorian Public Records Office.

98. Starr, J. Melton Plains of Promise Melton Shire Council, n.d. and Leo Tarleton, 'Summary of chaff-mills in the Melton area, held by LMW.

99. Lists of dismantled private sidings, No. 131, Ebbott Kebby, held by Sidings Administration Section, V Line Melbourne.
100. Starr, J. Melton Plains of Promise Melton Shire Council, n.d. p.221 (photo of workers on construction of Dixon's Chaff Mill supplied by Tom Collins who worked in the mill as a bricklayer.)
101. Starr, J. Melton Plains of Promise Melton Shire Council, n.d. p.217.
102. Recorded interview with Leo Tarleton, 6.2.87 LMW
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106. Recorded interview with Leo Tarleton, 6.2.87 LMW
107. Personal communication, Mr Ron Robinson of Boundary Road Derrimut 11.2.87.
108. Recorded interview with Leo Tarleton, 6.2.87 LMW
109. Defunct Business File, 932/8606, Victorian Public Records Office.
110. Recorded interview with Leo Tarleton, 6.2.87 LMW
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113. James, K.N. Werribee, The First One Hundred Years Werribee District Historical Society, 1985. pp.136-8.
114. Murray, H.E. The plains of Irramoo, Werribee 1974, p.70
115. Personal communication, Mr Ron Robinson of Boundary Road Derrimut 11.2.87. letter from C.W. Nash 9.2.87
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117. See note 51.
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119. Personal communication, Mr Ron Robinson of Boundary Road Derrimut 11.2.87.
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121. letter from C.W. Nash 9.2.87
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123. Murray, H.E. The plains of Irramoo, Werribee 1974.
124. Starr, J. Melton Plains of Promise Melton Shire Council, n.d. p.221. (Photograph shows a Ransom, Simms and Jeffries threshing machine and not a chaff-cutter as the caption claims. The threshing teams, which also travelled from farm to farm may also have done chaff-cutting.)
125. Starr, J. Melton Plains of Promise Melton Shire Council, n.d. p.217.
126. Recorded interview with Leo Tarleton, 6.2.87 LMW
127. Recorded interview with Leo Tarleton, 6.2.87 LMW
128. Personal communication, Bernie Trethowan, 9.2.1987.
129. Starr, J. Melton Plains of Promise Melton Shire Council, n.d. and Leo Tarleton, 'Summary of chaff-mills in the Melton area, held by LMW.
130. Personal communication, unidentified V Line employee, 14.1.1987
131. Moore, G. and Domes, J. Bacchus Marsh: A Pictorial Chronicle Bacchus Marsh and District Historical Society, p.72
132. Lists of dismantled private sidings, No. 132, Pearce, held by Sidings Administration Section, V Line Melbourne.
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134. Lists of dismantled private sidings held by Sidings Administration Section, V Line Melbourne.

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Leo & Val Tarleton, Rockbank, 6.2.87

Jack Findlater, Footscray, 5.2.87

Roy Davis, Werribee, 27.1.1987 (notes only)

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Bill Phelps, Altona,

Hec McIvor, Footscray,

Marg Tanti, Sunshine,
Mrs. N. Thompson, Werribee,
J.H. Steele, Williamstown,
Bernie Trethowan, Melton,
Ron Robinson, Truganina,
Ron Cameron, Sunshine,
Don Dawson, Essendon,
Ewan McPherson, Mitcham,

Letters. (copies kept by Living Museum of the West Inc.)

C.W. Nash, Werribee, 9.2.1987

Mrs Dorothea J. Whitford, Brown Hill, 25.2.1987

Albert Evans, Braybrook, June 1986

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Indexes

8 Footscray West
16 Sydenham
16a Diggers Rest
94 Werribee
128 Rockbank, Ward
129 Rockbank, Cockbill
130 Melton, Ward
131 Melton, Ebbott Kebby
132 Parwan
133 Bacchus Marsh, Andrews
134 Bacchus Marsh, Pearce

List of Photographs

Photographs taken for Melbourne's Living Museum of the West to February 1987.

