

SOUTH AUSTRALIAN AGRICULTURE 1876 – Extract from:-

SOUTH AUSTRALIA :

ITS HISTORY, RESOURCES, AND PRODUCTIONS.

EDITED BY

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ILLUSTRATED FROM PHOTOGRAPHS TAKEN IN THE COLONY.

WITH MAPS.

PUBLISHED BY AUTHORITY OF THE GOVERNMENT OF SOUTH AUSTRALIA, AND DEDICATED
(BY PERMISSION) TO HIS EXCELLENCY SIR ANTHONY MUSGRAVE, K.C.M.G., &c.,
GOVERNOR AND COMMANDER-IN-CHIEF OF THE COLONY.

L O N D O N :

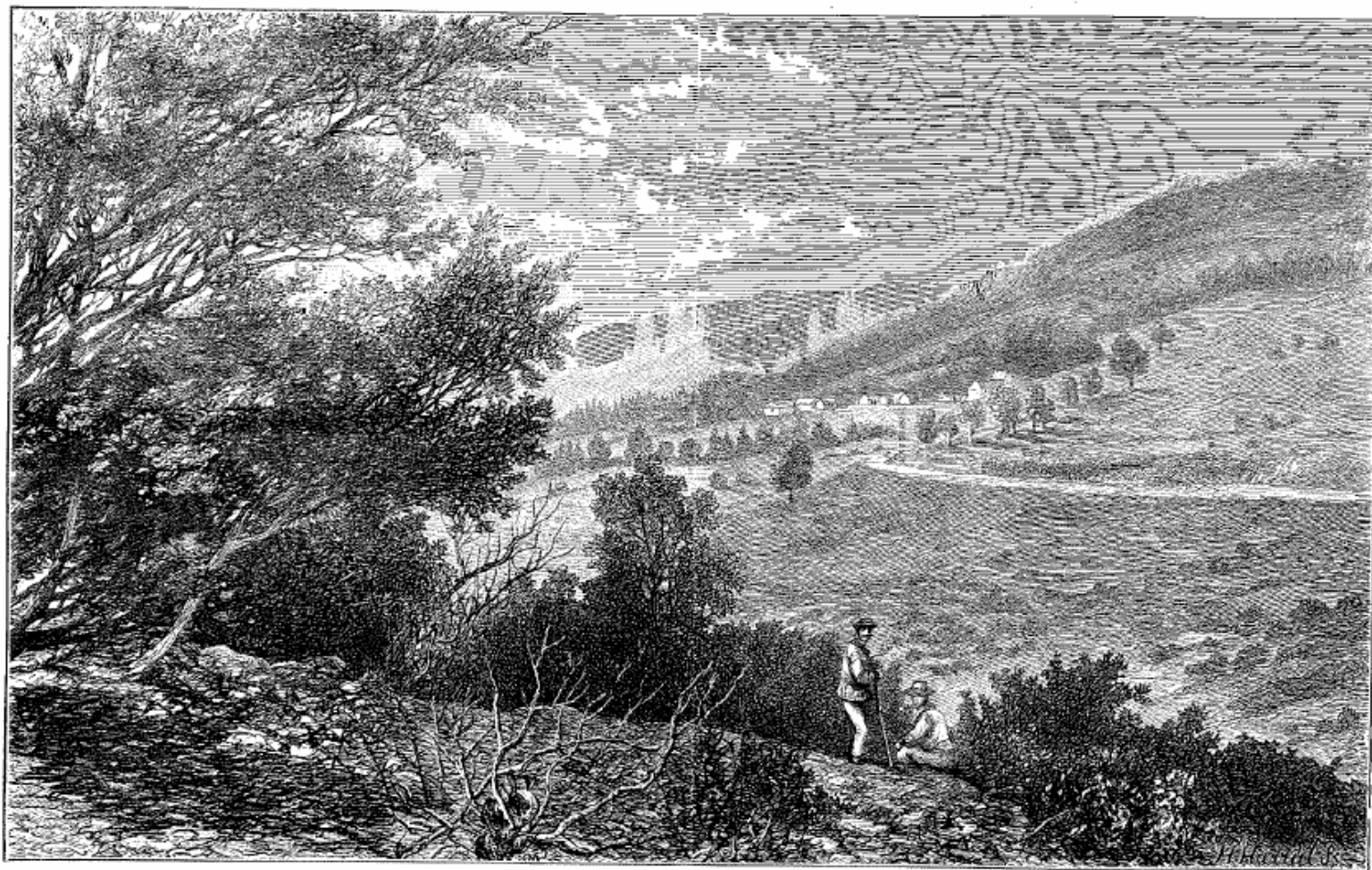
SAMPSON LOW, MARSTON, SEARLE, & RIVINGTON,
CROWN BUILDINGS, 188 FLEET STREET.

1876.

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POST OFFICE AND TOWN HALL, ADELAIDE



· OULLINA GAP, NEAR ADELAIDE, SOUTH AUSTRALIA.

CHAPTER XI.

THE LAND.

Pastoral Pursuits — Squatter's Life — Wealthy Sheep-farmers, their Hospitality — Valuation and Assessment of Runs — Agriculture — First Attempts at Wheat Growing — Land Sold — Land under Cultivation — Table of Land Cultivated under Wheat, Yield in Bushels, and Average per Acre — Small Cost of Cultivating Wheat — Ridley's Reaping Machine.

PASTORAL PURSUITS.

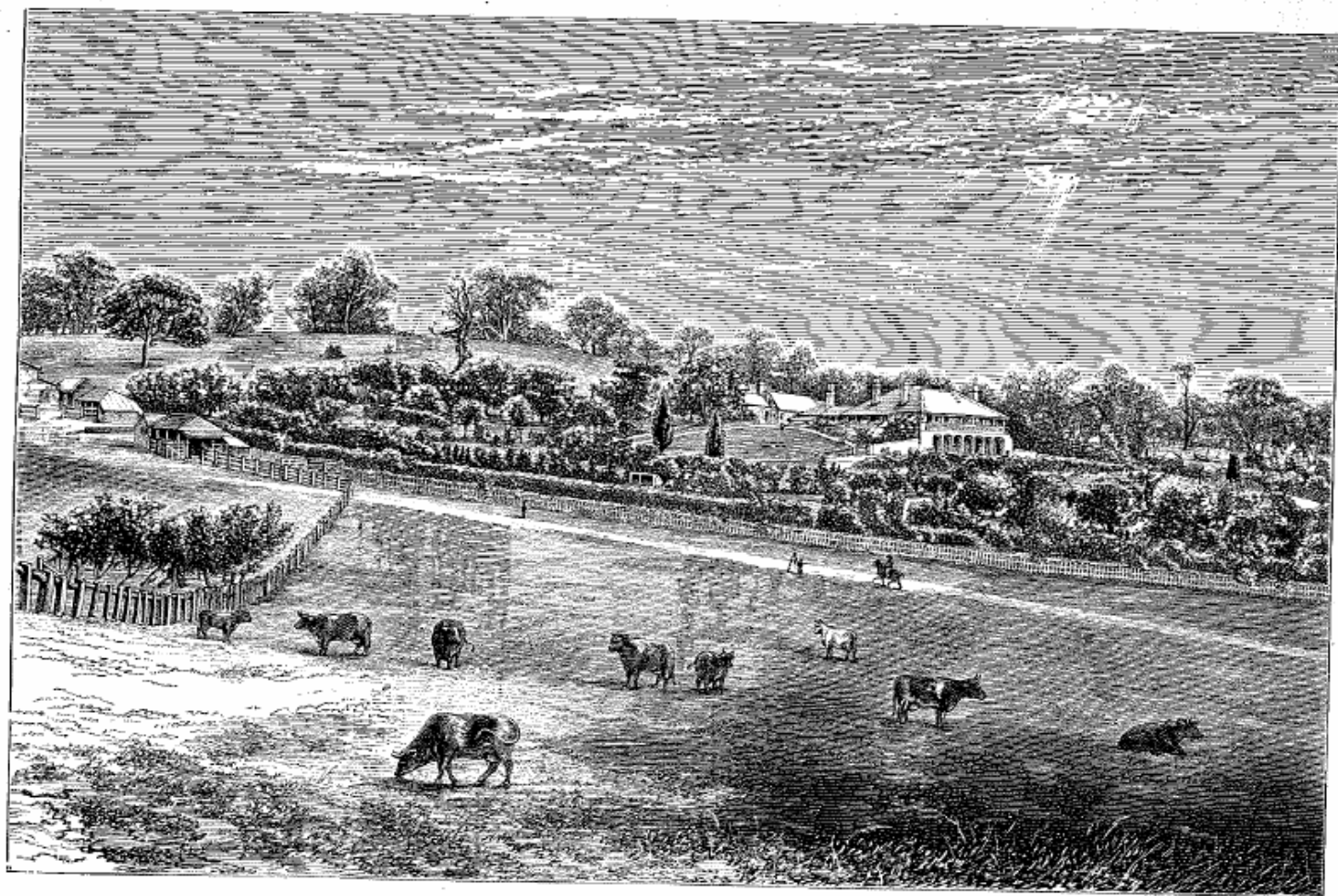
I HAVE already referred to the immense area of land now comprised in the Colony of South Australia. Sir Charles Wentworth Dilke, Baronet, in his "Greater Britain," describes it as "The widest of all the British Colonies, and nearly as large as English Hindostan." Very early in the history of the Colony land was taken up in what were then considered very remote districts for pastoral pursuits, including the breeding of sheep and cattle. The settlement of the country in this way was closely connected with that daring exploration for which the Colony has obtained a high and deserved reputation, as I shall show in a subsequent chapter on South Australian explorers and exploration. The beginning of this industry was very simple and unpretentious. Young men, with just capital sufficient to purchase a few hundreds or thousands of sheep, a dozen horses, a year or two's rations, and to hire a shepherd or two, sallied out into what was then a *terra incognita* to seek their fortune. They settled on suitable country, erected a rude hut, and thus laid the foundation of their fortunes. The life at first was a hard and rough one, involving many privations; but it was not altogether without its compensating pleasures. There was plenty of work, and that of itself keeps life

