



AgEcon SEARCH
RESEARCH IN AGRICULTURAL & APPLIED ECONOMICS

The World's Largest Open Access Agricultural & Applied Economics Digital Library

This document is discoverable and free to researchers across the globe due to the work of AgEcon Search.

Help ensure our sustainability.

Give to AgEcon Search

AgEcon Search

<http://ageconsearch.umn.edu>

aesearch@umn.edu

*Papers downloaded from **AgEcon Search** may be used for non-commercial purposes and personal study only. No other use, including posting to another Internet site, is permitted without permission from the copyright owner (not AgEcon Search), or as allowed under the provisions of Fair Use, U.S. Copyright Act, Title 17 U.S.C.*

5. THE TURN OF THE CENTURY: 1885-1895

ECONOMIC DEPRESSION: RAILWAY DEVELOPMENT: WILLIAM FARRER AND THE RENAISSANCE OF AGRICULTURE.

* * *

*"It's twenty years, or nearly so, since first I started farming,
And many curious things I've seen, and changes quite alarming—
For then, as gay as any lark I worked from early dawning,
Till night came on and with the sun I rose again next morning.*

So if the truth you'd understand,

And wisdom you'd discover,

Just listen to the oldest hand

Upon the Hunter's River.

*"But land was very hard to get, and interest very high, Sir;
They sold my farm the other day to pay the mortgagee, Sir.
So after twenty years have passed, with all my constant toiling,
I'm left without a stick at last to keep the pot a-boiling.*

The landlord was too much for me,

The lawyers were too clever;

They've rooted out the oldest hand

Upon the Hunter's River."

("Upon the Hunter's River"

Two verses only are quoted in MacAlister.)⁷⁸

"What a wonderful country this is for 'ups and downs' . . . I have known a station to lose 17,000 sheep off the shears, in one night, owing to a cold rain. My own friend, A. D. Wiseman, of Mourabie, on the Barwon, had 20,000 sheep drowned in a few hours in the big '90 flood, but he got financial assistance, started afresh and prospered . . . One man that I knew took £25,000 out of a big station, in which he was a partner, bought a property, lost all his sheep in a drought, restocked, lost his sheep a second time, and then put a dose of strychnine in his whisky, drank it off, relented, and sent a man post haste for a doctor, but the latter arrived too late, and the man of many 'ups and downs' was finally 'down and out' . . ."

(Ven. Archdeacon Oakes: "Bush Memories," *Jour. & Proc., R.A.H.S.*, Vol. VII, p. 161.)

"A saying current in New Zealand is to the effect that the first man who goes on the land breaks his heart; the second goes into the bankruptcy court; and the third makes a fortune. The vicissitudes of runs can be shown only in detail . . ."

(James Collier: *Early Pastoralists of Australasia* (Sydney, 1911), p. 70.)

ECONOMIC DEPRESSION

The ten years from 1885 to 1895 were marked by considerable disturbance in economic conditions. An over-ambitious public works

⁷⁸ *Op. cit.*, p. 152.

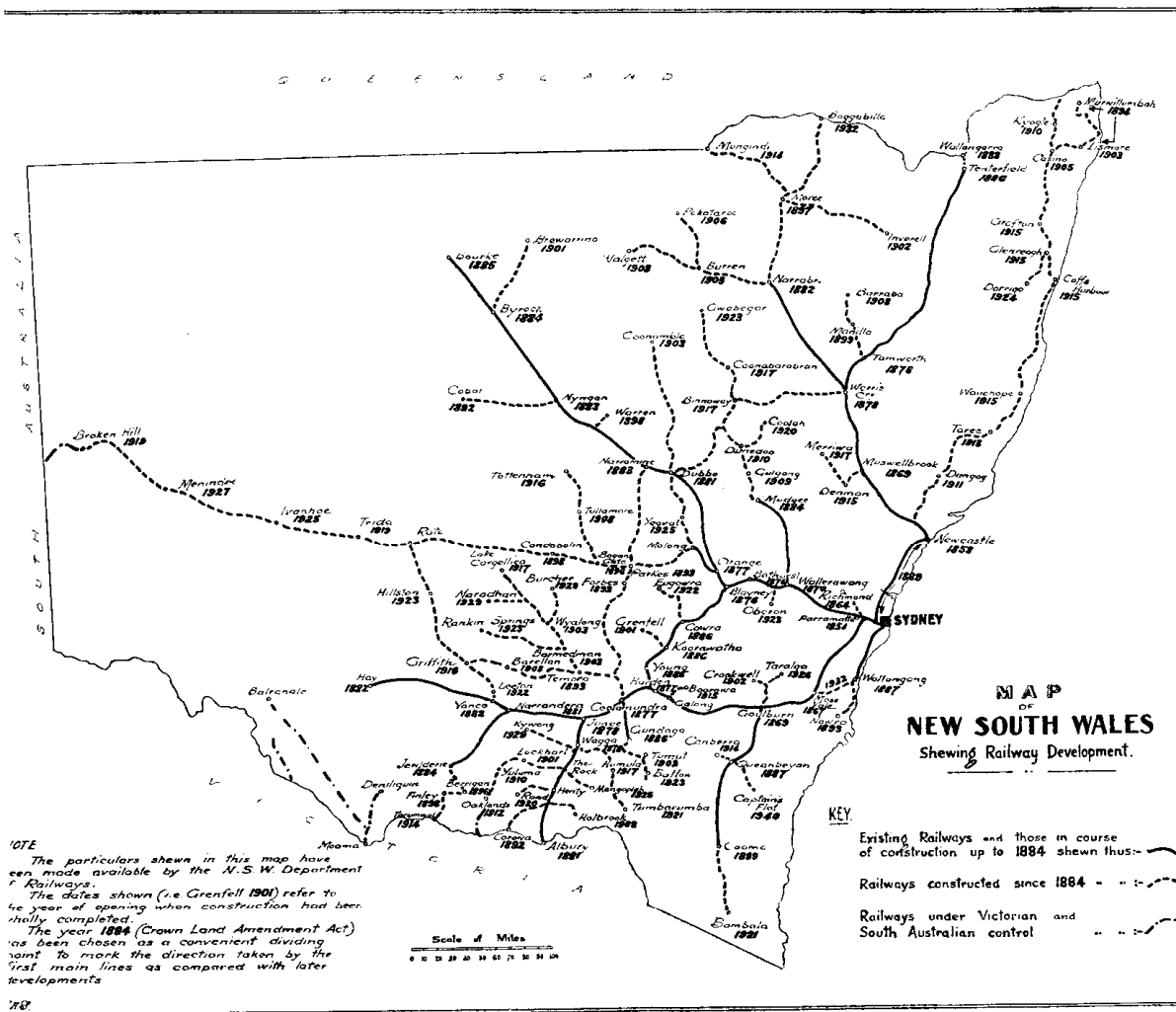


Fig. 7.—Map of New South Wales showing Railway Development.

policy which had previously been followed, virtually ceased in the mid-1880's; the five great years of railway construction had been from 1880 to 1885, but further construction momentarily lagged.^{78A}

78A. Railway Developments, 1854-1900

The first railway line connecting Sydney with its suburb Parramatta, fourteen miles away, was opened in 1854. The further progress of railway building after the gold rushes was slow; but during the 1870's, the lethargy was dispelled chiefly through the speeches of the governor, Sir Hercules Robinson, who, it is said "seized every public occasion for emphasising the desirability of extending railway communication". Railway expansion then shared with "protection for native industry; revision of the land laws; exclusion of Chinese immigrants; the

Again, a boom in land dealing, "that maddest speculative debauch in our annals and to which in a sense the Government of the day was privy", ended in the black year, 1887. As described by MacAlister the sequence of events was that:

"The boom was splendid while it flourished—every second 'street arab' so to speak, could jingle money in both pockets—but when the London money market shut down on the spirited 'borrowing policy of the Government of that time, then came the deluge'. In a few months the country was face to face with its 'unlimited' liabilities and blue ruin. The failures of mushroom banking and building societies in Sydney alone involved shareholders

Working Men's Defence Association and the development of a policy typically Australian rather than English", as being the popular movements of these years of the seventies.

By 1870 the railway network extended only as far as Goulburn to the south Bowenfels to the west, and from Newcastle to Muswellbrook, in the north—in all 318 miles. In this year also (1870), the recommendations of a Select Committee of Inquiry were that "the main link lines should not . . . for the present be extended beyond Goulburn, Bathurst, and Murrurundi; . . . but that railways of a three feet gauge, and operated by horses should . . . without unnecessary delay be extended from Goulburn to Cooma and Wagga, from Bathurst to Carcoar and Dubbo, as well as a branch from the western line to Mudgee, and from Murrurundi to Tenterfield."

Fortunately, however, John Whitton, Chief Engineer, and one of the outstanding figures in New South Wales railway history, was able to convince the government to continue with extension upon the standard rail though with less haste. In the first half of the next decade progress was slow, later accelerating: 1870, 21 miles; 1871, 19 miles; 1872, 38 miles; 1873, 5 miles; 1874, nil; 1875, 33 miles; 1876, 73 miles, 1877, 90 miles, 1878, 90 miles; 1879, 45 miles; 1880, 115 miles.