NO.	TYPE	LMW REF.	DATE
	B/W		14.1.87
			Original photos taken by Gary Vines, 14.1.1987 at various locations.
1-2		422/1-2	Viaduct north of Sydenham chaff-mill
3-4		422/3-4	Sydenham chaff-mill site looking south
5		422/5	continuation of Sydenham siding south of road
6		422/6	Diggers Rest Station to north
7		422/7	rail car at above
8-9		422/8-9	site of Diggers Rest Chaff-mill
10		422/10	weighbridge at Melton chaff-mill
11		422/11	goods shed, Melton station
12		422/12	Trethowan's chaff-mill, Melton
13		422/13	railway reserve Melton, mill on left
14		422/14	site of Ward's mill Melton
15		422/15	impressions of sleepers at above
16		422/16	site of siding turnout to Ward's mill

NO.	TYPE	LMW REF.	DATE
17		422/17	as for 422/15
18		422/18	as for 422/14
19		422/19	Staughton's Siding
20		422/20	Parwan, site of siding
21		422/21	Parwan, looking from station
22		422/22	House opposite Parwan mill site
23		422/23	as for 422/22
24		422/24	Possible site of Pearce's chaff-mill, Maddingley
25		422/25	as for 422/24
26		422/26	as for 422/24 looking east
27		422/27	possible site of Pearce's 1886 mill, on Gisborne Rd.
28		422/30	Rockbank, mill opposite station
29		422/31	as for 422/30
30		422/32	siding turnout, Rockbank
31		422/33	Schutt and Barrie's first site
32		422/34	Schutt and Barrie's weigh-bridge
33		422/35	site of Schutt and Barrie's second mill
34		422/36	as for 422/34

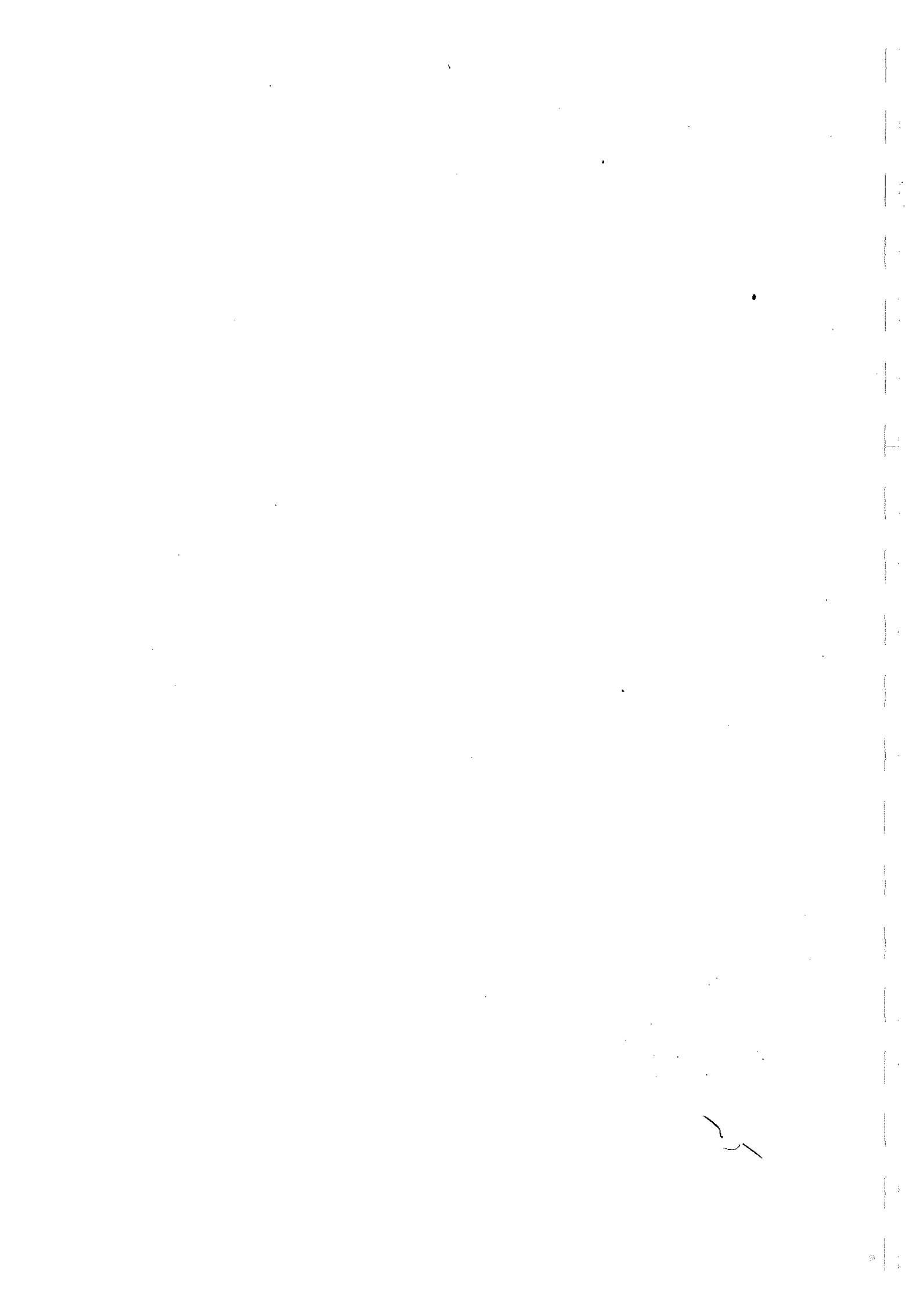
NO.	TYPE	LMW REF.	DATE
	B/W		1985
			Original photos taken by Peter Haffenden, 1985 at Melton chaff-mill
35-6		313/2-3	Melton railway station
37		313/4	factory beside railway line
38-62		313/5-28	various views of Trethowan's chaff-mill, Melton
63		312/15	truck in hay store at Trethowans mill.
64		312/18	as for 312/15
65		312/27	as for 312/15
66-72		312/30-5	as for 312/15
	B/W		10.2.87
			Original Photos taken by Gary Vines at Trethowan's chaff-mill, 10.2.1987
73		423/0	chaff-cutter at Trethowan's mill
74		423/1	end of cavers elevator
75		423/2	elevator to storage bins
76		423/4	Bernie Trethowan at baggers
77		423/5	vertical rise elevator to baggers from riddles
78		423/6	steam boiler, facing south
79		423/7	steam boiler, facing west
80-1		423/8-9	disused chaff-cutter in hay shed
82		423/10	hay-shed, facing south