from stagnating. There was the pleasure of seeing the flocks and herds increase. The lambing season brings a pressure of work which requires the best energies of all hands on the station. Shearing too is always a scene of busy activity, and getting the wool to the market before roads were known taxed the ingenuity of the cleverest of the "squatters," as pastoral lessees of the Crown were early called, and the designation sticks to them to the present day, and will do so so long as pastoral pursuits are carried on.

The squatter's life in the beginning was not without a spice of danger, which required continual vigilance and activity to guard against, and a brave heart and a strong arm to meet when it actually came. In those days the natives were enemies not to be despised; and before they learnt to fear or trust the white man, they were not slow to resent his intrusion upon their hunting grounds. They plundered his huts, killed his sheep and cattle, and sometimes attacked himself or his shepherds. He had, therefore, to be always on the watch to protect himself and his property. The aborigines had been accustomed to kill for food all the indigenous animals found in their country: and it was hard to teach them that they had no right to touch the sheep and cattle of the squatter. They learned this in the end by a rough and bitter kind of experience; but in the early days of squatting they were a constant dread and annoyance to the settler.

As the flocks increased, the squatter had to push out into new country, and runs were extended farther and farther inland. Leases of wide stretches of country, comprehending in some cases hundreds of square miles, were granted on a mere nominal payment, and many of the squatters grew rich rapidly. All pastoral leases are held with the condition that whenever the land is required for agricultural purposes, the squatter must turn out on receiving six months' notice, he being paid for the substantial improvements made on his run. The squatter is therefore the pioneer of the agriculturist. When the land is wanted for agriculture, he has to retire farther into the interior.

Many of the wealthiest men in the Colony at the present



LINDSAY HOUSE, ANGASTON.

time, and several who have returned to spend their handsome fortunes and to end their days in the old country, began here in a very humble way. Some of them went out, as I have mentioned, with a few hundreds or thousands of sheep, and lived far from the abodes of men for years, and only occasionally visiting Adelaide to purchase rations or to dispose of their wool; and some did not even do that, but trusted all to agents in town. Others were only shepherds, and by saving their earnings—there were neither temptations nor means of spending them at first—they got a few sheep together, and were eventually enabled to take up a small run for themselves; and the first start made, in many cases success came rapidly. Shepherds who knew all about the management of sheep made good squatters; they went on increasing their flocks and taking up new country, and their wealth increased in geometrical ratio. They lived in the quietest possible way, spending but a mere fraction of their income. I could point to a score of such men who have made large fortunes, which they have well earned, and, having handed over the hard work of the station to their sons, have retired to enjoy their well-earned leisure and to spend their ample fortunes. As a class, they are honourable and kind-hearted men. A squatter's hospitality has become proverbial in Australia. Having had many opportunities of testing it in the far bush, I can speak from personal experience. The best the station affords—accommodation, food, and horses—are freely placed at the disposal of any one who knows how to behave himself. There are, of course, exceptions, and a churlish squatter may sometimes be met with, but very rarely. I have more than once been surprised and delighted to meet in some far-distant and out-of-the-way place an elegant and hospitable family—the sons manly and intelligent young fellows, and the daughters possessing the accomplishments of elegant young ladyhood, and a few other accomplishments which are only to be picked up in the bush, such as catching and saddling a half wild horse and joining in a kangaroo hunt on his back. This is not often the case, for young ladies' horses on a station are generally not as well broken as they are well ridden.

A few years ago the leases which the squatters had held on exceedingly low terms were subjected to a new valuation on their renewal. The Surveyor-General, Mr. G. W. Goyder, a highly competent man, was appointed valuator, and he performed this onerous and unpleasant duty with great impartiality. His work was a very important one, and required for its proper discharge not only high professional ability, but integrity and firmness of character; and these, it is admitted, Mr. Goyder possessed in an eminent degree. His largely increased valuations astonished some of the squatters, and made them indignant; but he was supported by public opinion throughout the Colony, and the result has shown that the poor oppressed squatters, as they represented themselves, were very well able to pay the increased assessment. Unfortunately for the squatters, but fortunately for the Government, the valuations were succeeded by two years of drought, which tried the lessees severely, and under which some of them fell poor and almost hopeless. Had the valuations been made during the years of drought, they would have been fixed much lower indeed than the actual value would have justified. Indignant as the squatters were, none of them were killed by the valuations. Some of them fell from the drought, but those who were able to live over the bad times became wealthier than ever. At the present time the pastoral interest is in a highly prosperous state. A subsequent part of this work gives the full statistics of this industry, from which it will be seen how wonderful has been the progress made by our "Shepherd Kings."

AGRICULTURE.

When the first colonists arrived, the country was parched up, the ground hard-baked and apparently unworkable. For some time the early settlers were content to sit down with the conviction that agriculture on such a soil, and with such a climate, was impossible. A great deal of suffering resulted from this false inference. The most important of all the necessities of life had to be imported at a ruinous cost from Tasmania; and flour was actually sold in Adelaide at £100

per ton. Some daring colonists, however, thought they would honestly try whether wheat could not be produced on the Adelaide plains. The land was tilled, the seed deposited, and the result anxiously looked for. Happily, wheat-growing became a success from the beginning. Writing, as I do now, when the result of the last harvest enabled us to export something like 180,000 tons of breadstuffs, after supplying our own wants, it seems almost absurd to think that the early fathers and founders of the Colony should even have entertained a doubt as to the productiveness of the soil and climate. For a long time, agriculture was confined within a radius of say twenty miles of Adelaide, and persons "who ought to know" gravely asserted that beyond that radius agriculture was impossible. These persons, however, proved to be false prophets. During the last harvest, country 150 miles and more to the north of the metropolis has, without the cultivation necessary in England, produced splendid wheat, averaging from fifteen to eighteen bushels to the acre. And along the whole distance from Adelaide to these northern areas, the land is covered with industrious and prosperous farmers.

