VICTORIA,

THE BRITISH "EL DORADO;"

OR,

MELBOURNE IN 1869.

PORT PHILLIP HEADS AND QUEENSCLIFF.

See page 7

VICTORIA,

THE BRITISH ELDORADO:

OR,

MELBOURNE IN 1869.

BY

ONE OF TWENTY YEARS' STANDING,

Two Coloured Views and a Plan.

LONDON
WARD & DOWNEY, 12, CHARING CROSS
1886

PREFACE.

TOWARDS the end of the year 1863, I arrived in Melbourne from Sydney. I was greatly struck, at the time, with the appearance of Melbourne, but my stay there was so short, that however much inclined to do so, I had no opportunity of studying the Victorian capital in detail, or of looking over the interior of the colony. However, time passed away, until the beginning of 1869, when I found myself once more at Melbourne on a second visit. On this occasion I was *en route* for England, but with ample leisure to examine minutely whatever seemed most to demand the notice of a stranger.

Accordingly I began my tour of inspection with Melbourne itself, including the environs; after which I proceeded to several of the more important parts of the interior, including the gold-fields. Thus my project was carried out on a tolerably extensive scale. I came into contact with whatever was most noteworthy, and was brought face to face with the great internal resources of a colony whose fame is already known in the most remote corners of the world. Of

the wealth and prosperity of Victoria I had, of course, heard much in common with thousands of other colonists in the neighbouring settlements, but of its vast resources—of its rapid commercial progress—I could not have formed any adequate idea: they altogether exceeded my expectations.

Under this aspect, it appeared to me desirable that matters of fact, of so much importance to the world at large, should be made generally known to those more especially concerned in what is called the material progress of the age. I am not aware that any work has previously appeared, which treats, in a succinct form, of the colony of Victoria as a whole, from the several points of view from which I have considered it. I venture therefore to think that this little work will help to fill up a gap, and to supply a want, at a time when our relationships with the colonies are constantly under discussion (sometimes in a very desultory fashion, displaying lack of knowledge) and when the question of emigration is receiving an amount of public attention not bestowed upon it at any former period within my memory. Such at least were the impressions produced upon my mind on my arrival in England,—where I soon learned that the distress I had read of had of late become aggravated; that trade had been languishing; that the relationships with the colonies had become

somewhat critical, and that the minds of thousands of artizans, labourers, and others thrown out of employment, were turned towards emigration as the only effective agency for providing what may be termed (in a *non*-parochial sense) "permanent out-door relief" for the surplus population of the Empire.

On becoming fully acquainted with the actual state of affairs I no longer hesitated to publish the results of my observations in Victoria. If the facts that came under my notice appeared to me, a colonist of old standing, to be striking and remarkable, how much more surprising, I thought, must they be to the ordinary reader, who has no personal knowledge of colonial life. One great obstacle to the progress of emigration has been the absolute ignorance and apathy that are to be found among the mass of Englishmen respecting the colonies. They bestow no thought upon them, such as they freely give to the sensational topics of the day. They do not "body forth to their mind's eye" the great fact that we possess colonies—territories of boundless extent, with soil and climate equal to those of England: they do not dwell upon the subject with sufficient persistence to enable them to picture to themselves, as an objective reality, the outlines—the form and features—of a great colonial Empire.

In the sketch which I have drawn of the colony of Victoria, I have studied correctness of outline rather than pictorial effect. My aim has been to state facts and results, and to enable the reader to see the country as I saw it myself. I might easily have given objects a certain *couleur de rose* tint had I been so minded; but it will be found that I have shown both sides of the picture—the dark as well as the bright surface. I have no personal or pecuniary interest in the colony. My principal object has been to call the attention of the public to the importance of the Australasian colonies generally, as adjuncts and outposts of the British Empire. And more especially to help forward the work of emigration, in which I have always taken a lively interest, believing that it is the most effectual means of relieving the distress that must always prevail in a densely peopled country of limited area—that has no longer space left for its redundant population.

LONDON, March, 1870.

CONTENTS.

CHAPTER IV.

CHAPTER V.

CHAPTER VI.

CHAPTER VII.

CHAPTER VIII.

CHAPTER IX.

CHAPTER X.

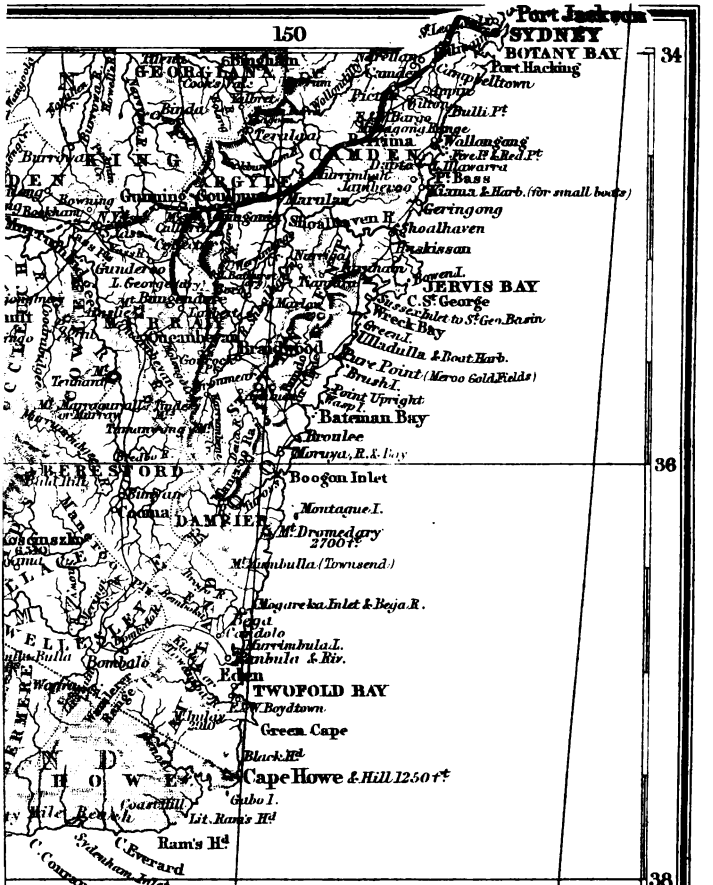
CHAPTER XI.

CHAPTER XII.

CHAPTER XIII.

CHAPTER XIV.

OBSERVATIONS AND SUGGESTIONS ON EMIGRATION.



MAP OF
THE PROVINCE OF
VICTORIA
1870.

Stanford's Geog.l Estab.t London

MELBOURNE IN 1869.

CHAPTER I.

INTRODUCTION—GENERAL REMARKS—AUSTRALIA—VICTORIA—PORT PHILLIP—COMPARISON OF COUNTRIES.

ACROSS the seas, at the antipodes, in the Southern Hemisphere, lies a country nearly as large as Europe, called Australia. It is in this island-continent—where the sky is bright, the air pure and clear—where the sun shines with Italian fervour, and where perpetual summer seems to reign (for the trees retain their verdure in the winter), that millions of acres of land of virgin fertility await the hand of man to give forth their riches, in the shape of *wheat*, *wine*, and *wool*, sufficient at once to feed and to clothe in abundance the surplus population of all Europe—even if they numbered millions.

In this land of sunshine, the vine-growers of Germany, the wheat-growers of England, shepherds from the Scottish hills, and labourers and artizans from the overcrowded factory towns and rural districts of Great Britain, may vie with, and mutually assist each other in founding new settle-

ments and comfortable homes in the midst of plenty and general prosperity. This wonderful land produces gold, too, in larger quantities, I venture to say, than any other country in the world. The existence of the precious metal in the soil has been a source of incalculable advantage; and to Australia itself the results have been something marvellous. The ground, however, yields but one crop of gold: the first crop is the last. No amount of ploughing, sowing, or chemical husbandry, can produce a harvest of gold; but fertile land, or land of average fertility, under proper cultivation, is virtually inexhaustible: it will always grow crops. Towns and cities may cease to exist—nations may disappear—but the land remains to supply material for the production of food and clothing, and for the habitations of men so long as the world endures.

What a stimulus to the poor unaspiring European labourer or artizan, "cribbed, cabined and confined" in his native home, would be the prospect of becoming the owner of a snug freehold estate of his own! What good resolutions, what energy, would be summoned up, and what visions of future Arcadian happiness would flit before his imagination! The acquisition of freehold land however is merely a dream which can never be realized by ninety-nine out of

every hundred men in the United Kingdom, under the peculiar circumstances by which they are surrounded *in their own country*. It is a dream, nevertheless, which may become a reality under certain conditions :—the saving of a few pounds (by careful, and if need be, by rigid self-denial for a few years), and a brief sea voyage, may ensure the coveted prize. Tens of thousands of the hardy sons of toil, if they will only be sober and industrious—if they will only put their shoulder to the wheel—if they will apply all their energies to a single point, with a purpose (and will save up), may eventually become the owners of real property, either in Australia or in New Zealand. With natural advantages, equal in proportion to its territorial extent to those possessed by Australia (as regards the production of wheat, wool, and gold), with a cooler and moister climate, and with unrivalled natural scenery, New Zealand, the Northern Island in particular, only awaits the establishment of peace with the natives to open her ports and her lands to the full and ever-flowing tide of immigration.

It may justly be urged that these lands are distant—a fact which cannot be gainsaid. At the same time it must not be forgotten that clipper ships will make the passage, say to Victoria, the most southerly part of Australia, in about ninety

days on an average; while powerful steamers, under canvas and steam, will accomplish the transit in *sixty* days or thereabouts.*

Australia is divided into five colonies, or provinces, each with a separate and independent government and legislature, namely:—Queensland, New South Wales, Victoria, South Australia, and Western Australia. Tasmania, an island of considerable extent, forms a sixth colony, located off the southern extremity of Victoria. As I purpose, however, as a rule, to speak only of what came under my own observation, during my visit, my remarks will be confined to the colony of Victoria.

Victoria forms the most southern portion of Australia. Its capital is the city of Melbourne, which, together with its harbour, Port Phillip, stands recessed in the centre of the southern shores of the colony. In territorial extent, Victoria is the smallest of the Australian colonies; but it is the richest in available land and mineral products when considered in relation to its area. It is held to be the most wealthy, important, and prosperous colony in the southern hemisphere.

Its principal harbour, Port Phillip, was discovered as recently as 1802; and so little was known of the

* While I was in Melbourne the clipper ship Thermopylæ arrived out in 62 days under sail alone.

country around it, that though a portion of it near the mouth of the harbour was selected, in the year 1803, as the site of a convict settlement, yet it was (very fortunately) considered by Governor Collins as unfit for even this inferior purpose, and accordingly, the following year, the place was abandoned, the penal settlement being removed to Van Diemen's Land, now called Tasmania. For thirty years after this event, what has proved to be one of the richest countries in the world was virtually "condemned"—shut out from colonization; and remained neglected, and almost unknown, to the civilized world.

As the size and extent of a country is best understood by comparison with others, it may afford a better idea of the territory of Victoria, if I give the area in square miles of this colony, in juxtaposition with that of several well-known countries.

	sq. miles.	sq. miles.
Victoria - - - -		86,831
England - - -	50,922	
Wales - - -	7,398	
Scotland - - -	26,324	
Scottish Isles - -	5,000	
Total - - -		89,644
Italy (without the islands of Sicily and Sardinia) - -		93,836

Italy (with all its islands)	-		-	120,000
New Zealand	-	-	-	108,498*

Australia proper itself constitutes the fifth great division of the world, and is estimated to cover the enormous area of about three millions of square miles.

* Keith Johnston's Gazetteer.

CHAPTER II.

ARRIVAL AT PORT PHILLIP HEADS—THE HARBOUR—THE YARRA YARRA—OUR HOTEL—REFLECTIONS ON THE GREAT PROGRESS OF MELBOURNE—SKETCH OF THE ORIGIN AND RAPID RISE OF VICTORIA AND ITS CAPITAL —RAILWAYS—THE PUBLIC DEBT—IMPORTANCE OF VICTORIA AS A DEPENDENCY OF THE EMPIRE.