The importance of the southern railway was understandably predominant in the 1870's in view of the fact that Victoria in order to tap the valuable Riverina trade had already built in 1864, a railway to Echuca on the Murray and by 1873 a further line to Wodonga opposite Albury. These had brought a considerable area of the Riverina within the influence of Melbourne, and the State fears were that the Riverina might in time become permanently attached to Victoria. Work was commenced on the line from Goulburn to Yass in 1873 and was completed in 1876. By September, 1878 the railway had reached North Wagga (Bomen) the work of constructing the remaining length to Albury being divided into two sections—the first including a long viaduct over the flats of the Murrumbidgee and then an iron bridge over its main channel into the town of Wagga; and the other, the building of the line from Wagga to Albury. The line reached Gerogery in September, 1880, and Albury in February, 1881.

In 1876 a private line between Deniliquin and Echuca was completed by the Deniliquin and Moama Railway Company with the approval of both the New South Wales and Victorian Governments—this venture ostensibly being the first encouragement of intercolonial trade although of strictly local utility.

On the northern line a connection between Singleton and Murrurundi was completed by April, 1872 and Murrurundi, temporarily a railhead and situated on the Page River at the foot of the Liverpool Range became a prosperous inland town. The continuation of the line to Tamworth was completed by October, 1878, Tamworth then being a bustling small town of 4,500 people. Further extensions to Armidale (1883), Glen Innes (1884) and Wallangarra (1888), opened up the line to the Queensland border, the year before completion of the rail connection between Sydney and Newcastle in 1880.

The first impetus to agriculture came from the west and the Bathurst, Orange, Young and Wellington districts, for it was here that the gold diggers had established themselves and here also that the first rush for selections had occurred after the 1861 Act. Bathurst was the most prosperous of the wheat growing districts. The line was extended from Bathurst to Orange in 1877,

in a loss of £25,000,000 and the year after the collapse (1888) saw 30,000 persons thrown out of work; destitution was widespread, and the industrial prospect was never darker in our history".⁷⁹

In the cities and towns, a large number of unemployed were thrown on the labour market and wages in most trades underwent a serious decline, a situation made worse by a series of damaging strikes which characterised this period. In 1890 a strike at Broken Hill led to the closing down of the silver mines, when over 40,000 men ceased work. The strikers were joined by the draymen of the metropolis, the result being a temporary paralysis of the wool trade. The shearers' strike in the same year involved an additional 20,000 workers. Fresh labour troubles occurred in 1893, culminating about the middle of the year in a general strike of the seamen engaged on the intercolonial steamers, and trade almost came to a standstill. In 1894, a recurrence of industrial disturbances, and a further strike of shearers in New South Wales and Queensland, for a time again, disorganised the wool trade.

This period of industrial disturbance is of a further significance in that it was the collapse of the boom and onset of depression in 1887, culminating in the shearers' and Broken Hill strikes of 1891-92, which precipitated the first Labour party into Parliament in New South Wales,

and from Orange as a railhead new railway lines soon branched out. In 1885 the railway was completed to Bourke, passing through a great deal of dry and unproductive country in its track of 503 miles. Apparently the main object of this extension so early was to divert to New South Wales the traffic which from the earliest period had flowed down the Darling to Victoria and South Australia, Bourke being a principal river port for the loading of wool from as far north as Central Queensland.

The clamour for new lines came from both selectors and squatters and, particularly in the south, since the natural tendency otherwise was for trade to move toward Victoria. From the main southern line a diversion to Narrandera was completed by 1881, reaching Hay in 1882 on the banks of the Murrumbidgee where there were wharves and a custom house to clear the goods arriving from Victoria through the "back door". Before the rail arrived, Hay was to all intents and purposes a Victorian town, since "the people ate Victorian groceries, drank Victorian beer, dealt with Victorian banks and wore clothes made in Melbourne." Soon all this was changed and Hay became an integral part of the Northern Colony. In the eyes of the statesmen and politicians of the day, this was indeed a major conquest.

From 1878 to 1883 in these formative years, when most of the money for railway development was being raised, Sir Henry Parkes was Premier, James Watson, representing the Lachlan, Treasurer, while John Lacey was Secretary for Public Works. Parkes, as was the case also with John Robertson, was a confirmed advocate of the rapid expansion of the railways as being the quickest means of bringing more land under cultivation, so building up the colony's economy. He was the convenor of the first Intercolonial Conference at which the problem of intercolonial railway communication was discussed, and the author of the initial memorandum to the other colonies suggesting Federation. The principal reason which he then advanced for the merging of their interests, it is of present day significance to note, was the need for authority to undertake the urgent job of dealing with the break of gauge problem which had arisen from a lamentable dispute between the States in the formative years of 1852-53. Finally Parkes was also the promoter of the 1888 Railways Bill which freed the railways from political control and appointed a Board of three Commissioners.

(Miscellaneous references, including the *Cyclopedia of N.S.W.*, *op. cit.*: Colwell, *op. cit.*, Vol. 4.)

⁷⁹ MacAlister, *op. cit.*, pp. 385-6.

when in the elections of 1891 the Labour party captured no less than 35 seats and soon afterwards caused the defeat of the Parkes Government over the compulsory eight-hour clause inserted in a Mines Regulation Bill.

In 1893 occurred the famous Banking Crisis of these times. Its approach had been heralded by various signs. For example, as early as 1891, several land companies and building societies whose business had been conducted on an unsound basis, failed to meet their obligations. In 1892, in consequence of a groundless rumour, there was a temporary run on the Savings Bank of New South Wales. In March, 1892, a fresh impetus was given to the feelings of distrust and alarm by the failure of the Mercantile Bank of Australia at Melbourne. In the following month, the Bank of South Australia and the New Oriental Bank failed to meet the demands made upon them. Feelings of uneasiness increased and all efforts to stem the gathering tide of disaster proved unavailing. On 29th January, 1893, the Federal Bank of Australia suspended payment, followed by the Commercial Bank of Australia on 5th April, while by the middle of May, no less than thirteen out of the twenty-five trading banks were forced to close their doors. The securities of a large number of these institutions consisted of real estate, and could not therefore be converted into cash at short notice, while several of them possessed large holdings of Government stock and debentures which were readily saleable only in London. These difficulties became apparent by noting that in 1889 banks and investment companies in New South Wales then held 640 leasehold properties aggregating 55,017,980 acres.⁸⁰ The English banks hastened to render assistance, and a shipment of £900,000 in gold was despatched to the colonies from London.

The boom of the eighties which preceded the crisis of the nineties had been primarily the result of the extravagant borrowing of the Governments for prosecuting public works and of heavy private investments of British capital. Sir T. A. Coghlan, who was Government Statistician in New South Wales at the time of the crisis, estimates that in the ten years 1881-1891, the various Governments in Australia borrowed more than £100,000,000, and private capital to the extent of £82,000,000 poured in for investment in land, mining, building and other projects. This money could not all be economically absorbed, and thus a mania of speculation had surged throughout the community. The severity of the Banking Crisis which followed is evident from the fact that of twenty-six banks operating in Australia in 1887, only six survived, and these were badly shaken. Most of the others, however, were reconstructed on terms, according to Coghlan, of the most "egregious optimism and a disregard of the manifest rights of depositors".

⁸⁰ Land Ownership by Banks and Companies in 1889: Crown Leasehold only and not Freehold.—The 640 properties, totalling 55,017,980 acres in the Eastern,

In New South Wales the Premier, Sir George Dibbs, relieved the situation by enacting in 1893 a *Bank Issue Act* making the notes of banks legal tender, and guaranteeing their payment for a period of about seven months, after which State assistance was no longer required; a *Current Account Depositors Act* which enabled the Government to advance legal tender Treasury Notes to the banks to the extent of half the value of their current accounts; and a third temporary measure which made the notes of twelve banks trading in New South Wales legal tender up to a total issue for each bank of one million pounds. The Victorian crisis was more intense and protracted, and the Governmental measures lacked the directness of those in New South Wales.

