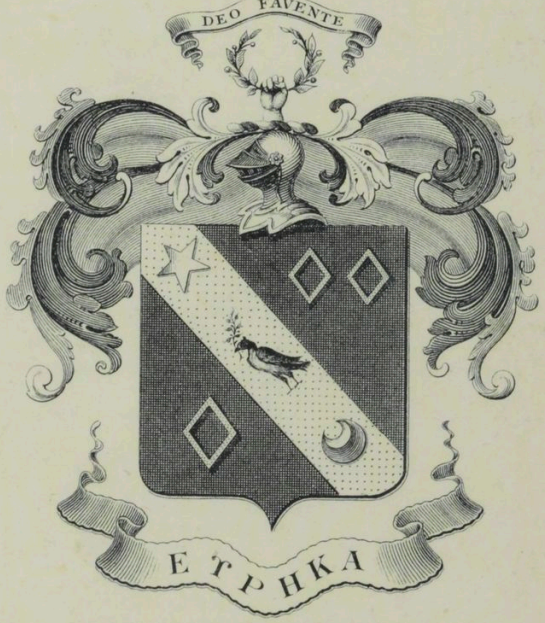

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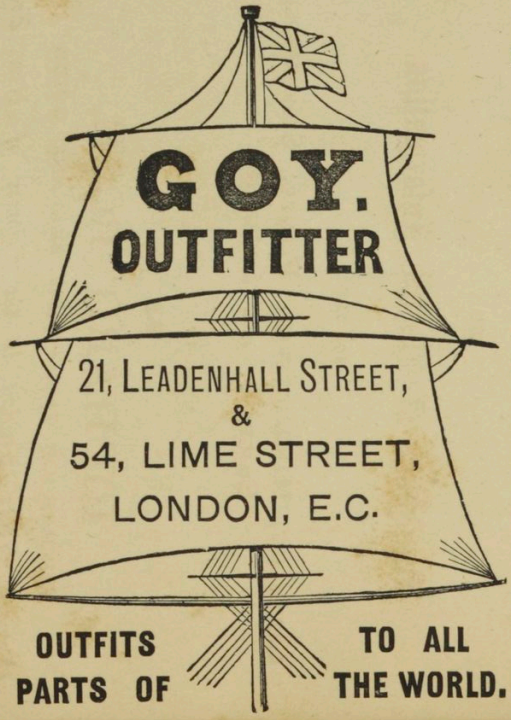

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BY

RICHARD ROSE,

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PREFACE.

IMMEDIATELY upon the publication of my New Zealand Guide, I received numerous enquiries from all parts of the country, urging me to publish a similar work of a practical character upon the Colonies of Australia. Encouraged partly by the success which that work met with at the hands of the public, and partly by the numerous private testimonials I have received, I have, in accordance with those wishes, prepared the following pages for publication. My sincere hope is that the information they convey may prove as useful to the intending Emigrant as I am assured my previous work has proved to others. The annals of history offer no parallel instance of rapid progress when compared with the amazing strides made by Australia in so brief a space of time. The rise and development of her principal Colonies have been marked by extraordinary vigour and activity. It clearly shows that a country having such splendid internal resources is the most promising and profitable field for the intending Emigrant, whether he be a capitalist or otherwise. To all such, I wish most sincerely that health and prosperity may attend them in all their undertakings.

COLONIAL OFFICE, *Leadenhall Street*,
London, E.C., 1880.

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Geographical.

VICTORIA forms the south-eastern portion of the Australian Continent. Its extreme length, from east to west, is about 420 geographical miles, its greatest breadth being about 250 miles. Its extent of coast line is nearly 600 miles, forming the extreme southern portion of the main land. Seaward it faces the Island of Tasmania, formerly Van Dieman's Land. The entire area of Victoria is estimated at 88,198 square miles, equal to 56,446,720 acres. To give an estimate of its size, it may be well to compare it with the area of Great Britain, which contains 89,644 square miles, so that it is slightly less than the home country. The boundaries of Victoria are as follows:—On the north it is bounded by the noble River Murray, and by a line running south-easterly from the Spring on Forest Hill to Cape Howe. The western boundary is a line about 242 geographical miles in length, and extending from the Murray to the sea. The southern boundary is the Southern Ocean, Bass' Straits, and the Pacific Ocean. The southernmost point in Victoria is Wilson's Promontory, and the northern point is the place where the western boundary of the colony meets the Murray; latitude, 34° 2′ South; longitude 140° 58′ East. The furthest point east is Cape Howe, and westerly the line of the frontier before referred to.

Victoria is traversed with more or less regularity throughout its length by a chain of hills, which divide it into two parts, and hence designated the "Dividing Range." The eastern portion of this range is known as the Australian Alps, and the other

portion, which extends northwards, is called the Pyrenees. There are also many other ranges in the colony, which may be considered as so many branches of the main chain. The height of a few of the principal mountains may be found useful for reference:—Bogong Range is 6508 ft. above the sea level; Feathertop, 6303 ft.; Cobberas, 6025 ft.; Cope, 6015 ft.; Hotham, 6100 ft.; Gibbo Range, 5764 ft.; Hewitt, 5715 ft.; Wills, 5758 ft.; Torbreck, 4995 ft.; Tamboritha, 5381 ft.; The Twins, 5575 ft.; Juliet Mount, 3625 ft.; Kent, 5129 ft.

Referring to the Capes and Points on the coast line, the extreme point of the western projection is Cape Otway, and the eastern one Wilson's Promontory. The former (Cape Otway) is the principal turning point of vessels from the westward bound to Port Phillip. There is a lighthouse, 300 ft. above the sea level, on this cape for the guidance of mariners into the port. Again at Shortland's Bluff, at Queenscliff within Port Phillip Heads, there is a lighthouse, 109 ft. above the sea; and on Cape Schanck, between Point Nepeau and Western Port, there is a light of 278 ft. altitude. Wilson's Promontory forms the turning point of vessels bound to New South Wales from the westward, and here there is a lighthouse, 383 ft. above the sea level. Following the coast eastward, Cape Everard is seen. This is supposed to have been the part of Victoria first seen by Europeans, viz., Captain Cook and his crew in H.M.S. *Endeavour*, and by him it was named Point Hicks. Further to the north-east is Cape Howe, where the dividing line between Victoria and New South Wales meets the sea.

On the coast there are but few Islands over which Victoria exercises jurisdiction. The principal, in point of population, is Phillip Island, which is returned as having about 700 or 800 inhabitants; it is situated between the East and West Heads of the Western Port. The largest is French Island, also in Western Port; it has only a few inhabitants. On Gabo Island, five miles

south-west of Cape Howe, is a lighthouse, 179 ft. altitude. Many of the other islands are uninhabited, and do not require notice. The rise and fall of the tide on the coast ranges from 9 ft. at Glennie Islands, near Wilson's Promontory, to 2 ft. 8 in. at Hobson's Bay and Melbourne.

Of the Bays and Inlets on the coast the principal is Port Phillip Bay, which forms an inland sea over 30 geographical miles, from north to south, and about 35 from east to west. The entrance is about two miles across, and a short distance within are sandbanks and islands, which act as an excellent natural breakwater. There are well buoyed channels between them, so as to leave clear and safe navigation. The next inlet is Western Port, in part of which there is good anchorage and shelter for ships in all weathers. Hobson's Bay forms a portion of Port Phillip Bay; it is the anchorage of the port of Melbourne, and is situated at the point where the River Yarra empties itself. It is at this part that Melbourne is situated. There is also Corio Bay, which forms the anchorage of the Port of Geelong. On the shores of Port Phillip Bay are situated the city of Melbourne, the town of Geelong, the boroughs of Brighton, St. Kilda, Sandridge, Williamstown, Queenscliff, and numerous other townships and villages.

Of the Rivers of Victoria, the principal is the Murray, which is the largest in Australia; its total length has been ascertained to be 2400 miles. For 670 miles it forms the northern boundary of Victoria. The metropolis is situated on the banks of the Xarra, county of Bourke; its length is stated to be only 90 miles. The River Goulbourn, in the county of Anglesey, forms a portion of its western boundary, and enters the Murray six miles to the east of Echuca; it runs 230 miles in length. The Glenelg, Normanby, is 205 miles long, and bounds part of the west of the county. The Wimmera, running through the Dividing Range. is 135 miles in length. The Hopkins, 110 miles

long (county Villiers), falls into the sea at Warrnambool. These form the principal rivers worthy of note.

There are numerous salt and fresh water lakes, as well as lagoons, in Victoria. Some of them are craters of extinct volcanoes, and some become little more than swamps during the dry seasons. The most important is Coraugamite, and is situated in the counties of Grenville and Hampden. It is a salt lake, covering 76 square miles, and has no visible outlet; and, notwithstanding that it is constantly increased in volume by numerous fresh water streams, it retains its extreme saltness, and does not overflow. The approximate area of this inland sea is 48,640 acres. Only a few miles from Coraugamite is Lake Colac, which is a magnificent sheet of pure fresh water, ten square miles in extent, and containing in its area 6400 acres. In the county of Grant, to the south-east of Geelong, is Lake Counewarre; this is a tidal lake, and is connected with the sea at Point Flinders. It covers an area of 7680 acres. Another fine sheet of water is Lake Hindmarsh, in county Lowau; it is fed by the Wimmera river, and has an area of 35,840 acres. The salt lake Tyrrell, county Karkarooc, is fed by the overflow of the Avoca river; its area is 45,440 acres. Lake Victoria, county Taujil, is a tidal lake, having a superficies of 38,700 acres; while Lake Wellington, in the same county, is 46,080 acres in extent. Lake Burrumbeet, in the county of Ripon, is a fine sheet of fresh water, 8½ square miles in area.

Victoria is divided into 37 counties, of which Bourke has the largest population, and is officially returned at 236,778. The number will, however, be considerably increased since this return was made. The population of Bendigo is given as 46,109; Tabot, 841,762; Grant, 73,828; Grenville, 60,917,—the other counties varying more or less in numbers. The perusal of the following will serve to give the reader a conception of the progress of the colony, from the proclamation of the Constitution,

Nov. 23rd, 1855, to the close of the year 1877. The returns are official. The population of the colony numbered 364,000; it now numbers 814,000. The land in cultivation amounted to 115,000 acres; it now amounts to over 1,000,000 acres. The bushels of wheat grown in a year numbered 1,150,000; they now number 4,850,000. The sheep numbered 4,600,000; they now number 11,250,000. The cattle numbered 530,000; they now number 1,000,000. The horses stood at 33,000; they are now not less than 200,000. The public revenue amounted to £2,728,000; it now amounts to over £4,000,000. The value of imports was £12,000,000; it now amounts to £17,000,000. The value of exports was £13,500,000; it now amounts to £15,500,000, although the export of gold had fallen off from £11,000,000 to £4,000,000. These figures speak for themselves as to the substantial and steadily progressive prosperity of the colony.

Climate and Meteorology.

An element affecting, perhaps more than any other, the healthfulness and rate of mortality of a country is undoubtedly the temperature. The three months from September to November are considered in Victoria to be the spring quarter; from December to February the summer; from March to May the autumn; and from June to August the winter quarters. January and February are the warmest months in Melbourne; June and July the coldest. During the coldest winters the thermometer very rarely falls below three degrees of frost; during the hottest days of summer the temperature may vary from 100° to 111°; this is about the highest recorded. The rainfall in Melbourne differs greatly in different years, but, taking the mean returns for 14 years during the four seasons, in spring rain fell on 40·3 days, mean number of inches 7·79; summer, 24·4 days, 6·41 inches; autumn, 28·9 days, 5·78 inches; winter, 41·9 days, 5·67 inches;—total average, 135·5. In the northern parts of the colony, the wet

days averaged 164·82; in the south-western portion 101·08 days. The remaining portion of the year consists of fine, clear genial weather. The mean temperature of the air at Melbourne, in spring, is 57°0; summer, 65°3; autumn, 58°7; winter, 49°2. These figures serve to prove the assertion that both colonists and visitors have repeated again and again, that the climate of Victoria is one of the finest in the world. And speaking of it, in reference to the growth of vegetable products, it may be confidently asserted that within its area it will grow and bring to perfection any of the products of the vegetable kingdom produced in either hemisphere. The southern part of the colony has the mildest temperature, and is the most favourable for growing wheat, and is also the vineyard of Victoria. On the other hand, the northern half, with its higher degree of temperature, represents the olive, fig, and orange producing region. The mulberry, almond, the raisin, and currant grape have become thoroughly acclimated, and flourish luxuriantly. There has of late sprung up a desire, on the part of some colonials, to extend the cultivation of cotton in suitable districts, and since the climate is in many parts so peculiarly adapted for its production, every pains should be taken to procure the best varieties of seed, and zealously extend the cultivation of a crop so admirably adapted for the employment of the juvenile labour.

Land, Agriculture, and Produce.

The Government of Victoria offer to the immigrant the utmost facility for obtaining his own freehold land. The Land Act of 1869, which is now in force, fixed the price of land at £1 per acre, to be paid by ten instalments of 2s. each, the extent of area being restricted to 320 acres. There must be personal residence, after the first six months, for two years and a half, and one-tenth of the land must be cultivated during the first three years; also enclosing it with a fence, and effecting improve-

ments to the value of £1 per acre. Thus any man can hold land, and become the proprietor thereof, by paying for it at the rate of 2s. per acre for ten years. With a view to select, he may apply personally to the land officer of the district for a license to occupy an area not exceeding 320 acres in extent. The license is not transferable, nor has the licensee power to sublet. The license extends over three years, at the rate of 2s. per acre, paid half-yearly in advance. Within 30 days of the termination of the three years, the licensee may, on payment of 14s. per acre, obtain the Crown grant in fee-simple of his land; in other words, the freehold, the 14s. and the 6s. during the previous three years making up the £1 per acre. But should he not be able to pay the 14s. per acre, he may obtain a lease of his allotment for seven years, at 2s. per acre. At the expiration of the seven years (ten in all), and having fulfilled the conditions, he will have paid £1 per acre, and be entitled to a Crown grant, without any further payment. This easy mode of becoming proprietors of the land has been productive of a wonderful change in the material wealth of the Victorian colonists. There has thus arisen a large body of small farmers, who, while improving their own positions, have also added materially to the wealth, substantial good, and advancement of the colony. As to the extent of land now ready and open for settlement, it may be stated that there are about 22½ million acres, the whole of which is generally suitable for agricultural purposes. There are nearly 8,000,000 acres of rich, fertile black and chocolate soils, and about 23,000,000 of rich, light loam, alluvium, and good clay. The black and chocolate soils are found in the open, slightly undulating plains, with isolated wooded hills. The light loamy soil is to be found on terraced flats along river valleys, and in narrow belts along the sea coast; also in extensive plains with stunted timber, and thinly grassed undulating country. Of all kinds of soil for agricultural purposes, the alluvial and black vegetable moulds rank first; next

the black or chocolate volcanic soils. The vine, olive, fig, mulberry and other fruits flourish luxuriantly on these soils. The loams follow next in order, being fertile and yielding good crops. The granite soils are fair, but light and sandy; lastly, the clays and adhesive loams. The leading crops of Victoria have always been wheat, oats, barley, potatoes, and hay. Maize is used largely for horse feed, but it comes principally from New South Wales, where it grows freely. The small variety, or ninety-days' maize, would grow well in Victoria, and only requires to be better known to cause it to be cultivated extensively. The average produce per acre, in 1877, was—Wheat, 13·15 bushels; oats, 21·92; barley, 21·18; potatoes, 3·31 tons; hay, 1·22 tons. This is rather a lower average than usual. The standard weight of crops in Victoria is reckoned at 60 lbs. per bushel for wheat and maize; 40 lbs. for oats; and 50 lbs. for barley. The weight, however, varies in different districts, wheat varying from 58 lbs. to 64 lbs.; oats average 40 lbs.; maize 50 to 60 lbs. Average prices:—Wheat, 5s. 10d. per bushel; oats, 3s. 7d.; barley, 3s. 10d.; maize, 4s. 4d.; hay, £4 13s. per ton; potatoes, £2 14s.; mangel wurzel, £1 11s. 6d.

A large amount of capital is invested in the culture of the vine. In 1877 there were 4765 acres, on which were grown 7,938,512 vines, yielding 481,588 gallons of wine, and 3,725 gallons of brandy. Owing to the great variety of climate, and the abundance of fine aspects for vineyards in the general contour of the country, Victoria is fortunately capable of producing, and does produce, wines which can be advantageously classified with many of the European kinds. Melbourne took 99 prizes at the Exhibition of 1875 for wines, there being 140 exhibits; New South Wales had 45, and South Australia 66. There is, doubtless, a great future for this branch of industry in Victoria, as the wines command a ready sale, and the better the quality the more eagerly they are sought after. Hence the necessity of growing

only those varieties of vine that are suitable to the particular soil and climate in which the grower may be situated. On this head the Colonial Government affords every possible facility and information in extending culture of all kinds throughout the colony. The emigrant has at his command, so to speak, the best resources of the official departments.

The silk culture is an interesting branch of Victorian industry, although at present limited only by the want of capital and willing workers. The white mulberry *(Morus Alba)*, the best and richest ailment for the silk worm, grows luxuriantly, and the silk worm *(Bombyx Morus)* thrives well. Samples of silk shown at the Exhibitions at Melbourne were not surpassed, in fineness and strength of texture, by any other rival productions. There is abundance of land suitable for the cultivation of the mulberry tree, for which a sandy loam soil is best suited. One variety of the silk worm *(Bombyx Ricini)* feeds on the castor oil plant (*Ricinus*); and this grows with the luxuriance of a weed in the colony. The medicinal oil is obtained by simple pressure of the seeds. Fig trees flourish abundantly, the green and red varieties, but it does not appear that the true white Turkey fig yet has been cultivated, but it only needs introduction, and some knowledge of its management to bring about a large production of this useful and profitable fruit. Those valuable fruits, the orange, lemon, citron, lime, and shaddock, all grow well in Victoria, and those with practical knowledge of the subject, or who will be at the trouble to seek the information, cannot fail of success, so well is the climate adapted for the growth. Raisins and currants have been produced on a small scale, but quite sufficient to prove that, with attention, they may be profitably cultivated to any extent. Almonds, again, offer an inviting and promising field for enterprise in Victoria, which at all times is a valuable article of export. The tobacco plant thrives wonderfully in suitable parts of the colony, and has been most successfully grown in the northern and

north-eastern portion around the Beckworth district. The crop of 1877, raised from 1,479 acres, produced 14,413 cwts. This is mixed with American leaf, and worked up by Melbourne manufacturers. As experience and attention are more closely given to its culture, so will the quality doubtless improve. The cultivation of flax is one demanding special attention, on the part of those acquainted with its growth. At the close of 1877, the import of linseed oil into the colony was upwards of 100,000 gallons; and there is an immense demand for the dressed fibre, both of flax and hemp. At present Victoria obtains her supply mainly from South Australia. It has been proved, over and over again, that in the colony, with an average soil and ordinary care, the yield will be at the rate of 5 cwt. of dressed fibre per acre, worth from £3 to £4 per cwt., the yield of seed being from 10 to 12 bushels, worth 10s. per bushel, and there is a large demand for the cake. The manufacture of sugar from beet root only requires capital to bring about an immense development of the manufacture, for where it has been cultivated successfully near Geelong, the manufactured article realised excellent prices. Hops and arrowroot are grown with success in some parts, more particularly in North Gipps Land, where they have become staple commodities. In the Botanical Gardens of Melbourne, the following plants will be found acclimatised, viz. :—The tea plant, the cork, oak, cotton, &c., and all have been tried with more or less success in different parts of the colony. When the easy terms upon which land may be obtained are considered, and the abundant variety of its products, it needs no language of praise to impress upon the capitalist, or the working man, the rich field that is opened out to him.

Turning now to the indigenous or native timbers, Victoria has a vast and almost inexhaustable supply of these, suitable for the varied wants of the consumer. Over the southern and eastern ranges of the mountainous districts, the forests extend in every

direction, and here the various kinds of forest timber flourish in all their mighty grandeur. The Murray pine is a handsomely marked useful wood, and is used in the northern parts for all kinds of purposes. It yields an abundant supply of resin, which is used for the same purposes as sandarac; and in the summer time the resin drops from the tree freely. The blackwood and the lightwood, both are regarded as one, has a rich colour, and is finely veined. It is exceedingly useful for cabinet work, and takes a fine polish, and it combines strength with flexibility and lightness. In the colonies the varieties of the Acacia are known as the "Wattle;" its timber is much used for staves, and its bark for tanning purposes, and the flowers give off a fine aroma. Ferntree and pencilwood are mainly used for veneers for cabinet work. The red gum *(Eucalyptus Rostrata)* is a dense hard wood, with handsome curly grain. It is an exceedingly valuable timber, and almost indestructible, whether in damp ground, salt or fresh water, being used for all kinds of engineering and building purposes: it also makes the best of firewood. The blue gum *(Eucalyptus Globulous)* grows in southern and eastern Victoria, and attains an enormous size. The wood is of a yellowish grey tint, and possesses great strength and tenacity. It is specially useful for building purposes, beams, piles, &c. The tree when in full growth gives off a balsamic aroma, which has unquestionably been shown to destroy malaria and miasmatic poison. The iron-bark *(Eucalyptus Sideroxylon)* is the hardest and heaviest of the Australian timbers, and is used for shafts and spokes. There are several other species of the gum trees, which are more or less used for various purposes. The soil and climate of Victoria being so well adapted for the growth of timber, there is no reason why foreign varieties should not be largely introduced, and this increase will, doubtless, take place with the lapse of time; such has been amply exemplified in tho case of the introduction of British grasses for pastoral purposes.

Gold Mining, Mineralogy, &c.

The discovery of gold in Victoria, in 1851, gave an impetus to the Australian Colony unexampled in the annals of colonial history. The fame of the Californian gold fields had scarcely been noised abroad, then followed the gold fields in Victoria, and thither from all parts of the world there was a rush of excited seekers after wealth. In Australia the effect was more than marvellous; it changed, as it were, in an instant, the whole course of commercial and industrial life, and half the male population deserted their employment to go in search of the coveted metal. Workshops stood idle, business places were closed, ships lay empty at the wharves, trade came to a standstill, and business was allowed to drift away anywhere. Still these evils were of a temporary character, and it is doubtful whether, but for this extraordinary impetus, Victoria, as it now is, would ever have existed. It is estimated that, at least, one-third of the entire area of the colony is auriferous, and that even now only a small portion of it has been explored, and a still smaller portion of it operated upon. Gold is found in a variety of minerals: it occurs in granite and diorite, in soft yellowish and brown claystone, and in sandstone; also in blueish white plastic silicates, in veins with carbonate of lime, oxide of manganese, and carbonate of manganese, and sometimes, but rarely, with sulphate of barytes. The industry of gold mining is divided into two branches, alluvial and quartz mining; the former is the separation of the earth from the metal by washing. The digger shovels a quantity of the gold-impregnated earth into a tub, water is added, and the contents stirred until it is of a mud-like consistency. It is then run into the "cradle," a long box with a finely perforated sheet of iron at one end, and the earthy matters pass through, leaving the heavier of gold and "dirt" at the bottom. The "dirt" is then washed in a tin dish, an operation requiring skill and experience, until little or nothing is left in the

dish but the pure gold. This process is called "shallow sinking," and was followed by "sluicing," which consists in washing the auriferous clays and gravels, lying in low grounds, in artificially constructed channels of water. Soon, however, the miners began to search for gold at lower levels, and here the metal was found in much greater abundance, and "deep sinking" became a distinct branch of mining. Shafts are sunk from the surface to what is termed a "bottom," usually of pipeclay. The auriferous earth is also sought for, or followed by tunnelling, running galleries, &c., as in mining for coal, and many a splendid fortune has been made by labouring men, who were but humble miners at home, scarcely able to get their bread. Quartz mining soon followed, for the gold obtained by the foregoing methods is but that separated or disintegrated from the parent rock. The quartz reef or vein is bored into and blasted by powder or dynamite; the shattered rock is brought to the surface, and there crushed by machinery, similar to the treatment of the tin ores in Cornwall. In many cases the quartz is subjected to a roasting process to facilitate its being broken into small pieces, which is then subjected to the crushing machine. This consists of a "battery" of four, six, eight, or more stampers, actuated by steam power. The stampers are upright iron rods, keyed to heavy steel shoes, which rise and fall in rotation, crushing the hardest rock into powder. The stamp heads work in an iron trough, which is kept supplied with a stream of water to carry off the "slush," or quartz mud, and then passes through a grating in front, when the gold, being heavier, sinks to the bottom. Minute atoms of gold, however, are carried off in the muddy water, and to arrest these the water flows over a sloping platform, covered with a "blanket" of green baize, or other coarse material, which retains much of the gold, and its escape is further prevented by small grooves or ledges extending across the platform, and charged with mercury; this metal lays

hold (chemically) of the finest particles of gold as they are washed down. The contents of the iron trough and blanket, as well as the gutters, are washed in hot water, and placed in a vessel containing a quantity of mercury. Rotatory motion is imparted to the vessel, and the gold becomes amalgamated with the mercury; the amalgam is put into a chamois leather, which is put under pressure, so as to force a large portion of the mercury through the pores. The amalgam is then distilled to drive off the mercury through a suitable pipe, and leave the pure gold in a cake in the retort. Bendigo, or Sandhurst and Ballarat, have been long known as the chief centres of the quartz reefs, they have a formidable rival in Pleasant Creek or Stawell, the head-quarters of deep sinking. The general depth of these sinkings is from 300 ft. to 400 ft., but some greatly exceed this depth, and, on account of the costly nature of the machinery, these workings are mostly in the hands of companies. At the end of the year 1877 (the latest return) the number of gold companies registered amounted to 1311, the nominal capital of which represents the trifling sum of £23,732,029. From an average taken over a series of years, the average yield has been found to be 11 dwts. 3.28 grs. of gold per ton of quartz crushed, and, comparing the quantity obtained relatively from quartz and alluvial workings, the official surveyors estimate the quartz returns at 64 per cent., and the alluvial at 36 per cent. Thus, in 1877, 513,452 ozs. were obtained from quartz, and 286,161 ozs. from the alluvial deposits. From 1851 to 1878 the total quantity of gold passed through the official channels was 47,283,377 ozs., estimated at £4 per oz., amounting to the magnificent sum of £189,138,508. These figures will give some idea of what Victoria alone has done in adding to the world's wealth in this single branch of industry, leaving out of the question her other valuable productions. Referring again, for a moment, to the subject of deep sinkings, I will give the reader

a few examples. At the Magdala mine, Stawell, there is a prospecting shaft 1700 ft. in depth, and has *not yet* struck gold-bearing quartz. In other claims, which are being profitably worked, there are shafts, one 1420 ft., another 1260 ft., and two others are more than 1000 ft. From these deep levels, in some mines, the quartz has yielded as much as 3 ozs. per ton. At Clumes, the New North Clumes pumping shaft is over 1200 ft. deep, with a level in the working shaft at 1012 ft., which has produced excellent quartz. The yield from some of these deep mines varies from 12 dwts. to 1 oz. per ton. The value of the machinery employed was estimated by the Department of Mines, at the close of the year 1877, at £2,029,962, and the number of quartz reefs proved to be auriferous was 3328. The area of auriferous ground worked is estimated at 1185 square miles. Gold mining has now become a defined calling, and men embark in it as they would in any other calling, the feverish excitement having long since passed away.