So much for a cursory glance at Victoria. And now for a brief account of what I saw and did during my sojourn within its limits. We arrived off Port Phillip Heads by steamer in the early part of January, 1869. The weather was calm, and it was getting dusk when we entered the "Heads,"—a narrow passage about two miles wide, and formed by a high bluff on the left hand side, and a long low spit of land on our right. On the bluff is a lighthouse and signaling apparatus. As we steamed along, the water all round us appeared to be in strange commotion, as if agitated and inclined to boil over. This singular phenomenon is designated the "rip at the Heads," and very often makes timid persons feel uncomfortable as they gaze upon it, wondering at its cause. However, we were soon beyond its influence, and safe within the then placid expanse of Port Phillip Waters,

which looked like an inland sea, about forty miles in length, by forty in width.

On the shores of this great harbour are built two towns and a city. On the western shore stands Geelong, on Corio bay; and at its northern end, in Hobson's Bay, are William's Town, and the far-famed city of Melbourne. From inside the Heads we steamed up the harbour in the dark. Over a large area the water in Port Phillip is shallow; but as there are two good ship channels, well buoyed and marked off, but little danger or inconvenience is to be apprehended, especially with a pilot on board, as required of all vessels. It was nearly midnight when we arrived opposite William's Town, which is about five miles from Sandridge by water. Here we cast anchor for the night, and here the Custom House officers came on board, as well as the reporters for the press, to glean the latest items of news. Where we lay was about three miles from Sandridge and its two fine deep-water piers, with lines of shipping ranged along their sides, and a line of railway on the one called the Railway Pier. Sandridge is the landing port, and is a suburb of Melbourne, with which it is connected by an excellent railway, about two miles and a half long.

By daylight next morning we were gratified by a view of these surprising and unmistakeable evidences

of modern progress and civilization, as developed at the Antipodes. Our destination, however, was not for either of the two piers at Sandridge, but direct to Melbourne City by water. Our anchor was hove up by 6 a.m., and we steamed towards William's Town for the mouth of the Yarra Yarra river, whose channel we found running through mud flats, of which we saw little, as it was high water. When fairly inside the Yarra Yarra, we found it to be a deep but narrow river, winding its way hither and thither, first through swampy and scrubby ground, next by bone works, gas works, boiling down works, &c., all more profitable to the owners than agreeable to the visual and olfactory senses of travellers by this route. The windings of the Yarra Yarra were of such a serpentine character that one was puzzled sometimes to know how we should get round the sharp curves and angles of the river with our steamer, which was 448 tons burden. The task, however, was accomplished, and we were safely landed in Flinders Street, a busy and central thoroughfare, the heart of commercial life at Melbourne.

After a pleasant passage up the river of eight miles—which by rail from Sandridge would only have been two and a half—we stepped ashore from our steamer, which in a few minutes was safely

moored close alongside Steam Point Wharf, in the basin of the Yarra Yarra.

We no sooner set foot on *terra firma* than we were surrounded by hosts of competitors for ourselves and luggage. A car here, a cart there, a dray over the way, was speedily offered to our choice by clamorous voices. From this *embarras de richesses,* I soon selected a conveyance to take me to the Port Phillip hotel, in Flinders Street, where I took up my quarters for a short time. I liked the place well enough, and remarked to a fellow-traveller that it was a fine hotel, and well conducted—"Only rather dear!" he observed in return. "Perhaps," I replied, "but only consider the advantages—the *agrémens* of the locality, for which you must pay. Only look at the cool retreat at the back—a garden of tropical beauty, with an aspect so green and refreshing; and then think of that lively parrot, with his droll chatter, his singing and mimicry; to say nothing of the good wines, the well-kept *cuisine,* the handsome apartments, and the luxury of a bath, and I believe you will agree with me that accommodation of this kind is not to be got *pour rien du tout,* as the French say." My friend was silent, but this did not prove that he was satisfied or convinced.

For a day or two I walked about Melbourne, looking at its wide streets and fine buildings. I reflected

on its past history, and thought of its present aspect, and was struck with wonder and astonishment at all I saw. Good reader, no doubt you have lingered over curious legends and Eastern tales, which tell us of the wonders wrought in the olden times in far-off climes, by all sorts of supernatural agencies—fairies, and genii, and magicians, by divers kinds of "enchantment." Doubtless, too, you have read in more recent times of the sudden rise of great and populous cities in places which thirty or forty years ago were little better than a "howling wilderness," amidst the vast solitudes of boundless prairies and primeval forests in the New World—regions of the American continent unmarked by any tracks of civilization, and set apart, as it were, in perpetuity to be the hunting grounds of nameless tribes of Red Indians. And in any case you have probably thought it was impossible to outdo the marvels of the past, as set forth by romance, or as achieved by modern enterprise and industry. You may have thought that human progress, in the settlement of new countries and the creation of great towns and cities, had reached its utmost bounds within the limits of the Great Republic. But if you think so, I hope to be able to prove that you were mistaken; for in a certain British dependency—in an English colony named Victoria—a solid basis of prosperity has

been laid, accompanied by a rapid advance in population, wealth, trade, commerce, agriculture, the arts and sciences (everywhere visible), which, considering the short time it has taken to bring this progress about, has no parallel in the history of colonization, or of the civilized world. Well might the irrepressible Yankee, George Francis Train, after his zigzag wanderings over various parts of the globe, exclaim, "There is no place like Melbourne!"

Victoria was first colonized by a few free settlers under their leader Mr. Thomas Henty, from Tasmania, in the year 1834. These pioneers of settlement located themselves at Portland Bay, 234 miles from Melbourne. In 1834, however, there was not a house or garden on any part of the land on which now stand Melbourne and its suburbs. During the year 1835 Mr. John P. Fawkner and John Batman, with their respective parties, settled themselves down on the present site of Melbourne. Fawkner's party actually ploughed up and sowed with wheat a patch of land of five acres, on which a portion of the metropolis of Victoria is now built. The entire population of Melbourne in 1836 numbered only 224 souls. In 1837 its first land sales took place; in 1842 it was incorporated as a town; in 1851 Victoria became a separate colony (from New South

Wales); and in 1851 a rich gold field was discovered within 100 miles of Melbourne, at Ballarat. This year, '51, will ever be memorable in the history of Victoria. No less than 10,000 persons were landed in Melbourne during one week of that year. From that time forward its population increased with such astonishing rapidity, that at the end of 1867 the City of Melbourne and its sixteen suburban townships (now so contiguous to and nearly associated with the parent city, as to be destined before long to form one grand metropolis) contained 163,308 souls—of which total the City of Melbourne proper reckoned 48,500—while it could boast of a corporate income of £94,672; and while I was there the corporation were erecting a fine town hall, with a front built of beautiful white freestone, and in a style of architecture too, which, if not so imposing as that of the town halls of Leeds, Liverpool and Manchester, will, in my opinion, be considered remarkably chaste and handsome. I may here mention that most of the houses in Melbourne are built of stone, many of brick, and a few of wood. Striking as these results (with reference to Melbourne itself) may be, they are exceeded as regards the progress of Victoria, as a whole. On the 15th of August, 1835, the total population of the then "province" of Victoria was *fourteen* souls. In 1851

it had increased to 77,345 inhabitants. The great gold discoveries sent it up to 530,262 in 1859, giving an unprecedented increase of 452,917 souls in about eight years. In the beginning of 1868 the population of Victoria was 659,887; and the net revenue of the colony for the year 1867 was £3,043,899. Its imports for 1868 were estimated at £13,320,661, and its exports at £15,593,990. But as these gross totals of imports and exports included a sum of £1,305,825, the value of gold, the produce of New Zealand (in transitu), the absolute value of Victorian imports was £12,014,836, while that of the exports amounted to the respectable sum of £14,288,165.

In 1867 there were in the colony of Victoria nine millions of sheep, and 270,734 acres of land growing wheat. With a view to reduce the cost of transit from the interior to the sea-board, and at the same time to accelerate the speed, this young community had constructed and opened for traffic, at the end of 1867, no less than 271 miles of railway, as substantial and as durable as an English railway, at an outlay of £11,706,056,* being at the rate of £43,195 per mile. An extravagant rate to be sure, but mainly owing to the high prices pre-

* For my statistical facts I am chiefly indebted to the Victorian blue-book of 1868, entitled "Official Statistics of Victoria for 1867."

vailing at the time—combined with that lavish and wasteful expenditure that too often takes place when other people's money—that is to say, *borrowed* capital—is being dealt with.

The public debt of Victoria on the 1st of January, 1868, amounted to £9,480,800; and while I was in Melbourne in the early part of 1869, a further sum of £300,000 was actually borrowed by the Government at 5 per cent.,—a tangible proof of the abundance of money in the market, and of the confidence which local capitalists place in the future resources of Victoria. About the same time a still larger amount, namely, £2,107,000, was about being floated on the London market, but for certain reasons best known to the Victoria Government, I am informed that it has been withdrawn from the money market here.* I presume, nevertheless, that it will eventually be floated and placed,—for the money is required for railway extensions and for increased supplies of water for purposes of gold-mining and navigation. In that case the total amount of the debt of the colony will not be far

* On the 9th of March, 1868, this 5 per cent. loan, in £100 bonds, was placed on the market, the minimum price being fixed at £100. Only £588,600 was taken up at that price. On the 11th of January, 1870, the balance of £1,518,400 was offered at £100. 10*s*. The result was that the whole amount was taken up at a little over £101.

short of eleven and a-half millions sterling. Not at all a large debt for so rich a country, provided that borrowing be discontinued for a time, and that the capital raised by loans be expended on reproductive works, and reduced annually by payment of part of the principal as well as the interest.

Victoria produces more wheat and wine than she consumes, and with her exports of gold and wool she contributes largely—together with the rest of Australia and New Zealand—*to maintain London as the money market of the world and the wool mart of Europe.** The imports into Victoria from the

* The total imports of colonial wool into London for the year ending December 31st, 1869, were as under:—

New South Wales and Queensland . .	120,544 bales
Victoria	206,188 „
South Australia	66,097 „
Western Australia	4,861 „
Tasmania	17,362 „
New Zealand	85,329 „
Cape of Good Hope	134,163 „
Total	634,544 bales.

If we deduct 134,163 bales imported from the Cape of Good Hope, as shown above, we have the enormous quantity of 500,381, or, in round numbers, half a million of bales as the produce of Australia and New Zealand for one year. Add to this the estimated value of the yield of gold for Victoria and New Zealand alone, for the year 1869—amounting to seven millions sterling—and we may form a tolerably accurate idea of the paramount importance of the Australasian colonies to Great Britain. Judging them by their short past career the result is still more striking, for I find that the Customs'

United Kingdom for the year 1867 were valued at *eight* millions sterling. From this fact it will readily be observed how large a number of factories and workshops, of merchants and traders throughout Great Britain are kept employed in supplying the wants of this single Australian province alone. If the 450,000 persons who have emigrated from the United Kingdom to Victoria had remained at home, they must have been competitors for the limited amount of employment in the home market; and many of them, as paupers receiving parish relief, would have been eating up the resources of the parent country, instead of contributing to the general stock of wealth and comfort (their own to boot) as they now do.* The direct gain and advantage accruing to England in this respect, from her colonies, are too obvious to require any argument to prove the fact; although a novel theory has been main-

value of Australian gold exported—mostly to London—from 1851 to 31st December, 1868, was over one hundred and forty millions sterling, or in exact figures, £147,342,767. In fact, the value of the gold raised in the colony of Victoria *alone*, from the first discovery of the gold fields in 1851 to 1867, reached the enormous amount of £135,643,811.