NO.	TYPE	LMW REF.	DATE
83		423/11	Galley for elevator drives
84		423/12	Driving gears
85-8		423/13-6	underfloor drive pulleys and belts.
89		423/17	chaff-cutter
90		423/18	as above
91		423/19	as above note cutter wheel with knives removed and cover raised
92		423/20	as above note disused chaff-cutter to right and covers return elevator above
93-4		423/21-2	top of elevator from riddles and drive pulleys and belts
95		423/23	twin baggers, from loading area
96		423/24	under-floor drive-shafts, pulleys and belts
97		423/25	Baggers-note elevator from bins above

photographs copied by Living Museum of the West to February 1987.

NO.	TYPE	LMW REF.	DATE
	B/W		
			Photo loaned by Mrs. G. Walter of Footscray, 10.2.87 her husband managed Schutt and Barrie's chaff-mill
98		424/18-20	Workers at Schutt and Barrie's chaff-mill, Footscray around 1920.
	B/W		photo loaned by Jack Findlater, 23.2.1987, who worked at Schutt and Barrie's chaff-mill, Footscray
99		434/23	Mobile chaff-milling team near Toolern Vale, about 1920. Jack Findlater snr., and his brother.
	B/W		Photos leant by Val and Leo Tarleton of Rockbank, 6.2.87: a hay farming family in the district for many years.
100		424/3a-5a	Leo Tarleton pitching hay in his own paddock
101		424/00a-2a	Chris and Leo Tarleton having a cuppa in the hay field.
	B/W		Photos lent by Ron Cameron 4.3.1987 of Sunshine.
			c.1920