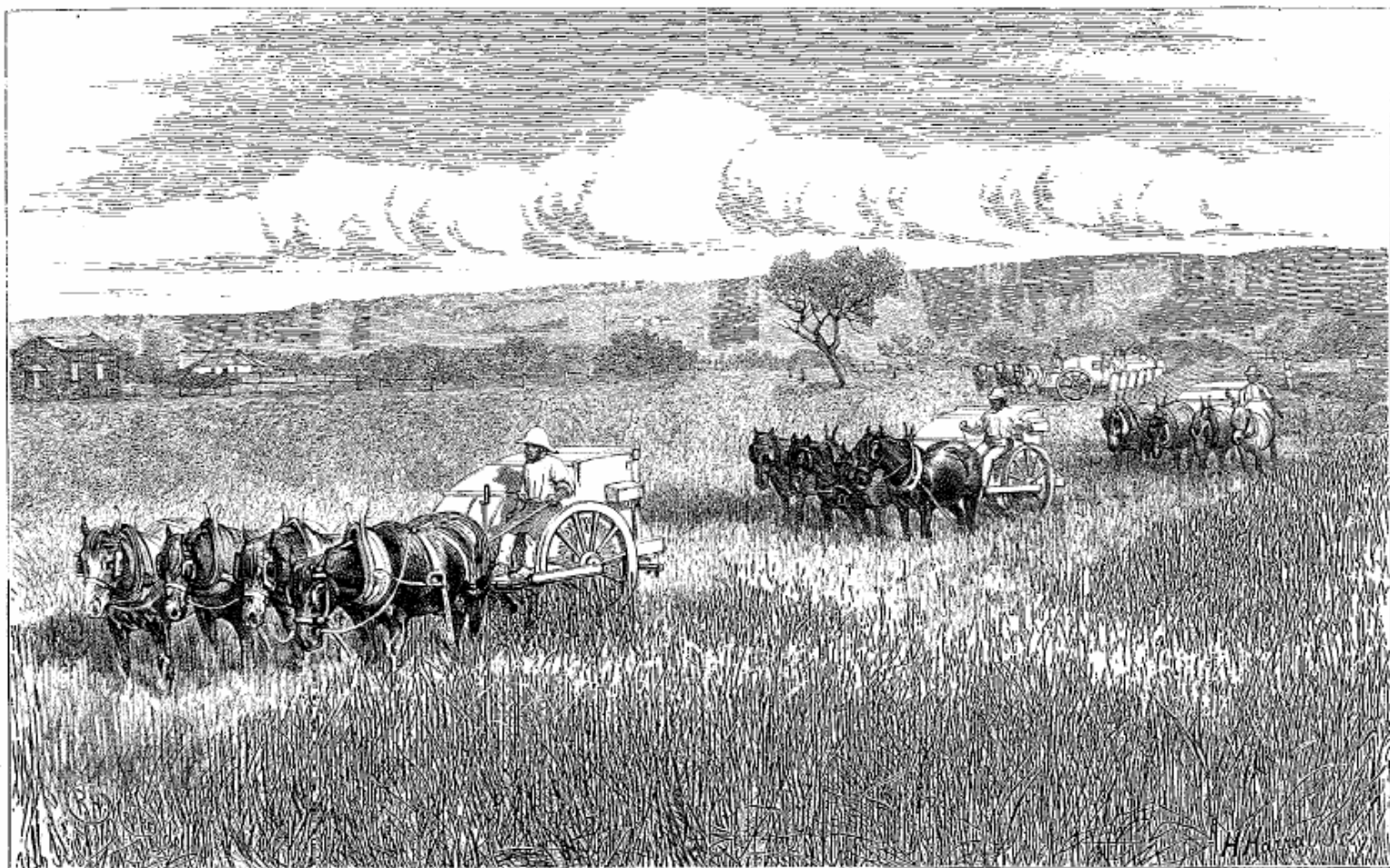
Up to the close of the year 1874 the total area of land alienated from the Crown amounted to 4,621,956 acres, 4,504,197 acres having been purchased in fee simple for cash, and 416,650 acres under the system of deferred payments—showing twenty-two and one-third acres per head of the population. Through the kindness of the Government Statist, I am able to bring down these figures to the present date. The total area alienated by cash sales is 4,319,102½ acres, for which has been realised £5,452,581 9s. 5d. Selections of land on credit have been made to the number of 2076, comprising an area of 714,232½ acres, the purchase-money of which amounted to £934,519 13s. At the close of the year there were 1,330,484 acres under cultivation, of which there were under wheat 839,638 acres. The climate is capricious for wheat, and the average yield per acre from year to year varies considerably. The plagues from which farmers suffer are drought, red rust, takeall, and, very rarely,

locusts. The following table gives for a series of years the number of acres under wheat, the produce in bushels, the average per acre, and the average price per bushel in Adelaide:—

Season.	Acres Cultivated.	Acres under Wheat.	Produce. Bushels.	Average per Acre. Bush. lbs.	Average Price. s. d.
1858-9 ..	264,452	188,703	2,109,544	11 11	—
1859-60 ..	361,884	218,216	2,103,411	9 38	—
1860-61 ..	428,816	273,672	3,576,593	13 4	—
1861-2 ..	486,667	310,636	3,410,756	10 59	—
1862-3 ..	494,511	320,160	3,841,824	12 0	4 10
1863-4 ..	555,968	335,758	4,691,919	14 0	7 10
1864-5 ..	587,775	390,836	4,252,949	11 0	8 7
1865-6 ..	660,569	410,603	3,587,800	8 44	6 2
1866-7 ..	739,714	457,628	6,561,451	14 20	4 5
1867-8 ..	810,734	550,456	2,579,879	4 20	7 1
1868-9 ..	808,234	533,035	5,173,970	9 42	5 0
1869-70 ..	850,576	532,135	3,052,320	5 45	5 3
1870-71 ..	959,006	604,761	6,961,164	11 30	5 0
1871-2 ..	1,044,656	692,508	3,967,069	4 20	5 6
1872-3 ..	1,164,846	759,811	8,735,912	11 30	5 5
1873-4 ..	1,225,073	784,784	6,178,816	7 52	5 7
1874-5 ..	1,330,484	839,638	9,862,693	11 45	—

A moderate estimate of £10 per ton gives £1,800,000 sterling as the result of the harvest, after supplying all local wants. This fact shows how important the agricultural interest is to the Colony generally. To this it must be added that South Australian wheat and flour are the finest produced in the world. This is seen by the fact that in London it brings the very highest price, and in the other Colonies it is bought to mix with their own cereal produce.

The cost of cultivating wheat in South Australia is very small compared with that of other countries. Anything like scientific farming is rarely, if ever, attempted in the Colony. The old saying, "Tickle the land with a hoe and it laughs with a harvest," is almost literally true here. Virgin soil is ploughed up three or four inches deep, and often, without even fallowing it, the seed is thrown in, and, should the season be moderately favourable, a fair crop rewards the small labour of the husbandman. This goes on from year to year—anything like a rotation of crops is never attempted. There are farms in South Australia which have been annually cropped with wheat for twenty or twenty-five years, and yet last harvest they produced as abundantly as ever.



REAPING ON THE FARM OF MR. JOHN RIGGS.

Though the farming is what would be called slovenly in England, yet as a whole, and over a series of years, it answers the purpose of the agriculturist. There are many farmers who have grown rich in this way. Beginning on a small scale, with a section or two of eighty acres, they have, from the profits of one year, enlarged their freeholdings for the next, until several of them now have very large and valuable estates, which yield them a handsome income.

From the table published above, it will be seen that the average price of wheat is low, and nothing could enable the farmer to thrive, with his comparatively small average per acre, and the low price at which he is compelled to sell, but the cheapness of production. The expense of cultivation is small, and the gathering in of the crop, when it is fully ripe, costs a mere trifle. The greatest invention ever produced for the agriculturists of South Australia is Ridley's reaping machine, which reaps and thrashes the wheat by one simple process. A machine of this kind could be used only where the climate is dry, and where the grain is allowed to ripen and harden in the ear. In some of the Australian Colonies the machine cannot be used, in consequence of the moisture in the air. In South Australia, however, as soon as the crop is fully ripe, the machine is put into the field, and the wheat is reaped and thrashed with amazing rapidity, and at a very small expenditure. It may safely be said that the cost of farming has been reduced to the minimum in South Australia.