Central and Western Divisions, owned by the banks and big companies, were made up as follows:

Bank or Company	No. of Holdings	Acreage
The New Oriental Bank Corporation	3	22,848
Queensland National Bank	1	21,310
Scottish, Australian Investment Coy.	12	1,715,247
Trust and Agency Coy. of Australasia	17	3,422,892
New Zealand and Australian Land Coy.	1	375,152
New Zealand and Australian Land Coy. of Glasgow	2	63,438
New Zealand Loan and Mercantile Agency Coy.	38	2,584,812
Aust. Mortgage, Land and Finance Coy.	51	8,654,678
London Chartered Bank of Australia	6	891,205
Mercantile Bank of Sydney	9	414,491
Mutual Life Assoc. of Australasia	1	4,146
National Bank of Australasia	2	383,968
New Zealand S. W. Mortgage Land M. Agency Coy.	2	95,336
English Scottish and Australian Bank... ..	11	459,556
Richard Goldsbrough and Coy.	30	3,304,144
Dalgety and Coy.	35	6,795,812
Commercial Banking Coy. of Sydney	102	4,146,898
Australian Joint Stock Bank	59	2,669,887
Australasian Mortgage and Agency Company	34	3,622,022
City Bank	6	434,564
City of Melbourne Bank	1	462,314
Commercial Banking Co. (Adelaide) of S.A.	2	831,406
Colonial Mutual Life Assurance Society	1	1,753
Bank of New Zealand	4	73,265
Bank of South Australia	1	338,570
Bank of Victoria of Melbourne	2	37,589
British and Australasian Trust and Loan Coy.	5	221,051
Bank of New South Wales	127	5,364,588
Bank of Australasia	23	2,650,003
Australian and New Zealand Mortgage Coy.	6	597,780
Bank of Adelaide	2	1,130,782
Bank of Australasia of Melbourne	1	10,200
Union Bank of Australia	34	2,209,302
Union Mortgage and Agency Coy of Australia	9	1,006,971

(These figures have been abstracted and totalled from the details of property ownership given in the *Pastoral Possessions of New South Wales, Sydney, 1889.*)

(The figures of acreage shown of course represent the addition of the "Resumed" and "Leasehold" areas, that is, the total actual acreage of the individual properties. The figures of ownership do not include freehold possessions.)

The result throughout Australia was a period of unprecedented depression, intensified by bad seasons and disturbed politics.

A disastrous feature of the banking system collapse had been its headlong involvement in land and other speculation. It is usually accepted nowadays that bank advances defeat their purpose when they assume a permanent character, and that banking institutions, any more than other investors "cannot afford to have all their eggs in the one basket". A wise and careful distribution of risks, besides affording greater security, enables a much more extensive business connection to be built up than if large advances are made to a few people for long terms. This was the position of most of the banks at the beginning of 1890. They had made heavy advances to pastoralists and to land speculators. The former, in difficulties from droughts, strikes and low wool prices, and confused by changing land policies, could not meet their commitments; and the banks had thus to take over many station properties. Land speculators, particularly building and investment companies, were also trading on borrowed money, so that when the supply stopped the bottom fell out of the land market. So big were their investments that in the resulting crash they brought down the banks.

Until the crisis of 1893, bank advances had exceeded deposits sometimes to a considerable extent, thereby creating credit on an unsound basis. The banks which survived the crisis profited by their reverses and easy credit was replaced by a policy of cautiousness—an attitude which continued up to the outbreak of war in 1914. And although public confidence received a rude shock by these untoward experiences of the depression of the nineties, there can be no doubt, reviewed in retrospect, that one salutary effect was that it led to a more rigid scrutiny of their securities by both the banks and the public, and it had the further result in putting an end to the bogus institutions which had defrauded the public by paying dividends and interest out of capital and by various other dishonest and fraudulent devices. Social experiences such as the Banking Crisis of 1893 in after years led to the development of company law, banking control and parallel legislation, all designed to safeguard investors from dishonest practices.⁸¹

A series of dry years had ushered in the 1880's. A lengthy period of bad years extended from 1883 to 1886, which was followed by an uninterrupted cycle of wet years in which rainfall was above the average in 1887, 1889-1891, with further dry years in 1888 and 1892-93.⁸²

⁸¹ For the fullest account of the Banking Crisis see T. A. Coghlan, *Labour and Industry in Australia*; also articles by F. A. Bland, in Colwell, *op. cit.*, Vol. 4, pp. 166-172; and H. L. Harris "The Financial Crisis of 1893 in New South Wales", *Journ. and Proc., R.A.H.S.*, Part VI (1927).

⁸² There had been other bad years. From 1837 to 1839, for example, there had occurred the worst drought experienced up to that time. In 1844 when Sturt established a depot at Mount Poole in the far west, he described a situation when, "For fourteen months I kept my position in a country that never changed but for the worse and from which it was with difficulty I ultimately escaped." In 1849-51 occurred a further "terrible drought on the Darling when the grass and salt hush disappeared." In 1865 the country was again described as a "perpetual desert" as a result of drought, whilst from 1865 to 1870 "the seasons gradually got worse, resulting in the last named year in the most disastrous drought known since the colony became settled." There were further dry years from 1875 to 1878, extending into the dry 1880's and 1890's.

Conditions, of course, varied in different parts of the State, but generally this was the position in the pastoral areas. From 1892 to 1902 there was not a single favourable season except 1900, which was fair. In addition, in the late 1880's, a series of devastating bush fires in parts of the colony, followed by destructive floods, caused great damage, the northern coastal districts especially suffering in 1890 from serious floodings. The peak year in sheep numbers was 1891, when the State grazed the record total of 61,831,416. From this point onwards, sheep numbers gradually decreased until the climax was reached in 1902, when numbers had dropped to 26,649,424, or no more than the total had been in 1878, some twenty-four years before. Allied with the bad seasons was a continuing fall in wool prices.⁸³

As the net result of all these misfortunes—the droughts, the fall in wool prices, industrial disturbances and the Bank Crisis of 1893—unparalleled distress occurred in relation to land settlement throughout these depression years of the 1890's and early 1900's. Then it was that “everything combined to make pastoral life more expensive—rabbits and scab and pleuro, the changing land laws and the free selectors, dams and artesian bores, high interest rates, and uncertain markets.” It then became a case of “Pity the poor squatter,” for “by 1890 nearly 1,200 squatting areas were in the hands of financial institutions.” By 1893,

⁸³ Average price realised in London for Sydney greasy wool during years 1871 to 1900

Year	Average Price per lb.	Year	Average Price per lb.
1871	10 $\frac{3}{4}$	1886	8 $\frac{1}{2}$
1872	13 $\frac{1}{2}$	1887	8 $\frac{1}{2}$
1873	12 $\frac{1}{2}$	1888	8 $\frac{1}{2}$
1874	12 $\frac{1}{2}$	1889	10 $\frac{1}{4}$
1875	11 $\frac{3}{10}$	1890	10
1876	9 $\frac{1}{2}$	1891	9
1877	10	1892	8
1878	9 $\frac{3}{4}$	1893	7 $\frac{7}{8}$
1879	9 $\frac{3}{4}$	1894	7
1880	12 $\frac{1}{2}$	1895	7 $\frac{3}{4}$
1881	11 $\frac{1}{5}$	1896	8 $\frac{1}{2}$
1882	10 $\frac{7}{10}$	1897	8
1883	9 $\frac{4}{5}$	1898	8 $\frac{3}{4}$
1884	9 $\frac{3}{4}$	1899	11 $\frac{3}{4}$
1885	8 $\frac{1}{4}$	1900	10 $\frac{1}{4}$

(Report on Royal Commission on Western Division 1901, p. ix.)

(An analysis of the above return shows that, dividing the whole period of thirty years into three periods of ten years each, the average prices for the several periods represent: 1871-80, 11.1d.; 1881-1890, 9.4d.; 1891-1900, 8.6d.)

Sheep numbers in the ten years from 1891 to 1902 broadly illustrate the effects of these seasonal changes:—

1891—61,831,416	1895—47,617,687	1899—36,213,514
1892—58,080,114	1896—48,318,700	1900—40,020,506
1893—56,980,688	1897—43,952,897	1901—41,857,099
1894—56,977,270	1898—41,241,004	1902—26,649,424

“eight million acres which had been previously under occupation licence were abandoned.” Hundreds of selectors, insufficiently provided with capital to withstand a drought, had to leave the land. A correspondent wrote in the *Sydney Morning Herald* of April 1, 1893, “During the last ten years no less than 95,997 selectors, instead of remaining on the land acquired by them have actually transferred their holdings to others, principally the holders of the runs on which the selections were made.”⁶⁴ In twenty years there had been ten droughts, three of which were serious.

Nevertheless, towards the end of the century there began a rapid expansion in wheatgrowing, and the area devoted to cultivation increased. Prior to 1890, agriculture had developed very slowly in New South Wales, and, until 1879, a large proportion, ranging from about one-third to one-half of the wheat supply of the State, had been imported from abroad. Maize-growing, on the other hand, was generally on a more extensive scale, and the quantity produced was frequently greater than the quantity of wheat grown. Other crops were insignificant, and pastoral pursuits were the only extensive source of wealth production in the State.