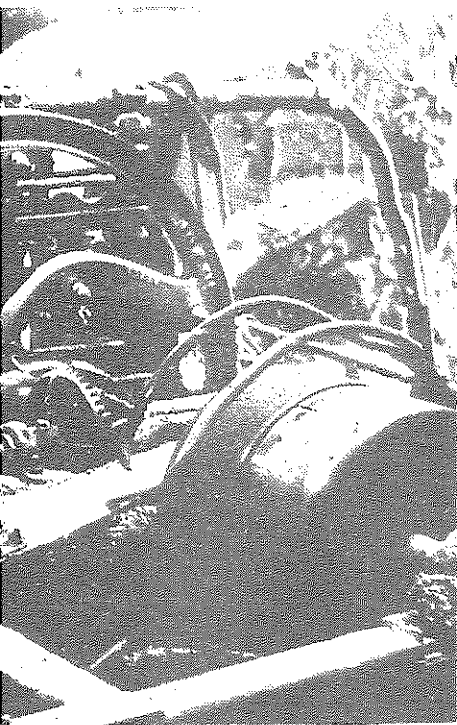
NO.	TYPE	LMW REF.		DATE
	B/W		Photos lent by Ron Cameron 4.3.1987 of Sunshine.	
102		433/25-26	Donald McDonald beside a traction Engine.	c.1920
103		433/23-24	D. McDonald with family and workers at the AG&P chaff- mill Diggers Rest. McDonald managed this mill.	c.1920
104		433/20-21	D. McDonald and family in front of their home in Diggers Rest.	c.1920



in the mills was hot, dusty, noisy, dangerous. The hours at Schutt and Barrie were long, Monday to Friday and 7.30 a.m. to 7.30 p.m. Extra hours might have to be put in to get the chaff cut for yourself by watching and giving a hand. Many men (and many spent their whole working lives in the chaff-mills) made from cleaning up to feeding the horses, the miller, the maintenance or even foreman.

The chaff was put in steam chambers to give it a soft texture and fed into the cutters. These comprised a hopper, a set of knives and a set of toothed rollers which

led to the riddles which separated the chaff from the 'or badly-cut pieces of straw. Next it was mixed with other types of chaff. Screw and roller cutters and chaff between the various stages of



TRY: The big users of chaff were the dairies, breweries and other delivery companies. Sometimes much of the production was surplus being sent to Melbourne.

Chaff-mills were established in what is today Melbourne and produced chaff as part of a mobile chaff-cutting service. The chaff-cutters and other stock-feed companies were based in Flemington, North Melbourne and the

was established in what has become the Melbourne area. It was William Eastwood's mill in South

Chaff-mills were operating in the region in the 1850s. They travelled from farm to farm and cut chaff for the men's wages. Three are known to have operated: the Arkness mobile chaff mill and Barrie's mobile chaff mill in the Melton area and about 1918, E.J. Greig in Melbourne. Mobile chaff-cutters were manufactured by Melbourne companies, John Buncle, and

In the first four decades of this century, hay was the fuel of the transport industry and like the 'Oil Crisis' of the 1970s we had the 'Chaff Crisis' of the late 1900s. Supply dwindled due to drought, the price of hay and chaff shot up and disreputable dealers tried to stretch their supplies by mixing straw and other matter, with the little good hay chaff they could get. The ensuing scandal got to Parliament and the Victorian Government was forced to legislate to protect the supplies of fodder to Melbourne.

By 1925 there were at least 13 chaff-mills in the region which were doing good business and expanding to satisfy a high demand.

Schutt and Barrie moved across Geelong Road in 1917 to build a larger mill and have better access to the railway. Ebbott Kebby, who had acquired Dixon's mill in Melton, added on extra bays to their building and Pearce enlarged the Bacchus Marsh mill.

Between 1939 and 1945 no grain at all was grown in the Melton area due to the very strong demand for chaff created by the war. Some horses were still used by the army, but the shortage of motor fuel resulted in the retention of horse drawn vehicles and farm horses.

DECLINE: From 1946 to 1950 hay was slowly replaced by grain as the major crop, as the demand for hay declined. The post-war years were also a time of labour shortages which greatly affected the very labour intensive harvesting of hay. One man could operate a grain header and bulk handling made grain growing even more labour-efficient, but hay still required many hands for stooking and stacking.