It is curious to find that some of the most successful farmers are men who have been brought up to other trades. They seem to pick up the art and mystery of the business almost instinctively—proving clearly that in this Province no very great skill or experience is required to make a successful agriculturist. One result of this is, that there is a class of independent yeomanry settling on their own freehold lands, where they enjoy all the comforts of independence and abundance. Below I explain at length the provisions of the existing Land Acts, showing the easy terms on which any industrious man may get on the land, and, in the course of a few years, make it his own.

CHAPTER XII.

THE LAND LAWS.

Upset Price of Land, One Pound per Acre — Division of Land into Hundreds — Original Land Laws — Cash Purchasers — Evils of Land Broking — Strangways's Act — Credit Selections — Surveys — Conditions of Present Land System — Success of System in Northern Areas — New Townships and Ports.

ONE principle on which South Australia was started as a Colony was the sale of the Crown lands at a price not under one pound per acre, the proceeds from the sale to be devoted to the introduction of immigrants.

This principle, however, was soon modified, and a large portion of the money obtained for the lands was devoted to the construction of roads and other public works, and subsequently to meeting the claims of the National Debt. The minimum price of one pound per acre has been strenuously adhered to. Waste lands, as the unsold Government lands are called, divided into Hundreds, and sub-divided into sections of about eighty acres each, were offered at auction at the upset price of one pound. Competition often ran up the price much beyond this amount, and hard-working farmers had but little chance in competition with mere speculators, who bought the land at a price which the farmer could not afford to give in cash, and subsequently let it to him at a good rental, with a right of purchase at twice or three times the amount of what it had originally cost. On the fall of the hammer, twenty per cent. of the purchase money had to be paid down, and the remainder in one month from the sale. Lands that had been

offered at auction and passed the hammer could be taken up at any time at one pound per acre.

Several attempts were made to alter the whole system of the land laws, which had been worked so as to benefit only a very small class of speculators at the expense of the agriculturists. The average price per acre which the Government had received for the large territory alienated from the Crown was under 25s., but the price to the farmer, who had in many instances to purchase second-hand, was 50s. or 60s., or more—the difference between the two prices going into the hands of the speculators, for the accommodation they gave to the agriculturists who had no money. Objectionable as the system was, it is only fair to say that many farmers have grown rich under it, and several speculators have done both themselves and the farmers good, by rendering assistance to poor men who wanted to get on the land.

It was felt, however, that the Government might do for moneyless farmers what the capitalists and speculators had been doing, and might do it on much more reasonable terms. Instead of demanding cash, it was resolved to sell the lands on credit, with deferred payments, taking sufficient precautions of course that the land so disposed of should be occupied and cultivated. After great consideration, a measure was at last carried through the Legislature for this purpose, and became law. It is not necessary that I should encumber these pages with a minute description of what is known as "Strangways's Act," which has been set aside for one more liberal, and better adapted to the requirements of poor men. It will be better to give a popular description of the law now in force, which will show intending immigrants how, on their arrival in this Colony, they can get possession of the land.

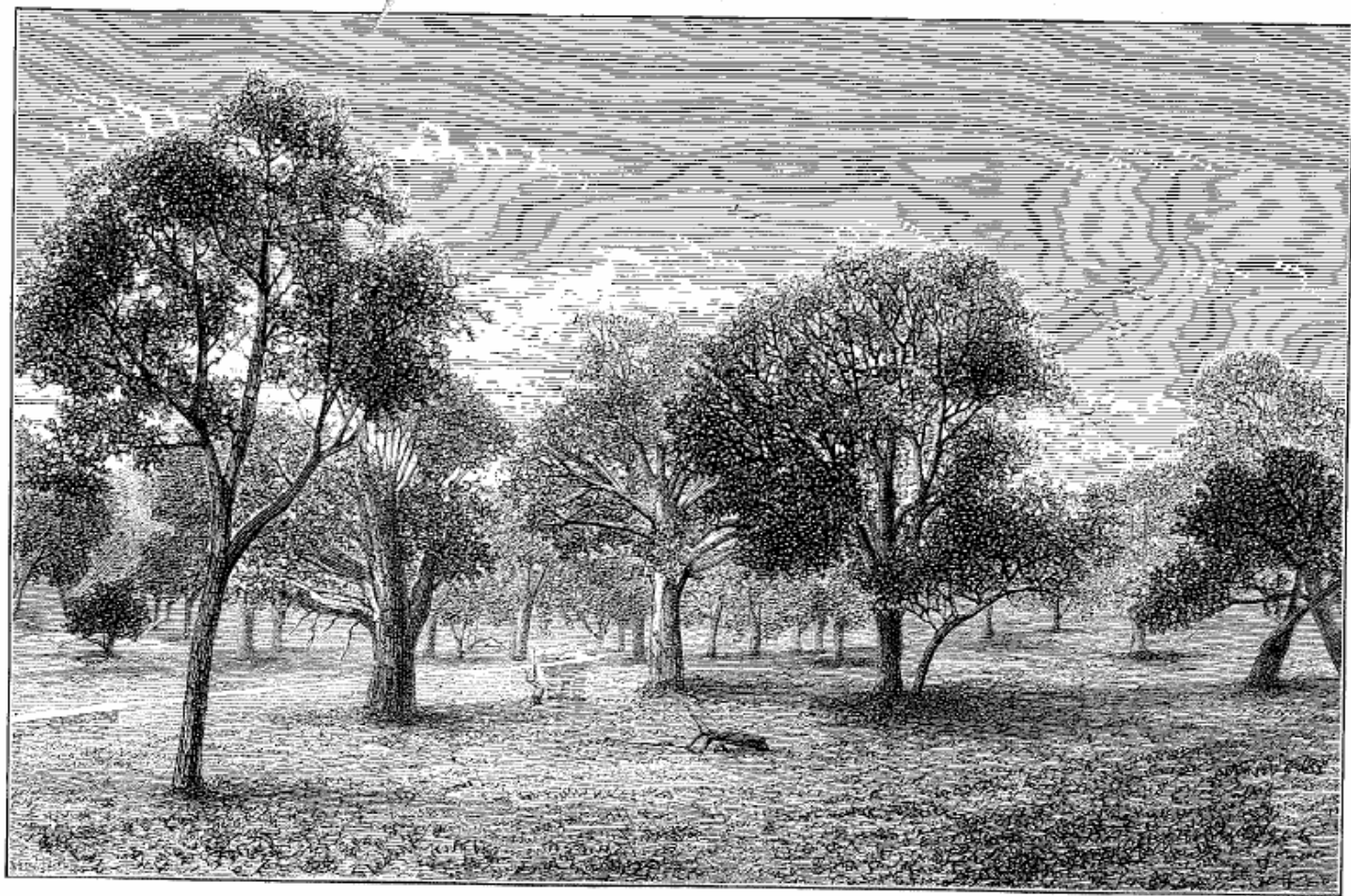
The Land Act of 1872.—Under this Act (amended in 1874) the whole of the Waste Lands of the Colony south of the 26th parallel of south latitude forms one area, from which, as fast as it is surveyed and declared open to the public, intending purchasers can make their selections. There is no selection before survey, but an efficient staff of survey officers is always at work surveying the land as fast as it is required. Hundreds of

thousands of acres are always open for selection, and the work of the surveyors is still going forward.

Price.—All waste lands, other than township and suburban, have a fixed value put upon them by the Commissioner of Crown Lands, not less than £1 per acre. In improved or reclaimed lands the cost per acre of the improvements and reclamation is added to the upset price of £1 per acre. Those lands which have been open for selection, or which have been offered at auction, and neither selected nor sold, may at the end of five years be offered for sale in blocks of not more than 3000 acres, on lease for ten years, at an annual rental of not less than 6*d.* per acre, with a right of purchase at any time during the currency of the lease at £1 per acre.