WILLIAM FARRER AND THE RENAISSANCE OF AGRICULTURE, 1890-1906

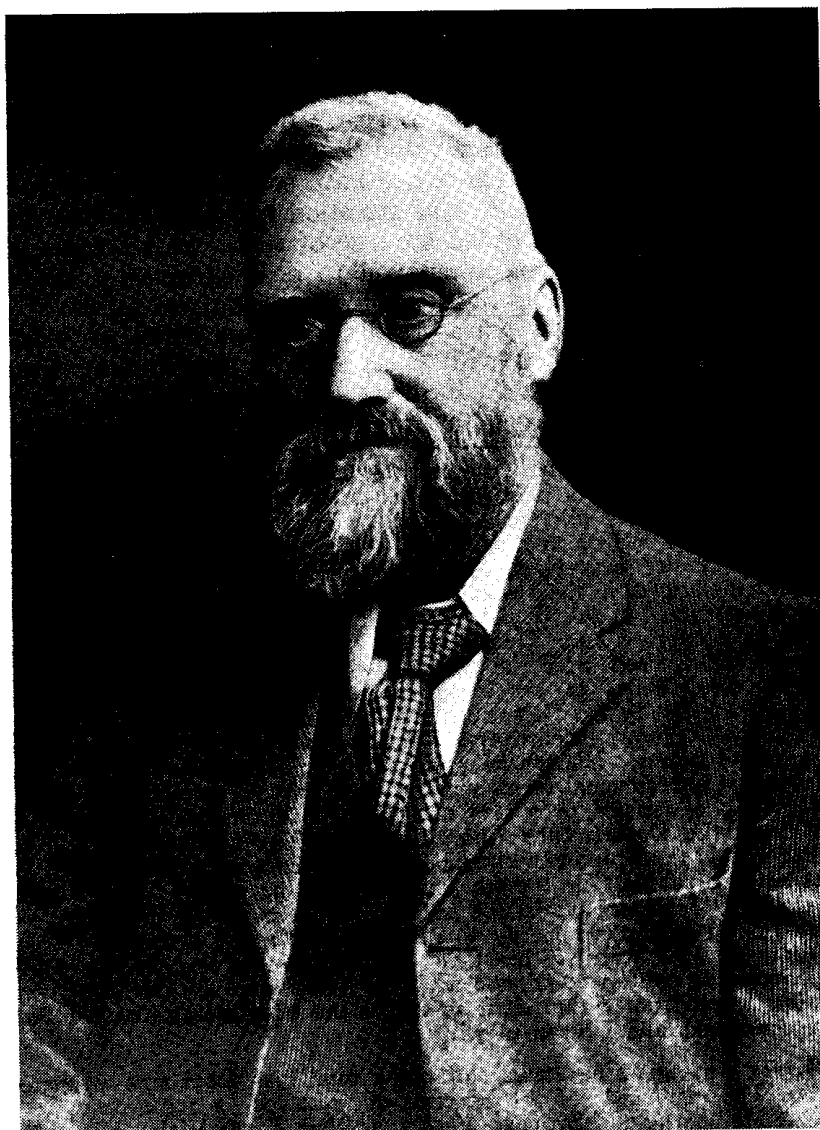
This agricultural development in the 1890's was made possible by the combination of a number of favouring circumstances. Railway facilities began to improve rapidly after 1880, population grew, and because of the profound depression in other industries, labour became more plentiful for agriculture and the pastoral industry. Woolgrowing, which had for so long exercised a virtual hegemony in the economy, received a severe setback and was shaken to its foundations; fortunes were no longer to be made by “buying anything on four legs”, speculation in mining shares and real estate had proved highly dangerous. To the end of the century, economic conditions remained unfavourable. Overseas loans were difficult to raise, business was depressed, and despite the attraction of the western goldfields, Australia as a whole lost people by emigration.

But on the other hand this was also the period when almost overnight, as it seemed to observers living in these times, a “startling” expansion occurred in New South Wales agriculture.

In 1896 and 1897 there was a world wheat shortage. In 1897 the first surplus of wheat above local requirements was grown in New South Wales, and more than half a million bushels were exported in 1898. Thus was set the market opening for the later rapid expansion which was to follow.

⁶⁴ Harris, *op. cit.*

See also J. T. Lang, *I Remember* (Sydney Invincible Press, 1957).



William James Farrer (1845-1906).

For his work as a wheat breeder, William James Farrer has been called "Australia's greatest benefactor".

(Photo: N.S.W. Government Printer.)

The appointment of William Farrer to the position of wheat experimentalist in the newly formed Department of Agriculture, New South Wales, in 1898, was to mark, in the fullest sense, a revolution in wheat-growing.⁸⁵ Prior to Farrer, wheatgrowing had largely been a matter of "drougths in some years and rust epidemics in others." The varieties

Farrer Experiments

⁸⁵ William Farrer belonged to a country family living near Kendall in Westmoreland where he was born on the 3rd April, 1845. After passing through the famous Bluecoat School (Christ's Hospital) he entered Pembroke College, Cambridge, graduating in 1868 and obtaining a place among the wranglers in the Mathematical

of wheat hitherto grown in Australia had been obtained chiefly from Britain and South Africa, and were unsuited to Australian conditions. They were often so late in maturing that the hot dry winds of spring and early summer caused them to wilt before the grain had filled out, and most of them were susceptible to rust. Farrer's appointment was the first official recognition of the value of the application of science to the wheatgrowing industry. There had been some previous work done on the improvement of varieties, and attention had been directed to the enormous losses from the dreaded scourge of rust. In 1890, an inter-colonial conference had been summoned to deal specifically with this disease, which at the time had been prevalent throughout all the wheatgrowing districts, and a few wheatbreeding stations under government control had been established with the object of determining suitable varieties for various localities. Farmers had been also supplied with seed wheat and strongly urged to experiment on their own initiative.

Triplos of that year. His father expected him to read for law, while he himself preferred medicine; but both plans were frustrated by illness and a chest complaint, rendering a drier climate advisable. Farrer came to Australia about 1870. Only lack of capital prevented him settling at once on a sheep station. Meanwhile he studied surveying; and as soon as he was licensed in 1875 he received an appointment in the Lands Department. Save for a visit to England in 1878-9, he remained in the Department until he was able to retire, in 1886, to a property at Lambrigg, near Queanbeyan. From that time until his death in 1906 he devoted himself with the utmost patience and singleness of aim, to experimental work aimed at wheat improvement. Until 1898, when appointed wheat experimentalist to the Department of Agriculture he worked alone and at his own expense, without encouragement or appreciation, and with little to show for his years of labour. His official position in the Department enabled him to conduct work at experimental farms under diverse climatic conditions in different parts of the State, assisted by a staff and with the enthusiastic co-operation of J. B. Guthrie, the Department's Chief Chemist. The constant travelling and supervision of his numerous experiments, however, entailed great suffering on a frame at no time robust. On the 6th January, 1906, he wrote: "My body is too tired every night for office work; the red tape about engaging men worries me, and I am unable to muster energy to pen a memo"; and a month before his sudden death on 16th April, of heart disease, he again wrote: "You see, therefore, how in reality matters stand, and what the forces are I am having to contend against; but I feel I am within sight so far as the real interests of the Department are concerned, and I mean to win."

In 1889 the wheatgrowing states suffered a total loss from rust estimated at £2,500,000. The magnitude of the interests at stake led to conferences in 1890 and 1891 at Melbourne and Sydney. Farrer, as New South Wales delegate, first became generally known at these conferences, when he insisted in connection with rust that the solution did not lie in spraying methods, but in the development of a rust-resistant variety. In his work Farrer displayed every attribute of the dedicated scientist, throughout refusing to allow impatience and discontent to deflect him from his high ideals. He would sanction the distribution of no varieties until they were adequately fixed and had passed the most rigorous tests including milling and baking.

The genesis of the Department of Agriculture occurred about 1885, in the selection of sites for experimental or demonstration farms in the various agricultural districts of the State, but it was not until about 1890 that the Department was actually created, as an offshoot of the Department of Mines. By 1901, Experiment Farms had been established at Wagga, Bathurst, Wollongbar and Coolabah in the far west. There were also the Hawkesbury Agricultural College at Richmond, a small experimental establishment at Pera Bore, about eight miles from Bourke, and a stud farm at Berry. Some of Farrer's wheatbreeding experiments at the beginning of the 1900's were carried out at Coolabah State Farm, situated some 70 miles east of Bourke, in the dry, western, low-rainfall region of the State.

Yet long before his appointment, Farrer had been at work on his own account, initiating experiments and corresponding with various authorities on rust in different parts of the world. Already by 1896, Farrer had become convinced that rust resistance was a variable quality and could be increased by breeding. Later he realised that owing to the

These further views of the importance of Farrer's work, as it was seen by his contemporaries, are given in *Sydney Morning Herald* references to the appeal which was made to establish a Memorial Fund to perpetuate his memory. The first quotation is from a *Herald* issue of October, 1906, the second, from an April, 1907, issue:—

An Appeal to Farmers

“ The name of rust is still a nightmare to wheatgrowers, but it is not nearly so severe as in years gone by, when its ravages often meant ruin. Between the years 1890 to 1894 four different conferences were held, one in each of our principal cities of the wheat States. The name of one of the delegates stands out prominently, as it rightly should, for the late W. J. Farrer will always be remembered as the man who has done so much to place wheat-growing on a successful footing, and make it profitable to large and small growers alike. Not until the first ‘rust in wheat’ conference had assembled did the late Mr. Farrer's name become familiar to wheat-growers, but so useful were his criticisms and suggestions that ere the second conference assembled, in 1891, his name was added to the list of delegates, and since then his fame has been widely circulated among the wheat-growing countries of the world.