The Rates of Wages are—General manager, £3 to £12 per week; legal manager, £1 to £6; mining manager, £2 10s. to £5; engineer, £2 5s. to £5; engine driver, £2 2s. to £3 10s.; pitman, £2 to £2 15s.; blacksmith, £2 2s. to £3 10s.; carpenter, £2 2s. to £3 12s.; foreman of shaft, £2 2s. to £3 10s.; surface man (labourers), £1 10s. to £3; boy, 10s. to £2; Chinese, 12s. 6d. to £2. The cost of the Government license is £1 10s. per quarter.

Although, as a rule, gold is found in very small particles, yet the Victorian fields have yielded nuggets of extraordinary size and value. The "Welcome" nugget, found at Bakery Hill, Ballarat, was the largest. It weighed 2195 ozs., and was sold in Melbourne for £9325. The "Welcome Stranger" was found near Dunolly, and when melted yielded gold to the value of £9535. The "Blanche Barkly," found at Kingower, was of the value of £6905 12s. 9d. One found in Canadian Gully brought in £5532. The "Heron," found near Mount Alexander, was sold in England for £4080, and there are many other examples of a similar kind.

Victoria is, however, rich in other valuable minerals besides gold, the more extended working of which will benefit the colony as much as her gold, if not more so. The return value of a few items, from 1851 to 1878, is as follows:—Silver, £26,136; tin, £340,692; copper, £10,987; antimony, £137,401; lead, £4892; iron, £2111; coal, £13,505; lignite, £2320; kaoling, £7444; flagging, £43,158; slates, £940; magnesite, £12; diamonds, £107; sapphires, £630. Besides these, good specimens of the emerald, topaz, opal, garnets, cairngorms, and others have been found, and would, doubtless, amply repay systematic search. The mineral industries want only development.

Manufactures, Industries, and Commerce.

The numerous industries which now exist in Victoria have risen from very small beginnings, and have had to contend with great difficulties and struggle against a large amount of prejudice. Yet, with all these drawbacks, manufactures have made good headway, so that the colony is no longer dependent on foreign markets for any of her articles of everyday use; and artizans, who are steady and willing to work, can always find employment at good wages, while the capitalist may always ensure remunerative interest for his investments.

Among the leading industries are boot and shoe factories, which have sprung into a most important position, and are carried on in most of the large towns of the colony. They employ large numbers of hands, men, women, and boys, and machinery of the newest designs is used for cutting, rivetting, pegging, and sewing. In March, 1877, there were 67 of these factories, employing 1831 males, and 433 females; the value of the plant and machinery being £22,727. Wages are—Wellingtons, 10s.; elastics, 7s. 6d.; closing, 8s. The clothing factories, in 1878, employed 4128 people. There are 66 of these factories.

in the colony. The machinery and plant invested is valued at £181,127. There is a good and steady demand for labour in this branch. Saddlery and harness making is a comparatively new industry in the colony, but is very rapidly rising and daily growing in importance; there are over 39 manufactories, two saddle-tree, five saddler's ironmongery and coach spring, and five whip manufactories, employing a considerable number of male and female operatives. At the close of 1877, the approximate value of the machinery and plant invested in this branch of industry was £78,836. In the coach and waggon manufactories there are over 1499 hands, employed in 127 factories. At the time we write the official returns are not made beyond the close of 1878; hence a goodly margin may be added to the figures we have quoted. In this branch the value of the plant is returned at £165,453. This is leaving out of the question the small masters,—the quiet practical men, whose assistance is all important in the development of a rising nation. The branch of labour comprised under the heading of cabinet work and furniture includes (irrespective of minor works) 62 large factories, involving a capital of considerably over £100,000, and is a very prosperous branch in the colony. The iron and tin works, together with the copper and brass foundries, will ere long form a most important element of wealth in the colony, and to these are to be added the industries arising out of the combination of these metals with the native antimony and lead. The capital involved in the raising and working of these metals was, at the end of 1877, £6,665,540, and in these fields of commerce there is an unlimited area for investment, safe to make a most handsome return. The agricultural implement manufacture is a branch that is rapidly increasing in Victoria, which is self-evident, because the implements are made to suit the special requirements of the local customers, and are better adapted to their purpose than anything that can be obtained from abroad.

Trade and Commerce.

In addition to the principal port of Melbourne, there are the several smaller ports of Geelong, Portland, Port Fairy, Port Albert, Warrnambool, and the Murray river ports of Echuca, Swan Hill, Tocumwal, Wagunyah, Wodouga, and Kowlong, all of which are regularly visited by trading vessels. There are vessels also continually sailing between the Victorian ports and India, China, Mauritius, America, and the European ports. At the principal ports, comprising Melbourne, Sandridge, and Williamstown, the imports for 1875 amounted to £13,015,552, and the exports to £13,126,292. The total declared value of the imports for 1877 was £16,362,304, and that of the exports £15,157,687. In addition to this, Victoria has a large external trade with the other neighbouring colonies, and also with Tasmania and New Zealand.

Capital and Labour.

There is a popular fallacy abroad, and it is one that is extensively traded upon by the obstructives of emigration, that because wages are good in the colony, the necessaries of life must be more than in proportion; and it is argued, from this stand point, that a man is equally well off at home upon 18s. a week as he would be in the colony upon £3 or £3 10s. The indisputable quotations I shall presently set before the reader give an unqualified answer to this absurd and baseless proposition. Again, it is urged, what is the use of the capitalist going out if he is to pay these high wages, and his contingent expenses are correspondingly increased? The answer is simple enough. In the first place, the increased outlay of wages is met by a corresponding debit on the work done. Secondly, the interest and returns upon every farthing of investment is double, and more frequently treble, what it would be in the old country. Again, the cost of

personal maintainance and family outlay is no larger on his part than (in proportion) is that of his workmen. The will and determination to prosper is the very backbone of success, whether it be carried out either on the part of the employer or the employed. I will take, first, the rates of wages, and then the cost of provisions, &c.; the figures quoted being from undeniable sources :—

Bakers, foremen and first-class workmen, £2 5s. to £3 10s. per week; second hands, 35s. to 40s. Building Trades—Stonemasons, 10s. to 11s. per day; bricklayers, plasterers, and slaters, 10s.; carpenters, 10s.; labourers, 7s.; pick and shovel men, 6s. Butchers—Shopmen, 35s. to 40s. per week; boys, 15s. to 20s.; slaughtermen, 40s. to 50s.; small goodsmen, 30s. to 40s. with rations. Cabinetmakers—Wages vary greatly with the class of shop and ability of the men. In the superior shops in the city the amounts earned are from £3 to £4 per week; and in others from £2 10s. to £3 10s. In country towns lower rates prevail. Coachbuilders—Smiths, £2 10s. to £3 15s.; very superior men, £4; bodymakers are mostly paid by the piece, and good hands can earn from £2 10s. to £3 10s.; wheelers also work by the piece, and earn from £2 10s. to £3 10s. Painters, 9s. to 10s. per day; trimmers, £2 10s. to £3 per week; vicemen, from 30s. to 40s. Coopers—Mostly paid by piece work, but day work is 9s. for the day of ten hours; casks (tallow) 5s. for thirds, and 4s. 6d. for fourths. Drapers—In first-class shops, drapers' assistants and carpet salesmen have from £3 to £4 per week; first-class milliners, £3 to £3 10s.; second-class, 35s. to 50s. Farriers—Firemen, 55s. per week; doormen, 45s.; inferior hands, 30s. to 40s. Gardeners—Best men, near town, 30s. to 42s. per week; in the country, 23s. to 25s. with rations; inferior hands, 15s. with rations. Hatters—Bodymakers, low crown, 12s. and 14s. per doz.; silk hats, 22s. and 24s.; ditto pull-overs, 20s.; ditto shapers, regulars, plain shape, 6s. per doz.; Anglesea, 12s.; ditto low crowns, 4s. and 6s. per doz.; crown sewers, 3s. 6d. to 5s.; trimmers, 6s. Jewellers—Manufacturing, average workmen, 55s. to 65s. per week; finer workmen, £5 to £6 per week; seal engravers and enamellers are wanted, and can obtain from £6 to £8 per week. Miners—For surface work, 40s. per week; underground, 45s.; deep wet miners, 50s Painters and Glaziers—Average rates 9s. a day. Plumbers and Gasfitters—Average £3 per week. Printers, &c.—Compositors, 1s. per 1000; lithographers, £2 10s. to £3 15s. per week; binders, £2 to £3; paper rulers, £3 to £3 10s. Sailors—In sailing ships, £5 per month; steam vessels, £6 per month. Ship Carpenters—Employment very irregular, average rate, 13s. per day. Stevedores—Lumpers get 12s. per

day; drivers of donkey engines, £18 per month. Tailors—The rate by the log is 1s. per hour, but in second-class shops the men earn from £2 10s. to £3 per week. Tanners and Curriers—Beamsmen, 40s. to 50s. per week; shedsmen, 42s. to 45s.; curriers (piece work). Watchmakers: average rate, 4*l*. per week—superior workmen, up to 6*l*. Grooms, in livery stables, 30s. to 40s. per week—coachmen, 40s. to 50s.—navvies on railways, 9d. per hour. Domestic Servants, for Town—Housemaids, 25*l*. to 30*l*. per annum—female cooks, first-class, 40*l*. to 75*l*.; second rate, from 26*l*. to 36*l*. per annum—male cooks, from 30s. to 80s. per week—nursemaids, 25*l*. to 35*l*. per annum—nursegirls, 8s. to 10s. per week—laundresses, 35*l*. to 45*l*. per annum. For Hotels: Cooks (male and female), 50*l*. to 150*l*. per annum—housemaids, 35*l*. to 40*l*. For Stations: first-class, married couples, for home stations, 70*l*. to 90*l*. per annum—second-class ditto, with children, 40*l*. to 50*l*.—cooks, 45*l*. to 55*l*.—housemaids, 35*l*. to 40*l*. For Farms: Men cooks, 50*l*. per annum—married couples, 60*l*. to 70*l*.—women servants, 30*l*. to 35*l*.—farming men, 15s. to 20s. per week—milkmen, 15s. to 25s.—ploughmen, 18s. to 22s. 6d.—waiters, for hotels, 20s. to 35s. per week—grocers' assistants, 15s. to 30s.—general store ditto, 20s. to 40s.—nursery governesses, 30*l*. to 40*l*. per annum—finishing ditto, 60*l*. to 80*l*. Station Hands Wages: Stockmen, 60*l*. to 75*l*. per annum—shepherds, 15s. to 20s. per week—ordinary working men, 15s. to 20s.—drovers, 25s. to 40s.—gardeners, 15s. to 20s. per week with rations.

The following are the average prices in Melbourne of the chief articles of consumption. The cost of groceries, wines, spirits, &c., is generally somewhat higher in the country districts, and of agricultural and grazing produce a degree lower.

Agricultural Produce—Wheat, 5s. to 6s. 6d. per bushel; oats, 3s. to 4s.; barley, 3s. to 5s.; maize, 3s. to 6s.; bran, 1s., 1s. 3d., to 1s. 8d.; hay, per ton, £3 10s. to £6; potatoes, £3 to £8; flour, £14 5s. to £14 10s.; bread, per 4lb. loaf, 6d. to 7d. *Grazing Produce*—Horses, draught, £10 to £40; saddle, £5 to £50; fat cattle, £6 10s. to £16 10s.; milch cows, £4 to £12 10s.; fat calves, £1 10s. to £3; fat sheep, 7s. to 22s.; fat lambs, 6s. to 10s. 6d. *Butchers' Meat*—Beef, retail, per lb., 3d. to 7d.; mutton, 2d. to 4d.; veal, 4d. to 8d.; pork, 4d. to 7d.; lamb, per quarter, 1s. 6d. to 3s. 6d. *Dairy Produce*—Fresh butter, per lb., 1s. to 1s. 6d.; salt butter, 8d. to 1s.; colonial cheese, 10d. to 1s. 2d.; imported, 1s. 6d. to 1s. 10d.; milk, per quart, 4d. *Farm-yard Produce*—Geese, per couple, 8s. to 12s.; ducks, 5s. to 8s.; fowls, 5s. to 7s.; rabbits, 1s. to 2s.; pigeons, 1s. 3d. to 5s.; turkeys, 6s. to 12s.; sucking pigs, 8s. to 14s.; bacon, 10d. to 1s. 2d.; ham, 1s. to 1s. 3d.; eggs, per doz., 1s. to 2s. 6d. *Garden Produce*—Potatoes, wholesale, per ton, £2 to £4; retail, per lb., ¾d. to 1d.; onions, per cwt., 6s. to 12s.; carrots, per doz.

bunches, 6d. to 1s.; turnips, 6d. to 1s.; radishes, 6d. to 1s.; cabbages, per doz., 6d. to 2s.; cauliflowers, 1s. to 4s.; lettuces, 4d. to 1s.; green peas, per lb., 1d. to 3d. *Miscellaneous Articles*—Tea, per lb., 1s. to 3s. 6d.; coffee, 1s. to 1s. 6d.; sugar, 3d. to 6d.; lump, 7d.; rice, 2d. to 4d.; tobacco, 1s. to 6s.; soap, 3d. to 4d.; sperm candles, 9d. to 1s.; tallow candles, 4d. to 6d.; salt, 1d.; ceal, per ton, 20s. to 35s.; firewood, 12s. to 18s. *Wines, Spirits, &c.*—Ale, per hhd., £4 to £9 5s.; per doz., 6s. to 11s. Porter, per hhd., £5 to £7; per doz., 7s. 6d. to 11s. Brandy, per gallon, 4s. to 31s. Rum, 3s. to 3s. 6d. Whisky, 4s. to 10s. Hollands, 2s. 9d. to 4s. Port wine, per doz., 25s. to 55s. Sherry, 25s. to 85s. Claret, 10s. 9d. to 80s. Champagne, 26s. 9d. to 100s. Colonial wine, per gallon, 1s. and upwards.

Fruits of all kinds are plentiful in their respective seasons, and may be had quite as cheaply and in most cases far more cheaply than in Great Britain. Wearing apparel, slops, soft goods, boots, &c., are reasonable; the imported articles are, however, subject to a duty. The colonial made goods of all kinds can be purchased at low prices, and are of very good quality. Taking into consideration the high rate of wages, and the moderate prices of the necessaries of life, it is obvious that the small capitalist, or the steady and industrious artizan and his family, may live very comfortably, and yet save money, either to purchase his own house, or to become the freeholder of land.

Roads, Railways, Postal, &c.

It is but a few years ago when the roads of the colony were but little more than mere bush tracks, cut through the timber. But in a brief space of time railways gradually extended in all inland directions from the Colonial Metropolis, and at present the number of miles of railway open in Victoria is estimated at 950 miles. The Government has also in course of construction the Melbourne and Gipps land line, 120 miles. The postal arrangements of the colony are very complete, and communication by letter is as readily made to all parts of the colony and to the outer world as at home. In close

connection with the post office is the electric telegraph system. The telegraph lines extend over 3000 miles. The rate for telegraph messages within the colony is 1s. for ten words, and 1d. per word additional. A number of building societies have been established in most parts of the colony. At the close of 1877 there were 61 of these societies in active and prosperous operation, embodying 21,824 members, and with an income of £1,182,718. There are also numerous friendly societies to afford relief in sickness, &c. Insurance offices are scattered all over the colony. The public schools, at the close of 1877, numbered 1626, with 234,519 scholars, and of private schools there were 530, having 28,432 scholars. The colony offers to the very poorest parent every possible opportunity of giving to his children a good education. There are also public libraries, picture galleries, museums, schools of art and technology, scientific and literary institutes; in short, everything that can minister to the desires of a cultivated or studious mind. In conclusion, it may be unhesitatingly asserted that Victoria can not only vie with her colonial neighbours, but with those of a more ancient lineage, who have enjoyed for ages advantages of which she is only in her childhood. Long may she prosper and rise to be a great and glorious colonial power, of which there cannot be a shadow of a doubt.

THE COLONY OF NEW SOUTH WALES.

THE name "Australia," as now applied to the great Island-continent, was first suggested by the gallant, but unfortunate Captain Flinders, in his "Account of a Voyage of Discovery to Terra Australis." The Dutch, however, who first explored the whole northern coast, called it "New Holland;" and it was Captain Cook who, after sailing round the south-eastern coast, named it "New South Wales," from a supposed resemblance to that part of Great Britain, and until settlements were formed the whole continent was known to English geographers by that name. On the 21st of August, 1770, having passed and named a point on the mainland "Cape Yorke," anchored and landed for the fifth time on an island, which he named "Possession Island," from this circumstance he says:—

"As I am about to quit the coast of New Holland, which I have coasted from latitude 38° to this place, and which I am confident no European has ever seen before, I once more hoist English colours; and, though I have already taken possession of several parts, I now take possession of the whole of the eastern coast, by the name of New South Wales, in the right of my Sovereign George III., King of Great Britain."

Three volleys of firearms were then fired, which were answered by the same number from the guns of the ship, and by three cheers from the men in the main shrouds, and thus the country became the property of the British Crown. The harbour of Port Jackson, the finest in the world, was named after the look-out man in Cook's ship, and was by Captain Cook thought to be a mere boat harbour. It was reserved for Captain Arthur Phillip, the first Governor who was sent out, to ascertain its true nature and magnificent proportions. As the vessels

under his command were carried out of the long heavy swell of the Pacific Ocean into the smooth water of a canal, protected by two projecting "heads," they soon came within sight of a vast land-locked lake, stretching as far as the eye could reach, dotted with small islands, whose shores sloped, forest covered, down to the water's edge. Black swans and other rare water birds fluttered up as the white strangers sailed on, charmed with a scene in which every feature was beautiful, yet strange: they had discovered one of the most splendid harbours in the world. After three days devoted to exploration, Captain Phillip returned to Botany Bay, where they had first anchored, on the 20th of January, 1788. It should be here stated that the expedition was taking out the first batch of convicts from the home country. Captain Phillip had with him a guard of marines, consisting of a major-commandant, twelve subalterns, 24 non-commissioned officers, 168 rank and file, with 40 women, their wives. The prisoners were 600 men and 250 women, of the very worst class. On the morning of the 25th of January. 1788, as the fleet was working out for Port Jackson, they were astonished by seeing two strange ships of war sailing into the bay. These proved to be two French vessels, forming the expedition of discovery under the ill-fated M. de la Pérouse, which had left France in 1785. Thus in all probability it was only by a few days that the honour of discovering Port Jackson fell to England. La Pérouse remained to refresh and refit until the 10th of March, and then left, never to be heard of until 1826, when traces of them were discovered at Manicola Islands, showing, but too painfully, that they had been shipwrecked and murdered by savages. On the 26th of January, 1788, the fleet was anchored in deep water close to the shore of Sidney Cove, so named after one of the lords of the admiralty. After a formal disembarkation, the British colours were hoisted in the primeval forest, at a spot near where the colonnade in Bridge street now stands; a salute was fired, and

thus the now-prosperous colony of New South Wales commenced its career, and formed the basis of our great empire in Australia, Tasmania, and New Zealand. The reader will kindly note that at this period the whole of our possessions in the Southern Ocean were under the dominion of one Governor, appointed by the Home Government, and that Sydney was the seat of Government for the whole of this vast area of territory. In course of time, however, it became expedient to separate the distant outlying parts, and to confer upon each as these necessities arose, a separate and independent control. In this way it came about that Tasmania, Victoria, South and Western Australia, Queensland, and New Zealand became, in comparatively a very few years, separate and self-governing bodies; each colony having its own Governor, ministry, law officers, Upper and Lower Houses of Representatives, just as in the Imperial Parliament at home. Changes in the ministry take place from time to time, a general election takes place, and all qualified colonials vote for the candidate they approve of, much in the same way that is done at home; but there is an entire freedom from any interference or overbearing influence. Justice is administered impartially throughout the country, and all departments, involving the administration of the law, are most adequately and efficiently represented. The public schools are most liberally supported by appropriations granted from Parliament; for example, for the year 1879 the sum of £320,000 was voted for public instruction for the ensuing year.

Area and Geographical Features of the Colony.

New South Wales is estimated to include in its area a space of 323,437 square miles, or somewhat less than one-tenth of the entire area of the continent. On the east it is bounded by the Pacific Ocean, and its coast line extends from Cape Howe in 37° 28′ to Point Danger in 28° 10′ south latitude. On the north the colony is bounded by Queensland, which, until 1859, formed the

northern portion of New South Wales, but on its separation from the parent colony it was named "Queensland." On the south New South Wales is bounded by South Australia, the capital of which is Adelaide; it was separated from New South Wales in 1836. On the south-west New South Wales is bounded by the magnificent and wealthy colony of Victoria, which achieved her independence so lately as 1852. The coast line of the country is prominently marked by the formation of rugged promontories, lofty sandstone cliffs, and deeply rounded bays, and natural indentations. Port Jackson, upon whose shores the capital city of Sydney has been built, is unrivalled for its great extent, natural beauty, and perfect safety. Next to it in importance is the Harbour at Newcastle, at the mouth of the Hunter River, named after Captain Hunter, who had command of the vessels which conveyed out the first Governor, Captain Phillip. Newcastle is most appropriately named, because it forms the great depôt and shipping port for the large coal trade of the Southern Colony. On the southern side of Sydney there are two other capacious havens for shipping, viz.:—Twofold Bay and Jervis Bay, while to the north there are Broken Bay, Port Stephens, and Trial Bay; these form the estuaries of the Clarence, the Richmond, the Manning, and some minor streams. The rivers of Australia are but few in number, and insignificant in a navigable point of view. One series rises from the seaward side of the mountain range, from whence they flow deviously until they reach the coast, and they rarely afford a navigable stream for more than 20 miles inland. The other series, running towards the interior, are lost in quicksands, marshes, or shallow lakes. I doubt not, however, that with capital, and by the use of modern hydraulic apparatus and improved modes of storage, much may be done to obviate these drawbacks. I need only direct the reader's attention to Lancashire and Yorkshire as examples of gigantic water storage, and to the Clyde, as an example of

successful dredging in turning a mere shallow brook into a noble navigable river. The Murray is the largest river of Australia; it rises on the western flank of the Australian Alps, and during its course receives the waters of the Ovens, the Darling, and the Murrumbidgee, and ends in the broad shallow lake of Alexandrina, in South Australia. The Hawkesbury was one of the earliest rivers navigated by the settlers from Windsor to Broken Bay, where it falls into the sea, and is not more than 35 miles as the crow flies, yet by the circuitous route of the river it is 140 miles. Vessels of 100 tons burthen can proceed for four miles above Windsor. Port Hunter, at the mouth of the Hunter river, receives also the waters of the rivers Williams and the Paterson. This river is navigable for about 35 miles by waterway; it was formerly called the "Coal River." On the margin of the bay stands Newcastle, surrounded by its important coal fields. The river is subject to droughts, but otherwise the locality forms one of the oldest and finest agricultural districts. The Williams and the Paterson are navigable for a greater distance than the Hunter, and they give access to districts which are cooler and better supplied with rain than the Hunter. Port Stephen is a large estuary 15 miles in length, into which the rivers Karuah and Myall flow. The Karuah is navigable for twelve miles only by vessels of light draught. The valley of the Karuah has been pronounced one of the finest agricultural districts of the colony.