How to get on the Land.—When any lands are declared open for selection, by proclamation in the *Government Gazette*, at a fixed price, a day is appointed for receiving applications for sections, not to exceed in the aggregate 640 acres, or one square mile. The person making the application shall pay at the time a deposit of ten per cent. on the fixed price, which sum shall be taken as payment of three years' interest in advance upon the purchase money. If the price of the land is £100, the selector would have to pay a deposit of £10, which will be all he will be required to pay to the Government for three years—about three and three-quarters per cent. per annum. At the end of three years he will have to pay another ten per cent., which will also be received as interest for the next three years. If at the end of six years he is not prepared to pay the whole of the purchase money, he can obtain other four years' credit, on payment of half the purchase money, and interest in advance on the other half at the rate of four per cent. per annum. Lands which have been open for selection two years and not taken up may be purchased for cash. The scrub lands may also be taken up on very favourable terms, on long leases.

Occupation and Improvements.—A credit selector may reside on his land either personally or by substitute. The personal resident, however, has advantages which he who resides by deputy has not. In cases of simultaneous appli-



BUSH SCENE NEAR ANGASTON.

cations for the same block, the personal resident has the preference over the other; and at the end of five years, the selector who has resided on the land and made all the required improvements, and complied with all the conditions, may, by paying his purchase money, obtain the fee simple of his selection. The selector who occupies by substitute cannot get the freehold until the end of six years.

Purchasers upon credit will be required to reside, either personally or by deputy, upon the land at least nine months in the year; and absence for any longer time than three months in one year renders the agreement liable to forfeiture.

The credit purchaser will be required to make substantial improvements upon the land before the end of the second year, to the extent of 5s. per acre; before the end of the third year, 7s. 6d. per acre; before the end of the fourth year, 10s. per acre. "Such improvements to consist of all or any of the following, that is to say:—Erecting a dwelling-house or farm building, sinking wells, constructing water tanks or reservoirs, putting up fencing, draining, or clearing or grubbing the said land." The fences must be of a substantial character.

Cultivation.—The credit purchaser is required, during each year until the purchase money is paid off, to plough and have under cultivation at least one-fifth of the land; but in the event of his not cultivating this quantity during the first year, he will be required to cultivate two-fifths during the second year.

These are the principal provisions of the Land Act necessary to be known by persons wishing to settle upon the land on the most favourable terms. The land is cheap, the terms of payment are easy, and the amount of cultivation required not more than any man intending to farm would attempt if the matter were left to his own option.

This Act has worked with signal success, so far as regards placing people on the land; but it has been found defective in two or three points, which it was proposed to alter by fresh legislation during the late Session of Parliament. It has been found that 640 acres is not enough to enable a man to farm profitably, by uniting stock-keeping with wheat-growing, and

it was proposed to enlarge the area which one man may hold to 1000 acres. Then it has been found that the present system is not sufficient to prevent men "dummying" the land, that is, taking it up on credit under false pretences, and by using "dummy" selectors getting possession of more land than they are entitled to. The new Bill provided, under stringent means, for preventing and punishing those men who abuse their position and violate the law. But the most serious defect of all in the Act is what is known as "limited auction." It is provided in the Act that if two or more applications are made for the same block of land, it shall then be put up to auction at the price offered—the competition to be limited to the applicants who offered the same amount. This seemed a very fair arrangement to make, but in practice it has worked mischievously. In the heat of competition men have run up the price to an unreasonable amount, and the land has been taken at prices far beyond its actual value. It is not the policy of the Colony to make land too dear. The attracting of population and the settlement of an industrious population on the land are accounted of far more importance than getting high prices for it. The proposal in the new Bill was to make the ultimate price of all land sold on credit 1*l.* per acre. In the case of simultaneous applications for the same blocks, the competition would be on the annual rental, and not on the principal. As soon as the fact is known that there are two or more offering for the same block, each will be invited to write on a paper what rental per acre he is willing to give. If one offers 1*s.* 3*d.*, and the other 1*s.* 6*d.*, the latter will obtain the block. If, however, they should again offer the same amount, the matter will be decided by lot. The Bill, however, proposing these amendments has not been carried, and the land law remains as it was.

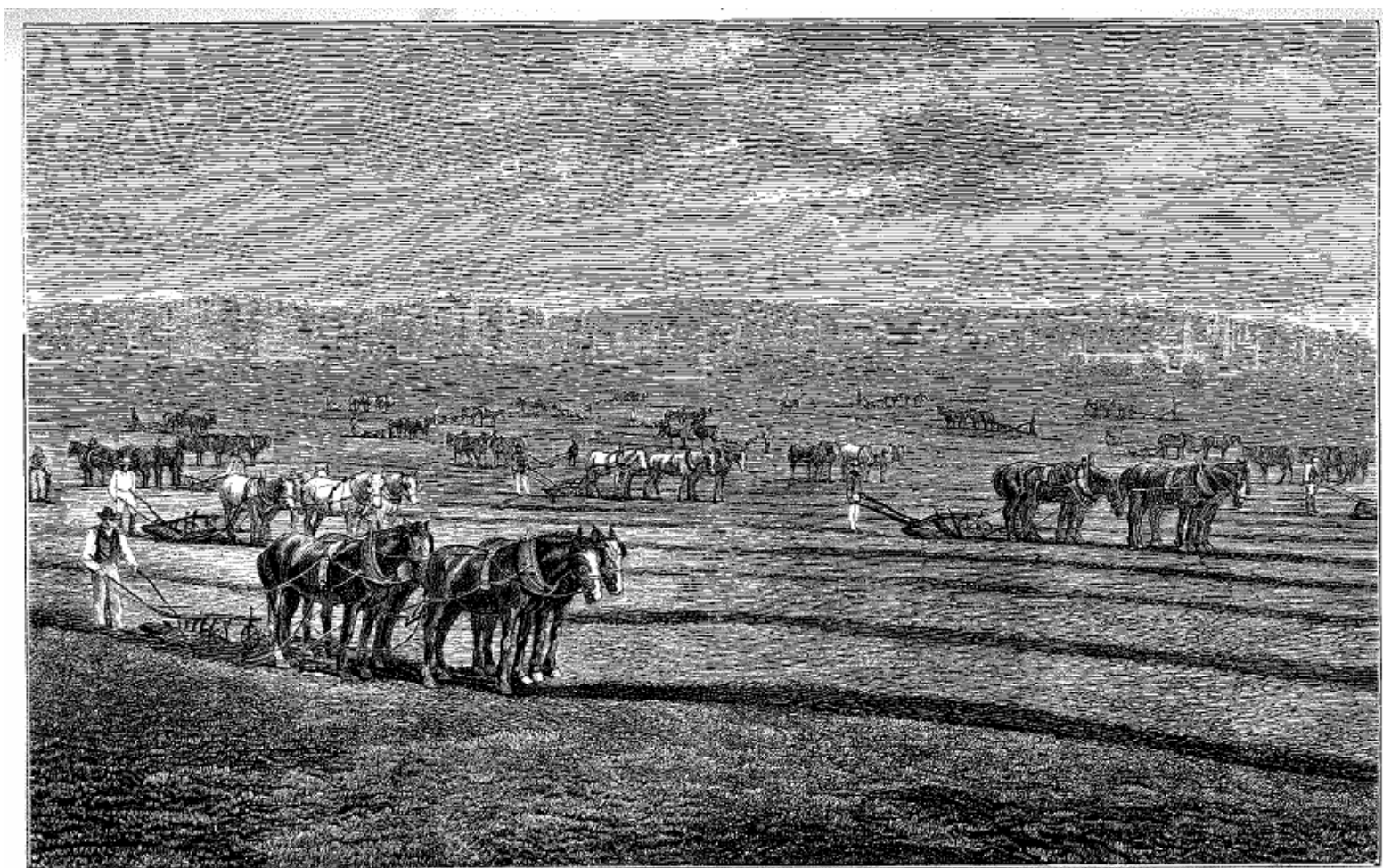
I have said that the present law has worked with singular success. Immense areas of land in the North have been surveyed and offered for sale on credit. Half-a-dozen years ago most of this land was used as sheep runs—supporting a dozen or a score of persons. Now it is covered with smiling homesteads and prosperous farms, on which many hundreds of

families are settled, with every prospect of future success. In the course of a few years, these farms will be the freehold estates of a steady and intelligent class of farmers, farming their own land, who will constitute the pith and strength of the Colony. A few thousands of farmers, each farming his own freehold estate of a square mile, or a thousand acres, would form an independent and prosperous class, of which any country may well feel proud.