“That his work in all its details was appreciated is beyond dispute, for during the later years of his life he was regarded as a wheat experimentalist of the first order, and second to none in any part of the world.

“When he was so suddenly removed from his sphere of usefulness by death in April last, a meeting was immediately called together at the Royal Exchange, and it was unanimously decided to perpetuate his memory by collecting money for the purpose of establishing scholarships or offering prizes for wheat experimental work. Fairly large amounts have since been collected from millers, wheat-shippers, and storekeepers indirectly interested, and now on the eve of a bountiful harvest it is the committee's intention to solicit the assistance of every wheat-grower and open ‘a wheat fund’, so that farmers might show their appreciation of Mr. Farrer's labours, and give a bag of wheat or less towards this useful work, which must be of direct benefit to the wheat industry.

“A meeting of the committee will be held at Tattersall's Chambers, Hunter and Castlereagh Streets, on Wednesday afternoon next, when arrangements will be made for a direct appeal to the wheat-growers.”

The Farrer Memorial

“Twelve months have elapsed since the Australian wheatgrower lost his best friend in William Farrer, of Lambrigg. At the time of his death the experimentalist's work was only partially understood and appreciated; indeed, except among progressive farmers and millers, who recognised the vast importance of what Farrer had on hand, his name was practically unknown. For about the scientist's labours there was nothing of ostentatiousness. He worked on year after year, first on his plots and subsequently in the field, with the unselfishness and whole-heartedness of the true scientist, and he cared little or nothing for the passing opinion of the crowd. He was struck many years ago with the enormous possibilities of improving our wheats, and after some years of experiments he set out for some definite ends. Handling wheats with the same confidence as an experienced stock breeder handles sheep or cattle or pigs, he proceeded to select and crossbreed with a view to the elimination of the liability to bunt and rust, and at the same time the production of a number of wheats with stronger milling

variability of the humidity, season after season, the task he had set himself was incapable of achievement during his lifetime. He therefore devoted himself to other problems. He visualised clearly what should be the characteristics of the wheat plant as best suited for Australia's climatic conditions—varieties of short straw with but little flag, to reduce to the minimum the moisture requirements of the crop—and with a

qualities than any of those then grown in Australia. To breed out tendency to disease was in itself an enormous undertaking, not likely to be accomplished in the lifetime of a single man; but still Farrer went a long way towards its realisation, particularly in dealing with bunt or smut. His work in this direction, although not conclusive, was the work of a big pioneer, who demonstrated that what he aimed at could be done. Some of his wheats are disease-resistant to a marked degree, and there is little doubt that in the methods initiated by him lies a partial if not a complete solution of incalculable value to all wheat-growing countries.

“But it was in the improvement of a wheat's milling value that Farrer's success has been speediest. He handled the wheat plant in the same way as our great sheep breeders handled the early merino, or the Illawarra men handled the original coast cow. He saw that just as it took as much feed to support a poorly covered sheep or a cow without flow or quantity as it did to support animals of the best, so it was equally unprofitable to grow weak wheats if stronger ones could be raised at the same cost. The quality of a grain of wheat was, in Farrer's mind, of the same importance as the quality of a fleece or a milk supply. He was one of the early men to recognise that, as time went on and milling became more and more scientific, the call would be stronger and stronger for wheats of high milling qualities. And after labours marked by many failures, but a constantly increasing number of successes, he evolved several ‘Farrer wheats’, of which a few at least have already attained to wide cultivation, and a sale based upon analyses that is each year increasing.

“At the Royal Show an enlarged photograph of Mr. Farrer in the Government pavilion was accompanied by a list of a score or more of the wheats he bred. Some of these have never obtained a strong hold, but others, such as Federation, Bobs, Comeback, John Brown, were well known to every wheat-grower on the ground. A few others were not fully tried at the time of the scientist's death, but Mr. Sutton, the present experimentalist, has been testing them at Cowra, and he anticipates that one or two of them will prove even superior to any of those now on the market.

“Immediately after Farrer's death, an influential committee was formed to collect a fund to be used in perpetuating his memory. It was rightly thought that the best means of accomplishing this would be to establish a scholarship, to be awarded for wheat research. The idea caught on keenly. But to found a scholarship would necessitate the collection of £1,000, and so far the amount subscribed does not exceed £150. The sum, however, is not great when it is considered how wide is the field over which the canvassing for assistance might justifiably be extended, and how deserving is the cause. The establishment of this fund would mean that some of the keenest minds in the State would be permanently engaged on the improvement of the wheat plant, and the fruits could not fail to be substantial for the farmers of Australia and elsewhere. And no higher form of tribute could be paid to the late experimentalist than that his good work should be made the basis of unbroken study of the great cereal to the development of which he gave his life. The committee is now making a special appeal to farmers and others interested for donations of half a crown. The response should be generous. The sum is small, and the object of the best. It is recognised that very successful collecting could be done by the appointment of a travelling canvasser, and to carry this out the railways are to be asked to grant a free pass for a few weeks over all the lines of the State. And so closely does this matter affect the interests of the Commissioners that the request will surely have the Commissioners favourable consideration . . .

“Farmers and millers should give freely and unanimously both as a tribute to the memory of Mr. Farrer and as a means to further the highest interests of the wheat industry.”

remarkable rapidity and sureness of touch soon produced varieties for widely different localities. In 1900 Farrer produced his new cross-bred variety, "Bobs," but this was not made available for use by farmers. In the following year (1901), he released "Federation", his most popular variety, and from then until the time of his death in 1906, a number of other varieties, including Comeback, Bunyip, Jonathan and Thew. The introduction of Farrer's new wheat varieties in 1901-1903 had momentous effects in "(opening) the eyes, not only of Australian farmers, but of the world's wheat buyers, to the possibilities of Australia as a great wheat-producing country." It was discovered that wheat suitable to the various climates of Australia, and relatively disease- and drought-resistant, could be produced. In addition—a finding hitherto undreamt of—it was discovered that Australian wheat could now compete in the world's markets with the best Canadian, American and Indian wheats.

At first millers disliked Farrer's strong-flour varieties, as they were accustomed to the weak-flour varieties. But one unexpected consequence of the drought of 1902-3, which necessitated the importation of American and Canadian wheat, was to cause these prejudices to disappear, and Farrer wheats soon dominated the agricultural areas of the Commonwealth. At the time of Farrer's death in 1906, recognition had already come to him both in Australia and abroad.

Wheatgrowing was greatly influenced in its early steps by "share cropping". This in the late 1890's and early 1900's was not farming in the sense now generally understood, but "simply a mad scramble to raise wheat". Where it operated, as in the newly developing farming areas of the Riverina, there is this description of conditions as they were reported upon in 1901 in a Department of Agriculture report:—

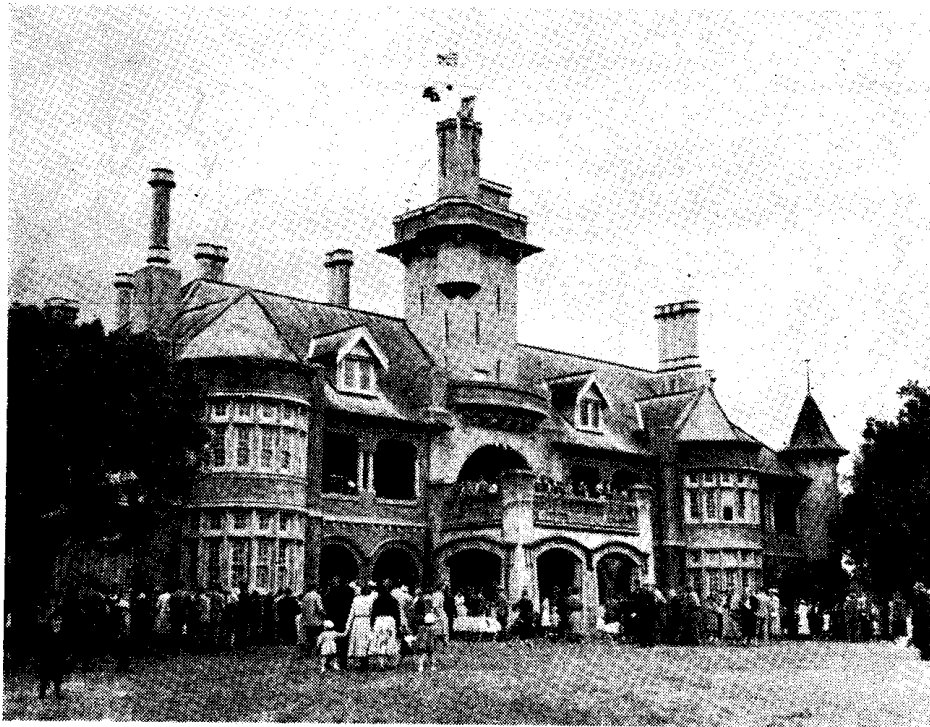
"Farmers whose operations at their homes (in Victoria) are somewhat pinched by limited areas, flock over with their horses and implements and necessary equipment for camping out, just about ploughing season, take up land on shares, plough and sow the seed, and leave the crop to Providence. At reaping time, back they come with strippers, horses, chaff, etc., reap the crop, and clear away home again."⁸⁶

Elsewhere where land was being taken up, methods were extremely crude:—

"The rough and ready system of farming which necessarily obtains in outlying districts, which are gradually becoming populated by pioneer settlers, will in due course give place to something better. As it is, numbers of settlers make a start with but little, if any, capital; without exactly knowing what they want to do; struggle on as best they can, gather together a few head of stock, and start the work of ringbarking to improve the grass, and then, almost before the trees are dead, plough some of the land as best they can, sow seed, and, perhaps, obtain a fair crop. Probably there are but few places in the world where persons absolutely without capital could succeed under such circumstances."