Agriculture and Produce.

It is not so many years ago since certain writers on Australia persistently and constantly wrote and averred that grain growing in Australia would never be a profitable pursuit, but then the objection arose from those influenced by the pastoral interest, who dreaded the prospect of farmers encroaching upon their sheep walks Certain it is that no better grain than that from Australia is brought into the English market, and when we note the

annual increase of the supply, it is satisfactory proof that it is appreciated, and that we are prepared to take as much as colonials choose to send. This being the case, I say there can be no finer country and no finer opening for a farmer and his family than Australia, or its sister colonies. There, with a very moderate capital, he will be in a position to purchase his freehold land upon most favourable terms, and, with the progress of railways and improved means of communication, be enabled to dispose of it to the best advantage. He will have the further gratification of knowing that the land will be the inalienable property of his heirs and successors, unless they themselves choose to part with it. Space will not permit me to place before the reader lengthened tabular returns; take for instance, two years. The official return for 1875 shows that there were 166,912 acres of wheat under cultivation, and that the produce was 2,148,394 bushels. For 1879 the return shows 233,252 acres, and the produce was 3,439,326 bushels. For maize, in 1875, we have 118,436 acres, producing 3,618,430 bushels; in 1879, 130,582 acres, producing 4,420,580 bushels. For oats, in 1875, we have 17,973 acres, producing 293,135 bushels; and for potatoes in the same year we have 13,604 acres, producing 38,564 tons; ditto 1879, 16,725 acres, producing 53,590 tons. It should by no means be lost sight of that the potato disease is *unknown* in New South Wales, and that manuring the soil as in England is a novelty. Turning to the grape, for the cultivation of which the New South Wales soil in many parts is so admirably fitted, we find that there were, in 1875, 3077 acres devoted to *vignerons*, the produce of which was 684,258 gallons of wine, irrespective of the quantity used as food. For 1879 we have 4237 acres, and 684,733 gallons of wine; of brandy 2540 gallons, and 1102 tons of the fruit for table use. Sugar, for 1879, shows 7439 acres, productive and unproductive; produce of the former, 18,278,736 lbs. Tobacco, 1879, 835 acres, producing 7932 cwt. Orangeries, 1879, 4287 acres, producing

3,398,445 dozen. Wheat is principally grown on the splendid up country table lands, and no complete failure of the crops has ever occurred, whilst an average yield of 25 bushels per acre has been obtained. Maize is easily cultivated, and a very large business is done in it with the neighbouring colonies, particularly Victoria, the climate of which is not so well suited for it. The cultivation of the sugar cane is easy, and the produce highly remunerative and steady; it is particularly adapted to the Northern Provinces, and is being extensively developed. The cane comes to maturity twelve months after planting. There are several crushing mills, and the owners purchase the cane while it is growing, in many cases cutting it for the grower, and, if required, money may be obtained on the security of the growing crop. Lucerne is extensively grown for hay, and it is no uncommon thing for the settlers on the rich alluvial soils near the rivers to crop the land five or six times during the year, and gather from one to two tons per acre at each crop. The price obtained generally runs high. It will be easily understood, from the foregoing particulars, that all the choice fruits of a temperate climate thrive amazingly in an atmosphere so genial as that of New South Wales.

Land Law Act.

The colonials have not long since adopted a very liberal Land Bill. By its provisions, outside certain boundaries of towns, any person, 16 years of age or over, may freely select from 40 to 640 acres (one square mile) at £1 per acre; 5s. per acre to be paid down on application, and within three months from date selection you are in possession of a site for a *bona-fide* residence, the balance of purchase-money remaining at 5 per cent., or payable annually in shilling instalments. Small working farmers, with a knowledge of sheep and cattle as well as agriculture, will find free choice of settlement upon the grassy plains and rich soils of the interior.

The Wool Trade of New South Wales.

The magnitude of the wool trade of the colony, and its steady increase and importance to the settlers, is best shown by comparing the official returns for three or four years, which will show the advance very clearly. Thus, in 1869, the quantity of wool exported was 51,269,672 lbs.; value, £3,162,522. In 1875, the quantity stood at 87,534,280 lbs.; value, £5,651,643. In 1878, a year of great depression, the quantity was 111,833,017 lbs.; value, £5,723,316. In this year the export of sheep from the colony was 578,457, of the value of £272,060. These figures, however, have been vastly exceeded in the previous more prosperous years. If ever there was a name that should be written in letters of gold in the annals of New South Wales, it is that of John M'Arthur, formerly a lieutenant in the New South Wales Corps. For it is entirely to his far seeing views and indomitable energy that Australia owes her present proud position in the wool markets of the commercial world. M'Arthur observed the improvement produced by the fine climate of New South Wales in the texture of the hairy Indian sheep. In 1793 he purchased eight fine woolled sheep, which had been sent out by the Dutch Government to the Cape, and re-exported to Sydney, as the Dutch farmers preferred their own fat-tailed breed. The purchase brought him much ridicule among his brother colonials, who considered it more profitable to grow wheat or pigs for sale at the commissariat stores. In 1803, in consequence of grievances at the hands of the colonial authorities, M'Arthur visited England, and obtained permission to purchase a few pure Spanish merinos from the flock of George III., at that time the exportation of the merino from Spain was a *capital offence*. The Privy Council became impressed with M'Arthur's wool projects, and he was examined before them. The result was that he carried out an order for a grant of 10,000 acres of land, which he selected on the banks of the Cow-pasture River. This spot has since become famous as

"Camden," and here the first pure merinos were bred, and the first vineyards planted in New South Wales. Generations on generations of Australians should hold the memory of such a man in grateful remembrance. Nor was this the only benefit that accrued to the colony from M'Arthur's association with it. In 1806, the merciless tyrant, Captain Bligh of the *Bounty*, and against whom his crew had mutinied and turned him adrift with 18 others, arrived in the colony as governor. After a career of tyranny and oppression of all those around him, Bligh proceeded to wreak his vengeance on M'Arthur; he was arrested on a trumped up charge of infringing the Customs laws, but he was surrounded by friends and brother officers, who would not see him unjustly imprisoned. The governor was placed under arrest by Major Johnson, the lieutenant governor, who assumed the control of the colony; ultimately Bligh was packed off in his own ship, the *Porpoise*. This bloodless revolution, in which M'Arthur was the central figure, changed the destinies of Australia, and instead of being a mere goal to receive the very scum of creation, it became the finest emigration field in the world. The table lands and western plains are almost wholly stocked with merinos, and Saxon merinos, descended from the flocks of Germany, France, and Spain. The process of acclimatisation has to a certain extent modified the original types. The wool has gained in softness, and there is a marked improvement in its elasticity; and while it has increased in length it has diminished in density, so that its weight remains nearly the same. The colony can produce wool of any kind the consumer may require, either the long, silky, lustrous combing wool, or that adapted for all kinds of clothing. Nearly *one-half* of the total number of sheep in Australia are depastured within the limits of New South Wales; the average weight of the washed wool per fleece is from $2\frac{3}{4}$ lbs. to 3 lbs. The increase has been threefold during the last ten years, and an experienced pastoralist estimates that, with favourable seasons, and a con-

tinuance of remunerative prices in the English market, that New South Wales will have flocks reaching an aggregate of from 40 to 50 millions. In connection with the subject of live stock, I may appropriately close this section with the latest official returns (down to 1879). There were in the colony, 336,468 horses; 2,771,583 horned cattle; 23,967,053 sheep; and 220,320 pigs;—total, 27,295,053. It is obvious that there is abundant room for an enormous increase of these numbers, and that much can be done with even a limited capital.

THE MINERAL PRODUCTS OF NEW SOUTH WALES.

It was in the month of April, 1851, that it was rumoured that a great gold-field had been discovered near Bathurst, and very soon small "nuggets" were shown as curiosities. Then a few score of adventurers set out to walk the distance 140 miles. By the 2nd of May there was no longer any doubt about the "diggings;" hundreds of persons of all stations in society streamed across the Blue Mountains, and the gold fever fairly set in. A Mr. Edward Hargreaves, of Sydney, had, while in California, been struck with the similarity of the richest diggings of that country, and a district in the Bathurst country with which he was well acquainted, and on his return he made an exploring expedition, which realized his expectations. Hargreaves put himself in communication with the colonial secretary, and the official geologist, Mr. Stuchbury, was appointed to accompany him. They set out on their journey, and on the 8th of May a Mr. Green, a Crown Commissioner, wrote in great alarm from Bathurst that a Mr. Hargreaves had been employing people to dig for gold on the Summerhill Creek (one of the spots Mr. H. had named to the secretary); that they had found several ounces, and he suggested that some "stringent measures" should be adopted to prevent the labouring classes from leaving their employment. However, the rush continued, and proper

police regulations were enforced. Vast quantities of gold were quickly found; and at first, so carelessly was the earth washed, that little boys made as much as from £3 to £6 per week by re-washing the "tailings" that flowed from the cradles of the men. The Summerhill diggings are, however, now nearly exhausted, but the colony yet contains a vast amount of the metal. One of the most extraordinary finds fell to the lot of a Dr. Kerr, in July, 1851. An educated aboriginal in his service observed a glittering speck upon the surface of a block of quartz; he broke off a portion with his tomakawk, and a splendid prize was revealed to his sight. He started home, told his master, and presented him with whatever gold might be found. On examination it was found there were three blocks of quartz, containing *a hundredweight of gold*, the largest being about a foot in diameter, and weighed 75lbs. gross. Out of this piece 60lbs. of pure gold was taken; the other two were somewhat smaller. The three blocks weighed, as nearly as could be estimated, from 2 cwt. to 3 cwt. The area of known gold bearing formations in New South Wales approaches 35,000 square miles. The total weight received at the Sydney Branch of the Royal Mint, for 1878, was 107,347 ozs., of the value of £382,741, at the rate of £3 11s. 3d. per oz. Gold mining, as hitherto carried on, has been mainly confined to the working of river beds and shallow alluvial claims. But it is known that there are extensive areas of country that are auriferous, and offer ample scope for the remunerative employment of a large population, in both alluvial and quartz mining. The estimated total value of gold in the colony, since 1851, minted and exported, amounts to £32,616,375.

There are numerous rich lodes of copper in the colony, but only a small number have been opened at present; these are situated at Bathurst, Tuena, Rockley, Orange, Bingera, and Bourke. The quantity raised, in 1878, was 3937 tons, of the value of £166,202. The richest lodes are, however, at present

beyond the reach of railway communication, but this is a matter that time will overcome. From the cordial manner in which a quantity of Australian copper was bought, it gave the exporters every encouragement to send as much more as possible, and there is no fear of a market for it.

Tin.—The most extensive deposits of this ore are found in the northern portion of the colony, but very large deposits are known to exist in other parts. At present the only mines are at Tenterfield, Vegetable Creek, and Tingha. These three mines employed 1716 miners, who raised 4542 tons of metal; value, £92,322.

Iron.—In close proximity to the coal and limestone formations in the colony are found valuable deposits of iron. Hematite, magnetic, chrome, and other iron ores, are found in considerable abundance in different localities. From the scientific reports and analyses which have been furnished to the Colonial Government, it is certain that New South Wales is destined to become an important factor in the supply and consumption of this valuable metal.

Coal.—It is estimated (but necessarily only approximately) that the area of the New South Wales coal field is 23,950 square miles; the probability is, that it is at least double. The principal coal beds are along the northern and southern coasts of Sydney, and the principal pits are in the immediate vicinity of Newcastle, from which the colony obtains its chief supply. As a rule, the coal lies near the surface, and the greatest depth to which shafts have yet been sunk is not less than 500 ft. In many districts the coal may be got by tunnelling, as it crops out from the face of the hills. From experiments made with it in London, as applied to the manufacture of gas, it has been demonstrated to produce upwards of 9000 ft. per ton, with an illuminating power 24 per cent. greater than the Whitworth variety of coal. Mr. R. W. Moody, an eminent mining engineer, estimates the product of

five seams, on a south-eastern coal estate, at 31,250,000 tons, which will give a yield of over 1000 tons a day for upwards of 100 years. The year's yield for 1878, from 40 pits, some of which are not yet in work, was 1,575,497 tons ; value, £915,228. In addition to this, there are three valuable shale beds in work, yielding kerosene oil and mineral. From these were obtained 24,371 tons of shale ; value, £57,211. Brief as this abstract is, enough has been shown to prove the productive field open to those desirous of embarking capital in these branches of industry. Mineral lands may be leased from the Government, at the annual rental of 5s. per acre, for a term of 20 years, renewable at the option of the lessee ; or they may be bought at £2 per acre, the purchaser covenanting to spend a like amount in improvements within two years.

Manufactures, Labour, &c.

The official return of the number of manufactories at work, down to the close of 1878, was 2557, employing 24,788 hands. Of these, 169 factories were connected with agriculture ; for example,—implement or machine makers. There were 318 factories employed in working on raw materials, the production of the pastoral interest ; for example,—wool-washing. Manufacture of food, drinks, &c., 247 ; building materials and plastic manufactures, 774 ; machine manufactories, brass, lead, and iron works, 166 ; miscellaneous works, 883. There has been a fourfold increase in the manufacturing industry of the colony during the last ten years, although the population has not increased by one-half. In all these branches there are abundant openings for men with capital to find wealthy businesses.

The rates paid for labour, as given in the latest official return, are as follows :—

Waggon and carriage builders, 1s. to 1s. 6d. per hour ; sawyers, 9d. to 1s. 3d. ; compositors, 1s. to 1s. 1d. per 1000 ; stonemasons, 10s. to 11s. per day ; plasterers, 11s. to 12s. per day ; bricklayers, 10s. to 12s. ; painters,

10s. to 11s.; shipwrights, 9s. to 10s.; saddlers, 45s. to 55s. per week; tailors, average 50s. to 70s. per week; shoemakers, 35s. to 50s.; blacksmiths, 1s. 1d. to 1s. 4d. per hour; engine-drivers, 9½d. to 10d.; coal miners, 10s. to 15s. per day; wheelwrights (country), 65s. to 70s. per week; gangers, 8s. 6d. per day; brickmakers, 22s. 6d. to 25s. per 1000; plumbers, 8s. to 10s.; gasfitters, 8s. to 11s. per day. *Country*:—Married couples for Stations, £60 to £70 per annum; farm labourers, £30 to £40; bullock drivers, £40 to £52; horse drivers, £40 to £52; boundary riders, £40 to £52; stockmen, £40 to £75; shepherds, £35 to £40; grooms, £40 to £60; gardeners, £40 to £52; blacksmiths, £75 to £80 per annum; bakers, £1 10s. to £3 per week; cooks (private houses), £30 to £65; ditto for hotels, £45 to £75 per annum; general female servants, £26 to £45; nursemaids, £26 to £35; coopers, 8s. to 10s. per day.

The following quotations refer to Sydney; in other parts some of the rates rule lower :—

Bread, 4d. to 7d. 4lb. loaf—beef, 2d. to 5d. lb.—salt beef, 1½d. to 4d.—mutton, 1½d. to 4d.—salt do., 2d. lb.—pork, 5d. to 6d.—veal, 1s. to 1s. 6d. lb.—butter, fresh, 6d. to 9d. lb.; salt, 6d. lb.—milk, 4d. to 6d. qt.—cheese, English, 1s. 6d. to 1s. 9d. lb.; New Zealand, 1s. 2d.; American, 10d. to 1s. 2d.; Colonial, 6d. to 9d.—coffee, 1s. 4d. to 1s. 6d. lb.—eggs, 7d. to 1s. doz.—flour, 1st., 13s. per 100 lbs.; 2nd. 12s.—potatoes, 4s. to 8s. cwt.—bacon, 6½d. to 9d. lb.—rice, 2½d. to 3d. lb.—sago, 4d. lb.—salt, 5d. to 6d. cwt.—soap, 26s. cwt.—tobacco, American, 3s. 9d. to 4s. 6d. lb.; Colonial, 2s. lb.—tea, 1s. 4d. to 2s. 6d. lb.—sugar, 3d. to 4½d. lb.—apples, 6d. to 1s. 6d. doz.—pine apples, 6s. to 10s. doz.—oranges, 10d. to 1s. 6d. doz.—turnips, 1s. 6d. doz. bunches—onions, 4d. lb.—cabbages, 2s. to 5s. doz.—carrots, 1s. to 1s. 6d. doz. bunches—parsnips, 1s. 6d. doz. bunches—hay, oaten, 120s. to 160s. ton—lucerne, 100s. ton—grass, 80s. ton—maize, 2s. 9d. bushel—oats, 3s. 6d. bushel—oatmeal, 3d. lb.—oil, kerosene, 1s. 9d. per gallon.

House Rent.—Small cottages in Sydney and suburbs, three or four rooms and kitchen, 10s. to 12s. per week; small houses in suburbs, three or four rooms, with kitchen, 14s. to 18s. per week. In Sydney, larger houses from 18s. per week. Board and lodging for single men, from 14s. to 18s. per week.

Intercommunication, &c.

That all important source of wealth and welfare in the colonies as elsewhere—railway communication—has not by any means been neglected in New South Wales, yet a vast amount of work remains to be done, and nothing spurs on these important

aids to prosperity more than the influx of immigrants with capital. At the close of the year 1878, 689 miles of railway were open, every mile tending to develop, in a tenfold degree, the natural wealth and resources of the country. The number of passengers carried during the year, was 3,705,733; the weight of goods amounted to 1,594,983 tons. The total earnings amounted to £902,989; the expenditure was £536,989, leaving £366,000 as net earnings. The Southern, Western and Richmond lines comprise a length of 501 miles, and their total earnings was £660,050; and the Northern, with a length of 188 miles, earned £242,937. The Northern line starts from Newcastle, runs through the adjacent coal fields, and up the fertile valley of the Hunter to Murrurundi. Diverging at Paramatta, the lines are carried across the Nepean upon stone viaducts of colossal proportions. The traffic of the Western and Southern roads centres upon Sydney. Each line runs through country abounding in iron, coal, and other minerals, and in many parts there are extensive tracts of land admirably adapted for fruit-growing and general farming purposes. Both at Bathurst and Goulburn, which are the principal towns in the western and southern parts, are vast tracts of valuable agricultural and pastoral country; the lines run to both places, and ere long will penetrate much further. It is obviously the policy of the Government to encourage the formation of railways as fast as possible; the main difficulty however, is in obtaining labour. It is intended to extend the lines to the northern, western, and south-western boundaries of the colony. Contracts for an additional 297 miles have been taken up, and 690 miles more are projected. These works will, doubtless, be carried out, and cannot fail to promote the welfare of all classes of settlers.

Postal.—The postal arrangements of the colony are upon a very complete and extended scale. In the year 1878 there were 847 offices, and 75 receiving offices, and the extent of postal lines

was 20,176 miles. The number of letters passed through in the year was 18,159,900. Newspapers 9,469,200, and of packets 536,800. The postage on inland letters is 2d. the ½ oz., and newspapers are carried without charge. Three lines of mail steamships offer regular and frequent communication with the United Kingdom. The service by way of San Francisco is subsidised by the Government of New South Wales and New Zealand. The second, by way of Torres Straits, by the Queensland Government, and that by way of Suez, by the Government of Victoria. There are 300 offices in the colony, from which money orders can be obtained. In 1878, 142,025 orders were issued, and 129,143 were paid. The charge for orders in the colony is, for sums not exceeding £5, 6d., and under £10, 1s. Intercolonial, £5, 1s.; £10, 2s. United Kingdom, not exceeding £2, 1s.; £5, 2s.; £7, 3s.; £10, 4s. From this it will be gathered that the organization of the Post Office is as complete as in the home country.

Electric Telegraph.—The Colonial Government have constructed and manage this now indispensible means of intercommunication. Every township of any trading importance has the advantage of telegraphic communication with the whole world. The system has also been applied to the highly useful purpose of indicating storm signals, and for other maritime purposes. That the aid of this valuable servant is well appreciated, the figures for 1878 will show. The number of colonial messages transmitted were 1,124,858; the foreign numbered 2814; and New Zealand comes in for 4615;—making a total of 1,132,287, and a revenue of £98,126. There are 236 telegraph stations in the colony, employing 11,760 miles of wire, at a gross cost of £413,258. The line constructed through the centre of the continent to Port Darwin, by the Government of South Australia, affords the means of telegraphic communication with India and Europe. In addition to this, New South Wales is connected with New Zealand (1150

miles distant from Sydney) by a submarine cable, which has proved of the utmost assistance and benefit on both sides. There are three lines of mail steamships, which amply furnish the means of regular and frequent communication with the United Kingdom and all the European States. The colony is also well supplied with regular services of steam and sailing vessels, carrying cargoes and merchandise to India, Africa, China, Japan, and, indeed, to and from all parts of the civilized world. Thus either the producer or the trader have ample means at their disposal for carrying out an export or import trade. In this respect New South Wales takes the lead of her neighbouring colonies; in 1877, the tonnage entered inwards amounted to 1,136,206 tons, and in 1878 to 1,267,374 tons,—the value of her exports being £12,965,879, and of her imports £14,768,873. There are ten banking companies, carrying on a large and prosperous business in the colony, the annual dividends on which average 14 per cent., the assets for 1878 being £23,082,957, and the liabilities £18,150,415. Ample facilities are afforded for the practice of thrift throughout the colony by the establishment of savings banks, of which there are 166 in different localities, having 18,957 accounts open, and a balance at the credit of depositors amounting to £480,025, and, adding to this the amount of savings deposited in other banks, brings the total up to £1,505,575. The rate of interest paid to depositors, on accounts not exceeding £100, is 5 per cent. per annum, and the rate of interest charged for money lent on mortgage is 5½ to 6 per cent.. Turning next to the important subject of education, the immigrant will find the most ample provision made in this respect for the education of his family, either at the public or private schools throughout the colony. The schools, under the control of the Council of Education, numbered 1189, with 128,125 scholars. There are also 1196 Sunday-schools, with 86,014 children attending them. The total amount set apart by the Colonial Government for the year 1878,

Trade and Commerce.

In addition to the principal port of Melbourne, there are the several smaller ports of Geelong, Portland, Port Fairy, Port Albert, Warrnambool, and the Murray river ports of Echuca, Swan Hill, Tocumwal, Wagunyah, Wodouga, and Kowlong, all of which are regularly visited by trading vessels. There are vessels also continually sailing between the Victorian ports and India, China, Mauritius, America, and the European ports. At the principal ports, comprising Melbourne, Sandridge, and Williamstown, the imports for 1875 amounted to £13,015,552, and the exports to £13,126,292. The total declared value of the imports for 1877 was £16,362,304, and that of the exports £15,157,687. In addition to this, Victoria has a large external trade with the other neighbouring colonies, and also with Tasmania and New Zealand.

Capital and Labour.