* From the Government Colonization Circular I find that, from 1838 to 1868, no less than 927,815 persons emigrated to New Zealand and Australia. Of these 111,306 went to New Zealand, and 433,650 to Victoria.

tained of late, that colonial possessions, in general, are more burthensome than profitable to the parent country. The Australian colonies may have been very wayward, and sometimes inclined to carry things with a high hand, but they are loyal at heart, and still proud of their connection with the old country. Were the slender ties (in a constitutional point of view) that now bind these important dependencies to Great Britain to be suddenly and prematurely severed, there would, I fear, spring up such a feeling of "every one for himself," that a diminution of trade with, and of kindly sentiment towards, the parent country, would be the eventual if not the speedy result. It is of the utmost importance to the manufacturers, traders and commercial men of Great Britain to take note of this fact. Their interests and those of the operative classes, present and prospective, are immediately concerned. Some persons may imagine that trade would continue to flow in its old channels; but this assumption is open to grave doubt. The bonds of a common nationality which now link the Australian colonies with their Imperial "mother," being once for all dissevered, the colonists would consider themselves free to look abroad in the world for new connections and other markets which they might consider more profitable both for buying and selling. If in their present

undeveloped condition the trade of these colonies is of material advantage to Great Britain, what must that trade be a century hence, when the population of Australia and of New Zealand, respectively, will count by many millions? These facts must not be lost sight of, either by the mercantile man or the statesman who contemplates the probable future as well as the present condition of this great empire in its wide relationships with the other parts of the civilized world, which are already running a neck and neck race with us in the great handicap stakes of commercial enterprise and organized industry. Our exports to the United States of America, if taken at so much per head of the population, are really trifling as compared with the amount of business which we transact with the Australian colonies. We have now arrived at a point when all these matters must be well weighed and deliberately considered by the British public—but more especially by those with whom rests the responsibility of dealing with imperial interests in the last resort. My own impression is, that, at present, *it is too soon to part*. Still, if the family party is to be broken up, and if the sun is at length to set upon her Majesty's dominions, if we are to separate —let us, at all events, part as good friends.

CHAPTER III.

MELBOURNE AND ITS STREETS—SEWERAGE—THE SITE OF MELBOURNE AND ITS SUBURBS — HOT WINDS — CARS AND CARMEN—THE PUBLIC MARKET, SCENE THERE ON A SATURDAY NIGHT—CHEAP MUTTON.

THE city of Melbourne and its suburbs stand on a large block of land, which is mostly hilly and undulating, and through which "the ever-flowing Yarra Yarra" winds its course slowly to the sea. The city proper is so girt in and so closely connected with its sixteen suburban municipalities, named respectively, Fitzroy, Collingwood East, Richmond, Brighton, Brunswick, Emerald Hill, Flemington and Essendon, Footscray, Hawthorn, Hotham, Kew, Pentridge, Prahran, Sandridge, St. Kilda and William's Town—that they must eventually form one great metropolis. One suburb alone, Collingwood East, contains 20,000 inhabitants; and when I walked out of Melbourne proper into Collingwood, I was not aware of having passed from the city to the township. It all appeared to me as one great town: a stranger cannot of himself distinguish the difference; for the streets of the city are continued so as either to intersect, or nearly to communicate

with, those of the nearest of the suburban boroughs. The city of Melbourne itself is of course the most central, important, wealthy, and business-bustling part of the great group. It is laid out in the form of a rectangular parallelogram or oblong square, divided into 18 streets crossing each other at right angles. Its main frontage (its base line so to speak) is to Flinders Street and to the widest part of the Yarra—the basin where the shipping lies. Flinders Street, with its great sombre looking but business-like warehouses, built of dark blue stone, fronts and overlooks the wharves with their steamers, as well as the railway station with its great goods depot, and the neat and spacious fish market. At right angles to, and back from Flinders Street, run nine other streets over hilly ground. They are each more than half-a-mile in length, and are continued to outside the city. They have a uniform width of 99 feet, are macadamized throughout and provided with flagged footways 12 feet wide. The centre one of these nine streets is called Elizabeth Street; in point of position it stands the lowest, and seems to run almost on a dead level. It is, in fact, a valley between two adjacent hills, over which extend eight streets, four on either side. Elizabeth Street is only 22 feet above the level of the sea; and when the rain comes down (as it sometimes does with tropical violence in Melbourne) this

street becomes flooded, and acts the part of a great wide open sewer, along which rushes — crossing Flinders Street and falling into the Yarra Yarra— an immense accumulation of rain water mixed with sewage matter.

Parallel to and in the rear of Flinders Street, are eight other streets (Flinders Street makes the ninth) running across the nine streets above-mentioned. Five of these, including Flinders Street, are each 99 feet wide; the four others, I regret to say, are but 33 feet each in width. These nine streets, however, are all of one length—nearly a mile long from end to end, and five of them are the finest, and in fact, the principal streets in Melbourne. The names of these five leading streets are respectively Flinders, Collins, Bourke, Lonsdale, and Latrobe, streets. Running between, and in the rear of these five streets are the four narrow streets before-mentioned — which constitute in fact the "back slums." Here are situated the workshops with their manifold odours, noxious and innocuous; here, too, many steady and industrious families have taken up their quarters, and here congregate and herd together the lazy and disreputable classes—the scum to be found in every great commercial city. The names of these streets are not inappropriate— standing in contrast as they do with their more splendid neighbours. They are called respectively

Flinders Lane, Little Collins Street, Little Bourke Street, and Little Lonsdale Street.

As Elizabeth Street is the centre of the block in its narrowest breadth, so Bourke Street is the main and central street of its greatest length. Bourke Street, like the other streets which run parallel with it, is depressed in the middle, where it crosses Elizabeth Street, and elevated at either end. During any fine afternoon Bourke Street is thronged with pedestrians; but in the evening, and especially on Saturday nights, when the lamps and shop fronts are in full blaze of gas light, one sees, on looking down the street from the Houses of Parliament, an endless concourse of people crowding this great thoroughfare—a spectacle which is enhanced by the glare of lamps which fringe the vista on both sides—and the buzz and hum of many voices. If you want to see a crowd as dense and as motley as that of Oxford Street and Tottenham Court Road combined—go to Bourke Street, Melbourne. If you wish to put up at a palatial hotel, or to dine at a grand restaurant, or to ride in one of Cobb's coaches, or to visit a theatre or a concert room—go to Bourke Street. Do you desire to see bouquets of pretty barmaids, youthful, fast, or fascinating—go to Bourke Street East; but if you want a saddle for your nag, or the nag itself—pay a visit to Bourke Street West.

Should the ladies of your family require fine dresses in the newest of fashions or the gayest of colours—they must betake themselves to Collins Street, where they get the longest credit, and—pay the highest price. If you want a doctor, you have only to run to Collins Street East; and if you are in quest of a merchant or a banker, hasten to Collins Street West. From this it will be perceived that Melbourne, like London and Paris, has its special "quarters" for particular trades, callings and professions.

Almost the first thing that attracted my attention at Melbourne, was the unusual width of the streets and the palatial appearance of its stone buildings. The next thing, I confess, was not quite so agreeable, for it not only caught the eye, but also offended the nose. There, before me, were very wide gutters, one on each side of the street, along which ran the liquid sewage of Melbourne, until it finally discharged itself into the once pure and limpid waters of the Yarra Yarra. I believe the solid closet sewage is disposed of in other ways. At all events, here before the eyes of the public, a foul-looking and still more foul-smelling fluid runs its daily and appointed course—a filthy compound of liquids discharged from factories, dyehouses, workshops and private dwellings—emitting vapours which are anything

but "odorous"—especially in hot weather. It is urged, however, that these impurities are greatly diluted by the surplus waters of the Yan Yean reservoir. This may be true to some extent, but still enough of the original "villainous mixture" remains to be at times peculiarly offensive to pedestrians who walk along by the side of these open sewers. One day, while standing on the right bank of the Yarra, in Flinders Street, looking at the dark and still waters of the river, a steamer went past, ploughing up the stream with its screw, and displacing and bringing to the surface the under current. The water thus turned up appeared to be thick and of a blueish black hue, and emitted a most offensive odour—not unlike what our own Father Thames was wont to send forth a few years back in the wake of the river steamers, anywhere between Battersea and Blackwall. From these indications, it is to be feared that this part of the Yarra, below the falls, will become shallower by degrees—to say nothing of the noxious smells and their consequences in a sanitory point of view; little better in fact than a great open sewer. Surely this one great oversight in the original plan of the city—that of surface drainage, will be remedied by a system of underground sewerage which shall utilize the sewage and provide the means of fertilizing thousands of acres of poor

flat land that almost lie waste between Melbourne and William's Town and Geelong. No doubt the process would *now* be very expensive, and some sensible persons may be disposed to let things go on as heretofore, aided by a system of "deodorization." But depend upon it there is nothing like putting town sewage out of sight, and so to speak—out of smell, by conveying it miles away from where it was made —by an underground passage. In a city like that of Melbourne with its belt of suburbs, where the heat is often excessive, where the population is already above 150,000 (and in a few years more will probably be a quarter of a million), the question of sewerage cannot be treated lightly—nor indeed can it be overlooked or neglected much longer by those who are concerned and responsible for the salubrity of the southern metropolis—the Corporation of Melbourne. Otherwise a fatal epidemic may some day break out when least expected, and decimate the population—a far greater loss than the cost of a complete system of sewerage. In this respect Sydney is much better off. Melbourne is favoured with a plentiful supply of water, and abounds in wealth and engineering skill: let us hope that the "authorities" will turn these advantages to account in the direction, which I, as a visitor, have ventured with all due deference to indicate.

The site of Melbourne, in its topographical features, has been likened to that of Rome; for, including its suburbs, it is built on seven hills, namely, Richmond Hill, South Yarra Hill, St. Kilda's Hill, Emerald Hill, Batman's Hill, East Melbourne Hill, and West Melbourne Hill. The apparent similarity between these and the Roman hills might be carried further, by the likeness of the Yarra to the river Tiber. However, as Batman's Hill has almost disappeared to make way for railway improvements, the prospect of having an Australian seven-hilled city is seriously interfered with. In the city of Melbourne there are no squares or gardens, there is little else than streets and houses, suitable for business or pleasure—the order of the day. But the absence of squares is amply redeemed by the formation of fine parks and beautiful gardens in the suburbs.

Only two days after I landed in Melbourne I experienced one of those little 'flashes' of heat incidental to that city, and not, as I once supposed, peculiar to Sydney. It was hot—blazing hot! Though attired in light clothing, I found it excessively warm. As a screen from the heat my umbrella was of little use; it was no shelter against a hot wind. The wind was literally scorching; the air was charged with heated dust, and my sensations

were quite on a level with the oppressive atmosphere by which I was surrounded. I was at once hot, thirsty, and uncomfortable. I took some light beverage, to cool the inner and outward man, but the more I drank the more I wanted to drink. I felt unwell, and perspired profusely. It seemed as if there was no escape from the intolerable heat. At length, however, I espied a fine large stone-built cathedral—St. Patrick's, I think it is called (heaven bless him for having it put up!)—and remembering the coolness of continental churches, I fled for sanctuary—at least for shade—to the interior of this goodly temple, with its portals ever open to give refuge to weary wayfarers. I was not disappointed: it was as cool as a grotto—quite refreshing. I admire cathedrals in general, for their massiveness and external grandeur, as well as for their internal solemnity and splendour; and I may add, that I found this fine building in no way deficient in any of these essential characteristics. These cathedral interiors, with their lofty proportions and chaste outlines, help one for the moment to forget the concerns of the outer world, and it may be to bestow a thought upon the world to come. In short, I was loth to quit this cool retreat, but at length I did so. On inquiring the way to my hotel, of a respectable-looking man, I casually remarked

that it was "a very hot day," when he stared at me with apparent surprise, and replied, "Hot! I don't call this here a hot day." Well, I thought to myself, I wonder what it must be like when it is hotter. The next day, however, was fine and cool, and I felt quite well again. It is surprising, in fact, how the first cool day makes one forget the discomforts of the last hot one; and it is equally astonishing how soon people adapt themselves to the drawbacks and disadvantages of the climate they live in. The Londoner puts up with his fogs, his biting east winds, and his sudden changes of weather, and the Victorian with his occasional hot blasts—while each in his sphere, as a rule, learns to accommodate himself to the country that gives him daily bread, and in which Providence has placed him.