The great urge in these times was a "cash crop", so that the wheat was sown in paddocks partly uncleared and "occupied by dead standing trees or by stumps", just as the position had been when wheat was first cultivated on the Hawkesbury about a century before.

⁸⁶ cf. C. J. King, "New South Wales Agriculture, 1900-1950", *Agricultural Gazette, N.S.W.*, 1st January, 1951, pp. 5 *et seq.*



"Iandra"—Greenethorpe.

This plate shows the opening of historic "Iandra", on 27th October, 1956, as a rural training centre for boys.

The "Iandra" homestead and property is located in the rich farming area of the northern portion of the South Western Slope Division of New South Wales where the principal agricultural activities are wheat and oats production, wool growing and the raising of fat lambs. It is situated close to Greenethorpe on the branch line from Koorawatha to Grenfell, distant about 260 miles from Sydney. A broader description of its location would place it between Young, Grenfell and Cowra.

The "Iandra" homestead is a magnificent reinforced-concrete structure, in remarkably good condition. Completed in 1912, it resembles a huge English type castle and is reported to have cost from £62,000 to £80,000. It is regarded as a showplace, and tradition has it that it was planned as a possible residence for Royalty visiting Australia.

From the viewpoint of land settlement in New South Wales, the development of "Iandra" as a property is much more important historically than the erection of the "Iandra" homestead, as it figures largely in the story of the development of large scale share-farming in New South Wales. To this extent "Iandra" has been described as the nursery of share-farming in Australia.

The man responsible for the development of "Iandra", and after whom Greenethorpe was named, George Henry Greene, came to Australia in 1842 at the age of four. He was one of the first to graduate from the University of Melbourne and, after being actively associated with several properties, he purchased the huge "Iandra" holding in 1878 against the advice of his friends. (There is no available record unfortunately as to how "Iandra" received its name.)

Greene proceeded to develop his timber covered holding in a methodical manner. The timber was not cleared ruthlessly but judiciously, leaving belts for shade and ornament, and wind and fire breaks. He then commenced wheat production on a scale never before attempted in New South Wales. The original area of "Iandra" is not clear although according to one report it comprised 70,000 acres.

of which over 30,000 acres were at one stage under wheat simultaneously. In the early part of this century the property was reported to comprise 31,963 acres. In 1910 the property was transferred to George Greene's son, W. F. C. Greene. Shortly afterwards a further portion, apparently, was sold leaving the homestead on 2,000 acres. This area has been further reduced and now "Iandra" comprises only some 800 acres.

The founder of "Iandra" met severe setbacks at the commencement of his project as the State was at the time experiencing one of the most prolonged droughts on record. Greene also failed to secure the right type of farmer but was fortunate in obtaining a capable manager (a Mr. J. Murray) and, eventually overcoming all obstacles, he emerged triumphant from the experimental stage of his project to achieve "fame and fortune". It is said of him that he found "Iandra" a forest and left it a granary.

Greene died in December, 1911, the year before the "Iandra" homestead was completed, but not before he had inaugurated the share-farming system. In an obituary the *Sydney Morning Herald* described Greene as the father of the "Share System" and one who had put good farmers without capital on their feet. It stated that "perhaps the share system, as worked by Greene, has done more to create small landowners than all the Land Acts of Parliament put together."

It is not clear as to when share-farming was first practised at "Iandra", but a reference to Parliamentary Debates (Chanter, M.L.A., Closer Settlement Bill, 30th November, 1901), indicates that by 1901, 14,000 acres were under wheat, of which a "great proportion was being worked under the halves system, a very large quantity (also) being worked privately by the owner". A further reference to share-farming activities in 1905 states that the late Mr. P'Anson "heard about the possibilities of employment at Iandra and drove a waggon and five horses from South Australia". Mr. Greene set him up with plant and he became one of the first share-farmers on the place. After Greene's death, incidentally, P'Anson bought the homestead block of 2,000 acres and lived there until his death in 1949.

A further reference in 1911 to share-farming activities indicated that of the 30,000 acres, 20,000 acres were under cultivation. The holding kept 700 horses and 600 hands were employed, besides carriers, threshers, chaff-cutters and station employees. The property also carried 20,000 sheep as a sideline and contained fifty share-farmers' houses. Many successful farmers began in a small way at "Iandra" and subsequently bought the blocks of land on which they farmed as the holding was split up. The method of operating the share system was that Greene found the land, all seed and two thirds of the fertiliser while the share-farmer found the labour. The crop was shared equally, "on the halves", with the farmer also receiving all production in excess of 20 bushels to the acre. In 1911 this excess represented 5,250 bushels. Greene not only introduced large scale share-farming, but he was one of the first to use concentrated measures in rabbit destruction—netting of paddocks, digging out and hunting with dogs.

In 1899 Greene was appointed to the Legislative Council and, apparently, was active in securing approval for the building of the rail link between Koorawatha and Grenfell. This line passes through Greenethorpe and was opened on 7th May, 1901. Referring to this line on 29th December, 1911, the *Grenfell Record* stated that it was a "notable example of what a short railway run into wheat areas can do for a district generally and the country at large".

(Photo by courtesy of the "Land" Newspaper.)

(Miscellaneous References: Mitchell Library.)

Share-farming was taken up because farmers and would-be farmers, otherwise, could not procure suitable land. Everywhere there were these large freehold estates, the "squattages" and "principalities" covering thousands and tens of thousands of acres. Further descriptions of this extensive share cropping are given in the Parliamentary debates of the late 1890's and early 1900's, when closer settlement was under discussion, a few examples of which may be given.

First, in connection with the growth of share-farming in the Riverina on the "halves" system in the late 1890's, there are these further observations of Mr. Joseph Carruthers:—

" . . . To my mind, settlement which is of an unsound character is proceeding apace all through the Riverina district, and it is spreading into many other districts. The earth hunger is so intense that men are commencing to operate land on the halves system. In districts where agitation are carried on against the Crown charging 6d., 1s. or 1s. 6d. per acre for good land, farmers undertook last year (1895) under the halves system to pay over £1 per acre. This earth hunger . . . is forcing men to make bad bargains for themselves. In that part of the colony you can see a bad system of farming coming into operation—a careless, slovenly system of farming—because the men have no interest in the land except what they can scrape out of it year after year. They have no interest in making homes for themselves. They simply use the land so that they can have half the produce each year for themselves and they do not care how they leave the land. Tenant farming of this character is not likely to be productive of permanent settlement or permanent good in the country. The halves system results in no permanent good to the state; it results in a wasteful system of farming and very often in exorbitant rents . . . The boom days have disappeared. A great proportion of these large estates are held together by institutions which had them forced upon them as securities. Therefore the time is opportune for the State to endeavour to retrieve the mistakes made in the past and to acquire land which can be honestly disposed of to the population which is clamouring for the land for the purpose of making homes for themselves . . ."

(Mr. (later Sir) Joseph Carruthers, *Parliamentary Debates*, 3rd June, 1896.)

In the same debate, others speakers, for example, Mr. Copeland, M.L.A., evidenced a deep-rooted dissatisfaction with land settlement conditions in New South Wales as compared with what was at the time being done in South Australia and elsewhere:—

"There is no doubt that the colony which possesses the best land legislation is South Australia, where they have thrown open in the first instance lands in areas of 100,000 acres. These lands require to be fairly taken up, and the blocks filled up before any further alienation takes place. The main reason for that was that they required to take first the lands best suited for agricultural purposes . . . It was a great mistake under the 1861 Act and succeeding acts to throw the whole of the lands open promiscuously as they were thrown open . . . If the lands had been classified and then thrown open for settlement and the blocks filled up before any further alienation took place in connection with our first land legislation, we should have farming communities, with their schools, churches and everything they required in such close proximity as to be able to help one another in the work of their various farms . . . I saw only a few weeks ago a great many of these men who have adopted the halves system. They prefer the system to any other system, because it is not surrounded with so much responsibility and does not require so much capital as the old system does . . . Many of the Victorians plant a crop, go back to their own colony and come here to reap . . . (most often) the eldest son of many a Victorian family . . . they continue with their farms in Victoria . . . There is no doubt a great many Victorians have come into New South Wales . . . But these persons are merely birds of passage. They have taken up the land which they have worked most carefully and industriously for five or six years . . . In all probability they have only taken half out of it and then gone back to their own homes which they are occupying at the present time in Victoria. That is the almost universal practice. These people come to the colony, and by cultivating the virgin soil skim the cream off the land, and as soon as it becomes impoverished, it is thrown back on the hands of the owners . . ."