There is a popular fallacy abroad, and it is one that is extensively traded upon by the obstructives of emigration, that because wages are good in the colony, the necessaries of life must be more than in proportion; and it is argued, from this stand point, that a man is equally well off at home upon 18s. a week as he would be in the colony upon £3 or £3 10s. The indisputable quotations I shall presently set before the reader give an unqualified answer to this absurd and baseless proposition. Again, it is urged, what is the use of the capitalist going out if he is to pay these high wages, and his contingent expenses are correspondingly increased? The answer is simple enough. In the first place, the increased outlay of wages is met by a corresponding debit on the work done. Secondly, the interest and returns upon every farthing of investment is double, and more frequently treble, what it would be in the old country. Again, the cost of

personal maintainance and family outlay is no larger on his part than (in proportion) is that of his workmen. The will and determination to prosper is the very backbone of success, whether it be carried out either on the part of the employer or the employed. I will take, first, the rates of wages, and then the cost of provisions, &c.; the figures quoted being from undeniable sources :—

Bakers, foremen and first-class workmen, £2 5s. to £3 10s. per week; second hands, 35s. to 40s. Building Trades—Stonemasons, 10s. to 11s. per day; bricklayers, plasterers, and slaters, 10s.; carpenters, 10s.; labourers, 7s.; pick and shovel men, 6s. Butchers—Shopmen, 35s. to 40s. per week; boys, 15s. to 20s.; slaughtermen, 40s. to 50s.; small goodsmen, 30s. to 40s. with rations. Cabinetmakers—Wages vary greatly with the class of shop and ability of the men. In the superior shops in the city the amounts earned are from £3 to £4 per week; and in others from £2 10s. to £3 10s. In country towns lower rates prevail. Coachbuilders—Smiths, £2 10s. to £3 15s.; very superior men, £4; bodymakers are mostly paid by the piece, and good hands can earn from £2 10s. to £3 10s.; wheelers also work by the piece, and earn from £2 10s. to £3 10s. Painters, 9s. to 10s. per day; trimmers, £2 10s. to £3 per week; vicemen, from 30s. to 40s. Coopers—Mostly paid by piece work, but day work is 9s. for the day of ten hours; casks (tallow) 5s. for thirds, and 4s. 6d. for fourths. Drapers—In first-class shops, drapers' assistants and carpet salesmen have from £3 to £4 per week; first-class milliners, £3 to £3 10s.; second-class, 35s. to 50s. Farriers—Firemen, 55s. per week; doormen, 45s.; inferior hands, 30s. to 40s. Gardeners—Best men, near town, 30s. to 42s. per week; in the country, 23s. to 25s. with rations; inferior hands, 15s. with rations. Hatters—Bodymakers, low crown, 12s. and 14s. per doz.; silk hats, 22s. and 24s.; ditto pull-overs, 20s.; ditto shapers, regulars, plain shape, 6s. per doz.; Anglesea, 12s.; ditto low crowns, 4s. and 6s. per doz.; crown sewers, 3s. 6d. to 5s.; trimmers, 6s. Jewellers—Manufacturing, average workmen, 55s. to 65s. per week; finer workmen, £5 to £6 per week; seal engravers and enamellers are wanted, and can obtain from £6 to £8 per week. Miners—For surface work, 40s. per week; underground, 45s.; deep wet miners, 50s. Painters and Glaziers—Average rates 9s. a day. Plumbers and Gasfitters—Average £3 per week. Printers, &c.—Compositors, 1s. per 1000; lithographers, £2 10s. to £3 15s. per week; binders, £2 to £3; paper rulers, £3 to £3 10s. Sailors—In sailing ships, £5 per month; steam vessels, £6 per month. Ship Carpenters—Employment very irregular, average rate, 13s. per day. Stevedores—Lumpers get 12s. per

now returns a member, making up the number given. The Governor has a salary of £7000 a year; the President of the Legislative Council, £1200; the Colonial Secretary, £2000; the Treasurer and Secretary for Finance £1500; the Secretary for Lands, £1500; the Secretary for Mines, £1500; the Surveyor General, £1000; the Collector of Customs, £1000; the Colonial Architect, £1000, &c. Each department has its full staff of clerks and subordinates, as in the Home Treasury. The judicial and legal departments are governed by a Minister of Justice, who has a salary of £1500. The Chief Justice has a salary of £2600; and three Puisne Judges £2000 each. The Inspector General of Police receives £800 a year, and £112 for forage allowance and house. The general administration of justice follows the home practice. The widest scope is given to all in the matter of religious opinion, every denomination has its representative places of worship. The Church of England, however, takes the leading position in point of numbers; that body having 410 places of worship, with sittings for 68,632 persons, the annual expense being £13,138. The Roman Catholics have 273 churches, with sittings for 36,030, and an outlay of £6815. The Presbyterian body have 149 churches and chapels, adapted for 24,793 worshippers, with an outlay of £2424. The Wesleyan Methodists have 269 chapels, principally in the country districts, with sittings for 38,752 persons. Their annual expenses are £1427. The other bodies are in smaller numbers. Under the Church of England the colony is divided into five dioceses, viz.:— Sidney and country districts, with 90 ministers; Newcastle, with 29; Goulburn, with 38; Bathurst, with 30; Grafton and Armidale, with 20. The Roman Catholic Church has divided the country into a like number of dioceses, under the supervision of 164 priests. In bush life, however, regular attendance at a church or chapel is simply an impossibility, and under such circumstances it behoves the father to be the pastor of his own family. In the

course of my own varied wanderings, I have met with some eminently bright examples of this patriarchal kind of life, and have seen many an otherwise lonely and far-away home rendered a scene of happiness and loving affection under the glorious influence of faith and united domestic worship. It is at such a time that the sense of severance from the outer world impresses the inner heart most deeply, and seems to draw the worshipper more immediately into the presence of Divine Goodness.

Sydney and its Environs.

Ere bringing my remarks on the Colony of New South Wales to a close, I should like to say a few words upon the surroundings of the capital city. Port Jackson, the leading port of the Australian city, has the wealthiest population of the whole continent. The shore is bold and picturesque, the country behind rises gradually into swelling hills of moderate elevation; far as the eye can reach they are covered with evergreen forest trees. The distinguishing feature of the Australian foliage is its dull monotonous tint, as compared with the luxuriant summer clothing of the trees in the old country. The trees are mostly of the *Eucalypt* species, which bear peculiar grey-tinted leaves. The entrance to the port is marked by the north and south heads, which are about three-quarters of a mile apart. Five miles from the heads, on Sydney Cove, stands the city of Sydney, the seat of the Government, and, but recently the scene of a glorious International Exhibition, and the greatest wool port in the world. The value of the wool, the produce and manufacture of the colony, exported during the year 1878, amounted to £5,723,316. Cumberland and Camden were the two counties first settled; the former is the most densely populated district in Australia. Camden includes the district of Illawarra, one of the most beautiful and fertile spots in the world. Within the Sydney district are the towns of Paramatta,

Windsor, and Liverpool. The principal ports to the north of Port Jackson are, Broken Bay, at the mouth of the River Hawkesbury, and Port Hunter. The Hunter river passes through one of the oldest and finest agricultural districts, and in which the cultivation of the vine is carried on to a large extent. Port Stephens is an estuary, 15 miles in length. To the southward of Port Stephens there is a series of thriving farms, spreading along the contiguous rivers. This splendid agricultural district comprises an area 2000 miles in extent. The excellent harbour of Newcastle affords an outlet for the export coal trade of the colony, which is annually largely increasing in value and extent. The money value of the coal raised, in 1878, was £915,228, The space at my disposal is, however, exhausted, and I must leave to the immigrant's research the many objects of interest I should have been pleased to dwell upon. Should he select the Colony of New South Wales for his future home, he must be prepared, whether capitalist or otherwise, to exert himself, and not to be daunted by external difficulties. With such a determination, steadily pursued, he cannot fail to achieve success, and with it prosperity.

THE COLONY OF SOUTH AUSTRALIA.

Geographical, Historical, and Descriptive.

IF the reader will look at a map of Australia, he will see at a glance, that the Province I am about to describe occupies the central portion of the vast Island-continent, as it has been frequently and correctly termed. That is to say, South Australia extends from the southern coast, on which the capital (Adelaide) is situated, completely across the continent to its northern extremity, where it forms a portion of the coast of the Gulf of Carpentaria. Thus the Province stretches across the entire continent, from the Southern Ocean to the Indian Ocean, and from the 129th to the 138th degrees of east longitude, embracing in its area 914,730 square miles, equal to 585,427,200 acres. The Province of South Australia covers 27 degrees of latitude and twelve degrees of longitude, forming at present the largest British Colony. The southern coast is deeply indented by two large gulfs, the eastern one being St. Vincent's Gulf, which runs inland to the northward for 85 miles; the larger one is Spencer's Gulf, which runs north by north-east for 180 miles. Both these gulfs have a mean breadth of 30 and 50 miles respectively, and both taper towards the inner or northern ends. St. Vincent's Gulf is sheltered by an island, named Kangaroo Island, which is 90 miles in length, having two fine entrances, viz., one from the westward through Investigator's Straits, 28 miles broad, and the other from the eastward through Backstairs Passage, eight miles in width. The principal agricultural and mineral districts of the colony lie contiguous to the gulfs, the shores of which are 780 miles in length, the greater part being

entirely protected from the ocean swell. Numerous outports and shipping places enable the settlers to ship their property at a very small cost. The two gulfs of St. Vincent and Spencer are separated by a long projecting tongue of land, named Yorke Peninsular, which is about 120 miles in length and 20 miles in width. This district forms at present the principal seat of the mining industry, and contains within its area large tracts of fine wheat-growing land. There are three fine townships upon it, and a railway 18 miles in length. Port Wallaroo is a thriving place of business, doing a considerable shipping trade. It has a good jetty, alongside which vessels of considerable tonnage can load and unload. Here many colliers are constantly employed, conveying coal from Newcastle, New South Wales, for consumption in the neighbouring copper smelting works. It is here that the famous Wallaroo mines are situated, which were discovered in 1860. Twelve miles to the south is Moonta, one of the richest copper mines ever worked. This is the largest and most important town on the Peninsula. A great many Cornish miners have settled here. The southern portion of the district has been taken up for agricultural purposes, and a considerable population is settling in this part. Around Adelaide to the south, south-east, and east are some important townships. I will mention only those of Ports Elliott and Victor, Woodside, Mount Barker. Further to the south-east, approaching the border line, are the towns of Naracoorte, Pensla, Mount Gambier, and Port MacDonnell. The country around Mount Gambier is wonderfully rich, and commands high prices; this part has been designated "The Garden of South Australia." Seven miles to the east of the capital is a range of hills, the principal of which is known as "Mount Lofty," 2234 feet high. Fifteen miles further is the Barker range, running parallel with the Mount Lofty range; these ranges enclose some lovely valleys, in which numerous settlements are rising. A railway extending

north, unites the capital with Gawler Town, most of the adjoining land being under cultivation, and level in character. Thirty miles north east of Gawler is Kapunda, where the well known mining works are situated. This valuable mine was discovered in 1843, on Captain Bagot's sheep run; it is 50 miles distant from Adelaide. The world-renowned Burra Mine is 100 miles from the capital. These, and the mining industry generally, will be dwelt upon in their proper place. South Australia may be said to have but one river at all worthy of the name, and that is the Murray, which is the Antipodean Nile, the prince of Australian rivers. It is estimated to be 2200 miles in length, and has been navigated for nearly 2000 miles. At 550 miles from its mouth it receives its principal tributary, the River Darling, named after the then Governor of New South Wales. This river is upwards of 2500 miles in length, and to its furthest source, in the Condamine, it is upwards of 3000 miles. We owe the discovery of the Murray to that intrepid explorer Captain Sturt, who had been appointed to trace the River Macquarie, and diverging from that, after many disappointments and arduous trials, he came upon a magnificent stream, 350 feet wide, and from 15 to 20 feet deep. This was the Murray, and its discovery was only the prelude to one of much greater importance, the discovery of the Adelaide Plains, and the extensive tracts of agricultural land, which have since constituted the Province the granary of the Southern Hemisphere. A few lines may be appropriately devoted to the historical portion of my subject. In 1836 Captain (afterwards Sir John) Hindmarsh landed (December 28th), at Holdfast Bay, and under a venerable gum tree, a short distance from the shore, the Orders in Council, creating South Australia a British Colony and the commission of Governor Hindmarsh, were read. This is the Colonial Commemoration-day, and is kept up with great spirit, and annually observed as a general holiday. There were great disputes among the party as to the best site for the

capital, and ultimately Colonel Light, the Surveyor General, who had previously fixed on the spot where the city of Adelaide now stands, carried his point. Hindmarsh only held office for fourteen months, and was succeeded by Colonel Gawler. During this administration the colony fell into the most frightful embarrassments, the results of folly and extravagance, and Gawler was superseded by Captain Grey, since Sir George Grey. Subsequently, the colony came under the government of some eight or nine gentlemen in succession, and with more or less advantage to the administration of its affairs. The present Governor, Sir F. W. D. Jervois, G.C.M.G., came into office on the 2nd of October, 1877. The official salary of the appointment is £5000, with a private secretary at £400, and an aide-de-camp at £250. The legislation of the colony will be explained in its proper place in this work.

Climate and Meteorology.

Owing to the peculiar dryness of the Australian climate, the heat is seldom felt to be oppressive, except when the hot winds are blowing. During eight months of the year the climate is delightful, and unquestionably salubrious. Blue skies, bright sunshine, and mild genial weather, varied by sufficient rainfall, are the characteristics of that period, embracing the greater portion of the year. Everything is favourable to health and active industry. The hottest months in the year are December, January, and February; at this period the temperature wil frequently exceed 100° in the shade. But there is this point in its favour, the heat is *dry*, and consequently does not produce that exhausting effect upon the colonist that the heat of a moist climate does. During such days colonials wisely put aside their woollen clothing, and dress wholly in white. Even on the hottest day most men are able to follow their ordinary avocations without excessive exhaustion, and, indeed, there is great wisdom in

being fully employed at such a time, for it enables one to bear the heat much better. It generally occurs, during the hot season, that the wind is accompanied by a dust-storm, and this is exceedingly trying to all; in point of fact, it is an unmitigated nuisance to every one. In the hottest months, particularly in December, the weather is frequently broken by cloudy intervals, accompanied by strong south-west winds, which generally veer to the south and south-east, and this will frequently continue for several days. At this time the wind usually freshens towards sunset, the temperature falls rapidly, and the nights are cold; sometimes there is a fall of 30° or 40° in an hour or two, and one may be melting in the morning and shivering at night. All this inconvenience is easily overcome by due attention to personal health, and the proper provision of suitable clothing. After March the temperature falls rapidly; the mean temperature, deduced from ten years' observations, is 64°. The weather during April and May is simply perfect, and this applies also to most of the winter months to the end of October. The coldest months are June, July, and August, the temperatures of which are 54°, 51°, and 53°. The monthly mean temperature is highest in January and February, ranging from 72° to 74°; that of December is about 71°; November, 66°; and October 62°. The greatest quantity of rain falls between the months of May and September, the mean fall for the whole year being an average of 22 inches, and the average number of wet days 114. This average refers to the plains of Adelaide; on the hills and in the south-eastern portion of the colony the rainfall is much heavier. Rain in this colony is always a blessing; it gives promise, and is the cause of future wealth in yielding an abundant harvest of agricultural and horticultural produce.

Land, Agriculture, and Produce.

The Real Property Act of South Australia affords every facility for the transfer of landed property, in as easy and cheap a manner as any ordinary commercial transaction. The operation of the law has been highly advantageous to a community where almost every man is either a landowner, or is interested in land, either as a vendor, lessee, or mortgagee. Dealings in real estate are matters of ordinary every-day occurrence, as may be judged when it is stated that the total value of the lands brought under the operation of this law considerably exceeds ten millions sterling. Under the Amended Act of 1874, the whole of the waste lands of the colony, south of the 26th parallel of south latitude, forms a vast area, from which, as fast as it is surveyed and declared open to the public, intending purchasers can make their selections. Hundreds of thousands of acres of good land, and much of it is of the finest, are always open for selection. All the land, not being township or suburban, has a fixed value put on it of £1 per acre. And where such land has been improved or otherwise reclaimed, the cost of such improvements is added to the upset price. Those lands which, although open to selection, have not been selected or sold by auction, may at the end of five years be offered for sale in blocks of not more than 3000 on lease for ten years, at an annual rental of not less than 6d. per acre, with the right of purchase at any time during the currency of the lease at £1 per acre. Lands which have been open for selection for two years, and not taken up, may be bought for cash. Scrub lands are also to be obtained upon very favourable terms, and on long leases. The lands open for selection are proclaimed in the *Government Gazette*, at a fixed price, and a day is appointed for receiving applications. The sections applied for must not exceed in the aggregate 640 acres, or one square mile. The applicant has to pay a deposit of 10 per cent. on the price, which sum is accepted as payment of three years' interest in

advance upon the purchase-money, and amounts to about 3¾ per cent. per annum. Thus upon £100 worth of land he would pay £10, and nothing more would be required of him for three years. Then he would have to pay another £10, which would release him for three years longer. At the end of the six years, if he is not in a position to pay the balance, he can have four years longer credit on payment of half the purchase-money, with interest in advance on the other half, at the rate of four per cent. per annum. Looking to the rate of interest which money bears in the colony, these terms are exceedingly favourable to the selector. It is at the option of the selector, either to reside upon the land personally, or he may provide a substitute. The personal resident may, if he has carried out all the conditions, obtain the fee-simple of his land at the end of five years; but if he occupies it by substitute, he cannot get the freehold under six years. The improvements the purchaser is required to make must be to the value of 5s. per acre, and done by the expiration of the second year; the third year, the improvements must reach 7s. 6d. per acre, and in the fourth year 10s. Such improvements to consist in 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 fencing to be of a substantial nature. The selector is required to have under cultivation each year at least one-fifth of the land until the purchase-money is paid off. The law has operated in the most beneficial manner, and immense areas of land have been surveyed and sold on the credit system. There are hundreds of families located in confortable homesteads, and occupying prosperous farms, having before them every prospect of success and independence. There is ample room for thousands of such, who would form a body of which any colony might well be proud. At present upwards of 1,350,000 acres of land have been surveyed, and is open for immediate selection. The credit

sales of land last year amounted to 609,363 acres, of the value of £940,057. About two-thirds of the total area of land cultivated is cropped with wheat; last year 1,163,646 acres were reaped, the area of wheat grown having increased more than 100 per cent. during the last ten years. The value of the exports of cereals alone from South Australia, for 1878, was £1,655,703. Another point of importance to the emigrant is the issue of land-order warrants of the value of £20, which are granted by the Agent General for South Australia to all approved persons, who pay their own passages and proceed direct to Adelaide. The applicants must be in sound health, and not more than 45 years of age; each adult above twelve years of age is entitled to a £20 order, and each child between one and twelve years to a £10 order. These orders will be received as payment or part payment of the purchase-money or interest on any land open for selection under the Land Act. Continued residence in the colony for two years entitles the holder to an absolute transfer of the land, but the order is immediately available as cash in the purchase of Crown lands. If the emigrant does not require to use his land-order on arrival, he may keep it by him for two years, when he may readily obtain the full value for it in cash.

Turning to the vine culture, it will not be many years ere the wines of South Australia will have become an important factor in the home consumption of good, sound, and thoroughly [illegible]ful wine. Both the soil and the climate of the Province are in suitable localities, second to none in the world for the production of wines of the highest class. The slopes of the hills are most admirably adapted for growing the species of grape the product of which is the full-bodied generous wines, characteristic of those we buy so largely from Spain and Portugal. Whilst, on the other hand, the more elevated districts produce the fruit from which the lighter Rhenish wines are

expressed. A great mistake has been made by growers in not exercising sufficient judgment in the careful selection and separation of the different varieties of the vine, from which continental *vignerons* obtain their most esteemed brands. The taste for pure unbrandied wines is rapidly extending in England, and an unlimited market in this direction is open to the South Australian vine cultivator. The gentlemen connected with the Chamber of Manufactures will furnish the enquiring immigrant with all the information at their disposal, and the applicant may rest assured that he will meet with a body of well-informed colonials only too willing to afford him all possible assistance, both technical and practical. Almond trees are necessarily of rapid growth in a climate so charming, and what is of the most importance to the grower, the produce meets with a ready sale. Large quantities of a very superior kind are gathered yearly, part of which are used for the local colonial consumption, and part for shipment. The varieties of the grape suitable for the raisin and currant trades flourishes admirably in South Australia, and yield large crops. The immigrant, who finds his land favourably situated for the growth of these vines, should not lose sight of this source of profit. The cultivation of the olive is bound to become a highly important item in South Australian produce. The latest official return, which, I am sorry to write, is a long way in arrear, shows that there were 40,824 olive trees in the colony. The oil produced is of the most delicate character, and samples sent to the Paris and other Exhibitions have gained honours and expressions of the highest approval, from the juries and examiners. There are but three oil factories at present in the colony, but there is room for 300 more, with every certainty of a ready market for all they can manufacture. The cultivation of flax is one for which the climate is peculiarly adapted in many parts. The immigrant, who possesses a practical knowledge of this subject, or has a liking for its cultivation, will do well to

keep it in view. Humanly speaking, it is perfectly certain that the several Provinces of Australia will become, in time, the chief silk producing country of the world. The food of the insect, the mulberry tree, flourishes as though it were an indigenous weed, and there is but little exception to this rule throughout the several colonies of the continent. From the European continental States, from whence the home country receives so large a quota of her annual supply of silk, the labour attending the rearing of the silkworm, up to the final harvest crop of cocoons, is almost invariably the exclusive work of females and children, indicating a channel in which the immigrant's family may add sensibly to the joint income. The manufacture of leather is rapidly becoming an important branch of colonial industry; the vast numbers of sheep and cattle reared in the colony, and used for home and exported food, furnish enough skins and hides to constitute a goodly addition to the colonial income. There are 60 tanneries and fellmongeries in active operation, and, in addition to these, there are numerous large wool-washing works. Of this latter staple product, I shall have more to say under the heading of manufactures. A not unimportant item of South Australian produce is its native timber, the most conspicuous of which are the gum-trees, which flourish throughout the entire region of the Australian continent. The *Eucalypti* is a genus of the myrtle order, and there are some 70 or 80 varieties of these forest trees, some of which form the loftiest trees in the vegetable world. They are of a balsamic nature, and the popular name has been given from the fact of their exuding a resinous gum, which trickles down the stem in the form of blood-red tears. Some of these gums possess valuable astringent and tanning qualities; another produces a species of manna, which is eaten by the natives. The timber of most of the species is used in one way or the other for nearly all purposes in the constructive arts, as being exceedingly

durable; others are eminently adapted for cabinet work, rich in colour and finely mottled. The colonists term the *Acacia* tribe "Wattles," from their great utility in making fences and the walls of log-huts. The timber of many of these trees is specially beautiful in colour and grain, and that of the myall wood *(A. pendula)* gives out a fragrant perfume, similar to that of the rose. What may not be improperly designated the Australian fir tribe *(Casuarinas)*, colonials have invested with very singular names. Thus, we find there the "he-oak" (*C. equisetifolia*), the "she-oak" (*C. stricta*), the "swamp-oak" (*C. paludosa*). The timber of many of this family is handsomely variegated, and much used for cabinet work. I have scarcely touched the fringe of this portion of my subject; it is only sufficient to show the ample supply there is for all requirements in the arts of utility.

Metallurgical and Mineral Resources.