During the whole of my stay in Melbourne I never saw an omnibus, and only about a dozen cabs at their stand in Collins Street, near the banks and merchants' offices. The universal and popular substitutes for cabs, coaches, and omnibuses in Melbourne are two-wheeled cars in the American fashion. The bodies of these cars are square, open at the four sides, but covered over with a roof. In wet weather curtains are hung from the outer edges of this roof, so as to make the vehicle a sort of close carriage. Across the centre runs a double seat, on

which six passengers can sit back to back. As the floors are raised in the centre, and have a slope outwards back and front, those who occupy the back seat have to hold on by a leather strap when going up hill or crossing the paved sewer-gutters, in order to avoid the risk of slipping from their seats. These cars—or "cabs," as I have sometimes heard them called—may be very airy machines, but they are not *easy* to ride in, and those who are afraid of draughts must beware of a stiff neck. In some respects they are not unlike public conveyances which I have seen at Naples and elsewhere on the continent. When the vehicle is full, the driver (generally an Irishman) sits on the shaft, at the right-hand corner in front, while he urges on his poor heavy-laden jade with a free whip. In Melbourne, as in London, the genus "cabby" is apt to charge more than his proper fare, whenever he has a chance; but you can ride a considerable distance for 3*d*, and two miles for a shilling. Some of these Irish drivers are chatty and facetious. They tell droll stories in an off-hand sort of way, and sigh for the times—the early gold-digging times—when they could often pick up from £3 to £5 in a day. But things are now altered, as there is great competition amongst car drivers. Some of the new arrivals, and of the old hands too, like to hang about the town, rather

than go into the country where they could get more money. Some car-drivers told me that when they worked for employers their pay was about 20*s* per week, with board and lodging found—while a steady man, who hired a horse and car to drive on his own account, could clear, on an average, from 35*s* to £2 a week. Their hours, as a rule, are 8 o'clock in the morning until 12 at night, Sundays included.

Melbourne Market, at the top of Bourke Street East, is certainly not a fine building. In appearance, arrangement, and accommodation, the public market at Sydney is far superior. The Melbourne market —chiefly for fruit and vegetables—consists of five very long open sheds, with semi-circular corrugated iron roofs, resting on posts. The double sheds have cart roads running between them. The market-days are Wednesdays and Saturdays. Early in the morning on these days an animated scene is presented by the goodly attendance of buyers of potatoes, cabbages, pine-apples, peaches, apricots, plums, and grapes, and a variety of other fruits and vegetables too numerous to mention. These animated exhibitions of colonial market life attracted my attention on more than one occasion, in the months of January and February of 1869. This city market, however, is seen in all its glory on a Saturday night. It is

then radiant with gas which displays the stalls to advantage, while crowds of people throng on every side. Here a vast congregation of men and women, buying and selling, and chaffering and shouting; there a conflux of boys and girls, walking, talking, gazing, laughing and flirting. The articles offered for sale are as varied as the crowd, and present a monster collection of eatables and drinkables, wearables and tearables, hard goods and soft goods, of every description; in fact a little of everything spread out in the most incongruous fashion. On one table were oysters, on the next stockings; close at hand a display of crockery ware and shoes, carpenters' tools and scholastic books, piles of religious works and collections of songs, children's toys and pickles, hard bread and soft butter, grapes and potatoes, old clothes and cheese, new clothes and bacon, live opossums and dead ducks, parrots and cabbages, cockatoos and cucumbers, English ferrets and Australian magpies, brush-ware and tin-ware, tame rabbits and black swans; with divers sorts of vegetables and fruits, fish, flesh, and fowl—cheap and abundant. Above the din and clatter of the crowd, and the cries of vendors, might be heard the voice of a "Cheap Jack" bawling out "Sold again, to a gentleman with a thousand a year." Looking towards the upper end of the market, I caught sight

of 'Jack,' the owner of the stentorian lungs, standing on a platform in front of his covered cart, in the midst of his flimsy wares, and decked out in the quaint and flashy garb peculiar to the mountebank fraternity at country fairs in England. These fellows know from experience that their piebald costume, their effrontery, and their volubility, will always draw around them a gaping multitude, ready for a "bargain" when offered "for nothing." Not far from our 'cheap' friend was set up another English institution—"Punch and Judy," with the inseparable dog Toby—all hard at work on a very hot evening, and affording great amusement, apparently, to the crowd of Antipodean bystanders. Again I was attracted by a loud voice, pitched from near the centre of the market, calling out, "This way for cheap mutton!" I proceeded to where the sound came from, and soon found myself in the presence of a red-faced man in the garb of a butcher, standing on a barrow and surrounded by a crowd composed of both sexes. Around him were piled a number of half-carcases of sheep, ready dressed for cooking. Each half sheep would weigh, I should think, from 15 to 20 lbs. The mutton was sweet, and of fair average quality. The salesman was standing on his barrow-platform, holding up the half sheep (cut length-ways through the middle) while he waved

the other hand with animated gestures towards his audience. "Cheap mutton here! come along, now's your time; who'll buy my cheap mutton?" A pause ensues; the mutton is lowered for a moment, to ease the arm; up it goes once more, and then I hear him sing out, "Sold again, and got the *sugar* (a colonial slang word for ready money)—half a sheep for a shilling!" The purchaser this time was a little girl, who tottered along with her load, as if she held a little brother upside down. The price astonished me, and I thought there must have been some mistake; but I was soon undeceived, for a young man presently stepped forward and took another half at the same price. But notwithstanding the cheapness of the article, there were but few bidders; the supply was greater than the demand, and it was certain that the salesman would have several half carcases remaining unsold. While musing upon the scene before me, I was roused from my reverie by a loud voice shouting close to my ear in a sing-song tone, "Kangaroo boot-laces stout and strong—two yards long!" But I paid little heed to the itinerant merchant. My attention was absorbed in the contemplation of what I had just witnessed; and the words, "half a sheep for a shilling," still kept ringing in my ears. "How is this? where am I?" were the questions that rose to my mind; and the answer came

from myself. "Why, I am in the land of gold, of wine, of wheat, of wool, and of mutton 15 lbs. for one shilling." What, I thought, would the starving poor, the employed and the unemployed classes of London and Manchester, and of the other great towns and cities of England, Ireland, and Scotland, think of this, half a sheep for a shilling and scarcely any bidders?

CHAPTER IV.

REMARKS ON EMIGRANTS—HOT WINDS: THEIR EFFECTS—RATES OF WAGES AND PRICE OF PROVISIONS—EXCESSIVE CONSUMPTION OF ARDENT SPIRITS—HEALTH OF THE COLONISTS—AVERAGE MORTALITY—MELBOURNE CEMETERY—THE MUSEUM—THE "WELCOME NUGGET"—THE "WELCOME STRANGER"—A FORTUNE FOR TWO POOR MEN.

As the advantages of Victoria, as a wide field for emigration and settlement, far exceed its disadvantages, the colony can well afford to have its drawbacks fully enumerated. In Victoria I have heard some old, and also some newly arrived, settlers complain that before leaving home they were shown the bright side only of the Australian picture. Accordingly, to prevent disappointment to those who may read these pages and afterwards emigrate to Victoria, I purpose, as I have said before, to describe as far as they came under my notice, the shortcomings as well as the attractions of Victorian life. At the same time it may be observed that it is impossible to please every body, and that amongst any large number of emigrants, there are always the

"grumblers" to contend with;—I mean of course the habitual "grumbler," who, wherever his lot is cast, always seems discontented—the result perhaps of a morbid or melancholy temperament which causes the possessor to look upon the dark, rather than upon the bright side of nature. Or perhaps the individual has led a dissipated or indolent life, and has no inclination to earn his bread by the sweat of his brow.

In carrying out my purpose of giving both sides of the question, I must again glance for a moment at the climate of Melbourne, as regards the heat. On the 27th of January of this year (1869) it was oppressively hot in that city. To a new arrival, the heat and dust together were well nigh insupportable, for Melbourne was in one of its melting moments, and on this day was enveloped in a cloud of heated dust, almost as dense as a fog. In a preceding chapter I alluded to a Melbourne citizen, who in answer to my complaint about the heat, replied, "Hot! I don't call this here a hot day!" Perhaps, if I had met him on this day, he would have made the same reply; but if I had encountered him on the 19th or 20th of the following month, February (on Friday, the 19th of that month, the maximum heat was recorded by the thermometer at the Melbourne Observatory as 100.8° in the shade, and 137.1° in the sun) he

would have modified his opinion. Indeed the temperature has been higher than even this. For instance —on the Christmas eve of 1868, in some places in Victoria the thermometer marked 110 degrees in the shade, while it stood at 152 in the sun. On the occasion that I speak of, namely, the 20th February, it was hot indeed, and I felt it all the more severely as I had not been long in the colony, and had been walking about the streets for a part of the day. The sultry air was perfectly broiling. I took a bath by way of "cooler"—but the water was warm. I lolled on an easy chair—but the seat was scorching. I took hold of the brass knob of a front door upon which the sun's rays fell in full force, but I was soon glad to let go, for the knob felt as if it would have blistered my hand. All this time the perspiration issued from every pore, as if I stood in a Turkish bath. This produced a parching thirst. I drank iced ginger-beer, iced soda-water and brandy, and I even tried the noted American drinks at the "Albion;" but I found "imbibation" a delusion. And then the tormenting flies which buzzed in swarms round one's eyes! It was a "caution to snakes." As I looked up at the trees their leaves seemed to have shriveled up from the effects of the heat. But notwithstanding this I saw some labouring men at work near Reily Street, break-

ing stones out in the open air. I also observed a number of men trenching the ground two feet deep in Carlton Gardens. I asked them how they were paid, and how much they made per day. They told me that this work was given, by the town authorities, to those who were destitute of employment, as a temporary relief until they could find employment elsewhere. Some of them were old—others young. Several appeared as if they had never handled a spade before, and two or three looked as if they did not care to handle one now. Altogether there were some 30 or 40 of them, and they were paid at the rate of 5*s* for every square rod of ground that they trenched. Those that really worked told me they could make 3*s* 6*d*—others who could not or who would not work earned only from 1*s* to 2*s* 6*d* a day. I have no hesitation in saying, that to pay these men at rates varying from 1*s* to 3*s* 6*d* a day, for work done, was better than any other form of government relief in the shape of doles of money—which is calculated to encourage 'loafing' and vagrancy. The majority of the men I saw, were evidently of that 'ne'er-do-weel' sort, that hang on to towns and are content with a precarious existence. On quitting the Carlton Gardens —the 'hot-blast' or furnace heat still raging—I was accosted by a stalwart man with the words, "Dread-

ful hot, sir!" Well, I thought, I have at last found a Melbourne man to agree with me about the heat, and so it really must be hot. My new acquaintance was a mason. He carried some of the implements of his trade and a bottle, in a bag, slung over his shoulder. I entered into conversation with him. He told me he had been dressing hard blue stone all day in the broiling sun,—there being no sheds for the men to work in where he was; and this was the case elsewhere as well. I said I thought this very wrong, and that it should be remedied. He quite agreed with me; nevertheless he appeared to be quite satisfied with his position, and informed me that he was paid 10*s* per day of *eight* hours work. The weather was too hot he said, now and then in summer, but it generally did not last long. At the time I was speaking to him it had lasted 'long,'—two whole days. But the third came, and the heat was over. The next day, Sunday, was quite cool, the wind changed to the south, and it rained a little. Then the cabmen changed from cabbies in shirt sleeves to cabbies in great coats. I saw an old woman on her way to church with a fur boa round her neck. Still the change from extreme heat to extreme cold was welcome to man and beast, and grateful to the parched fields and vegetation. After experiencing

the effects of these hot winds, I no longer wondered at some Victorians, in Melbourne, sighing for the cool breezes and ever running streams of New Zealand.