(Mr. Copeland, M.L.A., one-time Minister for Lands, *Parliamentary Debates*, 3rd June, 1896.)

But on the other hand, even then, realists such as Mr. William Lyne, M.L.A., and Mr. Gormly, M.L.A., were questioning market prospects

for cereals and other produce, for quite obviously farming could never pay if the returns were not good enough.

"I remember well on one occasion when the Government sold land at Jerilderie, and round about Urana, in that very fertile district—I think I am right in saying about two million acres in a little more than a year—I protested against it, and the late Sir John Robertson said, 'Well, Victoria has had an eye on Riverina for a good many years. We will sell the land and get the money in the Treasury, and if Victoria should have Riverina in the future, the government of that colony will only be able to tax the land; they will not get at the original capital.' . . . That is one version why such immense areas in that district which contains some of the richest wheat-growing land in New South Wales, and which has the still greater advantage that nearly all of it will in years to come be brought under the influence of the waters of the mountains . . . either of the Murray or the Murrumbidgee, has been sold . . . The whole of that district is particularly suitable for agricultural settlement . . . Unless you can get the land alienated in small settlement, especially in the neighbourhood of railways, you cannot get a sufficient return from produce and grain of other kinds to make the railways pay, and the only thing perhaps that I regret at the present time is that if you create these large settlements to produce such an immense quantity of cereals, where is your market in New South Wales? . . . I say that if we have settlement, the first thing we should do is to give it its home market . . ."

(Mr. (later Sir) William Lyne, *Parliamentary Debates*, 3rd June, 1896.)

"I fully recognise the fact that the land laws hitherto passed have not been of such a character as would promote settlement . . . We know that it is almost impossible for a person of limited means to carry on agriculture at any considerable distance from the railways. Produce is now sold at very low prices, and judging from the large area of land which we see being put under wheat this season (1896), there is a strong probability that if we have a reasonably good crop next harvest, the price of grain will be so low that it will not pay to carry it any great distance by team. Therefore the policy proposed of running land near to centres of population and close to railway lines is a very wise one . . ."

(Mr. Gormly, M.L.A., Member for Wagga, *Parliamentary Debates*, 3rd June, 1896.)

Allied with Farrer's findings, the "rough and ready" early methods were gradually modified and improved, the new agricultural science being taught and demonstrated including the use of superphosphate, rotations, wheat drilling, fallowing, clean cultivations and "dry farming," a term which had been borrowed from North America.

It was ascribed to the Dibbs' Protection Act that in one year (1895) there were 119,000 additional acres under wheat and an increase in the number of persons engaged in agriculture. The movement towards farming was thereafter continuous. By 1901 almost 1½ million acres of wheat were under crop, representing five times the meagre acreage of 1890. This was thought a mere "fleabite" in the agricultural theorising of the time, compared with the probable 20 to 25 million acres which eventually could be put under wheat. In 1902, because of the continuance of drought conditions, the wheat crop was a failure, and only 1½ million bushels were produced, but this was followed by a succession of good seasons, the record crop for the 1903-4 season exceeding 27 million bushels. Within a further ten years, the wheat acreage had more than doubled again, so that by 1915-16, New South Wales was already firmly established as a wheat producer, and 4.2 million acres were sown to wheat.^{80A}

^{80A} cf. A. R. Callaghan & A. J. Millington, *The Wheat Industry in Australia* (Sydney: Angus & Robertson, 1956); R. D. Watt, *The Romance of the Australian*

Land Industries (Sydney: Angus & Robertson, 1955); Edgars Dunsdorfs, *The Australian Wheatgrowing Industry, 1788-1948* (Melbourne: University Press, 1956); and Appendices VII-X.

“Progress of Wheatgrowing in New South Wales, 1851-1907

“ . . . The discoveries of gold in 1851, which sent a thrill of excitement through the great laboring pulse of the colony, placed wheatgrowing—and, in fact, agricultural pursuits generally—at a considerable discount for some years. Farmers and others made a mad stampede for the scenes of the new El Dorados, to try their luck; but comparatively few were those who met with the degree of success they anticipated and fervently hoped to gain. The great influx of population, however, which the gold discoveries brought about eventually had a beneficial effect on the agricultural industry, and the area under wheat, which had only increased from 163,979 acres in 1845 to 171,100 acres in 1855, and had fallen as low as 89,195 acres in 1857, after this last-mentioned year once more commenced to grow larger almost every season. The expansion of the railway system of the State, and changes in the land laws, have also tended to develop the industry considerably during the last 40 years.

“ . . . 1859, the year in which Queensland separated from New South Wales and became a distinct State, was the last in which the acreage under wheat was below 100,000; but on a couple of occasions since has the total of that year's yield, viz., 1,565,532 bushels, not been reached. . . . The area under crop remained almost stationary at a little more than 125,000 acres for some time prior to 1866, when it had increased to 175,000 acres. Eleven years later the area reaped for grain was practically the same, although during the intervening period it had fluctuated to the extent of 50,000 acres. Then more land was laid under the cereal, and in 1878 the area increased to 233,252 acres. The total of a quarter of a million acres was exceeded for the first time in 1883, and ten years later the half a million standard was reached and exceeded for the first time. For five years the area ranged between 500,000 and 1,000,000 acres, and the standard of 1,530,609 acres was arrived at by 1901. The increase of nearly a million acres during the seven years between 1893 and 1900 was the greatest ever recorded in the time in the history of the State, and was largely due to the fact that extensive properties which had hitherto been exclusively devoted to pastoral pursuits were brought under the plough. A temporary period of retrogression, occasioned by a drought of unprecedented severity, followed the year 1901, and brought the area of the crop down to a little over a million and a quarter acres in 1903, when 1,279,760 acres returned only 1,585,097 bushels of grain, being a fraction over a bushel to the acre. Since then, however, progress has been regular, if not altogether as great as might be wished. In 1904 the area had advanced to 1,561,111 acres, in 1905 to 1,775,955 acres, and last year (1906, or the present season) to 1,939,447, which is the high-water mark not only for New South Wales but Australasia, the area being larger than that under wheat for grain in any of the other States or New Zealand.

“The principal wheatgrowing districts are situated in the central-western slope, north-western slope, the Riverina, south-western slope, and the eastern portion of the western plains. Some wheat is grown on the coast, in the western division, and in the central and western portions of the central-western plain, but the total area in these parts does not amount to a great deal, as the country, for various reasons, is not adapted to the cultivation of the crop. Taking the central-western slope, where the area sown to wheat is now nearly three times as large as it was in 1897, this embraces the districts of Wellington, Dubbo, part of Narromine, Cobborah, Mundooran, Molong, Parkes, Forbes, Cudal, and Cargo. The greatest development has taken place in the three first-mentioned places. Fifteen years ago there was very little wheatgrowing carried on west of Wellington. The country was for the most part held by squatters, and when settlers went along and embarked in cereal growing, people with a knowledge of the district said it was unfit for agriculture, and predicted failure for the enterprising farmers. To-day the country right to Trangie, thirty miles beyond Narromine, is thickly occupied by thrifty wheat farms, the towns have grown and prospered as they never did before, and comforts and conveniences of life which less than fifteen years ago were considered impossible of attainment, are now being

enjoyed. Parkes, Forbes, Molong, and other towns in the division have also benefited considerably from the development of the agricultural resources of the country surrounding them.

"In the south-western division, which includes parts of the Temora and Wagga districts, Grenfell, Young, Cootamundra, Junee, and other centres, wheat is 'king', and the change which its production has wrought here is just as remarkable, if not even more so, than in the case of the central-west. Each of the districts enumerated has been transformed from a thinly-populated pastoral centre into a prosperous farming locality, where the land, in addition to carrying perhaps as much stock as it did prior to the advent of the settlers, is, besides, producing thousands of bushels of wheat. Big estates have been cut up and disposed of to the wheatgrower, who has in numbers of instances been invited by big landholders to 'step in' and cultivate a part of their immense sheep runs.

"But whilst the change which the production of wheat has effected around and in these towns, especially Temora and Wagga, is truly wonderful, the transition of Riverina from a mere sheep walk to an extensive agricultural province is even more so. It is only as it were yesterday that sheep were in possession of the extensive plains in that division of the State, yet to-day these are covered with thousands of acres of wheat. Those who know the value of the country for wheatgrowing marvelled why it remained uncultivated as long as it did, but the squatter landholders, who had been engaged in sheep raising all their lives, knew nothing about wheatgrowing, and for many years discouraged the industry in every possible way. Time, however, brought a change, and the squatters for the most part are now just as enthusiastic wheatgrowers as the farmers themselves. The history of how the great change came about is interesting. Briefly, it is directly traceable to a desire on the part of Victorian wheatgrowers to continue their operations, and, at the same time, spell their land on the south side of the Murray. Hence they went across the river on to Barooga, Mulwala, Tarramia, and other Murray frontages, made terms with the owners, and started cultivating on shares. Since then settlers from the southern State have spread northwards, New South Wales men have come in, and farmers from South Australia and other States have been attracted by reports of suitable terms and satisfactory yields, and have done their share in making Riverina the granary of the mother State of the Commonwealth. The districts included in Riverina are those of Coolamon, Narrandera, Jerilderie, Finley, Berrigan, Tocumwal, Mulwala, Corowa, Albury, Culcairn, Lockhart, Urana, and parts of Wagga and Junee. The bulk of the wheat is produced in the counties of Uraua, Denison, and Hume, the two latter extending to the Murray River.