South Australia is, in all probability, the richest of all the Provinces in its mineral wealth; indeed, copper has been to South Australia what gold has been to Victoria. The Kapunda mine was discovered in 1843, on Captain Bagot's sheep run, about 50 miles from Adelaide, and it has been the means of establishing one of the principal provincial towns in the colony, which forms the centre of a large and thriving population. This fine copper lode has yielded, on an average, 2000 tons of ore per annum, having an average of 19 per cent. of fine copper. In 1848 the first steam engine commenced pumping the water from the mine, which at that time was 20 fathoms in depth, and since then the workings have been carried down four times as far. In 1849 the smelting of the ores on the spot was commenced, and a great saving in cartage and freight was effected. The Burra mine, of world-wide celebrity, was discovered in 1845; this is situated 100 miles north of the capital. An immense deposit of exceedingly rich ore, mingled with red oxide, malachite, and the

blue and green carbonates of copper, was found upon the surface, and some thousands of tons were taken away before any depth was attained. There was a constant stream of bullock teams (upwards of 800) conveying the ores down to Port Adelaide for shipment to England. In the first six years of the working 80,000 tons of ore were sent down to the port. And for several years upwards of 1000 persons were employed in the mine, and several townships sprang up around it. In 21 years this magnificent property yielded 215,132 tons of ore, giving an average of 22 per cent. of fine copper, the value of which was considerably over £4,000,000. The company expended in wages alone £1,568,859, and the shareholders received, in 55 dividends, £315 on each £5 share. In 1860 the Wallaroo mines were discovered, in which a very large amount of capital was sunk, at first without any productive return. The lodes, in some parts, are of extraordinary width and productiveness, measuring from 10ft. to 30ft. in breadth of nearly solid ore, and yielding as much as 60 tons to the fathom. The Wallaroo Company erected extensive smelting works at Wallaroo Bay, which are the largest and most complete in the colony. The yield of copper from these mines was for five years over 26,000 tons per annum. The property the proprietors possess at Wallaroo Bay includes 36 furnaces and 21 calcining kilns, employing 210 hands. The rate of wages is—Tributers, £2 2s. per week; tutworkmen, £2; underground and surface labourers, £1 13s.; boys, from 4s. 6d. to 18s. per week. But good as the returns of the Wallaroo had been, they were destined to be far eclipsed by a property about eleven miles to the south-west, and two miles from the coast, viz., the celebrated Moonta Mines, which were discovered about twelve months after the Wallaroo. Some long-headed people connected with the latter mine observed sundry small specimens of carbonate of copper on the ground,—some pits were sunk, and a fine lode of copper was met with at a

shallow depth. Several eighty-acre sections were secured by the fortunate prospectors, and this was the foundation of the wealthy Moonta Mining Company, and, during the first 20 months of its existence, dividends amounting to the sum of £64,000 were paid. The average yearly returns have been at the rate of 18,220 tons of ore; of the value of £197,270. The company employs 1600 hands, and the production is nearly, if not quite, 2000 tons per month; it owns 1600 acres of mineral land, which, as far as at present known, is the richest in the colony. The returns for 14 years show that the company have realized on ore sold £2,761,788, their working expenses having been £1,710,906; that they have paid to shareholders £928,000; and that they have raised 255,089 tons of ore, 21 cwts. to the ton. Further away to the north by north-east, and to the east of Port Augusta, there are enormous lodes of the richest copper and iron ores, which have been traced for miles on miles by competent and skilled mineralogists, and, as the country gets opened up by the ever-extending railway communication, this incalculable source of wealth will become the backbone of the colony's prosperity. There is a very remarkable mine situated close by the town of Strathalbyn; it is a silver lead mine, but the galena also contains a goodly per centage of gold. Its quality may be estimated from the following official returns—About 2000 tons were raised, and yielded 90,000 ozs. of silver. 70 per cent. of lead, and gold in the proportion of from 1 oz. to 2 ozs. to each ton of pig lead. It is perfectly certain that lead ore, rich in silver, abounds in the colony, but that it lies undeveloped is due to three causes —want of labour, capital, and railways. These difficulties will, however, gradually disappear with the influx of fresh population, bringing in capital and labour, and the inevitable necessity for the extension of the railway system throughout the mineral districts of the country. Gold was first discovered in the range of hills about twelve miles from Adelaide, and again about 20 miles

south-east at Echunga. A few hundreds of diggers did well by steady work, and some of the most successful made tolerable fortunes. In the aggregate about £600,000 worth of the metal was obtained. At Echunga there is a deposit of diamonds, and it is known positively that over 100 stones, varying in value from £1 to £20, have been disposed of. How many secret transactions there may have been, it is impossible to say. It is certain, however, that the place has never been worked in anything like a business manner. At the Barossa Ranges, ten miles east of Gawler, there is a gold-bearing quartz reef. The returns have varied from 7 dwts. to 1½ ozs. to the ton of quartz. Here also a good lode of fine copper was found associated with the gold, and both metals improve as the depth increases. The richest gold reef yet found in the colony is at Wankaringa, 200 miles north of Adelaide. It is in an excellent gold country, and extends for many miles east and west. Several good mines have been opened, and the value of the reef proved beyond doubt. Besides diamonds, other valuable stones and gems have been found in these localities, including amethyst, agate, beryl, bloodstone, carnelian, cairn-gorm, calcedony, emerald, garnet, lapis-lazuli, onyx, opal, ruby, sapphire, and topaz. The Bishop of Adelaide had a pastoral staff presented to him set with fine specimens of these native gems. *Bismuth* is found in several parts of the colony. The Balhannah mine, 16 miles to the south-east of Adelaide, contains an exceedingly rich deposit of this metal, and promises to be one of the most remarkable mines in the world. Copper was found associated with bismuth, and about £25,000 worth was raised; gold then appeared, and an average of 5 ozs. was obtained from each cwt. of bismuth. Cobalt, antimony, and plumbago are found in the ores from this mine. The bismuth ore contains from 20 to 80 per cent. of pure metal, and many thousands of pounds worth have been profitably disposed of. *Tin* has at present only been found in small quantities, but no systematic search has yet

been made. *Manganese* is known to exist in large quantities in the northern parts. *Zinc* occurs blended with copper and other ores. I have by no means exhausted the list of useful mineral products to be found throughout the colony, some of which are—asbetos, kaolin clay, fluorspar, fire-clay, mica, mercury, nickel, lignite, marble, platinum, schorl, salt, slate, soapstone and sulphur. There is good reason to believe that in the south-east districts there are large deposits of petroleum. Leases of mineral lands are obtainable on exceedingly liberal terms, the payment of a small annual fee giving the right of search, and leases are to be had by *bona fide* miners at 10s. an acre per annum. Every facility is given for developing the mineral riches of the country, in whatever branch the immigrant may select. The value of the minerals exported from South Australia, in 1878, was £374,501, less than half the previous four years, which was exclusive of the quantities retained for home uses. It is by no means too much to say that these figures might be easily quadrupled with the ingress of additional capital and labour, and these would form the panacea for all shortcomings in the colony.

Manufacturing Industries, &c.

In a colony so largely given to pastoral pursuits as South Australia, it follows that the production of wool and its export must always form a very prominent feature in its commercial returns. And to show how this product is estimated in the wool markets, at home and abroad, it is only necessary for me to state that the export trade has trebled itself within the past ten years. In the year 1878, the colony exported 118,502 bales of wool, of the value of £1,886,000. The year's return, however, owing to general commercial depression, is not so favourable as the three previous years. Thus, in 1875, the value of the wool exports was £2,088,227, and looking to the peculiar suitability of the climate for the rearing of sheep, the general freedom from disease, and

the security of the land tenure, there can be little doubt of the steady, if not rapid, progress of this important branch of staple produce. It is an unquestionable fact, and one that cannot be too strongly impressed upon the young immigrant's mind, that many of the wealthiest men in Australia began life either as shepherds or as squatters in a very humble way, just getting a few hundred sheep together gradually, and then becoming the rich masters of countless flocks and herds. The vast extent of good land suitable for pastoral purposes, and only waiting the the emigrant's selection, must commend itself to the serious consideration of all who contemplate this path in life. Next in importance to the disposal of the fleece, comes the disposal of the carcass, and this all-important subject—the preservation of animal food—has recently received an immense impetus in the modern system of sustaining an equable frigid temperature throughout a lengthened voyage. The export business of Australia in this branch is certain to become one of vast magnitude, and will furnish employment for thousands. The tinned preserved meat trade must not be overlooked; there are several establishments of this kind in the colony, and we in Great Britain are weekly buying enormous quantities from the Americans. It is the sincere desire of the author to see this trade more in the hands of his fellow-colonials. *Leather.*—The manufacture of this useful article of commerce holds an important position in the colony, but still it is capable of vast extension, skins and hides being plentiful, and there is abundant room for many more tanneries. The emigrant, whose previous pursuits fit him for this branch of life, should spare no pains to make himself thoroughly acquainted with the latest home and continental improvements in the art before he goes upon the voyage. He may possibly find that colonials know more about this, as well as other things, than he dreams of. *Woollen Manufactures.*—In the textile manufactures there is an ample field for safe investment and energetic extension.

The goods made in the colony are substantial; there is room, however, for considerable improvement. *Milling.*—This is necessarily an important trade, and offers a good prospect to the emigrant. There are about 90 steam mills in the colony. *Saw Mills.*—Of these there are 31 steam mills in active work. There are also 86 agricultural implement works, 29 coach and waggon builders' shops, and 27 foundries; 70 brick yards and 60 limekilns. Over 100 quarries of fine building stone have been opened, the free stone from which is of a very superior quality. Every other industry, which contributes to the well-being and comfort of civilized life, is to be found in the colony, all in active operation, but capable of vast extension. The value of the imports, for 1878, was £4,398,327, and of the exports £4,095,595, showing clearly there is no lack of supply or demand.

Wages.—Selecting only some of the principal trades, the rates are as follows:—

Bookbinders, 30s. to £3; finishers, 60s. to 70s.; bootmakers, day work, 40s. to 60s. per week; brassfounders, 9s. to 12s. per day; brickmakers, 13s. per 1000. Builders:—Stonemasons, 9s. to 10s. day; stonecutters, 9s. 6d.; plasterers, bricklayers, and carpenters, about the same, on the eight hours' system; labourers get from 6s. to 7s. day. Bakers, from 25s. to 55s. per week; basket makers, mostly canework, from 50s. to 67s.; butchers, 35s. to 50s.; slaughtermen, 30s. to 40s.; cabinetmakers, chiefly by piece work, when by time, 8½ hours, 8s. to 10s. Coachbuilders:—Smiths, 60s. to 70s.; wheelers, 50s. to 60s.; vicemen, 30s. to 40s. Coopers, by time, 8 hours, 8s. to 9s.; piece work by agreement. Coppersmiths, 9s. to 12s. day; drapers, 30s. to 70s. week; farriers, 45s. to 60s. week; gardeners, 6s. to 7s. day; gasfitters, 40s. to 60s. week—8s. to 10s. day work; gunsmiths, 9s. to 12s. day; ironworkers, 10s. to 11s. day; labourers, 6s. to 7s.; smiths, 9s. day; foundry hands, 6s. to 7s. day; moulders, 9s. day; engine drivers, 7s. to 10s. day; jewellers, ordinary, 50s. to 90s.; skilled workmen and engravers, £5 to £6 week; millers, 50s. to 60s.; plumbers, 11s. to 12s. day; painters and glaziers, 8s. to 10s. day; grainers, 10s.; printers, jobbing, 55s.; newspaper, 1s. per 1000; pressmen, 55s.; saddlers, mostly done by the piece; when by time, 10 hours, 5s. to 12s.; storemen, 30s. to 50s.; stone-breakers, 3s. per yard; tailors, 1s. per hour, day work. Tanners, first-class, 70s. to 90s.; beamsmen, 40s. to 50s.; curriers work all by the piece; watchmakers, 70s. to 80s.; station-hands, drovers, 20s. to 30s., with rations; shepherds, 17s. to 20s.; married couples, £52 to £75 per annum; bush

carpenters and blacksmiths, 30s. week; cooks, 17s. to 25s. week; boundary riders, 17s. to 25s., all with rations and expenses paid up to station. *Farm Hands:* Ploughmen, 20s. week; general, 20s. to 30s.; married couples, 20s. to 30s.; harvesters, 25s. to 35s.; youngsters, 4s. to 8s. week; teamsters, 20s. to 30s., all with board and lodging. *Female Domestics:* General, 8s. to 12s.; cooks, 10s. to 20s. week, with board and lodging; charwomen, 3s. to 4s. day; kitchenmaids, 8s. to 10s. week; housekeepers, 10s. to 20s. The average wages of miners, eight hours' shift, are 38s. to 48s.: on contract from 36s. to 40s.

The rent of dwellings, suitable for an artizan and his family, in Adelaide or its suburbs, is from 6s. to 15s. per week; in the country the rate is less. Great numbers reside in their own freehold cottages. The savings of a few years enables a man to accomplish this readily, and advances can always be obtained from the building societies, of which there are several throughout the colony. On farms, or sheep runs, cottages are provided and fuel and water. Single men may obtain board and lodging at private houses, from 15s to 18s. per week; superior class, 20s. to 30s.; single females, 10s. to 15s.; private lodgers at hotels 20s. to £4 4s. The cost of gas in towns is from 8s. to 12s. per 1000 feet; water, 1s. 6d. per 1000 gallons.

Railways, Telegraphs, Postal Communication, &c.

The railway system of South Australia is destined, and in a comparatively short period of time, to effect a complete revolution, both in the external aspect, as well as in the social relations of the settlers throughout the colony,—occupying, as it does, the broad central territory, which extends from the coasts of the Pacific to the Indian Oceans. It embraces, as the crow flies, a space of land 2400 miles in length, from Discovery Bay in the south to Port Darwin in the north. This is taken irrespective of Melville island and the adjacent Cape in the Indian Ocean, which is contiguous to the Gulf of Carpentaria. Its breadth includes 12° of longtitude, an area extending over more than 900,000 square miles. At present the south colonial

railway system looks to the intending emigrant only a very small affair, compared with what is going on around him in the home country. But let him remember that "Rome was not built in a day," and he will find in colonial life, far more so than elswhere, that from lit tle causes great effects arise." I have only to record that, in 1878, 393 miles of railway were opened, and 404 were in course of construction. There is, however, this consolation, that there is a widely spreading conviction in the colonial mind that one railway is worth a million of metalled roads. South Australia, like most other beginners in a new business, made sad mistakes in the way of extravagant expenditure at the outset, which mainly filled the pockets of the knowing ones. The chief line is that from Adelaide *via* Gawler, Kapunda, to Burra, 124 miles. The next of importance, in point of length, is Lacepede Bay and Naracoorte, 51 miles; then Port Wakefield and Blyth's Plains, 42 miles; next follows Port Wakefield and Wallaroo, 35 miles; and Port Pirie and Gladstone, 32 miles. They are single lines of 5ft. 3in. gauge. The number of passengers carried on the eight Government railways, in 1878, was 2,179,997; receipts, £131,754. Goods, 521,571 tons; receipts, £164,090. Every mile of railway that is constructed opens up a new source of wealth and comfort to the colonist of South Australia.

The Telegraph Service.

Roads.—The South Australians, mindful of the value of good communication, have devoted considerable sums of money to the construction and maintainance of roads throughout the settled districts. Upwards of 3,300 miles have been laid down at a cost of over £1,800,000, and this without levying any special toll or rate. There are over 1300 miles of macadamised roads, which are kept in first-rate order, the cost being defrayed from the general revenue. Fifty miles of metalled streets have been

made in Adelaide alone, at a cost of 1000 per mile. There are also many hundreds of miles of district or bye-roads, which are kept in repair by the local municipalities, out of a small rate levied on landed property, and by grants from the general revenue. *Postal Communication.*—The utmost care and energy has been devoted to the organisation of a good postal system—a work of no ordinary difficulty, considering the thinly peopled and extensive area of the outlying districts. Every place of the east importance has its Post Office and Money Order Office. A uniform rate of twopence per ½ oz. is charged upon letters carried to places within the Province, and a like rate upon those posted to the sister colonies of Australia. There are overland mails thrice a week, and regular intercolonial steam communication by sea. No charge is made for the carriage of newspapers, either inland or to any part of the world. Book packets and parcels are carried at a low rate, and extensive use is made of the system. Money orders may be obtained in all the principal towns; these orders may be made payable in the neighbouring colonies, in Great Britain and Ireland, Germany, Canada, and elsewhere. There is also direct and frequent postal communication between London and Adelaide, by the Royal Mail Steam Packets. The General Post Office in Adelaide is a large and commodious building of great architectural beauty, and would do credit to any capital in the world. *Telegraphic Communication.*—South Australia accomplished, single handed, the most extraordinary feat of telegraphic engineering that the annals of that science has on record. Between August, 1870, and August, 1872, a telegraphic line 2000 miles in length was, after innumerable difficulties, carried completely across the continent from Port Augusta in the south to Port Darwin in the extreme north, on the shores of the Indian Ocean. And this, too, through a country that had only once been traversed by an exploring party. Again and again had that stout-hearted explorer, Captain Sturt,

endeavoured to push his way across the heart of the continent, where it was thought there would be found a great inland sea. But he was not the destined man; for after undergoing incredible hardships from heat and scarcity of water, Sturt and the miserable remnant of his party succeeded in reaching Adelaide in 1846, after an absence of 18 months. The undying honour of being the first white man to cross the Australian continent, from south to north, was won by J. McDouall Stuart, who had previously accompanied Sturt as his draughtsman, and, after three several expeditions, carried on through enormous difficulties and the most trying disappointments, he gained the long coveted prize. On the 24th of July, 1862, he says, in his journal, after pursuing a northerly course:—

"At eight miles and a half came up in a broad valley of black alluvial soil, from this I can hear the wash of the sea. Stopped the horses whilst I advanced on to the beach, and was delighted and gratified to behold the water of the Indian Ocean."

For these important discoveries Stuart was rewarded by Government and the Parliament, and he also received the gold medal of the Royal Geographical Society. In a corresponding spirit of indomitable energy, the present Postmaster General and Superintendent of Telegraphs of South Australia, Charles Todd, C. M. G., and a chosen band of faithful *employés*, engaged to carry out the magnificent idea of uniting by means of the Electric Telegraph the vast continent of Australia with the whole civilized world. The difficulties of such an undertaking can hardly be estimated by a non-professional reader; the line had to be carried across a country for 2200 miles, 1350 of which were entirely unsettled by white men. For hundreds of miles this country was completely bare of timber, and everything had to be carted; the wire had to be brought from England, the insulators from Germany; then the white ants destroyed the timber poles, and iron ones had to be ordered from home. All sorts of disappointments and troubles had to be encountered.

At length, on the 22nd of August, 1872, the two ends of the wire were joined, and the line across the continent was an accomplished fact; congratulatory messages were transmitted to Mr. Todd from every part of the globe. After the completion of this work, the New Zealand and Australian cable was laid. This was completed early in 1876, and opened to the public on the 15th of February of that year. And thus that important colony was enabled to transmit its messages to all parts of the world, and the various fluctuations of the wool, grain, and food markets may be made known hourly if required. Every township and port of any importance is connected by means of the telegraph throughout the colony.

Government, Religion, Education, &c.

The Government of South Australia consists of the Governor, an Executive Council, and a Parliament. The Parliaments are triennial, with annual sessions. The qualifications for a member of the Legislative Council are, that he must be 30 years of age, and have resided three years in the colony. Indeed, it may be stated with confidence that in no country in the world can a greater degree of political freedom be found than exists in South Australia.

Religion.—With regard to religious worship, there is the utmost freedom and latitude in all respects.

Education.—It certainly speaks well for the educational energy of the South Australians, when it is stated that over 75 per cent. of the population can read and write; and that an annual grant of £60,000 is made by the Government towards the Education Department, and a like amount for the erection of public school-buildings.

Such is a very brief outline of the Colony of South Australia, which offers to the capitalist, or the working man, prospects of speedy success and prosperity he may struggle for in vain while he is content to remain in the old country.

THE COLONY OF QUEENSLAND.

Geographical and Descriptive.

THIS Colony occupies the whole of the north-eastern portion of the Australian continent. It extends from latitude 10° to 29° south, and from longitude 138° to 153½° east. It has an area of 669,520 square miles, or 420,492,800 acres, and is about eleven times larger than England. The eastern seaboard extends from Point Danger to Cape York, a distance of about 1500 miles; altogether the seaboard is about 2250 miles. The greater part of the southern boundary line is formed by the 29th parallel of south latitude. The breadth of the territory, near the southern boundary, is about 900 miles, extending from the eastern coast to the meridian of 138° east longitude, which forms the western boundary line of the colony, and here separating it from the neighbouring colony of South Australia. This includes a great part of the coast of the Gulf of Carpentaria, having a seaboard of about 750 miles. The northern portion of the continent was separated from New South Wales in 1859, and on the 10th of December of that year Sir G. F. Bowen, G.C.M.G., assumed the Governorship of the new colony, which was duly entitled "Queensland." The extreme northern portion of Queensland, Cape York, was discovered in 1605, by Torres, the Spanish navigator, after whom the Strait, which separates that part of Australia from New Guinea, was named Torres Strait. The Gulf of Carpentaria was discovered by a Dutch navigator, in 1606, and Captain Cook took possession of the country in 1770. The country extending along the eastern coast is indented with several fine bays and estuaries, which form the outlets of rivers.

The chief rivers on the eastern side, which coast is washed by the waters of the Pacific Ocean, are the Brisbane, the Mary, the Burnett, Fitzroy, Burdekin, Herbert, Johnstone, Daintree, and Endeavour. The great Murray river of Victoria and New South Wales drains south-western Queensland by the Condamine, Maranoa, and Warrego. The latter flows to the south-west, and is lost in the deserts of the interior. To the north-west is the river Barcoo, also named the Victoria, and this river also turns to the south-west, being lost in the desert. To the north-east flows the Mackenzie river, one of the chief tributaries of the Fitzroy. To the south the River Maranoa unites with the Baloune, and with it waters the Fitzroy Downs. The Burdekin is an important river; it is considered to be about 400 miles in length, and by its tributaries drains a very large extent of country. At a distance of 50 miles from the coast it receives the tributary River Suttor, and here it is about half a mile in width. The creeks and streams opening into the lower part of the Burdekin are known to be gold-bearing. There is a small settlement—Port Denison—situated at the mouth of the river, in the neighbourhood of the gold locality. Moreton Bay, which is the longest settled district, receives the river Brisbane, upon the banks of which the capital city is built. Moreton and Stradbroke Islands enclose the bay to the east, and so shelter it from the roll of the Pacific Ocean. The River Fitzroy falls into the sea at Keppel Bay, an inlet protected by Curtis Island. On the southern side of this Island is Port Curtis and the town of Gladstone, and higher up the river is Rockhampton; both these places form convenient outlets for the districts of the interior. On the Mackenzie and Dawson rivers there are some of the very finest sheep runs in the colony, where there is a large extent of land of the best quality, and much of it open for selection. A mountain range extends north and south nearly throughout the entire extent of the colony. This range runs generally parallel

with the coast, and at an average distance of about 50 miles from it. Between the range and the sea, especially on the banks of the rivers, there is a considerable quantity of first-class alluvial land, which in some parts is covered by a dense growth of timber. In the more settled parts much of the land has been cleared and cultivated, and has turned out very remunerative. To the west of the dividing range of mountains there is a large extent of table land, well elevated, and almost entirely devoid of timber. This land is well grassed and watered, and within a certain distance of the mountains, where the rainfall is tolerably regular, the land is well adapted for the production of wheat. This cultivation has been most successfully carried out upon the Darling Downs, which at present forms the chief granary of the colony. The Darling range of highlands commences on the south shores, between Capes D'Entrecasteaux and Chatham, and extends as far as 40 miles to the north of Perth in Western Australia. Its highest elevation does not exceed 1000 feet above the sea, and is generally several hundred feet below that. The range is of granitoid formation, and it possesses the broad swelling summits, so characteristic of it. The thriving town of Warwick, 165 miles south-west of Brisbane, is the chief commercial centre of the great wheat-growing districts of the Darling Downs. The mountain range and the river were named after General R. Darling, who was Governor of New South Wales from 1825 to 1831; while the Brisbane was named after Major General Sir T. Brisbane, K.C.B., who was Governor from 1821 to 1825. Again, further to the west, there are vast plains of fine pastoral country, which are watered by the Rivers Warrego, Paroo, Thompson, and other tributaries, which form the watershed of the vast district of this portion of Qeensland. The larger portion of this land possesses high fattening qualities, and its capacity is sufficient to supply every demand for land for many years to come, and where countless herds may be raised and

largely multiplied. When the easy terms upon which this land may be obtained is examined, it will be evident that any man, with ordinary industry, may have as much as he can desire. In the northern part, approaching the Gulf of Carpentaria, that portion of the country is traversed by numerous rivers, which ultimately flow into the Gulf. Of these rivers, the most noteworthy are the Flinders, Leichardt, Mitchell, Norman, Gilbert, and other smaller streams. There is unlimited scope for selection in all this portion of the Province. The intending settler will, however, do well to keep in mind, both on account of his own health and of his family, if any, that the further he goes north, the more tropical the climate becomes; the heat, however, is more moderate on the uplands. Many of these parts are rich in gold, and it is quite certain that numerous Englishmen and Europeans are continuously engaged in the laborious occupation of gold mining and washing. There is a new settlement in the northern part, on the inner shore of the Gulf of Carpentaria; it is situated on the Norman river, being appropriately named "Normantown," and serves as an outlet and *depôt* of supply for the surrounding districts. Further to the west there is Burketown, on the Albert river. This town is named after the intrepid traveller O'Harra Burke, who was the leader of an expedition, fitted out by the Victorian Government, to find a way across the continent to the Gulf of Carpentaria. Burke was accompanied by an equally gallant companion, Wills, and they succeeded in their object, and reached the shores of the Gulf. Somehow or the other the expedition was sadly mismanaged, and the unfortunate men got back as far as Cooper's Creek on the River Cooper. Here, worn out by hunger, thirst, and fatigue, these brave and long enduring men fell in their strife with a tropical climate. Almost within sight of home, they laid down utterly worn out and exhausted, and there they died. The Victorian Government sent out an expedition to recover the remains of

these brave men, and they were brought back to Melbourne for sepulture, where they received all the honours of a public funeral. Notwithstanding that we have lost many a noble heart in our Australian explorations, yet all have borne valuable fruit. We are no longer ignorant of the internal character of the country; it is not the arid worthless desert so many have believed it to be, but it contains vast areas of well grassed and well watered country, capable of yielding abundant food and raiment for millions of people. Each settler becomes not only a link of inter-communication, and thus safely opening up the country, but his labour upon the land and in planting it will inevitably tend to greatly improve the climate by increasing its humidity.

Climate and Meteorology.

The climate of Queensland varies to a great extent, between its southern and northern regions. In the south the average temperature is much more moderate than that of the northern part towards the Gulf of Carpentaria. The prevalence of the south-east trade winds, blowing off the cool ocean, moderates the air in a very important degree. So much is this the case, that men very rarely lose a day's work through the weather. The heat, though at times very trying, is not injurious to an ordinary temperate constitution, because the air is dry and unaccompanied by the deadly malaria of moister climates. One grand preventive of this terrible complaint, which is the curse of the country around Rome, and other like situated cities, is the growth of the vast numbers of gum trees (*Eucalypti*) growing in the scrub. The balsamic odour given off by its leaves and branches is highly efficacious in counteracting feverish and aguish symtoms; whilst from its rapid mode of growth, its roots extend over a large area, and these rapidly absorb the stagnant water of marshy land, the prime source of marsh fever and ague. From an extensive experience of the value and cultivation of these plants, on my own

property, I cannot too strongly recommend the settler to plant them wherever he may have swampy land that requires drying up. The chewing of the leaves is said to be a complete cure for cold in the head, and certainly I found many uses for the foliage and branches in the household. The fresh leaves are pleasant in a warm bath, and the expressed juice forms an excellent perfume for soap. I have been led into this little digression because I am thoroughly convinced of its practical character. The most important point to the new settler in the preservation of his own health, and that of his family, is temperate living. Have a sufficient quantity of good plain food, of which there will be plenty, and avoid ardent spirits of all kinds, more especially during the heat of the day. The rainfall varies greatly in different parts of the colony; thus in the western interior, the annual fall may not exceed 20 inches, the average of London being 26 inches. At Brisbane the average fall for 16 years was 52 inches. At some parts of the north-east coast, the fall of rain exceeds 100 inches; thus at Herbert river 100 inches fell in 130 days. The coldest months of the year are June, July, and August, and the hottest December, January, and February. April and May are generally fine, and the weather exceedingly beautiful; but towards the end of May there are frequently heavy falls of rain,—as a rule, it may be regarded as a wet month. From June to September there is an average of 15 wet days per month, and the falls are simply torrents. But the good this rain does to the country at large makes it welcome to all. I fully participate, and cordially reciprocate, the following words, written by Charles Todd, C.M.G., F.R.A.S., to whose labours I have had occasion to refer in my work on "South Australia." His words are:—

"The fact is, that people here never complain of rain; on the contrary, a wet day is generally announced by such expressions as 'Splendid rain to day, I hope it is general;' 'What fine rains we are having, they extend

well north;' and they only who know what it is to have consecutive weeks, and, in some parts, many months, of unclouded sky and hot sun can appreciate the real luxury of rain."