The amount of money due to the Government for these lands purchased on credit, which will be due within the next six years, amounts to over £2,225,000. There is reason to believe that most of the purchases will be completed; but if they are not, the land, greatly improved by the erection of buildings and cultivation during the six years, will revert to the Government, and can be sold again.

I had an opportunity of visiting these northern areas just before the last harvest, when they were loaded with magnificent crops of golden grain. I had seen the country three years before, when only a small portion was devoted to agriculture; the rest was still immense sheep runs. I travelled for miles day after day amongst the finest crops of wheat I ever witnessed. In some places the reaping had commenced, and the farmers were cleaning up from 14 to 18 bushels per acre. In other more favoured spots it reached from 25 to 30 bushels. I saw several towns which had sprung up as if by magic, on sites where three years before there was not a soul to be seen, and where my companions and I lighted a fire, boiled our "billy," and made tea for our midday refreshment. A fine port in Spencer's Gulf, for the outlet of the produce of the district, had risen up from what used to be something like a dismal swamp. Wharfs were erected, large stores built, banks and churches founded; and all this was the work of less than three years! And as far as can be seen, we are just tapping that great agricultural district which lies to the north of the Burra and Clare. The squatter has to give place to the agriculturist and move backward. Happily for some of the wealthiest of them, but unfortunately for the country, they have purchased magnificent estates of from 40,000 to 100,000

acres of fine land. Some of these gentlemen have entered into competition with the farmers and have gone largely into wheat-growing. Last year a gentleman, specially representing an influential Melbourne journal—*The Leader*—visited this Colony and published an interesting and well-written report of what he saw. I transcribe to these pages his account of the Hill River Estate, the private property of Mr. C. B. Fisher, as an example of how men of capital and enterprise are now combining the two pursuits of wool-growing and agricultural farming.



BREAKING NEW GROUND.

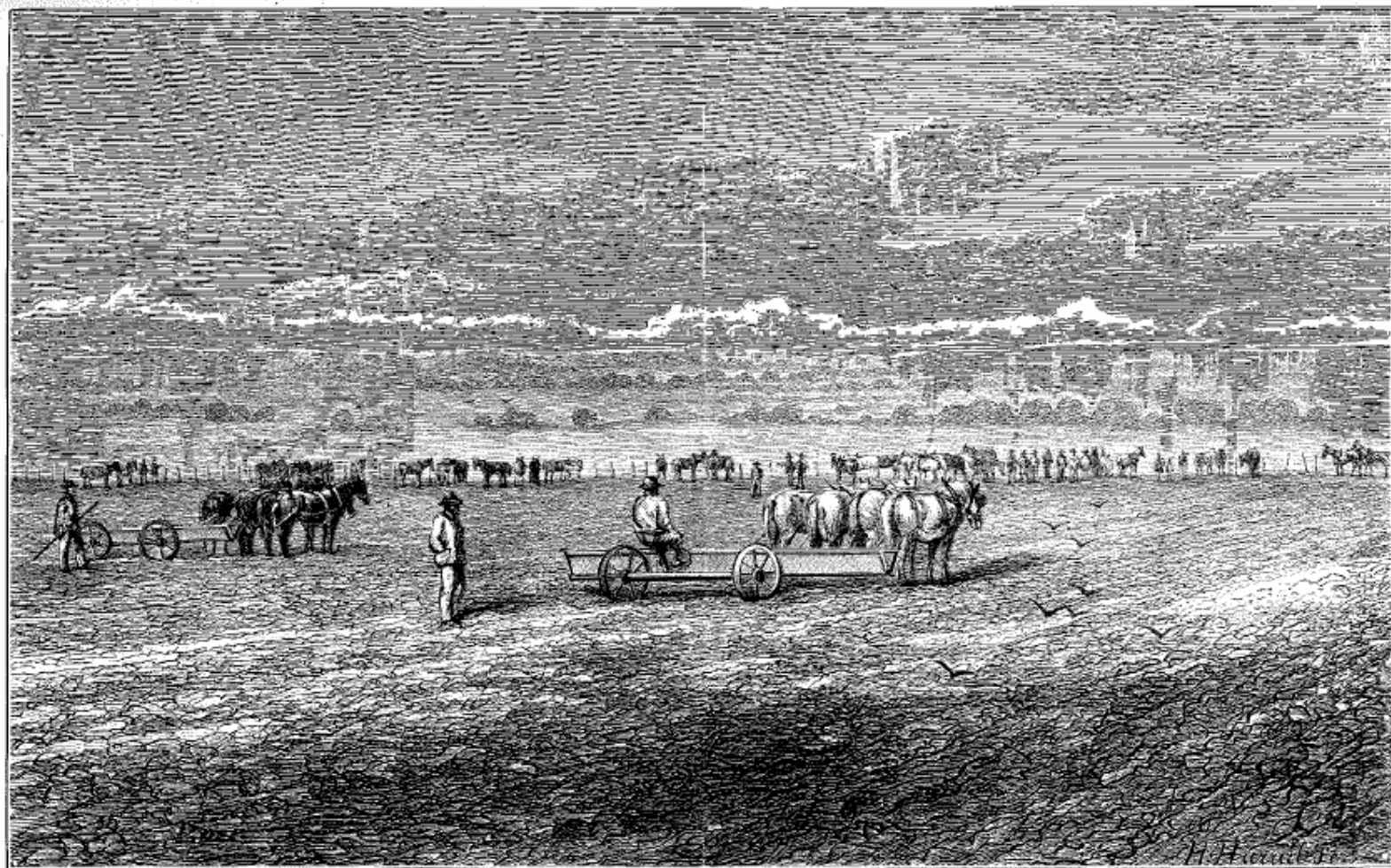
CHAPTER XIII.

THE HILL RIVER ESTATE.

Combining Agriculture with Stock Breeding—Great Farm—The Mechanical Appliances for Working it—Regulations for Workmen on Estate—Success.

HILL RIVER ESTATE, the property of Mr. C. B. Fisher, is situated in the County of Stanley, two miles eastward of Clare, the furthest agricultural township to the north previous to the opening up of the new areas. The total distance of Hill River from Adelaide is 88 miles, and railway communication is obtained by taking the Burra line at Farrell's Flat, 13 miles to the east. The property is 60,000 acres in extent, lying north and south in a valley between two tiers of hills—the eastern tier being, like the country in that direction—treeless; but the western one, together with some of the undulating land in the valley approaching its base, is lightly timbered with sheaoak and gum. The valley is on an average about seven miles broad, and the estate extends about 25 miles in length; the Hill River, a permanent creek, which takes its rise to the south, running along the centre. The valley is composed of a rich deep chocolate soil washed from the surrounding high land, which is of slaty conglomerate formation set on edge, and running in reefs mixed with quartz north and south, along the crests of the boundary ridges. The property, which is under the superintendence of Mr. E. W. Pitts (formerly of Victoria), who is general manager for the whole of Mr. Fisher's property in South Australia, and of Mr. J. Emery, who is resident manager, is worked as a