"Turning for a moment to the north, the districts of Muswellbrook, Scone, Quirindi, Tamworth, Gunnedah, Boggabri, Narrabri, Bingara and Inverell, in the central and northern tableland, and north-western division, are all important wheat centres, in which the industry has made astonishing progress of recent years.

"The following table, prepared from statistics collected from *The Official Year Book of New South Wales*, shows the increase and decrease in the area under wheat in the different districts for the years 1899 and 1906:—

District	Area under wheat for grain		Increase or Decrease, 1899-1906
	1899	1906	
	Acres	Acres	Acres
Coastal	24,000	10,845	(D) 13,155
Tableland—			
Northern... ..	18,301	14,546	(D) 3,745
Central	115,073	113,636	(D) 1,437
Southern	27,228	13,538	(D) 13,690
Western Slopes—			
North	92,670	217,992	(I) 125,332
Central	153,288	343,928	(I) 190,690
South	273,530	350,780	(I) 77,250
Western Plains ...	61,879	249,360	(I) 187,487
Riverina	549,538	620,616	(I) 71,078
Western Division ...	3,446	4,206	(I) 700

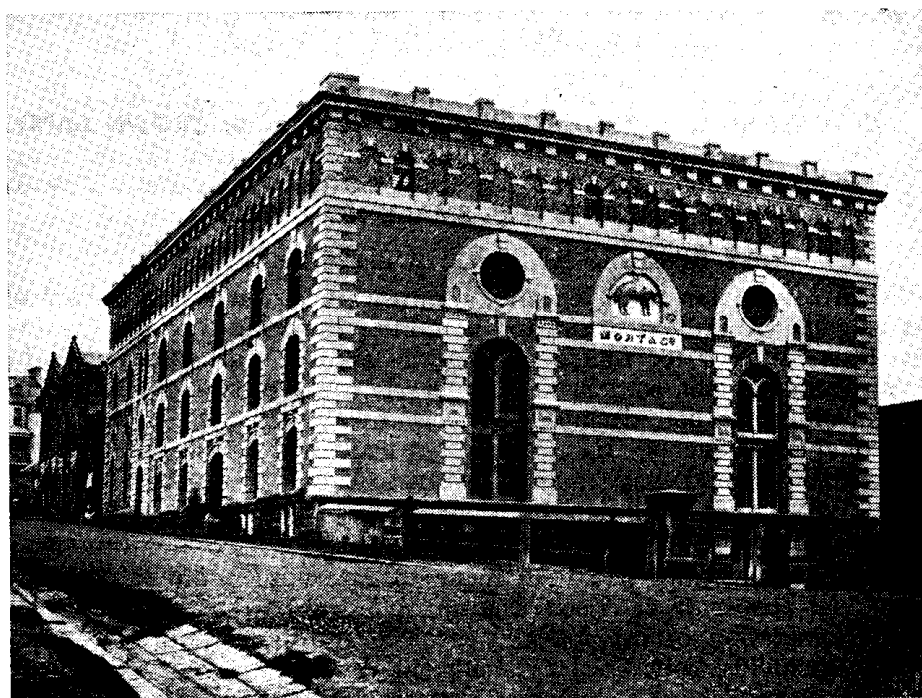
(D) Decrease. (I) Increase.

"The appended statement shows the yield and average in the same districts for the same periods:—

District	Yield of Grain		Average Yield Per Acre	
	1899	1906	1899	1906
	Bushels	Bushels	Bushels	Bushels
Coastal ...	303,438	63,638	12·6	5·9
Tableland—				
Northern ...	160,328	213,706	8·8	14·7
Central ...	1,284,617	1,159,137	11·1	10·2
Southern ...	284,310	153,789	10·4	11·4
Western Slopes—				
North ...	883,350	2,221,094	9·5	10·2
Central ...	1,704,341	3,037,476	11·5	8·8
South ...	273,530	350,780	7·0	13·1
Western Plains ...	478,758	2,018,194	7·7	8·1
Riverina ...	2,189,196	7,243,888	4·0	11·7
Western Division ...	10,842	22,514	3·1	5·0

"Whilst this record of progress appears on the face of it gratifying, it is not by any means what it might have been had a progressive policy of encouraging agricultural settlement in suitable districts been pursued by those who have held the reins of Government from time to time, but more especially during the last two decades. The industry is capable of very wide expansion in the State. We have about twenty million acres suitable for its development, and with only about a tenth of that area being used for wheat-growing after more than one hundred years of settlement, the rate of expansion has been anything but rapid. There can be no doubt that the comparatively slow progress which has been made is due to the locking-up policy of the Crown lands administration on the one hand and the lack of light lines of railway on the other. When the pastoral leases were about to expire in the early nineties, it was authoritatively stated that about eight million acres of suitable land in the Central Division would be open for agricultural settlement as the leases fell in, but it is now well known that three parts of that vast area has been placed outside the reach of settlers, and is still held in pastoral occupation under the Crown. Were only the locked-up Crown lands that are within reasonable distance of a railway line, and well adapted for wheat-production, made available, there would soon be a striking increase in the area under crop. At the same time, it must be admitted that a very large portion of the wheatgrowing country in actual occupation is not being cultivated. As a matter of necessity, wheatgrowers reserve a good deal of their land for sheep farming, combining, as they pretty well all do, this branch of agriculture with that of the growing of wheat. Any large increase in the area under crop in many districts can, therefore, only be brought about through closer settlement and the construction of light lines of railways. A railway is one of the greatest possible aids to agricultural development, and the extension of a line to a new district possessing fine arable land brings about a wonderful expansion in the wheat area. At the present time more than half the cultivatable area which would be cropped in many centres if a railway could be easily reached, is being devoted to grazing only, the cost and trouble of carting wheat 30 miles or more making it too difficult to successfully carry on its production on anything like an extensive scale. However, notwithstanding the disabilities referred to, there are not wanting signs that the area devoted to the production of the principal crop of the State will be materially expanded year by year for some time to come. In addition, there are good prospects of largely increased productiveness by increasing the yield per acre; New South Wales was slow in following the advanced practice of other countries in this matter; but now that its value has been proven, farmers may be relied upon to carefully adhere to it in future. The advantages of preparing the land well for the crop, of fallowing, of drilling in the seed, and using fertilisers, are recognised by such a large proportion of wheatgrowers that the days of slovenly wheatgrowing seem to be pretty well numbered."

(*The Town and Country Journal*, 2nd January, 1907.)



Mort's Wool Store, Circular Quay, Sydney, 1870.

(Photo: N.S.W. Government Printer.)

Thomas Sutcliffe Mort was born in Lancashire in 1816, the son of a master weaver, and came to Australia in 1838. In 1843, following the collapse of the company in which he was employed, Mort decided to set up business on his own account as an auctioneer and broker. Prior to this, the selling of wool in Sydney by auction had been attempted—even as early as 1833—but with no success. In October, 1843, Mort commenced the selling of wool and other produce in George Street in a position immediately opposite the then Bank of Australasia, and thus established the first continuous series of Wool Auctions in Australia. By 1846 the progress made was sufficient to justify twice-weekly sales.

In June, 1850, an announcement was made by Mort and Brown (as the firm then was) that extensive premises were to be erected close to Circular Wharf—the building was to be constructed of stone and was designed to hold 1,000 bales of wool. The store was completed and the first sale there held on December 5th, 1850. Subsequently the store was enlarged considerably between 1850 and 1870, and a second half to the store added after 1880 when the firm of Mort and Co. Ltd. Sydney, was purchased by R. Goldsbrough and Co. Ltd. of Melbourne to form Goldsbrough Mort and Coy. Up to the year 1887-88, just prior to this amalgamation with Goldsbrough, Mort's company had sold some 61,000 bales of wool.

Although not trained in wool from his early youth, as had been Richard Goldsbrough, his opposite number as a wool auctioneer in Melbourne, Mort was resourceful and energetic, with a high reputation for ability and probity. In addition to his wool auctioneering activities, Mort was associated with widespread other interests in the developing economy of his day, including agriculture, land settlement, ship repairing, Mort's Dock, refrigeration and shipping. He died in 1878.

The view here shown is of the Wool Store as it was in 1870. The size of the store was afterwards to be more than doubled.

(cf. *Wool and the Nation*, Goldsbrough, Mort and Co. Ltd., 1955.)