The rainfall in the colony, dividing it into three parts, Southern, Central, and Northern, is on an average of many years as follows:—Southern Coast, taken at Cleveland, 49·33 inches; Central Division, taken at Keppel Bay, 38·47 inches; Northern, Cardwell, 114·83 inches; Inland, Ipswich, 53·44 inches; Westwood, 88·60 inches. The average temperature of Brisbane is equal, in all respects, to that of Madeira, and is, therefore, a healthy resort for the delicate; when too warm, higher regions must be sought. In point of fact, the immigrant can choose his own climate; if he remains south, he has all the advantages of a temperately mild southern climate, with its cereals, fruits, flowers, and health-giving properties of an exquisitely pure atmosphere. If he tends towards the north, he has the choice of a tropical or semi-tropical temperature, where all the vegetable products of these zones grow and flourish in ample profusion, and where Nature never wearies of pouring forth her abundant produce. In these regions, so favoured for vegetation, the following grow freely and yield abundant crops:—Peaches, bananas, dates, mangoes, pine-apples, guavas, coffee, tea, sugar, arrowroot, tapioca, maize, chicory, rice, oranges, grapes, cotton, and cocoanuts, as well as the old fashioned matters of apples, gooseberries, strawberries, potatoes, mangold wurzel, and other produce. In face of all these unquestionable facts, I do not think the intending emigrant need fear the wants of the necessaries of life. But they have to be sown and cultivated; these things are not found in the sandy desert, or on the rolling prairie, they are one of the resulting blessings which spring out from the introduction of civilized man into an otherwise well-nigh useless region, capable only of sustaining a horde of aborigines.

The Mineral Products of Queensland.

It would be no difficult task, on my part, to weary the reader as to the mineral wealth of the north-eastern portion of Australia, of which I am now treating. What has been done in the way of production of gold, copper, and coal, and other useful minerals, in the sister Provinces of New South Wales, Victoria, South and West Australia, sufficiently attest the richness of the whole country in this respect. It is quite within the bounds of probability that ere many years are gone by Australia and New Zealand will become the chief sources of supply of those important elements of industry—iron, copper, and coal. The gold-fields, however, of Queensland must not by any means be overlooked; they afford employment and sustenance to a large and industrious section of the community, and have yielded an important addition to the revenue. Thus, in the year 1877, the exports of the three metals stood as follows:—Gold, £1,611,108; copper, £167,337; tin, £133,432. It was in 1874 that the gold fields in the far north, on the Palmer River, were discovered, and soon attracted a mining population thither. In the census of 1876 they were returned as 9215 persons. Somewhat further north-east, and situated on the Endeavour River, is Cooktown, and this forms at present the port for the mining district. The Customs revenue and wharfage rates yielded for 1875 (latest return) £117,433, and for land £11,013. Since then rich gold reefs have been discovered on the Hodkinson River, a little to the south of the Palmer. The Hodkinson gold-fields are about 70 miles from the coast, at Trinity Bay, one of the finest harbours on the eastern coast. A dray road has been formed, and a port established, named "Cairns." Good machinery will be speedily erected, and this part will ere long be one of the richest auriferous industries in the colony. One of the most important gold-fields in the south of Queensland is "Gympie;" it is situated on the Mary River, about 60 miles from its mouth, though not

more than 30 miles from the coast. Between 1868 and 1872 this mine transmitted gold of the value of upwards of £1,000,000 sterling. Charters Towers lies to the west of the Burdekin River; in 1877 the escort took down 87,200 ozs. A crushing of 50 tons has given as much as 600 ozs. These gold-fields lie at an elevation of 1000 ft., and the nights are cool and pleasant, although they lie within the tropics. Etheridge, the Normanby, and the Gilbert are diggings in the far north, where there are rich deposits, but the distance from any port renders the crushing very expensive. New deposits are continually announced. As regards a miner's rights, any man may dig for himself, or work for another, by paying 10s. a year. He can have a claim in any proclaimed area for *dry alluvial digging* 40ft. by 40ft.; two can have 40ft. by 80ft., and so on. In wet ground two have 100ft. by 50ft., and four 100ft. by 100ft. Claims may be transferred; that is to say, from one miner to another. Now, for quartz, the claim is 40ft. on the line of stone reef, with a width of 400ft. Six claims of this area are allowed to one party. The discoverer of a new field, or fresh reef, has an extension of claim granted to him, according to the distance of the discovery from another working. Leases of auriferous grounds are given for five years. These may be eight acres of alluvial, 500 yards of river bed, or 400 yards of reef. The annual rent is £5 per acre, and £5 for each 100ft. on stream or vein. A charge of £3 per annum is made on business licenses on the gold-fields. Chinese miners pay a fee of £10 on admission to the colony, and £3 a year for a miner's right. Their business license is £10 per annum.

Copper.—Queensland will yet hold her own against all comers in the production of copper. The metal and its indications have been found over a vast area of country, but the development of this branch of industry requires capital, tact, and thorough practical knowledge of all the branches of the arts of cupellation and smelting. These acquirements have in one direction or

another been lamentably deficient. For my purpose, at the moment, it is sufficient for me to quote the Peake Down's mine, which sent down copper to the value of £1,000,000, and paid £215,000 in dividends in five years. But the shareholders had to struggle against great difficulties; they had to contend with heavy cost for land carriage, high wages, and reduced prices for the metal in England; yet, with a little remodification, it is now making good progress. The new company will send the ore direct to England to be smelted, though, doubtless, this will soon be done in the colony, upon the introduction of suitable machinery and additional labour. Mount Perry is a valuable mine, and is now being put in railway communication with an adjacent port. The Cloncurry ruby copper is very rich, and is treated in the same manner as the auriferous quartz. Other valuable copper deposits are at Kroombit, near Calliope, Mount Wyatt, Star River, Upper Dawson, Rawbelle, Cressbrook, Normanby, Nebo, and many others. In fact, the colony abounds in copper, but requires capital and labour for its development. In the year 1876, 9334 tons of ore produced 2102 tons of metal, realising, as an export, £172,382. *Iron.*—Chrome ore is found in large deposits near Ipswich and Rockhampton. In the district of the Carpentarian Desert, the red oxide sandstone was found to contain from 60 to 70 per cent. There are immense bands of ore in central Queensland that are associated with limestone and coal, and consequently in the best possible position for reducing. Hematite abounds on the Darling Downs, where there is also lime and coal. The iron manufacture of Queensland would be second to none with the introduction of capital and labour. *Tin.*—The stanniferous area of the southern part is estimated at 500 square miles, and the ore is readily separated from the soil. The town of Stanthorpe is favourably situated near Warwick, from which important town a rail runs to Brisbane. Rich deposits are found at the Palmer diggings in the north; the tin

there helps the miner to make up for a scant supply of gold. The great drawback is the cost of carriage to and fro. The export of ore during 1876 was valued at £166,237. *Lead and other Metals.*—Galena, silver lead, occurs at Dreghorn, near Ravenswood, at Quart Pot Creek, and doubtless in many other localities, if searched. Antimony, both in the sulphate and oxide forms, has been obtained at St. John's Creek, in the Burnett district, and at the Hodkinson diggings. Mercury, in the form of cinnabar, is met with in several lodes at Kilkivan. Cobalt, with Nickel, at Port Curtis; Bismuth at Cloncurry, often associated with gold. Zinc blende is found in the Wide Bay district. Manganese and Plumbago may be profitably worked. *Coal.*—It is stated by Mr. Daintree, the Colonial Geologist, that the coal area considerably exceeds half the area of England. The Tivoli, Aerdare, and other pits of the West Moreton district, pay well. The coal has been sold in California for a higher price than that from New South Wales, and the coke is preferred to that from Wallsend. It is considered that the secondary coals found in the south, and the primary in central Queensland. But the cost of carriage, and the very limited supply of labour, prevents the more highly bituminous qualities from reaching the market. With capital, scientific appliances, and cheap carriage, this branch of industry must become one of vast extent. The Ipswich beds alone are estimated to have 15,000,000 tons on ten square miles, while those of Darling Downs are inexhaustible. *Stone.*—There are beautiful marbles in great quantity; granites of all shades; lime and freestone; slate, porphyry, and basalt. In the tin streams are found diamonds, sapphires, garnets, topazes, aquamarine, and others. At Cloncurry fine specimens of the sardonyx and the agate are frequently met with. Opal occurs in large masses in the western Barcoo lands. There is ample room for the employment of capital and labour in every branch of mining enterprise. Mineral lands,

not containing gold, may be purchased at 30s. per acre in blocks of from 20 to 320 acres. A deposit of 5s. per acre is paid, and the balance within twelve months; but the deed is not given up, unless at least £1 per acre has been expended during the first two years. Transferable leases to search for minerals are granted; and leases for 99 years are allowed at 5s. a year per acre, and 10s. a man employed must be paid per annum to Government. Coal licenses are granted upon special terms.

Land, Agriculture, Produce, &c.

The agricultural prosperity of Queensland has been brought about entirely by encouraging immigration, and ofering the land to the selector upon easy and favourable terms. Land may be selected before and after survey, in certain proclaimed areas. At stated periodical intervals the Government has auction sales of land. The purchaser pays a deposit of one-fifth, and the balance within a month. The upset for town locks is £8 per acre; for suburban, £1; and for country, 10s. Town lots are from two roods to an acre; suburban are from one acre to 30 acres,—that is, if within a mile of the town; but from 40 acres to 60 acres beyond a mile. Country land may be from 40 acres to 640 acres; if unsold, then such land is open to selection for a term of years at the upset price. There is what is termed "conditional purchase selection," and "homested selection." These are alike in the payment of annual sums to secure the freehold deed or Crown grant, the annual rent being part of the purchase-money. Both are subject to the stipulation that 10s. per acre be expended per year on improvements on the land. The conditional purchaser has the power to put the land in charge of a bailiff, who must be registered. The homestead selector must reside on the farm himself. The conditional selector pays 1s. per acre for ten years, and may have from 40 acres to 5120 acres, except where limited by proclamation. The

homestead purchaser can have from 1 acre to 80 acres in the homestead area itself, or up to 160 acres outside the area, or he may have a portion of each quality to make up the amount, for which he pays but 6d. a year for five years. Volunteers receive land orders for 50 acres in the country, or ten in the suburban districts, and they are not subject to conditions of residence or improvements. The homestead areas, which are limited to 80 acres for each person, are always of the best agricultural land. The Government always favours the homestead selector, as it desires the settlement of the land in moderate sized farms by responsible parties. This most excellent arrangement has proved a great success in the colony. Applications for blocks of land are to be made in person at the Land Office of the district. If it has not been surveyed, the applicant must deposit at the office a rough plan of the block he desires, with a clear description, showing the regulation frontage. The survey fee and the first year's rent must be paid in advance ; the fees charged are according to the extent of the selection. For land that has been surveyed the fee is one-half. It is advisable in selecting land to have a portion of pastoral, and the other portion of the better agricultural. It may be here observed that selections are rarely allowed near gold diggings. Improvements made by previous occupiers are paid for, either by agreement or arbitration. Either male or female may be a selector, if over 18 years of age; the latter may be unmarried, judicially separated or protected. At tho end of five years for a homestead, or of ten years for a conditional purchase, the land becomes a freehold, provided the conditions have been complied with. Should the selector die before the completion of the lease, the rights of the heir are respected. If no will is made (I earnestly advise that in all cases this be done), then the land devolves on the widow, or to the children in equal shares, if none, then to the next of kin. It is impossible to lay down fairer terms. A successor cannot sell a

homestead until two years after the selector's death. This is a very wise provision; it gives time to learn who has really the title. No land held under conditional purchase can be seized for debt, except by the insolvency of the selector. In that case the trustee stands in the place of the selector, after two years from the date of the adjudication. No homestead selection can be taken for debt, or pass to a trustee during the five years of payment. The upset price of poor country is 5s. per acre up to 5120 acres; that in the unsettled part of Darling Downs, or Wide Bay and Burnett, is 10s. In the settled portions of Moreton, Darling Downs, Wide Bay, and Burnett, the upset is from 10s. to 40s. to conditional selectors. There are homestead areas there extending over nearly 1,000,000 of acres open to selection. Land for growing sugar may be had up to 1280 acres at 10s. per acre. At Cape York Peninsular, where the land is much richer, each selector's area is limited to 640 acres. Special leases for plots under five acres are granted for wharves, gas works, baths, and other objects for public benefit, at £1 per acre, for 21 years. Pastoral runs, in the unsettled districts, are leased for 21 years, in blocks of not less than 25 square miles, at 5s. per mile, for the first seven years ; 10s. for the next seven years ; and 15s. for the third seven years ; the conditions being the stocking of the land equal to one-fourth of its carrying capacity, and that is stipulated to be 20 head of cattle, or 100 sheep per square mile. The principal wheat growing district at present is on the southern highlands of the Darling Downs; the soil is of volcanic origin, and yields magnificent crops. Here, also, heavy returns are obtained from mangold-wurzel, potatoes, apples, and all the ordinary fruits. Maize may be looked upon as the staple crop; it ripens quickly, and serves for grain and fodder. In the south and south-west, the vine produces bunches of grapes of extra-ordinary weight. Arrowroot is largely cultivated, as there is a constant demand for it in a warm climate. Oranges, peaches,

bananas, dates, guavas, pine-apples, and mangoes, all grow luxuriantly. Rice, tea, coffee, and sugar all do well in suitably selected localities. Sugar-growing is an industry that cannot fail to become an important feature of Queensland produce. Cotton flourishes well, and the staple has met with high approval; the plant is perennial there, and the picking furnishes agreeable and light labour for the emigrant's children. With cheap labour it pays well; and there is always a demand for the produce; the seed in cakes forms a splendid food for milch cows. There is no country in the world better suited for growing cotton, both as regards soil and climate than Queensland; it will grow almost anywhere. The growing of the sugar cane is rapidly extending; in 1878 there were 13,690 acres in crop, and it often averages two tons to the acre. It succeeds perfectly at Mackay, the Herbert, and the northern river flats, where it has been known to grow 18 inches in a week. Small farmers do well by growing the cane, and selling the juice to local sugar manufacturers. Within 20 miles of Port Mackay there is land enough, it is officially stated, to produce 120,000 tons of sugar a year. Thick coarse grass lands do best for the cane; a few acres are cleared and burnt, the hoe is sufficient to prepare the soil for the cuttings, which then only requires weeding. A very profitable return may be made by growing tobacco, a plant by no means difficult of cultivation. Both the American and the Persian varieties grow freely and yield heavy crops. Sweet potatoes may be grown to advantage; they are an excellent vegetable for a warm climate, and are much esteemed in the colony. The silk mulberry should not by any means be overlooked; it thrives luxuriantly, and the rearing of the worm should be taken up with zeal by the wives and children, not only for the silk, but for the grain or eggs. The latter sell readily, even in Italy, where the insect is too frequently liable to disease. There is every reason to believe that the silk culture will become a highly important branch of

the industries of Queensland. Any specific information that the immigrant may require, upon the culture of any of the foregoing plants, will be readily supplied upon application to the Colonial Botanist; Walter Hill, Esq., is the gentleman at present holding the appointment. Turning to fodder plants, the following thrive well:—The prickly comfrey, sorghum, red grass, Kentucky blue grass, American clover alfalfa, and giant rye. All kinds of seeds and plants may be readily obtained from the principal towns, and transmitted throughout the colony. Among the native woods suitable for industrial purposes, there are several varieties of the *Eucalypti*, the timber of which is used for building purposes, cabinet work, &c. The Norfolk Island pine furnishes an excellent timber; this tree is of the genus *Araucaria*, of which there are many kinds growing throughout the colony. The timber of these trees is applied to a variety of useful purposes. A useful wood for furniture is obtained from a variety of the cypress (*Callitris arenosa*). There are vast forests of this tree growing on the Moreton and Stradbroke Islands, at the mouth of Moreton Bay. The Moreton Bay chesnut is another fine tree, producing good wood; it grows from 70ft. to 100ft. in height. In December it is covered with a profusion of flame-coloured blossoms; these give place to pods ten inches long, filled with seeds like chestnuts, which are eaten greedily by the natives. The seed of another tree, of which they are extravagantly fond, and named by them "Bunya-bunya," is the *A. Bidwelli*. This tree grows 130ft. high; its fruit is a cone twelve inches long, and the seeds are eaten roasted. The timber is of excellent quality. So highly do the natives esteem the seed, that the trees are divided among families and they are treated as hereditary property, the only instance of legal disposition known among them. The tulip wood is one greatly admired in cabinet work, so also is the milk-wood, the he-oak and the she-oak, and the blackwood, a good substitute for walnut. The names are those given by early

settlers or workers in these materials. There are many others which are applied to various purposes in the arts, and the culture of our own familiar forest trees has been carefully fostered by the Government and the intelligent settlers. The same may be said also as regards all home produce, whether of vegetables, fruits, or flowers; all will be found growing in profusion, and may be readily obtained by the immigrant.

Manufacturing Industries, Wages, &c.

In Queensland the manufacturing industries established in the colony have made astonishing progress within a few years. The Government has, with great wisdom and foresight, aided the good work by grants of land to capitalists to start trades, and by giving a bonus for their successful establishment. For example, a bonus of £1000 was given for the first manufacture of woollen cloth; and £1500 for the first cotton factory. The Agricultural Society offer prizes for £100 for the best mowing or reaping machine made in the colony. There are now numerous manufacturers of agricultural implements, and plenty of demand for many more. Between 1861 and 1877 the manufacturing industries increased in the ratio of forty times. The latest official return (1878) gives the number of manufactories at Brisbane as 173; Logan, 57; Maryborough, 52; Toowoomba, 49; Ipswich, 41; Mackay, 36; Warwick, 19; Clermont, 16; Rockhampton, 13. Among these are to be found 70 sugar mills, 30 arrowroot factories, 50 brickworks, 34 printing offices, 37 steam saw mills, 12 distilleries, 21 iron, tin, and antimony works, ten foundries, five engine works, 43 carriage and cart factories, ten ship builders, three boot factories by machinery, three ice manufactories, and many others, representing every want of civilized human life. On the gold-fields there were 74 steam engines, with 550 stamping heads, and a plant of the value of £347,910. On farms and stations there were 214 steam engines.

The woollen manufacture has proved a great success, and the cloths are equal to the best tweeds of England. The cotton manufacture is capable of very great extension, and will be largely remunerative. Wine making more than doubles its returns each year. A regular scale of grants continue to be made to capitalists under the Native Industries Act of Parliament. The man with money has a wide field for investment, and if he combines with this a knowledge of business, a most prosperous career is before him. *Wages.*—The following is a brief selection:—

Brassfounders, 10s. to 12s. a day; brickmakers, 7s. to 8s.; bricklayers, 10s.; labourers, 7s.; blacksmiths, 10s. to 12s.; coopers, 10s.; engineers, 12s.; plumbers, 10s. to 12s.; painters, 10s. to 12s.; quarrymen, 8s. to 10s.; shoeing-smiths, 10s. to 12s.; shoemakers, 9s.; shipwrights, 10s. to 12s.; stonedressers, 9s. to 10s.; tailors, 10s.; wheelwrights, 10s.; whitesmiths, 10s.; agricultural labourers, married, £40 to £50 per year, with rations; single do., £35 to £50; boys, £12 to £16—£25 to £30; butchers, £75 to £90; bakers, £50 to £60; coachmen, £45 to £50; gardeners, £45 to £60; grooms, £45 to £50. Females, with rations: Cooks, £40 to £50; housekeepers, £35 to £40; housemaids, £25 to £30; nurses, £30 to £35; waitresses, £30 to £35; nursemaids, £18 to £25; ladies' maids, £25 to £35; domestic servants, single for country, £28 to £35, for town, 8s. to 15s. per week.

It must be borne in mind that the difference between the standard rate of wages and the cost of living, indicates the advantages of colonial life over that at home. Let us look at the prices of food. Flour, £14 a ton; sweet potatoes, £4, ordinary potatoes, £8; meat, 4d. lb.; tea, 2s.; butter, 1s. 4d.; arrowroot, 3½d.; bacon, 10d. to 1s. 1d. Fruit and vegetables are cheaper than in England. With this scale of wages and prices before him, surely any working man, with the most ordinary capacity, could make a good living and save money; this is precisely the element colonials will welcome and assist to an honourable independence

GOVERNMENT, RELIGION, EDUCATION, &c.

The history of the world affords no better example of good government than that of Great Britain and Ireland; the *vox populi* is supreme, and this democratic principle is carried out upon even a more liberal scale in her Australian colonies. The Government of Queensland has at its head the Governor, appointed by Her Majesty the Queen, and an Executive Council, composed of the responsible Ministers of the Crown. The Legislature is formed of two Houses of Parliament—the Legislative Council or the Upper House, and the Legislative Assembly or Lower House. The members of the Council are appointed by the Governor. The members of the Assembly are elected by the suffrages of the people; there is no property qualification required for membership in either branch of the Legislature. The franchise is on the most liberal footing; every man of 21 years of age, who has resided six months in one locality, is entitled to a vote. The voting for members is by ballot. Persons having property, either leasehold or freehold, or a license to depasture lands in any electoral district in which they do not reside, have the right of a vote in any district in which such property may be situated, as well as in the district for which they claim as residents. It would indeed be hard to conceive a more liberal system of giving to every man a voice in the governing power of the country. The Upper Chamber of the Legislature at present consists of 29 members, and the House of Assembly of 55 members, returned from 42 districts, and all this springs from a colony only in the 21st year of her existence. Well might the first Napoleon fling at us his oft-repeated envious sarcasm—"It is her ships, *colonies*, and commerce." *Religion.*—In this respect there is the same latitude and freedom as in political domain. The Church of England heads the list in point of numbers. According to the latest available return, the number of members stood at 61,962; Roman Catholics, 43,147;

Presbyterians, 18,947; Lutherans, 12,174; Methodists, 11,065; Baptists, 4344; Independents, 3560; Jews, 427. All sects are equally free, and have equal rights in the sight of the law. Other sects are well represented throughout the colony, and at the diggings, religious services are well and regularly attended. *Education.*—To the colony of Queensland belongs the honour of being the first to establish a school system open to all without fees or religious restraint. The higher branches of education are represented by Schools of Art, Free Libraries, and Mechanics' Institutes; many of these admirable institutions receive State support. There are also Grammar Schools aided by Government, as well as grants for University scholarships. By an official return there were 170 State schools, with 28,923 scholars. In 25 non-vested schools there were 58,566, and in 67 provisional ones there were 2057. In 53 private schools there were 116 teachers and 2539 pupils. Teachers' salaries range according to class. Masters are paid from £100 to £230 per annum, with a residence. Mistresses receive from £80 to £170. Thus the children of every settler may receive a good education entirely free, and enjoy other educational advantages that in all probability never fell to the lot of the parents.

Railways, Post Offices, Telegraphs, &c.

The Government being fully aware of the importance of railway communication, in opening up for settlement a new country, have not hesitated to incur a considerable amount of public debt to carry out this laudable design. There are now upwards of 370 miles of railway open and in full working order, the annual revenue being about £212,000. There are also 216 miles in the course of construction. The greater the number who settle in the colony the more rapidly the work will proceed. *Post Office.*—All the places of any importance in the colony have post-offices established in them, and admirably served. The

money-order system is carried on with the same attention to the public convenience as at home. A penny post exists in the capital; there is also a twopenny rate, by which letters are conveyed throughout the Province, and to the neighbouring colonies of Australia. *Telegraphs.*—The electric telegraph lines are steadily extending; at present there are 140 stations, with 5033 miles of line. The number of messages transmitted in 1877 was 512,093, and the revenue was £45,262, and this, too, with a population of only 206,522 in the entire colony. This was the return made up to June 30th, 1878. The telegraph charge is 1s. for ten words throughout the colony.

Government Savings Bank, &c.