Other developments which further reduced the viability of the chaff-mills were the invention of the baler and hammermill, (giving farmers a cheaper alternative to chaff for feeding their cows), and the introduction of horse pellets and other processed feeds for horses.

Fires claimed some of the chaff-mills and with the depressed market at the time it was not financially viable to reconstruct them. The Diggers Rest mill burned down in 1939 leaving its operators, the Robinson brothers, to abandon their partnership with Schutt and Barrie and move to Melton. This mill also burned down in 1977 when it was owned by H.S.K. Ward.

The demand for chaff has picked up in the last seven to ten years partly due to the growth of racing and trotting studs in the Melton area, pony clubs and a popular fashion among residents of the outer suburbs of Melbourne to keep horses as pets.

Further information: *Chaff-Mills in Melbourne's West*, Report by Gary Vines for Melbourne's Living Museum of the West. 1987.

PHOTO: COURTESY MRS. WALTERS

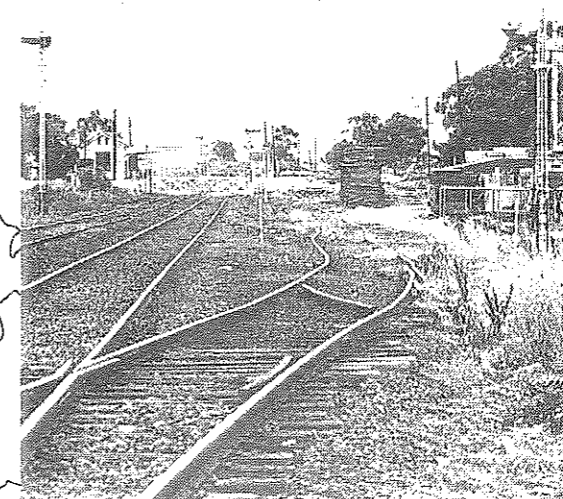
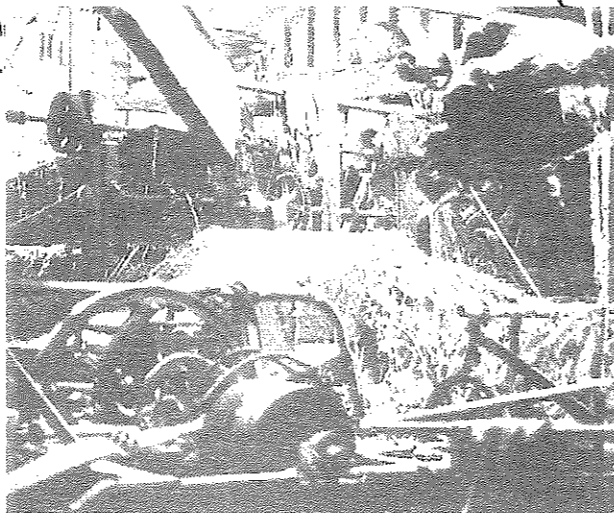


Produced by Gary Vines for
MELBOURNE'S LIVING MUSEUM OF THE WEST.
Project funded by the Ministry for Conservation, Forests and Lands, 1987.
Enquiries: 14 David Street, Footscray, 3011. Phone: 689 7293.