As a rule the building trades in Melbourne work only eight hours per day; but the eight hours' system does not apply to the whole of the trades and occupations in Victoria. Wages are not as high as they were formerly—in the early days of the gold diggings; but this is made up to the workmen by the greatly reduced cost of living, consequent on much lower house rents and the extraordinary low price of provisions now prevailing and likely to prevail. From official sources, and also from private inquiries (with the results of which I have supplemented my government information) of practical men, I learned that carpenters, bricklayers and plasterers received from 8*s* to 10*s* for a day's work of eight hours. Masons were paid a shade higher than these rates.* Ordinary town labourers received from 6*s* to 7*s* per day, and common farm labourers from 13*s* to 15*s* per week, with board and lodging for the latter. Ploughmen received 20*s* per week; shepherds, £30 to £40 a year; married couples, £50 to £55 per annum; female

* Recent advices up to last December (1869) state the wages of carpenters to have risen to from 9*s* to 10*s* per day, and masons to 13*s*.

servants, £20 to £30 a year—all found in board and lodging. Sheep shearers were paid 12*s* to 16*s* per hundred. The rates of wages were not all alike in the country districts or in the towns, depression or activity in trade tending to vary them. But the figures I have given indicate the average rate. A friend of mine who has embarked considerable capital in wheat growing, on land situate at Majorca, told me that, during harvest time, he had paid harvest labourers from 6*s* to 7*s* a day, besides their food. For a good farming man he paid 35*s* a week all the year round, and found him a cottage to live in. The harvest men were fed in a most substantial way — no stint—meals frequent. I doubt if an English agricultural labourer, or a Scotch hind, would believe it unless he saw it. The harvest labourers of my friend commenced work at 5 in the morning; breakfast at 7; lunch at 10; dinner at 12, noon; tea at 4 P.M., and supper at sunset, when they left off work, having had five hearty "feeds" during the day. Let the Dorsetshire labourer who toils wearily a field with an "empty belly," and has to make his dinner off a short ration of bread and cheese, or (lucky when he can get it) a slice of fat bacon, think what a change it would be for him, if he could get five good "tighteners," with plenty of meat, every day to help him along with his work!

In the principal towns of Victoria there are (as elsewhere) high-priced butchers and bakers who deliver their bread and meat, give credit, lose money by bad debts, and are consequently obliged to charge more for their goods than working-people—who buy their bread and meat at shops and markets suitable to their wants—can or need give. With mutton by the half carcase ranging from 1*d* to 3*d* per lb., retail, 1½*d* to 4*d*; beef, 4*d* to 6*d*; bread, 1½*d* to 1¾*d* per lb.; with colonial beer cheap, and grapes cheap, Victoria should be a happy land—the "working man's paradise." And so it is to those who do not waste their money upon intoxicating drinks—ardent spirits. It is useless to conceal the fact, that the population, high and low, of the Australian colonies indulge too freely in strong potations, and this too in a climate which is of itself stimulating, and where, accordingly, stimulants are not requisite. But then, some Englishmen, Scotchmen, and Irishmen, think they must do as they did in their respective "old" (and cold) countries—even if they ruin their prospects and shorten their lives by doing so. Why, in Victoria, out of a customs' revenue of £1,432,073, for 1867, no less a sum than £596,224 was derived from the duties levied on ardent spirits alone. In New Zealand the total revenue for 1867 was £843,804, of which amount £351,205 was actually raised from

spirituous liquors. The number of gallons of spirits imported into Victoria during the same year was 1,910,819. If we allow for large quantities re-exported, or sent across the Murray into New South Wales, there would be, in round numbers, about a million and a-half of gallons left as the consumption of the population (659,887) of Victoria. By far the greater portion of this would, of course, be consumed by the males, numbering—infants to adults inclusive—372,239. Throughout the British Empire the consumption of strong drinks is enormous, compared with what I have seen in various states of Europe. The amount of vice, crime, poverty and privation thus needlessly, and I might say, heedlessly, engendered, is something fearful to contemplate. The future benefactors of the British race will surely be those men who devote their energies, with success, to the discovery of some cure for the deeprooted and destructive vice of drunkenness.

The general appearance of the inhabitants of Melbourne is that of a well-to-do people. The population have an air and look of independence and respectability. The citizens for the most part give one the idea that they are healthy and active. They seem to enjoy good health, though their complexions are sometimes blanched. Some, I observed, had a habit of keeping their eyelids half closed when

out of doors, doubtless to shut out the sun and the dazzling effect of a bright atmosphere. Rosy cheeks were sometimes to be seen, but they generally belonged to new arrivals. I see no reason why Australians should not be as healthy and as long-lived as people in England—if they only conformed to a mode of eating, drinking and clothing suitable to the climate. Butcher's meat three times a day, with a goodly accompaniment of strong drinks in between heavy meals, is, I should imagine, too heavy and too stimulating a dietary for a warm climate. The atmosphere is dry, which conduces to health. The hot winds are disagreeable, but they only occur some few times in the year, and are soon over when they do come. On the other hand, the changes from heat to cold are sudden, and they require to be carefully guarded against, for they are inimical to persons of delicate constitution. When I have stated these facts, I have said the worst of the Australian climate, in Victoria. The death-rate in Melbourne, in 1867, was 24·71 (or 24¾) to every 1000 inhabitants; but for the whole of Victoria it was only 18·06, or, in round numbers, 18 in every thousand. In considering this favourable result, it must be borne in mind that the population of a young colony has not, as a rule, many aged people: it is mostly composed of the young and healthy of

both sexes: such only are fitted, and such only selected by emigration agents to perform the hard work of colonization. Men in the prime and vigour of life are the men to give up home and country, to found another in distant, and at times unsettled, lands: the sick, the aged and infirm are left behind to increase the death-rate in a greater ratio than would be exhibited, if the men of youth and enterprise had not gone away. The death-rate in the colony is low, because all the health conditions are more favourable than they are at home—at least as things are at present. I submit that this view of the subject is reasonable, and that a fair comparison between the rate of mortality in England and in her colonies, respectively, cannot fairly be instituted, until the whole of the present race of colonists has passed away and is succeeded by a generation of native-born Australians, (and, even then, there will be disturbing causes from fresh streams of emigration) who may be presumed to have discovered the best ways of accommodating themselves to the Australian climate—whereby, no doubt, they will have secured for themselves to an equal extent, if not to a greater, the blessings of health and longevity enjoyed by their British forefathers.

No metropolis could be much better supplied with domains (in which original native trees stand in

grass lands) than is Melbourne and its suburbs. These ample reserves have been appropriated for parks and for various other purposes of a public character. The Cemetery reserve just outside the town, consisting of 160 acres, is beautifully and artistically laid out with walks and ornamental shrubberies. At the intersection of some of the walks are handsome summer-houses of an octagonal shape, affording shade from the sun, and shelter from the rain. There are numerous tombs and monuments constructed of marble or free-stone; and in the part of the ground where very poor people are buried, I noticed rows of fresh made graves side by side. I inquired of the grave-digger under what regulations the poor were buried. From his explanations I learned that their graves were dug from seven to eight feet deep; that the first coffin being lowered to the bottom of the grave is covered over with a "sprinkling of earth" just enough to hide it from view, for one or several days, as the case may be, until another coffin arrives to take its place on the top of the one already in the grave; and that this operation is repeated until the grave is full—that is to say, until it contains three or four bodies. Here they lie packed closely together—"dust to dust"—stranger to stranger—seldom friend to friend. There is at least one good regulation con-

nected with the graves of the poor, namely, that the lid of the top coffin must be three feet below the surface of the ground. I looked into several graves containing each but one coffin with the customary "sprinkling" of earth thrown over them, and it occurred to me with some force, that if coffins were suffered to remain in this condition for several days in very hot weather, the results, in a sanitary point of view, might be, to say the least, objectionable. The charge for each body interred in this "poor" way is 30*s*—that is, I presume, if the friends of the deceased have the means of paying it. At all events, the general rule is that the proprietors of the cemetery receive £6, when each grave has taken in its "full" complement of four bodies. In order to meet the wishes of different religious bodies, there are separate portions of the ground set apart and appropriated to the various communities of Christians —as well as separate chapels for the performance of the last rites of religion. The grounds are well kept, and present the appearance of a garden filled with beautiful monuments; so far, at least, as the oft-repeated and frequently inartistic designs of cemetery masons may claim to be regarded as 'beautiful.' To walk through this burial ground and see the tombs of so many young people, who left their northern homes full of life, enterprise, and high

expectations is a melancholy sight—relieved in some measure by the presence of flowers and evergreens mingling in abundance amidst the graves, and hallowing "God's Acre" with their fragrance and beauty.

One day, I paid a visit to the Melbourne Museum. The Melbourne University forms a part of it—supplemented by a building at the rear—the latter being a large hall, 150 feet in length by 66 feet in width. The space within this hall is further supplemented by galleries running round its four sides. It contains a valuable and interesting collection of stuffed birds, animals and reptiles peculiar to Australia. Besides which it possesses—what is of far more importance in a practical point of view—the finest and most complete collection of models of mines—alluvial and quartz—together with models of mining machinery—that is anywhere to be found. Here is also a model of the celebrated "Welcome Nugget" which was found at Ballarat, on the 9th of June, 1858, and which weighed unsmelted 184 lbs. 9 oz. and 16 dwts.* This nugget was considered to be the largest in the world; but during my stay in Melbourne two poor labouring men, respectively named Deeson and Oates, who for some time had been at work digging and washing "stuff" for gold

* One authority gives the weight at 184 lbs. 9 oz. 6 dwts.

on some land in Bull-dog Gully, at Moliagul, in the Dunolly district of Victoria, found a still larger nugget. On the 5th of February, 1869, these two men (as related by the *Dunolly Express*) were at work on their claim, digging about the roots of a tree, when Deeson's pick struck something hard. As it struck the ground with the point, he remarked, "D—n it, I wish it was a nugget, and had broken the pick." Sure enough it was a nugget, which nature thousands of years ago had embedded in the earth, and here it had lain for countless generations, with but two inches of soil over it to hide it from view. The men's hearts must have been well nigh ready to leap into their mouths, as they laboriously, and with great effort, unearthed this ponderous mass of gold. This nugget they named the "Welcome Stranger." After Deeson's sitting up with their great prize the whole of the night, they conveyed it to the London Chartered Bank at Dunolly, where it was broken up. It took five hours to break and cut it to pieces by means of a sledge hammer and cold chisels. After this, it was melted, and found to contain 2268 oz. 10 dwts. 14 gr., equal to 189 lbs. 10 dwts. 14 gr. troy, of pure gold, exclusive of about a pound weight of "gold chips" given away—before the mass was smelted—to their particular friends. It was fully five pounds heavier than the

"Welcome Nugget" (which was weighed before smelting); and it is therefore now the "Welcome Stranger" nugget, which, before being melted down, was the largest nugget of gold in existence, and brought the lucky finders nearly £10,000 sterling.

CHAPTER V.

THE THEATRE ROYAL—THE REFRESHMENT BARS: INCIDENTS OUTSIDE — CHINESE POPULATION — CHINESE JOSS-HOUSE—CHINESE CARVING—NO CHARGE FOR ADMISSION — FASHIONABLE PROMENADES — STYLE OF DRESS—PUBLIC PARKS—THE YARRA-YARRA—BOTANICAL GARDENS—SCENERY OF STUDLEY PARK AND THE YARRA.