This is a very important feature to those who have capital to send out. Deposits are received from intending emigrants at the Queensland Government Office, Charing Cross, London, up to £3000, bearing interest at the rate of 2½ per cent. per annum, from the date of the deposit until the arrival of the immigrants in the colony. For small sums, not exceeding £200, the rate of interest on the first £100 is five per cent., and four per cent. on the second £100. The deposit, or any part, is repayable at any branch of the Government Savings Bank throughout the colony. Passengers desiring to transmit money to the colony, for use on their arrival, may obtain the necessary form of declaration either from the Government Office, or through a local agent, or from the Government despatching officer on board the ship. A printed form of receipt will be given to the depositor, and on arriving in the colony he will be furnished with a pass-book, so that he can withdraw it as he requires. So long as it remains in the bank it bears interest. That this aid to thrift is fully appreciated by the colonials is shown by the returns for 1878, when there were 14,383 depositors, having deposits to the amount of £702,312. There are also six

Joint-stock Banks in the colony, with deposits to the amount of £3,912,275, and a note circulation of £371,758. Thus there is every facility either for the capitalist to invest his thousands to advantage, or for the working man to put by his few shillings, in time to become pounds.

Such is the Colony of Queensland. She presents to the intending settler a wondrous field of natural wealth and substantial comfort; she offers a bright reward for enterprise and energy, and to one and all her motto is, "COME, AND WELCOME!"

THE COLONY OF WESTERN AUSTRALIA.

THERE is something very extraordinary in the fact that while the neighbouring colonies of Australia have year by year made such remarkable progress, that the western portion should have remained so long in a comparatively dormant state. Yet so it is; its magnificent natural resources of soil and mineral wealth are developed only to a very small extent, as compared with what they might be, with the aids of commercial enterprise and capital. Doubtless it will take its place side by side with the more wealthy and energetic sister colonies, but this will be a work of time. A wider and more intimate acquaintance with the substantial advantages of Western Australia will largely assist in this object, and I earnestly hope to be of use to my fellow-colonials in this respect. The colony of Swan River, as it was at first designated, was founded in the year 1829, under the title of the "Swan River Settlement;" Captain James Stirling was appointed Lieutenant Governor, and commenced his official duties on the 1st of June of the year named. Its area comprises the whole portion of New Holland, situated to the westward of 129° of east longitude; its greatest length from north to south is 1280 miles, by 800 miles in breadth from east to west. The area is estimated to contain not less than 1,000,000 square miles. The settled portions, however, are confined to a few mere strips of land at different points of the coast line. Generally speaking, the aspect of the shores, as viewed from the sea, is low, and does not present any very remarkable peaks, or remarkable lines of elevation. The southern portion of the

coast extends from Eucla, the western boundary of South Australia; from this point the dividing line is carried right across the continent to the northern coast, emerging a little to the eastward of Cambridge Gulf, which forms an inlet from the Indian Ocean. The principal points on the south-coast are Cape Arid, Esperance Bay, and King George's Sound, the entrance to which lies between bold headlands, having a lofty mountain range in the background. To the eastward of the Sound lies the settlement of Albany, which forms a coaling station, for supplying the mail steamers with fuel at their periodical calls. Passing round the coast to the south-east, we round Cape Leeuwin, on which the thriving little port of Augusta is placed. Here an extending business is being carried on by a prosperous body of settlers. To the north of Augusta the coast is indented by a fine bay, named Geographic Bay, by a French navigator. The coast of this bay is noteworthy, on account of its basaltic character, which bears a close resemblance to the celebrated Giant's Causeway on the Coast of Ireland. Augusta is situated on the River Blackwood, and in the valley of the river, and on the lands on either side, there is a vast extent of valuable forest timber, which may be shipped with facility from the Port, and afford employment and liberal support for thousands of industrious settlers. North of the Bay we come to Swan River, which here falls into the Indian Ocean. Twelve miles from the mouth of the river, the capital city Perth is built on its banks, in the midst of a magnificent fertile plain, stretching for miles between the mountains and the sea. The chief port of the colony is Freemantle, situated at the mouth of the Swan River, ten miles below Perth. In one respect the position of the port is at a disadvantage, it being fully exposed to the gales from the north. A jetty has been built here, and the neighbouring marshes drained by the aid of convict labour. A good shipping trade is done. The imports of 1878 were returned at

£379,050, and the exports at £42,849. The population of the town is estimated at about 4000, and its prosperity would be quickly augmented by the increase of immigration and capital. The city of Perth extends some two miles in length, and is the seat of the Government. It contains some finely proportioned public buildings, among which may be mentioned the two Cathedrals, the Government House, and the City Hall, in which the Legislative Council holds its sittings. The city is very picturesque in its aspect; it is placed upon a sloping declivity, which commands a splendid view of the river and surrounding country. An additional feature of interest is given to the streets by planting them with all kinds of indigenous flowering trees. In short, it would be extremely difficult to find a more agreeable place of residence. At the town of Albany, the population of which is somewhat over 1000, the chief means of support is the coal trade, for which there is a very large depôt formed. The harbour is well sheltered, and is very capacious. The coal is regularly supplied to the steam-ships, which convey the mails between Europe and India. This is a branch of trade capable of infinite extension, and would be productive of great wealth in the colony. Following the coast to the north, we reach Champion Bay, which forms one of the finest harbours on the coast, but exposed during a portion of the year to the full force of the north-west gales. A little to the north of Champion Bay is Port Gregory; here the harbour is formed by an extensive reef of coral, a feature which is of ordinary occurrence on these coasts. This place will, doubtless, become a thriving hive of industry in the mining of lead ore, the subsequent production of the metal and its export. It is in this neighbourhood that the rich Geraldine Lead Mine is situated. It is 36 miles inland, and the want of a good road is most painfully felt in order to carry out the work profitably. Seeing, however, what the South Australians have done in developing their wealth of copper, it is to be hoped

that capital will be found to do the like in Western Australia. Governor A. E. Kennedy, after a visit to the mine in 1857, reported home "that the richness of the ore was undoubted, and the quantity unlimited." Again, about 40 miles in a southerly direction, there is the valuable copper mine of Wanerenooka, and here there is no engineering impediment in the way of making a good road down to Champion Bay. All round this mine the country affords magnificent grazing tracts; the best of wheat land, and, with this valuable addition, there is an abundant supply of water. It is rapidly becoming occupied by squatters and farmers, but there is plenty, and to spare, for any number of new comers. Further to the south, there is the river Irwin, and along the valley of this stream there is a considerable area of land of excellent quality. Yet more to the southward there is the Greenough River, on the banks of which, and extending far inland, there is a vast area of land of the finest quality, and equally suitable either for grazing or agriculture. Midway between Perth and Champion Bay is Jurien Bay, and this gives access to a considerable district which is open to selection, and is well adapted for settlement. It is estimated, upon good authority, that there are at least 150 square miles of thoroughly good grass and forest land. There are thriving villages dotted down here and there, so that the newly-arrived settler need not be without company, or friendly and neighbourly help when required. Another rising and very promising town is that of Rockingham, which is built on the shores of Cockburn Sound. The whole of these coast districts are well supplied with water by rivers that mostly run at right angles to the coast line; they thus afford, as far as navigable, quick communication with the interior. In most cases the mouths or estuaries of these rivers offer considerable facilities for entrance from the sea. In this respect, Western Australia presents a most favourable and very marked contrast to her sister colonies. It is thus that the humid influence

of these streams, aided by the cooling effects of the sea breezes, render the climate so peculiarly healthful and beneficial to the immigrants from Great Britain and Europe. In this respect there cannot be the shadow of a doubt that the southern and western parts of the colony are, from a sanitary point of view, far more conducive to the health of settlers, accustomed to a temperate climate, than any other portion of the Australian continent. The Victoria river was ascended for 100 miles by Mr. Gregory, the Australian explorer, who sailed up it in a small schooner which had brought him round from Sidney. Captain King sailed for 60 miles up Cambridge Gulf, and did not then enter a river he could see at its head. On another occasion the Captain sailed for 30 miles up the River Liverpool, and got into fresh water. In the vicinity of the now-abandoned settlement at Port Essington, the Rivers Adelaide and the South Alligator are navigable for 60 miles by vessels of 450 tons burden. The Glenelg has been also navigated for some 25 miles from its mouth. On the banks of the Victoria river alone, there are at least 5,000,000 acres of fine grass land, and there are great plains extending along the coast for at least 150 miles, and having a mean breadth of 60 miles, no want of land even in this diminitive portion of the colony. The herbage is described as luxurious and nourishing; the most abundant was like wild oats, from 3ft. to 6ft. high. On the richer plains a fine close variety grew, which fell in profuse tangled masses of self-made hay 18 inches deep. The veteran explorer, Gregory, declares that in ten days he saw more grass than he had ever seen before in all his life. Further, in exploring a line of country lying between Champion Bay and Nickol Bay, he found a series of terraces, extending 200 miles from the northern coast, and rising in Mount Bruce to nearly 4000ft. above the sea. The route was estimated to pass through 2,000,000 acres of good land available for occupation, the best of it being on the banks of the River De Grey and the slopes of

the Hammersley Range. The uplands appeared admirably fitted for the production of wool; cotton would grow abundantly in the lower parts, near the shores, and Nickol Bay contains more than one commodious harbour, besides several sheltered anchorages. I believe I have said sufficient to show the amazing extent of good land open to the settler's selection, either for pasturage or agricultural pursuits, or both combined; and I have endeavoured to impress upon the reader's mind the superiority of the climate as adapted to the ordinary constitution of a native of Great Britain, and in this respect that it is far more suitable for him than the more eastern portions of the continent.

Mineralogy, Mining Industry, &c.

The vast area of Western Australia has been explored to so limited an extent, using the word in its scientific sense, that nothing beyond the barest fringe of the subject has been touched upon. But with the little that has been done, sufficient has been revealed to show that its mineral riches, and other natural products, are not one whit behind those of her adjoining colonies. Copper is a metal largely distributed in various parts of the settled portions of the colony, and what may be hidden in the unexplored sections it is impossible to conjecture. But, judging from the yield of the mines now in operation, there can be little doubt that with the efflux of time, and the consequent introduction of capital and labour, the mining industries of Western Australia will be second to none in the southern hemisphere. So far as at present known, copper is found to be plentiful and of good quality, spread over an area of some 700 miles in length; that is to say, following the coast line. Apart, then, from its other uses, here are the means of smelting the mineral, and of subsequently producing the manufactured material. Galena (lead ore) is another abundant mineral, and, as is well known, this most useful metal at all times commands a

ready market. Tin ores have been found in sufficient quantity and richness to warrant the belief that they will become an important wealth-producing branch of colonial manufacture. On the shores of King George's Sound there is a vast deposit of the magnetic black sand, similar to that found at Taranaki on the shores of New Zealand. This product will, doubtless, become in time an important feature in the metallurgical industry of the colony. Gold has been reported to have been found in small quantity, and it is quite within the bounds of probability that there may be considerable deposits of the metal in the unexplored districts. Although the prevailing opinion of geologists is against this view, so it was, with scarcely an exception, the case with New South Wales prior to the persevering energy of the discoverer E. H. Hargraves, and in three years from that discovery gold to the value of £50,000,000 was exported from Australia. The mineral wealth of the colony lies idle, and, so to speak, untouched. To give it the impulse of vitality it requires capital and labour, and the reward is most certainly at hand.

Timber, Vegetable Products, &c.

The settled portion of the colony, comprising an area nearly equal to that of France, is as a rule of a level character; in many parts it is undulating, but not mountainous. A large portion of the country, extending from the southern to the northern shore, may be described in a word—as one vast forest. Hence, for those industrial pursuits in the direction of the timber trade, or of its many ramifications, there can be no better field of enterprise than the colony of Western Australia, where land is cheap, easily obtainable, and timber profusely plentiful. Here, as in other parts of the continent, the various species of the *Eucalyptus* tribe flourish in unrestrained magnificence and grandeur. I have seen these giants of the forest, in all parts of

the colonies, towering far above the surrounding vegetation. I have surveyed and measured many of them, but as to their age it would be presumptuous on my part to conjecture. I will give an example or two upon an authority which is unquestionable. A *Karri-Eucalyptus* (*Eucalyptus colossea*) was measured by Mr. Pemberton Walcott, in one of the delightful glens of the Warren River of Western Australia, and was found to have an altitude of 400 ft. Into the hollow trunk of this Karri three riders, with a packhorse, could enter and turn easily without dismounting. Again, at the request of D. Oliver Esq., F.R.S., Professor of Botany at the University College, London, a fallen tree was measured by Mr. D. Boyle. It was of the almond variety (*E. amygdalina*), and it laid in the deep recesses of Dandenong ; it was found to be 420 ft. in length, and well-proportioned in width. Mr. G. Klein took the measurement of an *Eucalyptus* on the Black Spur, ten miles from Healesville, and found it to be 480 ft. in height. There are a great many varieties of this family of trees, and they yield most valuable timber. Thus we have the iron and stringy-bark trees, and the blue, white, peppermint, and swamp gums, as well as many others. I may here note a peculiarity in the growth of the *Eucalypti*, which is entirly distinct from European vegetation. The leaves grow in a pendulous or vertical position, directly the reverse of what we are accustomed to see, the growth being as a rule horizontal. Then the foliage is scanty and glaucous ; that is of a peculiar grey or sea-green colour, like the outer leaves of the cabbage plant. The Jarrah or West Australian mahogany is one of this class, and the timber is of the most valuable quality, inasmuch as it resists dry rot and the destructive inroads of the white ant. It is largely used throughout the Australian continent for railway slepers, piles, harbour and general hydraulic work.. At Freemantle it was found to be perfectly sound after 28 years immersion, and that, too, in a position where *teredo* destroyed

every other wood in a few months. In colour, beauty of grain, and capacity for high polish, it rivals the finest Spanish mahogany. Another timber of which the western colonials are justly proud is the sandal-wood (*Santalum latifolium*). The export of this beautiful wood is one of the commercial staples of the colony. The agreeable fragrance of this hard and beautifully mottled wood causes it to be largely in demand for cabinet work by the clever artizans of China and Singapore, who are constant buyers of this product. The white *Eucalyptus* yields a timber close in the grain and beautifully figured, and is admirably suited for cabinet work; magnificent logs are obtained from these trees. One was sent to England in 1862, which measured 5ft. square, and was too long to be placed in the exhibition building. The "she-oak" (*Casuarina quadrivalis*) is another valuable wood largely in request for industrial purposes. The *Acacias* are a numerous family, and are represented in great variety throughout the Australian Flora, and, apart from the value of many of these, in the way of timber, the intelligent immigrant will be interested in the growth of the foliage of these plants, which is in all cases graceful and pleasing to the eye. They represent a remarkable peculiarity in their leaves, the compound and often greatly divided blade of which usually remains undeveloped, so that the leaf is reduced to a stalk, which, however, to compensate for the want of the blade, is so flattened as to resemble an ordinary leaf. These leaf stalks may be readily recognised by their vertical direction being attached, as it were, edgewise to the stem. This peculiarity uniformly takes place in the *Acacias*, and it arises in consequence of the vertical dilatation of the foliaceous footstalk, whereas in the *Eucalyptus* it proceeds from the twisting of the footstalk of the leaf. Another most useful tree is the (*Adansonia Gregorii*), named after A. C. Gregory, the intrepid explorer of North Western Australia; the stem of this tree yields a grateful subacid pulp, and when boiled and mixed with sugar is a sovereign

remedy for dysentery. Mr. S. Wilson, in his exploration of the country, says :—

"On the fine grassy plains of the country we met with noble specimens of the *Adansonia*; some we measured were 35 ft. in circumference. The inner portion of the trunk is soft and fibrous; it contains a considerable quantity of sweetish water. When we were in want of water it was the ordinary practice to seek out one of these trees, chop out a piece of the soft wood and chew it. Under such circumstances, it was very pleasant and refreshing."

From the fibrous nature and white silky appearance of the wood, it is believed that it might be made very useful in the manufacture of paper. This is a valuable suggestion, and should, by no means, be lost sight of by any one desirous of seeing the colonial industries prosper. Another very remarkable indigenous plant is the Australian bottle tree, the shape of its trunk being similar to a soda-water bottle. The natives refresh themselves with the mucilaginous sweet fluid afforded by this tree; they also make nets of its fibre. They cut holes in the soft trunk where the water lodges and rots them to the centre, so as to form so many artificial reservoirs. On their hunting excursions when thirsty they tap them one or two feet below the old cuts, and then obtain an abundant supply. The magnificent Australian lily (*Doryanthes excelsa*) may be found about the mountain ranges; this truly regal plant throws up a flowering stem from 10 ft. to 20 ft. in height, bearing a terminal cluster of rich crimson flowers from 12 inches to 14 inches in diameter. A highly useful tree to the settler, and well worthy of his attention to cultivate, for it would flourish well in the warmer parts of the colony, is the Papaw (*Carica Papaya*). It is widely cultivated in the tropics, on account of its valuable qualities. The leaves have the singular property of rendering freshly killed meat tender in a few hours; this fact is thoroughly established, and its value in a warm climate can hardly be overrated. The meat is simply wrapped in the leaves, or they may be boiled together. The

leaves are also highly saponaceous, and are used in place of soap in tropical America. The fruit is excellent eating, either raw or boiled; it has the same effect as the leaves upon animal food. The seeds have a mustard-like pungency, and are an efficacious vermifuge; and, therefore, very useful in the settler's family. The wild fig grows with the utmost luxuriance in many parts of the colony, and yields an abundant supply of fruit. One example *(Ficus Macrophylla)*, seen by the explorer Mr. J. Backhouse "was 40ft. in circumference at the greatest height of a man's reach; its roots formed wall-like abutments, extending over an area 30ft. in diameter." The propagation of these parasites is singular; they often spring from seeds deposited by birds in the cavities of other trees, perhaps 50 ft. or more above the ground. They send their roots downward, which in their course adhere to the parent tree; these again emit transverse or diagonal roots, which interlace with the others. When they reach the ground they thicken rapidly, still spreading themselves over the foster tree, until it becomes completely encased, and is finally killed by the deadly embrace of the fig-tree. Another tree highly useful to the settler would be the cultivation of the *Caryota urens*, a native of India. This tree is highly valuable to the natives of the countries where it grows. It yields them during the hot season an immense quantity of "toddy," or palm wine, a most refreshing drink during the warm weather; the best trees will supply at the rate of 100 pints in 24 hours. The pith or farinaceous part of the trunk furnishes an excellent sago, which may be made into bread or puddings, or boiled as gruel. Nor should the cultivation of the cocoa-nut *(Cocos nucifera)* be lost sight of by the settler; it is extensively cultivated on the coasts of all tropical countries. It is said of this valuable palm that its uses are as numerous as the days in the year. Millions of tons of the fibrous husk is now used as "coir-fibre" for cordage, matting, brushes, &c. Arrack is distilled from the juice, which flows from

incisions cut in the flowering season. The kernel affords a valuable oil now most extensively used in the manufacture of soap and candles. The wood itself is of an ornamental character, and is known as "Porcupine-wood." Another tree indigenous to the colony is the *Castanosspermum australe;* the seeds are edible, and are eaten roasted by the aborigines. The pods are ten inches long and eight inches round; the flavour of the seed is between the Spanish chesnut and a freshly-opened bean, with a slight degree of bitterness. To prepare them for food the blacks roast them and soak them in water. The Amboyna pitch pine is another fine timber tree (*Dammara orientalis*); there are several varieties of this genera, all of which are of great utility in the arts, and deserving of close attention and study by the intelligent immigrant. *Dammara australis* yields the valuable Kauri gum resin, known in commerce as gum Dammar, of which large quantities are exported and used in the manufacture of varnishes. New Zealand at present does the largest amount of trade in this article of export; quite as much might however be done with it in the western colony. Seeing that the area of the colony is of such extent, and that within its southern and northern boundaries a climate ranging from the temperate in the southern to the tropical as the centre of its area is approached, it will at once be seen that it is capable of bringing to perfection every possible variety of vegetable produce, whether that of a mild temperate clime or one requiring a higher degree of heat. Turning to the subject of fruits, all the varieties which are grown in the warmer parts of Europe flourish in the colony in profuse luxuriance. Pines, peaches, melons, grapes, oranges, lemons, &c., all yield abundant crops. The same may be said of the ordinary vegetables of the kitchen garden, of which the settler need not experience any want. Seeds or plants, whether vegetable, or flower or fruit, may be readily obtained and transmitted through the seedsmen in any place of importance, or from the storekeepers

in the more remote districts. Where the settler has the opportunity of so doing, he should plant where practicable the familiar forest trees of home—the oak, elm, lime, beech, walnut, &c. By so doing, he not only improves his own property, but he becomes, to a certain extent, a public benefactor, for the growth of these trees tends to improve the climate, as they encourage and attract humidity by the shelter they afford from the sun's rays. In a climate in which the air, as a rule, is very dry, this item of tree-planting is one of no little importance. Above all, let him encourage fruit-tree planting in every way, for the business of fruit exportation has become one of great magnitude, and is increasing enormously. It is an industry in which his family can largely assist him, and add to the united earnings. Let him keep in mind the anecdote of the old Scotchman on his death-bed, who said to his son—"Ye'll aye be planting a tree, Jock; it'll be aye growin whiles ye're asleep."

Agriculture, Stock-rearing, &c.

There is certainly no lack of fertile land in the colony, but there is a lamentable want of capital and labour; and I earnestly desire to see both directed to this encouraging and profitable outlet for cash and practical co-operation. Extending over very large areas, in the northern part of the colony, there is magnificent wheat-growing land, which may be taken up on the most favourable terms. York country, in the southern part, grows very heavy crops of wheat, barley, and provisions, for the supply of which they are favourably situated to the port of Albany, where a number of steam ships call for coal. The wheat grown in Western Australia is certainly second to none throughout the colonies. The fine climate, so admirably suited in all respects for the production of wheat, ensures good quality and heavy yield, and the generally fine dry weather in harvest time renders the cultivation of the land certain and remunerative.

There is an important advantage which the farmer in this colony has over those situated to the eastward, and it is my duty to point this out. He is free from the hot winds that blow from the north and east, and the destructive droughts which they produce. Maize is not grown to any extent as yet, the climate being found so much more suitable for wheat. It would be, however, a crop well adapted for the warmer parts in the north, and as the land gets taken up by fresh arrivals, this grain will probably be more largely cultivated. The estimated acreage of land at present in cultivation is 51,674 acres. The uncultivated land is reckoned at no less than 626,059,649 acres, a terrible disproportion of figures.

The principal occupation, however, in the colony at present is the rearing of sheep and cattle. The broad swelling hills of the Darling Range and the seaward and landward slopes furnish ample sustenance to the flocks and herds of the colony; and although the grass lands here do not occupy the extensive areas they do to the eastward, there is more than sufficient pasture to supply the wants of all comers for a long, long time yet. The unoccupied land in the northern part will become more valuable for the rearing of stock as the mineral wealth of that part is developed, and the population becomes thereby increased. The latest returns on this point gives the population of the colony for 1878 as follows:—Males, 16,409; females, 11,757; total, 28,166. Stock of all kinds is largely kept in all the districts adjacent to the capital and its port of Freemantle. Large flocks are also maintained around the coaling port of Albany, and also in the extreme south-eastern county of Sussex. A great many of the settlers keep goats in considerable numbers; they thrive amazingly and require comparatively little personal attention, being easily kept and yield a good return. In the better peopled parts pigs are an excellent paying investment; they increase wonderfully and sell well. The extraordinary development of the Australian tinned meat trade, and now the application of the

refrigerating process to send home the meat entire, but in a frozen state, will, I trust, ere long be participated in by my brother colonials of Western Australia, and it behoves all "new chums" to see what is to be done in that direction. Recollect you are 1000 miles nearer the old country than the sister colonies are. The production of such prime necessaries of civilisation as wool, meat, flour, wine, oil, timber, gums, &c., is practically unlimited, but there must be both capital and labour to accomplish it.

RAILWAYS, TELEGRAPHS, POSTAL COMMUNICATION, &c.

I regret to have but a very meagre report to give upon these important branches of welfare, so far as Western Australia is concerned. In this respect she has not made one tithe of the progress effected by the neighbouring colonial governments. The two principal railways are the property of the Government. One connects the port of Freemantle with the capital Perth, and runs thence to Guilford, a distance in all of 21 miles. The other runs from Geraldine, in the lead mining district, on to Northampton, 35 miles. The other lines are commercial, and belong to timber companies, with the view of facilitating the export of the valuable indigenous timber. Thus, the Rockingham Jarrah Company's line is 25 miles in length, and the West Australian line 13½ miles. This is certainly a poor account to lay beside the 951 miles of railway completed in Victoria, and 192 miles in the course of construction.

Telegraphs.—Western Australia is in telegraphic communication from Perth with the trans-continental line, extending from Adelaide to Port Darwin, and thence by way of Java, Summatra, across the Bay of Bengal to Aden, and thence to London. All the principal places in the colony have been coupled up and put in electric connection with the main instruments. The charges for transmission of messages are very moderate.