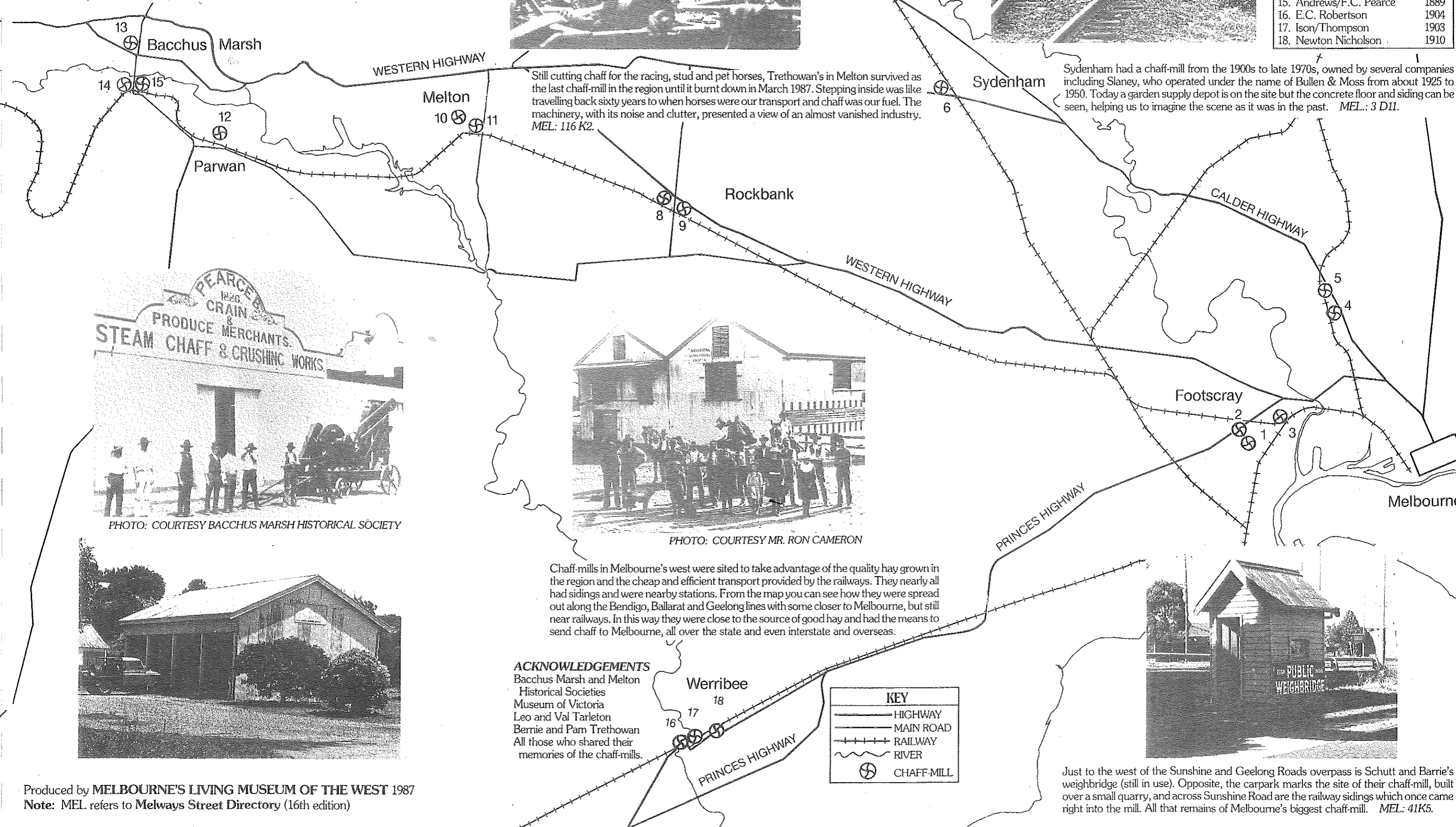
CHAFF-MILLS IN MELBOURNE'S WEST

Bacchus Marsh has had at least four chaff-mills at one time or another. Pearce Brothers — grocers, produce merchants, farmers, chicory processors, car dealers and chaff-millers — had an interest in three of them. Their first mill was in Church Street from 1886 and was moved to Maddingley in 1908, where part of the original building survives on Maddingley Brown Coal land. MEL: 219 G5.

The fourth mill was at Parwan, constructed by Austral Grain and Produce. Today little remains except a derelict house; even the station was demolished in 1986. MEL: 220 G11.



LOCATION OF CHAFF-MILLS	
1. Schutt & Barrie	1913
2. Schutt & Barrie	1917
3. Gilmour/Barwise	1887
4. Crinnion Bros.	1887
5. Frazer & Thomas	1887
6. Bullen & Moss	1920
7. Austral Grain & Produce	1910
8. Barrie/Ward	1900
9. Cockbill	1920
10. Trethowan	1910
11. Barrie/Ward	1902
12. Austral Grain & Produce	1908
13. Pearce Bros.	1886
14. Pearce Bros.	1908
15. Andrews/F.C. Pearce	1889
16. E.C. Robertson	1904
17. Ison/Thompson	1903
18. Newton Nicholson	1910



Still cutting chaff for the racing, stud and pet horses, Trethowan's in Melton survived as the last chaff-mill in the region until it burnt down in March 1987. Stepping inside was like travelling back sixty years to when horses were our transport and chaff was our fuel. The machinery, with its noise and clutter, presented a view of an almost vanished industry. MEL: 116 K2.