THEATRICAL amusement is abundant in the city of Melbourne—Melbourne has several theatres. The principal ones are in Bourke Street. When I was there the Theatre Royal held the palm of superiority. It is connected with an hotel, and has its principal entrance from Bourke Street. The entrance leads to a fine hall, which in its turn leads to one of the interior doors of ingress into the theatre itself. This elegant hall has its modern attractions: it has two "refreshment bars," one to the right, the other to the left of you, as you enter. These bars were attended to by ten (of course) good looking but rather showy young ladies. Five men were placed on each side behind the bars; but they did not appear to be remarkable for politeness or good manners, and the civil phrase of "thank you" was one which they

had apparently forgotten—if, indeed, they had ever learnt it. Perhaps they were not aware that a certain show of "colonial independence" is quite compatible with London civility, and tends to maintain mutual respect. Cases of this kind, however, are not general in Melbourne; but I came across a similar instance of this uncultured manner at a certain hotel, not far from Heidelberg, where, having called for a bottle of wine, it was brought to myself and party by a very young woman, who put down the tray, with the glasses turned upside down, took the money, and left the room without speaking, leaving us to arrange the glasses ourselves. This may seem a trivial matter, but it would not occur in England, and I only mention it to show that colonial manners are sometimes offhanded, if not rude. However, notwithstanding these little omissions of ceremony, which time will doubtless remedy, Melbourne is wonderfully like a great and prosperous commercial city in England. Melbourne, indeed, like the older cities of Europe, to some extent affords contrasts between plenty on the one hand, and poverty on the other; proving, by the "logic of facts," that poverty in one shape or another, is a permanent evil—inseparable from the social system—always to be battled with and relieved, but never to be wholly extinguished.

While standing on the pavement in front of the Theatre Royal, I could almost fancy myself in front of the Haymarket Theatre in London. There were groups of little girls selling bouquets of flowers, and a boy selling matches. I observed one curly-headed little fellow, about six years of age, selling cigar-lights. He came up to me. "What does father do, my little man?" I asked him. "He is sick, sir," he replied; "will you buy a box of lights?" So I took two boxes of him, by way of encouragement, but as I did not require such wares, I returned them again, which seemed to give him infinite pleasure, and he toddled off grinning, to look out for other customers.

Melbourne has its Chinese quarter in Little Bourke Street. Here are numerous shops and houses occupied by Chinese, who supply the peculiar wants of their countrymen, including the staple requirements of tea, rice and opium. There was nothing attractive in the appearance of these shops: they were dull, dark, and not very clean. I could find only one handsome Chinese shop in all Melbourne, and that was kept by a "celestial" individual rejoicing in the name of Fong Fat. He indeed, had an excellent display of Chinese fancy goods, in the way of carved ivory work, ebony work, percelain baskets—besides tea and tobacco.

Numbers of these Chinese immigrants are hawkers about the streets of Melbourne. They carry their fancy wares in baskets suspended from the ends of a stout bamboo cane laid horizontally across the shoulders. Their flat and tawny visages, peculiar dress and manners (which contrast so strangely with those of Europeans) form one of the singular sights of Melbourne.

The first great influx of Chinese into Melbourne caused considerable anxiety. There was some alarm lest John Chinaman and his fellow celestials, with their remarkable institutions, should take root in the country; for in 1857 they numbered 34,874. They were nearly all males, and it was said they had many objectionable customs and practices amongst them. Just before that a poll-tax of £10 "per nob" was imposed upon them to restrict their ingress into Victoria. However, eventually, the social difficulty proved not to be of such magnitude as had been asserted; and it was further abated by the gradual diminution of the Chinese population, from 34,874 in 1857, to 24,732 in 1861; at the latter date there were only eight women in the community. At the close of 1867 there were 15,676 Chinese employed in the gold fields, or 4458 less than the previous year. As far as I could judge from what I saw of them, the Chinese appeared to

be a frugal, temperate and industrious class. In gold-hunting they dug away in ground upon which Europeans did not think it worth while to bestow their labour. In fact they were the *gleaners* of the gold fields. Moreover, they cultivated their ground with great labour and perseverance, producing abundant crops of vegetables in perfection. Still, practices of a debasing character were known to exist amongst them; and after all they were only birds of passage. A few, however, got married to European women, and are likely to settle down where they are. The great bulk of them contributed to the resources of Victoria, and added to its wealth and revenue. These facts should not be forgotten in legislating for the Chinese. Exceptional laws are sometimes accompanied by injustice; and as there is now no fear of the population of Victoria being inundated by an exodus issuing forth from China (as appeared not unlikely to be the case at one time) it is but in accordance with the spirit of the age that restrictive legislation, as regards the Chinese, should be reconsidered.

If the Chinese in Victoria did not bring with them from the celestial empire the "wives of their bosoms," they brought with them—*en revanche*—the idols of their forefathers. This fact, of which I had previouly heard, was made patent to me on a certain

occasion, when I paid a visit to Emerald Hill. On Emerald Hill, a suburb of Melbourne, stands a Chinese Joss House, or place of worship. It is an imposing edifice. It is high and built of brick; the front, incongruous, but ornamental in style, is faced and finished in compo-work. Divers incriptions and characters, as well as a variety of gay Chinese flags "hung out," distinguish it in a marked manner from the surrounding buildings. The front doors were closed when I first saw it; but on looking about I perceived a Chinese attendant. I pointed to the joss-house, and intimated in dumb show that I should like to enter. He pointed to the door, and nodded his head. I went in by a side door, and found myself in a kind of ante-hall, in which was an altar, and which bore some resemblance to a Roman Catholic chapel. Passing through this I entered the grand hall, spacious and lofty. Here I could well have imagined myself inside a gigantic curiosity shop, decked out with ancient but motley-hued flags and streamers, bearing inscriptions, which to me were mysterious emblems and hieroglyphics.

The hall was divided into two nearly equal parts. The back portion of it appeared to be the sacred part—the *sanctum sanctorum*. The effect of it was that of gloomy and grotesque splendour. The front or outer half, where I stood, was more light and

cheerful. Here the walls and the ceilings were hung with a profusion of gay bunting, gaudy emblems, balloons, and long narrow boards: on most of them were inscriptions in Chinese characters, executed in blue and gold, interblended with and relieved by beautiful red and green colours. These different objects were hung so thickly as almost to hide the ceiling. In one corner stood what looked like a huge vertical umbrella. Imagine an umbrella with perpendicular sides—in fact a hollow cylinder, about five feet high and three feet wide, formed out of beautiful tapestry, fringed along the border, and supported and carried about by a long thick stick running up the centre to the cover at the top.

The inner, or what I took to be the "sacred part" of the *temple* was shut off from the outer part by a railing, and the floor was slightly raised and approached by an ascent of two steps. I entered the fane. In the centre of the front of it were placed two altars, one behind the other. The base of the front one was exquisitely and elaborately carved in relief, the figures and foliage being gilded and standing out from a black ground. Suspended above, but in advance of this altar-piece was another fine specimen of Chinese carving. It represented apparently a tournament, and was executed in high relief. The figures were coloured green and gold,

and stood out from a panel having margins of red and black all round. The equestrian figures on this panel appeared to stand out from a back ground of mosaic. The more I looked at this singular work of art, the more I felt convinced, that in whatever else the Chinese may be deficient, they are our masters in many, if not all kinds of carving. Arranged on these altars and about them, were various specimens of carving and gilding, representing brazen instruments and figures of an imaginary character, unlike any natural object, animate or inanimate. There were also some very fine porcelain vases, and a variety of nondescript articles—uncouth "fixings" in brass and other metals, and a mass of grotesque ornaments; making up an "omnium-gatherum" of celestial paraphernalia rarely met with outside China. All this time I was alone, and my eyes had become accustomed to the faint light of the place. As I peered curiously about me, I expected every moment to see a high priest of the temple, or at least an attendant, start forth from one of the numerous recesses, or from behind the drapery, and interrogate me, with "What dost thou here, O stranger?" But I saw nobody—heard nobody: all was silent. There was a passage round and between the front and back altars. The farther I proceeded in exploring these passages the darker it became.

The only light was from two dim and glimmering lamps on the back altar. There might, I thought, be an open trap door in the floor. I found none; but in one corner I saw the figure of an animal—half goat—half pony. What effect was all this idolism and symbolism intended to produce? If to create a sentiment of awe and fear on the part of the heathen worshippers, I confess the arrangements were well calculated to beget that result. At length I quitted the temple as I had entered it, without having seen any one; but on leaving, I looked in at a little office or porter's lodge near the side entrance, and with the recollection of European custom lingering in my memory, respecting the tolls levied of visitors at such places as Milan Cathedral and Westminster Abbey, I asked a Chinaman who was busy scrubbing some utensils of brass—probably sacred vessels belonging to the temple—"What's to pay?" He replied "No understand." So pointing to the Joss house, and holding up a shilling, I offered it to him. But waving his hand with a deprecating gesture, he said, "No money," which I interpreted to mean "No charge for admission," and walked away, not without some admiration for Chinese notions of ecclesiastical propriety.

The inhabitants of Melbourne appear to be scarcely ever dull. During those warm, clear and beautiful

days which in Victoria are neither "few nor far between," the good citizens of the Southern metropolis (especially the female portion) "take their walks abroad" and enjoy themselves with wonderful zest. Rich or poor, gentle or simple, there they were, promenading, shopping, sightseeing or picnicing—some riding—some walking. The first-class carriages, I noticed, were generally filled with fashionably dressed people; the second-class with passengers respectably attired. I saw no third-class carriages on the suburban railways; but on one occasion I observed on the Castlemaine line third-class carriages open at the sides, and occupied mostly by Chinamen. In Collins, Bourke, Swanston and Elizabeth Streets, on a fine afternoon may be seen, regardless of heat up to 80 degrees, hosts of ladies flitting about in the most airy and fascinating style—fluttering like so many butterflies in the sunshine—some very pretty, but all interesting to look at, though generally having pale complexions. As to their dresses, I am at a loss to describe them—so great is the variety of tint and texture. I have seen the "Row," in Hyde Park, and Regent Street in London; the Champs Elysées in Paris; the great square of St. Mark's, Venice; the Corso and the Pincian at Rome; and the Toledo at Naples; and in the matter of dress, I would undertake to match

the ladies of Melbourne against the fashionable dames who frequent the promenades in question: in short, they dress in the extreme of fashion. There was the diminutive and dainty bit of a bonnet perched on the top of the head; there were graceful robes of light texture and varied hue; there were elegant but flimsy toilettes in white, artistically trimmed with a mazy outline of blue. The designer of these dresses and decorations (whether male or female) must have been something of an architect, or an "*artiste*" acquainted with geometry, for there was a good deal of scroll and plain arabesque work displayed in the designs. Other ladies there were walking on the footpaths, and sweltering too, I should imagine, in sombre dresses and bonnets made of stuffs or silks —in various shades, from brown to black. Again you may see a bevy of young ladies resplendent with ribbons of every hue in the rainbow—(the Melbourne "girls of the period") dangling down their backs or floating like streamers in the wind. All these diversities, however, harmonize very well together, and produce a picture of out-door life very agreeable to the spectator—very airy—very gay and lively; and, no doubt, very satisfactory to the Pa's, Ma's, and husbands who could afford to "stand" so much fashionable finery. All this may possibly indicate a tendency to extravagance, and a love of display;

but it indicates at the same time a large mine of wealth in the background — a certain amount of affluence and luxury, which proclaim the rapid strides which civilization has made, and the large and rapid fortunes which settlers are enabled to accumulate, in the colony of Victoria.