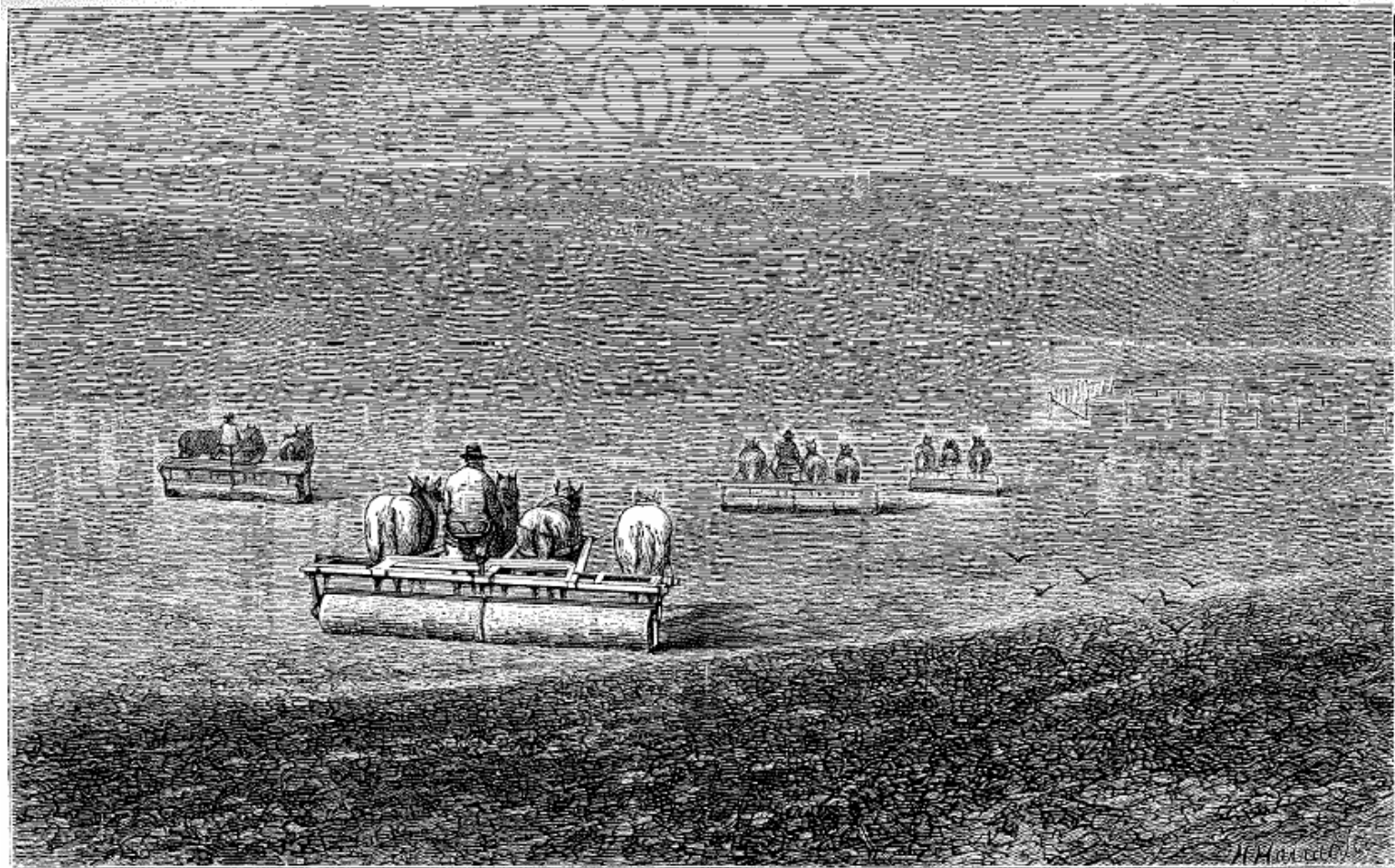
sheep-breeding establishment and wheat-growing farm on a large scale, the latter being carried on with the ultimate end in view of preparing the soil for the sowing down of lucern and prairie grass. The station is divided into four different establishments, viz., the wool-shed and drafting-yards, seven miles down the valley to the north; a new series of farm buildings, two miles to the east, being prepared for harvest; another large farming establishment nearer home; and the homestead, a stone residence and stabling, surrounded by well-kept grounds, orangery, and orchard, comprising in all twelve acres. In the kitchen-garden of four acres every description of vegetable is produced in abundance, and this portion of the establishment is found to be very valuable, where so many hands are employed. The drafting-yards at the wool-shed are of a complete kind for the handy working of the sheep, and are flagged in the race and crush dens with slate obtained on the property. The buildings for the shearers are of stone, divided into dining, sleeping, and cooking departments, the latter fitted with the latest appointments, and a separate stone cottage is provided for the overseer. The number of sheep shorn is 50,000—the shearing floor accommodating 40 shearers. The Hill River wool is of the Merino combing description, and for length and strength of staple combined with weight of fleece has not been exceeded by any other run in the Colony, except Bundaleer, Mr. Fisher's other run further north, where the same breed of sheep are kept. The clip last year was from 9 lbs. in the wether to $3\frac{1}{2}$ lbs. in the lambs in the grease, or an average all through of about 7 lbs., for which an average of $14\frac{1}{2}d.$ was obtained. Sheep-washing is not usual in South Australia, through the scarcity of water; but the chief drawback on Hill River is its hardness, being brackish and metallic from the mineral nature of the watersheds. Amongst some fleeces selected during the late shearing for the Sydney Exhibition, one two-tooth Merino ram's fleece weighed $17\frac{1}{2}$ and a four-tooth 21 lbs. About 200 cattle, some of which are of superior shorthorn blood, have lately been introduced, and the intention is to obtain a good bull and begin that department of breeding. The new farm



SOWING—HILL RIVER FARM, NEAR ADELAIDE.

buildings are being erected handy to the cultivated land, which is about midway in the valley, the furrows running lengthwise. The buildings comprise a quadrangle of 10 feet high, stone walling 120 feet long each side, roofed with galvanized iron, with a slope inwards, and divided off into 10 by 10 loose-boxes for horses, each box containing close feed-manger for bruised peas, bran, and cut hay, with which all the horses on the place are systematically fed. A well and trough for watering occupy the middle of the square, which will be built upon further, so as to accommodate 200 horses, the total number at present employed on the estate. The other buildings consist of men's stone-buildings, with dining, sleeping, and cooking departments separate, overseer's residence, large hay-cutting and corn-bruising house, and barn 106 feet by 34, and 15-foot walls, with a holding capacity of 60,000 bushels of wheat, besides compartments at the rear for two blowers and screens for finishing the wheat off in a uniform sample after it passes through the winnowers in the field. These blowers, which are worked by horse power, and have self-acting elevators for passing the wheat from the fans to the revolving screen, get through at the rate of 700 bushels per day each. The cultivated land is in large fields, one of which is three miles long, and contains this year 4250 acres of wheat, besides 40 acres of peas grown for horse feed and a quantity of barley, and 1800 acres new land turned up for fallow. Next year the land first ploughed will be three years in crop, when it is proposed to yearly lay down that which has yielded three crops in lucern and prairie grass, and shift the wheat ground further on to new land. The ploughing was performed by thirty-four horse teams drawing a double plough each, doing from two or three acres per day, according to the time lost in travelling to and from the work, and five single ploughs striking out. It is estimated that with the teams nearer their work $3\frac{1}{2}$ acres per day will be accomplished. One man is allowed to each plough to manage both driving and guiding. Ploughing is done eight inches deep at first, so that the land can be turned over afterwards in the dry season immediately after the removal of the crop. The seed, which

is of several kinds, to ascertain the best, was sown the first week in June, with six of Adamson's twenty-two-foot broadcast machines, sowing, under the management of one man, forty acres per day each. The pickling used is bluestone, and an ingenious dipping apparatus is used by which a bag at a time can be done with much rapidity. The lands are ploughed one chain wide, and are harrowed by fifteen sets of six-leaved harrows, doing a land in two turns. The first sets are heavy and drawn by six horses, and the second, which are lighter, go across and finish. The harrowing is finished at the rate of 500 acres per day. As harvest approaches two-chain wide strips are cut by the mowing machines at intervals, cutting the wheat into 200-acre blocks, and then strips (upon the removal of the wheat for hay) are ploughed, together with strips right round the crop, for protection against fire. When the wheat is ripe, the strippers are then set to work, emptying on the roads at each end of the 200-acre blocks. Each stripper is drawn by four horses, driving and guiding being managed by one man; and each machine does from seven to eight acres per day, according to the weather. Last year twenty-seven strippers were employed, but this harvest ten additional new ones will be required. About one winnower to three strippers is required on the headlands for cleaning, which is done by piece work, the men obtaining 1*d.* per bushel for putting the wheat through once, and 2*d.* for twice. From the winnowers in the fields it is carted in bags to the blowers and screens, from which it is bagged, sewed, and passed into the barn. The land under wheat last year was 3050 acres, which yielded at the rate of fifteen bushels, thirty-five acres of peas yielding forty bushels per acre, and sixty acres of barley giving thirty bushels. The quantity of wheat cut for hay last year for home consumption was 600 tons, and this year 800 tons will be required. The wheat grown on this farm took the challenge cup, value £50, in Adelaide, for the best 100 bushels in 1873; the prize at the late show for the best bushel with a sample of purple straw weighing sixty-eight pounds; and the present harvest at the time of my visit promised to eclipse any former effort. At the farm steading near the home station, a similar