Sydenham had a chaff-mill from the 1900s to late 1970s, owned by several companies including Slaney, who operated under the name of Bullen & Moss from about 1925 to 1950. Today a garden supply depot is on the site but the concrete floor and siding can be seen, helping us to imagine the scene as it was in the past. MEL: 3 D11.

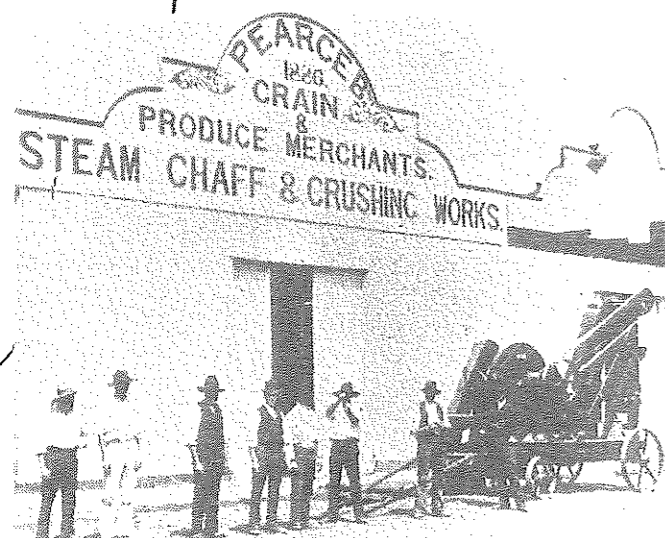


PHOTO: COURTESY BACCHUS MARSH HISTORICAL SOCIETY

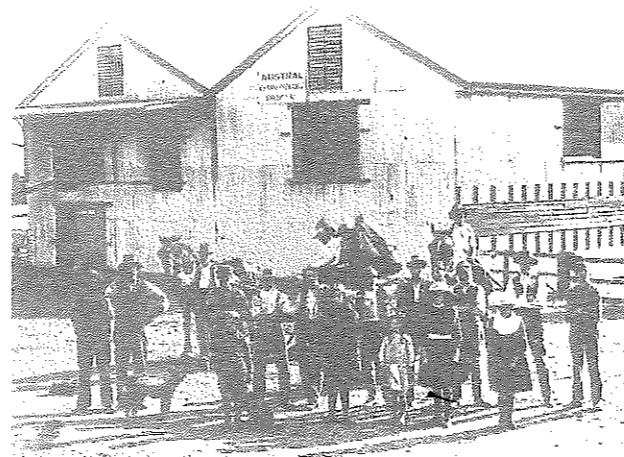


PHOTO: COURTESY MR. RON CAMERON

Chaff-mills in Melbourne's west were sited to take advantage of the quality hay grown in the region and the cheap and efficient transport provided by the railways. They nearly all had sidings and were nearby stations. From the map you can see how they were spread out along the Bendigo, Ballarat and Geelong lines with some closer to Melbourne, but still near railways. In this way they were close to the source of good hay and had the means to send chaff to Melbourne, all over the state and even interstate and overseas.

ACKNOWLEDGEMENTS
Bacchus Marsh and Melton Historical Societies
Museum of Victoria
Leo and Val Tarleton
Bernie and Pam Trethowan
All those who shared their memories of the chaff-mills.

KEY	
	HIGHWAY
	MAIN ROAD
	RAILWAY
	RIVER
	CHAFF-MILL



Just to the west of the Sunshine and Geelong Roads overpass is Schutt and Barrie's weighbridge (still in use). Opposite, the carpark marks the site of their chaff-mill, built over a small quarry, and across Sunshine Road are the railway sidings which once came right into the mill. All that remains of Melbourne's biggest chaff-mill. MEL: 41K5.