Many of the streets in Melbourne are furnished with verandahs, as wide as the footpaths—affording an agreeable shade from the sun on hot days, and shelter from the rain in wet weather. The main thoroughfares are well watered in summer; this cools the air, keeps down the dust, and makes it pleasant to walk about. Occasionally, however, the flying clouds of dust are so great, that no watering or other contrivance can overcome them. These dust-clouds will then envelope everything within reach, and will even penetrate into the houses. Fortunately these "dust-storms" are soon over. Winter is considered to be the pleasantest season in Melbourne; only then the gay and pleasure-loving citizens miss the flowers, the fruit, and the pic-nics which the summer and autumn bring with them. But we are most of us hard to please—poor weak mortals that we are! I wonder what sort of a world it would be if we all had the regulation of times and seasons, according to our caprice, or our "noble phantasy." Winter would be too wet and cold, or

summer would perhaps be too warm and dry for us. It reminds one of the words of the poet, "man never is, but always—to be blest." I suppose the true philosophy is to be content with things as we find them.

Collingwood is a large and important suburb of Melbourne. Most of the working people reside in this quarter: there is room for improvement in its streets and dwellings. There are many shabby looking houses of the early days, and not a few wooden ones.

As I have previously observed, there are but few places that can boast of such great public reserves of land as Melbourne possesses. What is called the Great Park appeared to me to be the largest of any, and to contain at least 1000 acres—if we include the Experimental Farm, Acclimatization Society's Grounds, the Cemetery, Prince's Park, Show Yards, Horse Market, and University Grounds,—all of which appear to be within its boundaries. The Royal and Prince's Parks may be said to be still in their primitive state; they are green with native grasses, and dotted with scrubby and crooked native trees. I believe most of the large trees once there, were cut down to supply timber for the wants of the early settlers. The Acclimatization Grounds, when I saw them, were in excellent order and well stocked with choice collections of plants and shrubs, and with a

great variety of birds and animals foreign and domestic, which it may be hoped, in the course of time, will spread their progeny abroad all over the colony. The Society's grounds are well worth a visit.

The outdoor sight which chiefly attracted my attention was the river Yarra, above Prince's Bridge. This fine stone bridge, a single arch of 150 ft. span, was completed in 1850, and separates the traffic or shipping portion of the Yarra from what may be called the rural or sylvan part of it, above the bridge. I looked over the parapet and up the stream, and then glancing downwards at the waters beneath me, observed that they were deep and dark-looking. This part of the river is not nearly so much contaminated by sewage as that below bridge, and being free from the flow of tidal water, is fresh, though not used for drinking purposes. Before me in the stream was a pretty sight, that would have gladdened the eyes of amateur oarsmen and connoisseurs on the Thames, anywhere between Putney and Kew:—there lay a number of gaily painted skiffs and pleasure boats, of every size and variety, and of the most approved style of construction. These trim-built craft can be hired by the hour or distance, whether by parties proceeding up the river, or by "ingenuous youngsters"

who merely want to have a "pull" on the water. On the opposite side of the river was a boat-building establishment, which appeared to be pretty well patronized, judging from the number of pleasure boats which I noticed passing up and down stream.

At length I quitted my post of observation on the bridge, to walk along by the side of the Yarra. To see a river, and to know that it is never dry, is a pleasure most highly appreciated in Australia. The Yarra, starting from the bridge just mentioned, has "Richmond Park," with its famous Cricket ground, on the right bank, and the Botanical Gardens on the left. I continued my walk along by the Yarra, passing first through a shady grove of acacias, and next through a plantation of willows, which brought me to some pleasant and well shaded tea gardens, where colonial wines, fruits, and cakes, could be obtained at moderate prices. I was now at the entrance to the Botanical Gardens. For some distance above and below this spot the Yarra is about 100 feet wide, and in some places from 20 to 40 feet deep. A gardener who was watering some young trees recently planted on its banks, told me that not far from here, at the iron bridge, the river was over 50 feet in depth.

From out of the tea-gardens I stepped into the Botanical Gardens—a picturesque block of hilly and

undulating land, with a margin of flat swampy ground by the river. These Gardens have their gravelled walks, their rare collections of trees, shrubs, and flowers, their hot-houses for exotic plants, their aviaries, their pavilion for music, and their trophy of Russian guns, encompassed by a spiked fence—similar to that which stands (or at least which formerly stood) in St. James's Park, London. How the Australians do like to copy Old England! There is no place like it, they say: they are proud of it—of having sprung from it; and this sentiment is almost as strongly cherished by the new generation, who have never set foot on the ancestral soil, as it is by native-born Britons. And yet, perhaps it might be urged, they have not too much to thank England for, in the shape of material aid and assistance in their start in life: from the outset they have been mostly self-supporting as colonists, and now it may be affirmed they are completely so. At all events, they are intensely loyal as a whole. Does Great Britain take note of and value this loyalty? If on no other account but for the sake of her own greatness, let us hope that she does.

I passed out of the Botanical Gardens by a handsome iron trellis bridge, which here spans the Yarra. From this place I entered the Richmond Park, or

"Police Paddock," as it is profanely called, and walked past the fine cricket ground, where a number of players in orthodox costume were in full "drive" about the wickets. The ground is surrounded by a belt of trees and shrubs. Here, then, was another "British Institution" which had been "acclimatized" in the southern hemisphere. It has already taken deep root in the new soil into which it has been transplanted; and the Antipodean batsmen and bowlers (though at present no match for the picked players of England) look forward to the time when they can send a chosen band—an "eleven" of their own—to contest the palm of victory at Lord's or the Oval with the *élite* of the Old Country—the pupils entering the arena with their former masters. Rivalry of this kind, on a grand "international" scale, is at least as well calculated as official courtesies (not invariably courteous), to maintain the bonds of friendship between the people of different states, who are precluded by time and distance from personal intercourse.

Some days after this, I paid a visit to another park outside Melbourne, called Studley Park. This is the place from which to view the picturesque and intricate sinuosities, the labyrinthine windings, of the Yarra. I crossed the Yarra into the park by Johnston Street bridge, a wooden structure, com-

posed of a single arch by means of bent planks, and now, though made of European red deal, fast rotting away. Studley Park is a hilly and remarkable looking recreation ground, sparsely dotted with native trees, spread over a surface of 203 acres. It is here that the ever-flowing and devious Yarra performs its most eccentric movements, and riots wantonly in its manifold loops and curves, as it bends and winds serpent-like, "'midst wandering mazes lost," elaborating peninsulas by the way, as it meanders hither and thither along its tortuous course. Now it runs along between steep banks on either side, and then there is a change to low banks, or perhaps only one bank is high and the other low. But where the banks are very high the ground remains in its primitive state; while in places where they were low and flat, and the soil alluvial, I observed vegetable gardens laid out, vine-clad banks, and fruit trees, out of the midst of which peeped the homely but neat and trim cottage.

Generally speaking, for some miles above and below Studley Park, the Yarra-Yarra (to give it its full name) is from 70 to 100 feet wide, and its waters are smooth and deep; but there are two rocky ledges crossing its bed, one below Prince's Bridge, which I have previously alluded to as the "falls," and the other at the upper point of Studley

Park, where the river forms a sort of double curve like the letter S. A large stream, called the Merri-Merri, empties itself into a hollow of this curve; and here stands "Dight's Mill," a stone building opposite the 'falls.' These 'falls' are, more correctly speaking, rapids; in the midst of which are two very small green islands. The banks of Studley Park, overlooking these falls and the low-lying land on the opposite side, are, I should say, 100 feet in height and exceedingly steep.

A walk in the early morning along by the 'banks' of Studley Park, where they are fringed or bounded by the deep and dark-flowing Yarra, has its peculiar charm; the charm of deep silence and solitude combined with the wild and picturesque beauty of the landscape—Nature's own handiwork—diversified here and there by a casual view of a garden or cottage—the work of man. There were vineyards, too, to be met with on the banks of the Yarra, which shewed the perfection and the facility with which grapes can be grown, even close to Melbourne. The vines generally were growing on small square plots of land, and were supported by poles. The scene reminded me of various parts of France, south of Paris. In the suburbs of Melbourne it was not unusual to see vines trained against the verandahs, with bunches of grapes hanging therefrom.

To look at the Yarra, as it flows quietly along in its low bed, who would imagine that it could ever swell to the dimensions of a great flooded river, as it did in 1863, when the waters rose from 20 to 30 feet, and in some places as much as 40 feet, and overflowed the lower parts of Melbourne and the low-lying lands between it and Sandridge. On that occasion the devastating waters caused great damage to the cultivators along its banks. Of some of the destruction occasioned to beautiful grounds, and to rare trees and plants, in the low parts of the Botanical Gardens, I was myself an eye-witness on Christmas-day of 1863, after the floods had subsided. Fortunately, however, these great Yarra floods are few and far between.

CHAPTER VI.

PUBLIC BUILDINGS—THE CUSTOM HOUSE—TREASURY—PARLIAMENT HOUSE—NUMBER OF MEMBERS—QUALIFICATIONS OF VOTERS—THE POST OFFICE—MUSEUM OF SCULPTURE AND PAINTING—THE FREE LIBRARY—EDUCATION.

No one, who has seen Melbourne, will say that its Government has not made a splendid beginning in the way of erecting public buildings on a grand scale,—structures of great magnitude designed in the classical style of architecture. These buildings have but one fault; they are not finished: they will have to "wait a little longer"—for the good time that's coming. Meanwhile the idea involved in the commercial supremacy of Melbourne—that of making it the Great city of the South—is never lost sight of. But there is a limit to the revenue of Victoria; and as common sense, whether at home or abroad, always prevails in the long run, and makes the ornamental give way to the useful, we have as a result that the colony of Victoria is opened up to trade and commerce by means of great public works—such as roads, bridges, railways, and waterworks;

while Melbourne, very properly, is allowed to wait (as it can afford to do) for the extension and completion of several of its largest public buildings. The imposing size of the Custom House, however incomplete, attracts the attention of most strangers on their first landing in Flinders Street. In fact the impression created is partly owing to the unfinished state of the building, whose outlines thus present a certain incomplete and dilapidated aspect. Still the wonder is that so much has been accomplished in so short a space of time.

The Treasury forms an imposing block of building, with a blue stone base, and is faced above with a warm-toned freestone. In the rear of it are foundations of blue stone, intended some day, perhaps, for official residences. The Treasury looks complete in itself, and may be considered a good specimen of colonial architecture.

The House of Parliament which stands on an elevated site at the head of Bourke Street, still wants its grand façade and its tower (intended to be 250 ft. high) to render it complete according to the original design. The main front of this massive block of building is not yet erected; the rear front is built, and displays a mass of architectural ornamentation, executed in a brownish freestone which looks very well to the eye, but does not seem as if it would

stand the wear and tear of the weather very well. However, if the present design be carried out, I think there is no doubt the building will be a magnificent structure when completed. Internally, the chambers of the two branches of the Legislature measure each 76 feet in length by 40 in width and 36 in height. They are both elaborately and profusely decorated; in fact the Upper House—that is to say the Legislative Council—is gorgeous with excess of ornament,—a style of art which, to my mind, looked heavy and overdone. The columns of this chamber are of stone, and the shafts of one block.

The library and reading-rooms are well stocked with books and papers, and are no less splendid in their appointments and style of architecture than the other chambers. I noticed in the library a new contrivance to supersede the use of ordinary stoves and chimneys. Inserted in the base of one of the large columns was a fire place of brass work—the shaft, I presume, being made to do duty as a flue. The idea was at least novel and ingenious—intended mayhap as a further experiment to solve the problem—how to get rid of smoky chimneys.