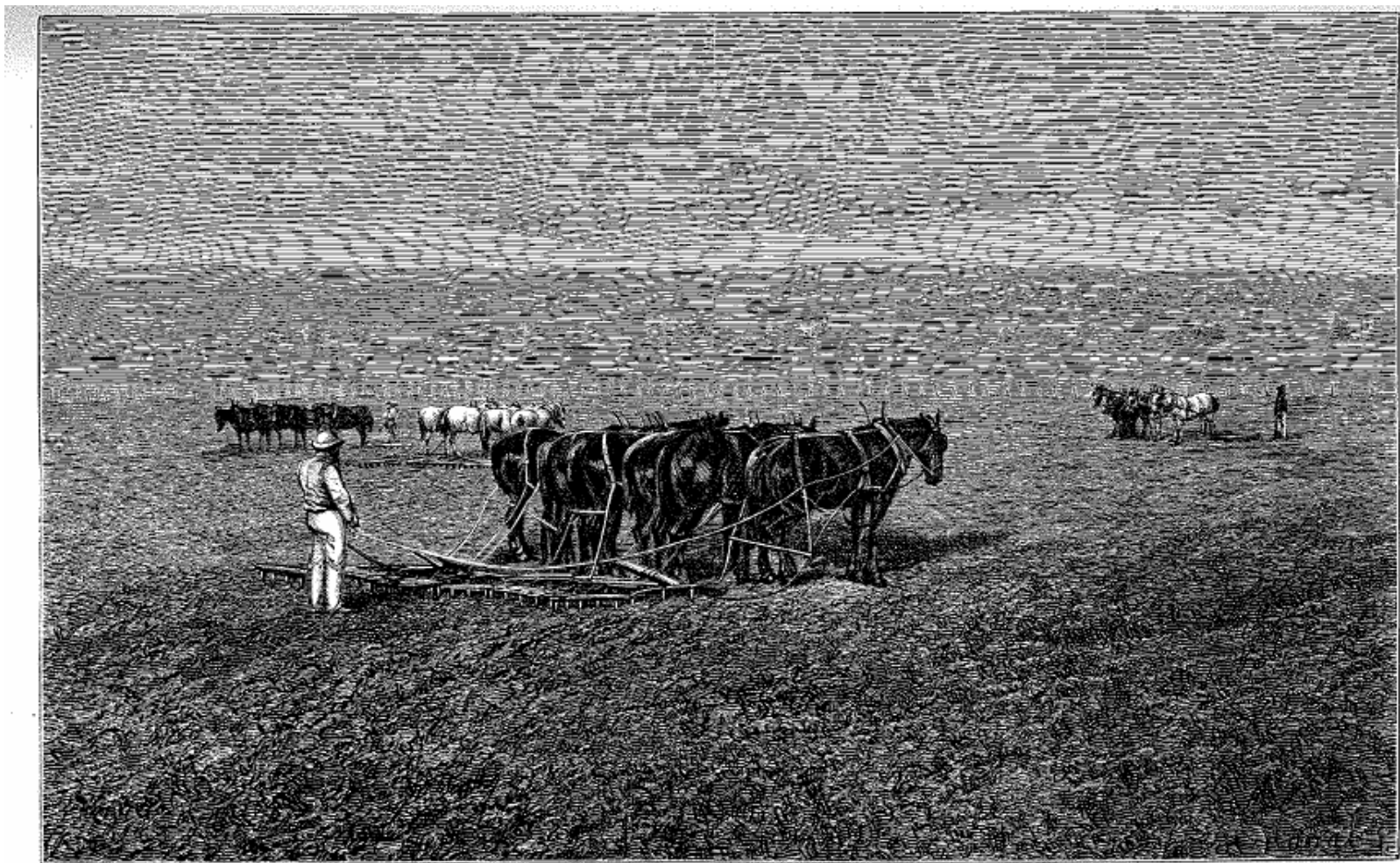


ROLLING—HILL RIVER FARM, NEAR ADELAIDE.

stabling accommodation to that described exists, and as the supply of Clydesdales increases at another station of Mr. Fisher's devoted to breeding, it is proposed to increase the working capacity of the Hill River farm by two-thirds, or three steadings in all, with 200 horses each. At this stabling there is another series of men's buildings, together with chaff house, with chaff-cutter, cutting one ton per hour, implement yard and sheds, containing in addition to the ploughs and strippers, harrows and sowers, already mentioned, fourteen waggons, six scarifiers, four hayrakes, ration carts, waggonettes, and other vehicles and implements; a blacksmith's shop containing two forges, carpenter's shop and saddler's shop for repairing, overseer's residence and a large number of cottages for the married men who permanently stay on the place. Two large dams of water supply the home station and home farmstead with water, and there are six others in various parts of the run. This work, which is constantly being carried on, is done by plough and scoop. Sixteen acres of trees have been planted in two-acre blocks in various parts of the run, the kinds found to do best being the Tasmanian red gum, *Pinus insignis*, and *sterculias*. A large plantation of about seventy acres for trees is in course of preparation above the house, and olive planting is carried on annually. The large quantity of manure made by such a quantity of stable horses is carefully looked after, and is to be put on the land along with the lucern. Pigs are profitably kept upon the waste wheat; and on a small experimental farm, maize, millet, and sorghum have been tried with success, and various kinds of wheats are planted in drills to try their relative merits. The purple straw so far has been found best. On one portion of the farm also experiments to prove the efficiency of subsoil ploughing and other matters are attended to. Amongst the improvements to be eventually carried out, a public reading room and library are to be added to each homestead, and other measures of an educative and elevating character are to receive attention. The hands employed, apart from shearing and harvest seasons, average about seventy. When these latter operations are on, the number is over 200. Young draught horses are constantly

being brought from the breeding establishment near Adelaide, and broken by means of waggon, plough, scoop, or other of the numerous kinds of work constantly going on.

The following rules of the establishment are posted in the various buildings:—Working hours: All hands to rise at five A.M., when the bell rings; horses to be fed, watered, and cleaned; breakfast at six; all teams to be afield at seven; dinner hour at noon; work to commence again at one P.M., to continue to six in summer and five in winter; supper at seven; horses to be fed and watered at half-past eight, and the dining-room to be cleared and locked up at ten P.M. Wages: First-class men will be paid at the rate of 20s. per week; second-class at 18s.; third-class at 16s. Any one by good and industrious conduct can raise himself to the highest class. Wages paid every fourth week, and at no other time. Any one in charge of horses neglecting to feed and tend them properly, or found abusing them, will be discharged at once, and forfeit all his wages due. Any one wilfully disobeying orders or neglecting his duty will be discharged, and will forfeit two-thirds of the wages due. Any one found in a state of drunkenness will be instantly discharged, and absolutely forfeit all wages due. Any one bringing intoxicating liquors on the premises, as well as those partaking of them, will forfeit all the wages due, and be instantly discharged. Any one found smoking near the stables or stacks will be at once discharged and proceeded against under the Bush Fires Act. Each man at the time of hiring is required to sign the above rules, binding himself to abide by them in all respects.



HARROWING—HILL RIVER FARM, NEAR ADELAIDE.