Postal Communication.—The postal organisation has been carried out upon a scale similar in detail to that of the older colonies, but is, of course, much more limited in every respect, owing to the comparatively sparse population and smaller commercial development, as compared either with New South Wales or Victoria. All points of importance may, however, be communicated with by means of the telegraph. The charge for inter-colonial messages is one shilling for ten words, and one penny per word if exceeding that number. Money-orders are granted upon the local offices and upon those in the neighbouring colonies. The charge per order for sums not exceeding £5 is 1s., and not exceeding £10, 2s.; orders on the United Kingdom are 1s. for sums up to £2, and 2s. up to £5. The Post Office Savings' Banks receive any sums from 1s. up to £30. Books and parcels are transmitted per post within the colony at the rate of 2 ozs. for 1d.; 4 ozs. 2d.; 8 ozs. 4d.; and 2d. for each 4 ozs. beyond. There are also 13 private Savings' Banks, all accounts from which are forwarded to Perth, and are there audited and checked by the managing officials. The last returns gave the number of depositors as 1389, with good amounts standing to their credit. Nor have Friendly Societies been overlooked: there are 12 of these useful institutions established on a good basis, and numbering over 1000 members. The medical welfare of the community has been ably administered by an efficient staff attached to each of the nine colonial hospitals, apart from the private practitioners established in the various towns. Nor need there be any neglect of mental culture on the part of the new settler, for he will have no difficulty in obtaining from the libraries of local Mechanics' Institutions and literary associations almost any work he can possibly require, either for solid instruction, or as a means of necessary recreation. As regards education, there are 61 schools, supported by the Government, and imparting a sound education to 2471 scholars.

In addition, there are 22 assisted schools, with a numerous body of daily students. The Government Vote for Educational purposes for last year was £10,192. Lastly, there are private schools at Perth, and one or two other places in the colony, where the higher grades of education are imparted.

Miscellaneous Statistics.—I append here a few general returns, taken from official sources, that the reader may form an idea of the present resources of the colony. The public revenue for 1877 was £165,412, and the expenditure £182,959. The public debt is £161,000. The population stood as follows:—Males, 16,409; females, 11,757; total, 28,166. Convicts, 679, of whom 187 are employed on public works. The value of the imports was £379,041; exports, £428,841. Yield of the fisheries, £30,172. Lead and copper mines opened, 28; manufactories, works, and mills, 78; telegraphs, 1700; railways, 55 miles.

Wages.—Carpenters, 7s. to 10s. per day; masons, 7s.; printers, 6s. to 8s.; blacksmiths, 7s. to 10s.; gardeners, 6s.; saddlers, 7s. to 10s.; boat-builders, 8s. to 10s.; tailors and shoemakers by piece-work; brewers, 6s. to 8s.; coach-builders, 7s. to 10s.; navvies, 7s.; painters, 7s. to 10s. Average prices:—wheaten flour, 200 lbs. 35s., per bushel 6s. 6d.; bread, 2d. lb.; meat, 3d. lb.; horse, £5 to £30; goats, £1; swine, 6d. lb.; milk, per gal., 2s.; butter, fresh, 2s.; salt, 1s. 8d. Cheese, 1s. 6d.; beef, 6d. lb. Vegetables are cheap and abundant. Tea, 2s.; coffee, 1s. 6d.; sugar, 5d.; salt, 1d.; tobacco, 4s.; beer, imported, 7s. bottled; colonial, 3s.

Land, &c.—By the Lands Regulation Act, proclaimed 20th March, 1872, the Government has, in the name and on behalf of Her Majesty, the right to convey the fee-simple of any estate or interest to the purchaser in such form as may be required. Town and suburban lots are sold at rates fixed by the Executive Council. Mineral lands are fixed at £3 per acre, and waste lands at 10s. per acre. A license to cut timber is £20 per acre, not exceeding 640 acres. To cut or remove sandal wood from waste lands 2s. 6d. per month for each man. Boats and ships engaged in the pearl fishery £1 per annum. Whale fishery is also carried on to a considerable extent on the coast of teh

colony, and has proved highly profitable to numbers engaged in the pursuit.

Government, Religion, Education, &c.

The Government of Western Australia is based upon the model of the older colony of New South Wales, from which it was separated in 1829, and its independence was declared on the 1st of June, by the then appointed Lieutenant-Governor Captain James Stirling, who held the office up to September, 1832. The Government is administered by a Governor, assisted by an Executive Council composed of the Colonial Secretary, the Attorney-General, the Senior Officer commanding the troops, and the Surveyor-General. The present Governor and Commander-in-Chief is Major-General Sir Harry St. George Ord, R.E., K.C.M.G., C.B., with a salary of £2500; and with a private Secretary, Lieut. St. John Ord, who has a salary of £250. There is a Legislative Council of 21 members, seven of whom are nominated, and 14 elected. The colony is divided into ten electoral districts, and the two principal towns, Perth and Freemantle, return two members each. The franchise for electors is confined to householders of £10 in annual value, and the qualification for members is the possession, beyond all incumbrances, of landed property to the value of £1000. The judicial department is administered by the Chief Justice, who has a salary of £1000; by the Attorney-General with a salary of £600; and by the Crown Solicitor, who receives a salary of £250. Besides these, there are the chairman of quarter sessions, police, and resident magistrates. At one time the colony derived great benefit from the employment of convict labour, both on the public works and at work on the properties of the settlers. The penal establishment is kept up to a certain extent at the present time. The convict department employs a superintendent at £425, four clerks, and a surgeon, and in addition,

13 chaplains of the Church of England, and ten of the Church of Rome. That important branch of Colonial administration, the survey department, is under the control of a surveyor-general, who receives a salary of £750, a deputy-surveyor, two junior surveyors, and five subordinates. The Land Titles Office is managed by a Commissioner of Titles and a Registrar. The medical department has its chief Colonial Surgeon, who has a salary of £400, with resident medical officer, and colonial surgeon and health officer at Freemantle. There are also district medical officers throughout the colony; but, fortunately for the settler, the climate is exceptionally fine and without winter, that medical assistance is very rarely required. This is indirectly proved by the fact, that since the first settlement the death-rate has not exceeded 1 per cent. per annum; while, in England, it is 2½. The fact is, that the soil and dryness of the air are conducive to health and longevity, and the settler and his family are at liberty to live as long as they like.

Religion.—The Established Church in this, as in the other Australian colonies, heads the list. Perth is a diocese, having its cathedral in the capital and episcopal palace. The present bishop is the Right Rev. H. H. Parry, D.D., assisted by his dean and archdeacon. There are other 17 clergymen officiating in their various livings throughout the colony, each place of importance having its Established Church. The Nonconformist bodies are represented in the various localities by their several pastors, and places of worship which they have united to erect. The number of worshippers at the various churches are thus given:—Established Church, 14,619; Roman Catholics, 7118; Wesleyans, 1374; Independents, 882; Baptists, 54; Jews, 62; and there are a few minor sects.

USEFUL HINTS.

It is needless for me to point out to the emigrant the extreme importance of careful attention to his own health and that of his family; and that at any time when feeling "not altogether so well" promptly attend to it, or have it attended to on the part of your family. Now ague is a very common complaint in new settlements, especially if the land is low lying and at all swampy. When the fit comes on the regimen should be strictly observed. The sufferer should drink freely of water gruel, orange whey, weak camomile tea, or, if the spirits are low, weak wine whey, flavoured with lemon juice. These drinks should be taken warm as they tend to bring out perspiration, and thus shorten the paroxysm. Between the fits, light, but nourishing food should be taken, with a little light wine. Weak negus, acidulated with lemon, will be found very grateful as it is strengthening and tends to check the feverish symptoms. Infusions of bitter herbs are very useful in these cases, gentian root, centuary, wormwood or water trefoil are all advantageous. As much exercise should be taken as can well be borne, with the object of promoting perspiration. An excellent restorative will be found in bark infused in wine. Put an ounce of the powdered bark into a bottle of white wine; a wine-glass of this may be taken three or four times a day. In obstinate cases the bark will be found more efficacious when assisted by brandy or other warm cordials. The sulphate of quinine is also largely used in the cure of ague, and has the advantage of being exceedingly portable. A simple remedy that is stated to have been very efficacious is the wearing of frankincense upon the person. For an adult, four ounces are to be pounded and sewn up in a silk bag, which is to be worn next the skin on the pit of the stomach.

I cannot too strongly impress upon the emigrant the necessity of attention to the purity of the water used for drinking and cooking purposes, for in all cases it is advisable to filter it.

Filtered soft water is to be preferred to hard spring water, which is frequently contaminated with mineral substances. The permanganate of potash, that I have elsewhere spoken of, will be of the greatest service in testing water. Most epidemic diseases arise entirely from the use of unwholesome water. If you can possibly avoid it, never drink it from a pool or other open air source, without drawing it through a filter. Another common complaint incidental to climatic changes is mild fever. The symptoms are thirst, a white tongue, and quickened pulse, with perhaps alternate hot and cold shiverings, the face flushed, and the eyes heavy. The patient should be put to bed and protected from cold, especially draughts, but the air of the room should not be allowed to get close, nor should there be too many clothes placed on the bed. Cooling drinks should be given in moderate quantities, and the medicines should be of a saline and cooling nature. The diet should be light, and, above all, the patient should be kept very quiet. If the fever does not then abate, it will be necessary to adopt stringent measures, and the nearest medical advice should be sought without the least delay. Ordinary colds are generally accompanied with more or less feverish symptoms, which should not be neglected, but these attacks pass off more quickly than fever, and do not require the same amount of precautionary care. It is, however, wise in all cases to adopt the good old policy of "a stitch in time," &c. There are two home remedies which the settler would do well to have always at hand. The formulæ were furnished by M. Raspail, the distinguished French physician. The first is a Sedative Water, specially useful for rheumatic pains, lumbago, and other like complaints—viz., liquor ammonia, 3½ ozs.; camphorated alcohol 3 drachms; bay salt, 1½ ozs.; water, 1 quart. The camphorated spirit and the liquor of ammonia are to be mixed in a stoppered flask, and after shaking together, allowed to rest for a time. Meanwhile the salt is to be disolved in the water, and a few drops

of liquid ammonia added. This will tend to throw down any impurities. After standing a time the clear liquid is decanted or strained, and the camphorated spirit added quickly. The bottle must be closely stopped, and, after shaking the contents, kept in cool place. It is used as a lotion. The other recipe is valuable for all kinds of bruises, or external inflammation, and is thus prepared—Fresh hog's lard, 3¼ ozs.; grated camphor, 1 oz. Put the lard into a cup, and place it in water contained in a saucepan. Melt and add the camphor powder gradually, stirring it continually with a small stick or glass rod. When the mixture is perfectly limpid, remove it from the fire, and, after standing for a few minutes, pour it gently into another cup, taking care to leave the sediment behind. The pomatum thus prepared will be perfectly smooth, and white as snow. It will be found of considerable service in the family.

There is, it is to be regretted, a considerable paucity of information in respect to the Colony of Western Australia. Hence I have added these sanitary particulars as being of practical use to colonists wherever they may be, knowing, as I do, that prompt and energetic action is the best means of saving the life of any one taken suddenly ill.

To those who may select Western Australia as their future home, I may with confidence assert that, with industry and temperate habits, they cannot fail to succeed and prosper. With these qualifications, they may accomplish in a few years more than could be done in a lifetime under the home system of matters. And it is my earnest wish to see immigration to this favoured portion of the Australian continent carried out upon a far more extended and favourable system than has hitherto been deemed practicable by those in power. We must hope for a more encouraging state of things in the way of assisted immigration, and this, I trust, will be the case ere long.

THE AUTHOR'S ADVICE

TO

EMIGRANTS.

WHERE TO GO.—The intending Colonist will have to give this difficult, but most important, question his most serious consideration. It is one demanding careful forethought as to what colony he thinks his constitution and future views best suited for. In many cases the intending emigrant may have friends who are already settled in the New World, and who would be willing to advise him as to his best course, and possibly render him other assistance to smooth the way. On the other hand, he may not have friends there, and, for my own part, I think one is better off without having any one to go to, unless, indeed, you have plenty of cash, then you are sure to be made welcome. It is within my experience to have seen many a colonial who, having worked himself into a good position, corresponds with his relatives and friends at home, and naturally tells them of his progress. Thereupon, one or more decide to go out, too, and better their fortunes by doing as their colonial friend had done before. Upon their arrival out, as I have known in many cases which I could relate, the said colonial advises them to go to quite a different part of the country; to put it curtly, merely to be rid of them, although there may have been plenty good openings in the immediate locality. Still, it must be granted that everyone's relatives are not the same. Therefore, unless you feel certain that your friends are of the right sort and will be disposed to assist you, my candid advice is, get away

from them as far as you can. In fact let them know nothing about your business at all, and go to whatever part you have the most liking for. Go there with a thorough determination to succeed, come what may, and I have not the shadow of a doubt about your success, for there is plenty of room for willing hands in every colony. An excellent plan, before deciding "Where to go," is to look regularly and carefully through the leading colonial newspapers. These arrive every month, and in them you will see full and ample reports upon the commerce, trade, and labour market of the colony. A very useful guide to consult is the labour column of "daily wants," giving the different situations that are vacant—that is, if you are looking for a situation. Or, on the other hand, you will find what farms or land are open for sale, businesses or professions for disposal, and a great many items of interest to the intending settler. It is also a good plan to enquire of the different colonial shipping agents, who in all cases have advices upon the arrival of each mail. Many of them keep a file of the colonial papers for the special use of their clients. It must, however, be born in mind that it is useless to make enquiries twelve or eighteen months before you intend to start. Because what your agent might advise you to do then, circumstances may alter completely before you are ready to go. The author is in regular communication with each of the Australian and New Zealand colonies, and he will be happy to render to any one going out all assistance in his power to clear away difficulties. He may here remark that he has no land of his own or anyone else's to sell, and that, therefore, he has no interest in advising his clients to go to any special part simply for the sake of getting extra commission by so doing. His clients make their own unfettered choice, and he will, to the utmost of his ability assist them with disinterested advice, and every one will allow such is worth having when it is the result of long and varied experience.

What to Take.—This will depend, to a considerable extent, upon the amount of capital the emigrant has at his command. To one who has next to nothing, it will, of course, be "Hobson's choice." But to those who are more fortunate, and have a little spare cash, my earnest advice is—be careful, and do not fall into the common error of taking too much. Most "new chums" land with enough luggage to start a general store, and for which the cost of carriage, warehousing, &c., runs them into about double what the things could be bought for in the colony with ready cash. On landing you will find you can buy things nearly as cheap as you can get them at home. And another point, not to be overlooked, is that such goods will be found far more suitable to the place, even if they cost somewhat more. You may rest assured that it is not altogether pleasing to hear when passing through the streets—say of Sydney, Melbourne, or elsewhere, "There's another new chum, can't you smell the lime juice; twig his togs; what a swell belltopper. I wonder whether his mother packed a cake up in his box," &c., &c. The necessary ship's outfit, such as bedding, tinware, mess utensils, &c., you will in all cases have to provide unless you are a first-class passenger. In that case all is found for you. Any of the outfitters, such, for example, as Messrs. Goy and Co., of Leadenhall-street, will send or supply you with their lists, and point out to you the class of goods which are suitable for the particular wants of the intending emigrant. There are certain articles of clothing and utensils which Her Majesty's Commissioners of Emigration consider to be absolutely necessary, for the well-being of the emigrant during a long voyage, either to Australia or New Zealand. The cost of a single man's outfit is about £5 10s. 0d., that of a single woman about £5 15s. 0d.; married couple, £10 10s. 0d. Oufits for children vary with their age; that for a boy or girl of about 14 will cost nearly as much as the parent's. The younger ones, between seven and twelve, will cost about £5

each. As the voyage involves the passing through both hot and cold climates, it is necessary to be provided with light and warm clothing. Everything you have at present in wear will be found to come in useful. But all should be taken on board in a thoroughly clean state; the necessity for this is obvious. So likewise you may have among your things many articles that you will find down in the lists; the purchase of these need not therefore be repeated. I shall at all times be happy to assist you on these points. First of all, furnish yourself with a copy of what you have ready to take with you. Do not grudge taking some pains about these matters, or you may find, perhaps, when too late, that your neglect is the cause of great personal discomfort to you on the voyage. Now, with regard to the tinware and other furnishings you require, buy good articles; do not be led away to spend money on a lot of rubbish that will hardly pay for carrying on board. Such things are a source of endless trouble and ill-temper. That is my sole reason for naming houses whose goods I know from practical experience to be of the right sort and hence thoroughly reliable. A gun is an almost indispensable companion in the colonies, wherever you are. During my 14 years of "ups and downs," I found a 14-bore muzzle loader a most useful piece. Although at times, when up to my waist in the lakes and my fingers numbed with cold, I must admit that a breech-loader would have been preferable. For a genuine good gun of either class, at an exceedingly moderate figure, those manufactured by Mr. T. Jones, of Blackburn, Lancashire, may be honestly recommended. These weapons are particularly adapted for colonial use. The firm do a very large export trade, and have made colonial requirements a study. The next thing necessary to a gun is a good saddle, for a stout-hearted immigrant need not be long in the colony before he is the owner of a horse. And looking at things at the worst, a first-class saddle brought from home by the immigrant will always command a profit; and there need be little or no fear upon that point.

It is the same in reference to harness a good brass-mounted set should be taken, if you think of keeping a horse and trap, and nearly every settler in the colony has one before he has been long there. I now come to what I know to be a very important point, and that is to take out a selection of garden seeds. Coming direct from home, and *bought* by yourself, you cannot offer a friend, or indeed any one with whom you may become associated, a more acceptable present, whether consisting of agricultural, vegetable, or flower seeds. The houses I shall name in this branch, both of whom have a world-wide reputation, are Messrs. Nutting & Sons, of Barbican, London, and Messrs. Carter & Sons, of Holborn. Turning to the higher scientific portion of my subject, a telescope will be found a most useful and entertaining companion, whether on board or ashore. An excellent instrument of this kind, well adapted for general colonial work, may be obtained from Mr. Hawes, of 79, Leadenhall-street, London; from 12s. 6d. But where a little extra expense can be afforded, I very strongly recommend a pair of field glasses. Such an instrument is of invaluable use, either in the city, bush, or throughout life, and to those who may follow. A clearly defining instrument, sound in make and of careful adjustment, will cost from £2 2s. and upwards. A tool chest is, I admit, generally a cumbrous affair, but to the skilled workman, the cabinet maker, or the joiner, it is essential that he should have a select supply with him, and when not required they will return a good profit, with ordinary care in selling. To the single chap, who is going out to push his way, it hardly matters what he puts up with. Nevertheless, young man, you look after No. 1, and you will find in the hints I give to married people, they will apply in a large measure to yourself. It is for you to select what is applicable to your circumstances and tastes. As a general rule for those going in sailing vessels, I strongly advise the exhilarating (for that means strength and vigour)

powders introduced by Messrs. Lindsay and Co., of Bishopsgate. They are prepared specially to suit the more robust as well as the more delicate female constitutions, and in every form to meet the requirements of the varying temperatures that will be experienced on the voyage. These compact preparations afford a ready means of relief from any temporary attack of nausea or depression. The firm also prepare a preservative powder, which has extraordinary influence in arresting decomposition in animal or vegetable matter. From experiments I have caused to be made, as well as from the unquestionable evidence of utterly disinterested inquirers, I have ascertained beyond doubt that this preparation will preserve perishable food aboard ship with an ease and certainty far beyond anything I know of. It is of course equally useful ashore in the hotter months of the year. Lime juice, or rather its preparation as offered to the public in the agreeable form of "Lime Juice Cordial," by Mr. Crosse, is a most enjoyable glass of cool "grog" that you can have on the voyage, and is one specially adapted to improve the system and strengthen the daily health of the gentler sex of the immigrant's family. Nor is it by any means a costly invigorator of strength. I ought not, or will not, omit to mention the excellent convenience of a Gasogene, whether for the preparation of aërated waters on board or for future use on shore; it is of equal utility, and you will find it will serve you in a moment of need better than the ship's or the colonial doctor. The purity of water for drinking purposes is a matter that cannot be too strongly insisted upon. It is from the impurity of our drinking waters that the deadly typhoid, gastric, and other allied fevers arise, spreading destruction around, and snatching loved ones away from us. A potent safeguard is to make a practice of filtering every drop of water we use, whether on board or on shore. The excellent little pocket carbon filters meet admirably the demand for daily use, and they are also arranged for family con-

sumption. In this branch of my subject I can advise nothing more efficacious than for the emigrant to take with him a few ounces of the permanganate of potass. It is the base of the well known and well tried Condy's fluid. A small crystal the size of a pin's head will at once test the purity of a pint of water. The salt will turn the fluid to a rich crimson colour, and the more quickly a *brown* deposit is thrown down the greater the organic impurity, and hence the greater need of caution in the use of such impure water. The employment of the permanganate as a morning draught, or infused in the bath or wash-basin will be found highly refreshing and invigorating. It is exceedingly antiseptic, and immediately destroys all offensive odours; in every case it is a valuable agent for family use. The various preparations known as Patent Medicines are much higher in price in the colonies than at home. Many of these are of undeniable excellence, and you need not fear taking with you as liberal a supply as your means will afford. Should you have any on hand upon your arrival, they will sell readily if circumstances require it. Amongst others, I strongly advise the the voyager to take with him a supply of "Tic Sano." I have had frequent occasion to use it in my own family, the members of which have derived great benefit from its use. It is specially valuable in neuralgia and all nervous and rheumatic affections. It is necessary to impress upon the new comer that after arrival it is imperative to pay attention to the daily health, and by no means to neglect what may appear at the outset only trivial symptoms of disorder. "Prevention is better than cure," and by all means if any member of the family, however slightly, be affected, let it be attended to at once. Where it is in the power of the emigrant to command the use of a small medicine chest, I strongly recommend him to provide himself with a little pharmaceutical cabinet, such as furnished by Messrs. Corbyn, Stacey and Co., of Leadenhall-street. In it will be found all

that the emigrant can possibly require, as well as being of equal service after landing. These useful, and at times invaluable, adjuncts to an emigrant's comfort may be obtained from 30s. and upwards, with full instructions in reference to the use and administration of the various drugs and compounds contained therein. The disturbing effect of a new climate upon the system and warmer temperature during the day is frequently the cause of the immigrant taking cold, and this, if neglected, often leads quickly to serious illness. Soon, however, you become acclimatised, and the cause of the disturbance having passed away, you then enjoy the rude health of the old chums. In the way of creature comforts for use on board, you should take with you several tins of condensed milk —that prepared in Switzerland I am satisfied is the best. A few bottles of pickles and some vinegar will be found useful. Goodall's Yorkshire Relish is a capital thing to help down your soup and meat, more especially if the salt pork or beef should be a little "gamey." A bag of "Yankee Violets," more popularly known as onions, will be a boon to many, and often quicken a jaded appetite. I mean these remarks to apply only to those who have a cabin to themselves, or who occupy a top berth. A liberal supply of jams should be taken, as the butter on board too often takes the form of salad oil. Doubtless many other travellers will bear testimony of this fact, but this difficulty may be overcome by taking a pound or two of freezing powder with you. A ham, some potted meats, salmon, lobsters, sardines, anchovy paste, &c., are all useful. If you have them with you, you will frequently fancy one or the other when the appetite is good. Most people, after the first week or two is over, lose their own appetite and find that of a horse. I know when I first went to sea, I was but a puny *bud*, but I certainly landed a *full-blown Rose*, having gained over two stones in weight. Moral, the followers of Banting rotundity should leave all these good

things behind. A sardine opener, and corkscrew combined, will be found a useful pocket companion. Small-sized boxes, strongly made, are preferable for ship's use, and far more handy for travelling. In size they should not exceed 2ft. 8in. long by 1ft. 6in. broad and 1ft. high. These may be had at a very reasonable rate. Have with you a waterproof coat and hat for use in rough weather. I may advise you, as far as possible, to do with what clothing you have. You will find it better to take goods out in the piece, and have them made up in the colony. Take a writing case, with a supply of pens, ink, and paper. You may have opportunities of sending letters to friends by homeward bounders. A bachelor's companion, furnished with scissors, needles, cotton, buttons, &c., ought to be thought of by your sweetheart. Neither should a box of "Keating's Insect Powder" be omitted. Books, newspapers, &c., as many as you can find room for, will pass away many a tedious hour, and be acceptable on loan to others. Chess, draughts, and other non-gambling games, are also useful and frequently difficult to borrow. And now, farewell. May you meet with a comfortable ship, fellow-passengers of the right sort, have a prosperous voyage; and may health, wealth, and prosperity attend you in your new and adopted home, is the earnest and sincere wish of your colonial friend,

THE AUTHOR.

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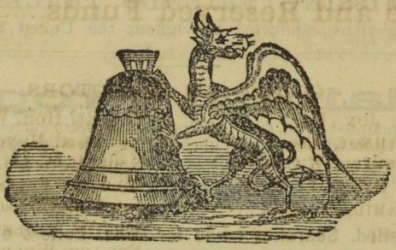
TRADE  MARK.

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