The Legislative Council (the Victoria House of Lords) consists of 30 members, elected by and representing six Provinces. It is elected for ten

years. The qualifications of voters for members of the Legislative Council are as under:—

"Every male person 21 years of age (not subject to any legal incapacity) who shall be a naturalized or denizen subject of Her Majesty, and who shall have resided in Victoria for twelve months previous to 1st day of January or July in any year, and shall have been naturalised or made denizen at least three years, is qualified to vote for members of the Legislative Council, if he—1. Owns lands or tenements of the clear value of £1000, or clear annual value of £100; or, 2. Owns a lease of lands or tenements originally granted for a term of not less than five years; or, 3. Occupies lands or tenements for which he is liable to pay a yearly rent of not less than £100; or 4. Is a graduate of any University in the British Dominions, or a barrister-at-law, solicitor, or conveyancer, or a legally qualified medical practitioner, or a minister of any church or religious denomination, or a schoolmaster possessing testimonials that he is qualified to teach under the Commissioners of Education of Great Britain and Ireland, or having like testimonials that he is qualified under some competent board appointed by the Government of this colony, or an officer or retired officer of Her Majesty's land or sea forces, or a retired officer of East India Company's forces,

except on actual service. Persons in possession of any of the first three qualifications must take out an elector's right by making personal application, and paying 1*s* to registrar of division of province in which property is situate; persons in possession of 4th qualification must, after having resided three months in province, take out an elector's right by making personal application, and paying 1*s* to registrar of division in which elector resides."

The Legislative Assembly (the Victoria House of Commons) is composed of 78 members, elected by and representiug 49 districts. This body is elected for three years. The qualifications of voters for members of the Legislative Assembly are as follows:—

"Every male person 21 years of age (not subject to any legal incapacity) who shall be a naturalised or denizen subject of Her Majesty, and who shall have resided in Victoria for 12 months previous to 1st day of January or July in any year, and shall have been naturalised or made denizen at least three years, is qualified to vote for members of the Legislative Assembly, if he—1. Resides in any electoral district; or, 2. Owns lands or tenements of the clear value of £50, or of the clear yearly value of £5; or, 3. Is upon roll of ratepaying electors. Persons in possession of first qualification, after having resided three months in district, must take out an elector's

right by making personal application, and paying 1*s* to registrar of division in which elector resides; persons in possession of second qualification must take out an elector's right by making personal application, and paying 1*s* to registrar of division in which property is situate. All persons residing in city of Melbourne, town of Geelong, or in any borough, shire, or road district, who pay rates, are entitled without application to be enrolled upon a roll of ratepaying electors for division of electoral district in which property is situated, if all rates due within three months before 20th June in each year are paid on or before that date, but not otherwise."

Of all the public buildings in Melbourne, the Post Office appeared to me to be the finest; nor do I remember ever having seen in any city or town of Great Britain (art, style and convenience being considered) any Post Office able to vie with it. True, the site is a low one, at the corner of two great thoroughfares—Bourke and Elizabeth Streets: this takes away from the effect; but it has about it an aspect of grandeur combined with lightness, finish and elegance, which I failed to discover in any other government buildings in Melbourne. And yet it is not "finished," another wing being still required to complete it, as originally intended. The base is constructed of blue stone—a sombre-looking mate-

rial, but I should say next to granite in hardness and durability. Above this base the two fronts bearing upon the two streets respectively, are faced with a beautiful white freestone. At the front angle is a handsome clock tower, four stories in height, supported by clustered columns and pilasters rising tier above tier and producing a very graceful and harmonious effect. The three orders of Grecian architecture are employed (in the two façades as well as the angle tower) in the usual rotation:—the lower columns being in the Doric style, the middle one in the Ionic, and the upper one in the Corinthian; the whole surmounted by the clock story. Occupying the lower portions of the two fronts, and reached by an easy flight of steps, are two open colonnades—one facing Bourke Street and the other Elizabeth Street. Here people assemble to receive and post letters and papers, to buy stamps, or to make inquiries at the windows under the colonnade. On some of these windows are written the name of the department to which they belong; on others, the various letters of the alphabet. Persons expecting letters to be left for them here, apply at window A, B, C or D, as the case may be, according to the letter of the alphabet corresponding with the initial of the surname. Of course there is a complete system of postal deli-

very in Melbourne, but as there are so many persons arriving and departing daily, who have letters addressed to be left at the Post Office, an arrangement of this kind is more requisite here than it would be in a town in England. Scales to weigh letters are fixed on brackets to the walls of the colonnade. Melbourne may justly be proud of its Post Office, which, I was told, had cost £180,000, —as also of its Public Library, which at the time I was there had cost for the building itself £50,994. The books were set down at £34,285, and the works of art, at about £13,000. Altogether, I believe, the cost has been little less than £100,000 for this fine library which is free to all classes of the public. All honour to the promoters and founders for their public spirit!

I entered the Public Library and Museum of Sculpture and Painting in Swanston Street (not under the portico—for that is not yet built) and found myself in the vestibule, or what I should rather, perhaps, call the "Hall of Busts." Besides this, there were two other "halls,"—one to the right and one to the left—filled with statues, most of which were casts taken from the antique—in fact from the works of the most celebrated masters, ancient and modern. At the end of the third, or right hand hall, was a large room containing a valuable and interesting

collection of portraits of Australian and New Zealand Governors. In this room was also a collection of Chinese curiosities. From the portrait room you enter a large picture gallery, in which was displayed a considerable number of choice paintings — the nucleus of the Victorian "National Gallery" of the future—the gem of the "Palace of the Fine Arts," which our grandchildren will doubtless see flourishing towards the middle of the next century.

Over the three lofty and spacious halls which I have already designated, and approached by a noble flight of stairs, stands the spacious and magnificent hall devoted to the purposes of the Free Library of Melbourne. This Library and Reading Room is no less than 230 feet long by 50 feet wide and 34 feet high. It looks like an arcade with columns ranged on each of its sides. It is principally lighted from the roof. I counted 40 fluted circular Ionic columns and eight square ones, assisting to support the roof, and at the same time dividing this vast hall into sections. A large portion of the entablatures and caps to the columns were picked out in a variety of harmonious colours. Down the centre of the room were ranged a series of large library tables for the accommodation of readers. On either side of this long reading room, and opening into it were thirteen small side rooms filled with books. These rooms, too, are

supplied with seats and tables for the convenience of readers. Over these rooms again, another story higher, are galleries well stored with books.

The rules and regulations by which this Library is conducted are similar to those that belong to public libraries everywhere, only there is greater freedom. Any one, of course, can enter free of charge, he can go to the various bookshelves and select any book he wishes to see, take his seat at a table and read it. No book is allowed to be lent or taken outside the Library, which is open from 10 o'clock in the morning until 10 in the evening. Ladies, too, are admitted, and one or two of the side rooms are specially reserved for their use. During the year 1867, the attendance, or total number of persons who visited the Library, was 92,457.

Besides paying the reading-room a visit during the day, I went on two occasions in the evening between 8 and 9 o'clock. It was then brightly lighted up with gas, and there were from 60 to 80 persons present, seated at the various tables, as readers. From their dress and appearance I should imagine that those who frequent the Library consist of clerks, tradesmen, and persons in easy circumstances, in a much greater proportion than of the working classes;—working men, as in some of the defunct Mechanics' Institutions in England, not

caring to avail themselves of the treasures of knowledge placed within their reach, to anything like the extent that might be expected. But then the education of the British workman (though he seems quite unconscious of the fact) is still at a very low ebb in the intellectual scale;—excepting always here and there a few reading and thinking men, who stand out from the multitude, and who have little in common with their fellow workmen (in point of intelligence and culture) but the name. I have dwelt upon these details at some length, in order to show the provision that is made for the intellectual requirements of the age, in a distant colony of Great Britain; and what I have stated will prove how much Melbourne is in advance of some great cities, with larger populations, in the United Kingdom. Nor are some of the other Australian cities far behind Melbourne in this matter. Sydney University and its Museum, with its collection of Egyptian Antiquities, is an institution that England might well be proud of. Melbourne too is noted for the number and efficiency of its charitable institutions, and it possesses a noble looking hospital, extensive and well arranged.

As regards education in Victoria, out of an estimated population of 664,570 in March, 1867, there were 119,149 children attending schools, or about

1 to every $5\frac{1}{2}$ of the population. It is further stated* that "the actual attendance of each child on the roll equalled 132 school days, while in Canada the average attendance does not exceed 96 days, and in England 129 days. In Ireland the average attendance is 34.72 per cent. of the total number attending school; in Victoria it is 48.68 per cent." One of the most agreeable sights in Melbourne is the extensive range of buildings constructed of stone, for the most part but one story in height, and known as the national model or training schools. Here the Australian "youngsters," part of the future "people" of, it may be, an independent State, may be seen at work or play—doing either by turns with equal satisfaction to themselves, to their parents, and to the Government that furnished the means.

I think I have now said enough about Melbourne in 1869. I could add much more, but time is passing, and the space in my book is limited—besides which I have no wish to exhaust the patience of my readers; I will therefore change the scene and take them outside Melbourne a little way and then into the country, which produces the gold sent to England; the wool sent to England; the wheat—*some* of which comes to England; the beef and

* Victorian Almanac, 1869.

mutton (preserved) that come to England; and, lastly, the wine, which *might* be sent hither in greater quantities than it is;—all these commodities, which are in a manner essentials, are sent to England not to be paid for in coin, but to be exchanged for *British goods.*

CHAPTER VII.

SANDRIDGE PIER—WILLIAMSTOWN—HEIDELBERG, INAPPROPRIATELY SO CALLED—THE YAN YEAN RESERVOIR: THE ROAD TO IT AND TWO TURNPIKES—THE RESERVOIR: ITS APPEARANCE—ITS CONSTRUCTION AND COST—ST. KILDA, BRIGHTON AND QUEENSCLIFF, AS WATERING PLACES.

WILLIAMSTOWN is a suburb of Melbourne; it may fairly be considered a suburban sea-port of that city. Going round by the bay, it is nine miles from Melbourne by railway. I wanted to see it, and took the short cut; so I started from Melbourne and went to Sandridge Pier, a distance of 2½ miles, across low, swampy and sandy flats lying between Hobson's Bay and Melbourne. Sandridge is a noted place. Who that has been there can easily forget it? It is the great place for embarcation to and debarcation from Europe, as well for passengers as for merchandise. It is the great landing place for all Victoria; and when a Melbourne man leaves for England, scores of friends and acquaintances come trooping down the pier to see the ship, which is to bear relatives or friends away, as

they hope, but for a time. It is then that one sees the big clipper ship move away from the wharf, and one hears many a cheer rise from the pier, and many a fervent "good bye," "pleasant voyage," and "God bless you" from friends and strangers, and from the crews of other passenger ships, which are soon to follow and be cheered in their turn.

Sandridge pier is constructed of wood, and is 1200 feet in length by 58 in width. On each side of it are ranged noble-looking merchantmen. It looks like a long straight street cut through a forest of masts. Steam locomotives are running to and fro. Mercantile men in yellow alpacha blouses, white hats, and light waistcoats, are hurrying on board vessels. Captains, with black hats and red faces, are off to town to see their agents or owners. Steam-engines are at work, lading and unlading vessels: here is a Chinaman—there a Frank. Irish labourers, Scotch mechanics, English sailors,—all at work on board the shipping; while others are spectators, who look on from pure curiosity, or because they have nothing else to do. So wags the world at the Antipodes. I took the steamer from this pier across to Williamstown, a distance of five miles. I found it to be a half-dead-and-alive sort of place, but possessing a fine deep-water pier, a patent slip, and great facilities for

repairing ships, and if need be for building them; and these facilities were about to be further greatly increased and extended by a fine large dry-dock, then in course of construction out of the solid rock. I was shown over the works, found them well advanced, of a most substantial and permanent character, and when completed capable of docking the very largest ships. This dry-dock is called the Alfred Graving Dock. The foundation stone was laid by his Royal Highness the Duke of Edinburgh. The gold trowel presented to him on the occasion—cost £250. The amount expended on the Graving Dock was—up to September 1869—the sum of £100,759. Williamstown has the advantage of a level site; and may yet boast of its ship-building capabilities. Its population is 6000.

One day, not a sunshiny day, but a cloudy one, chosen purposely by way of change, I made up my mind to go to Heidelberg, eight miles from Melbourne. The very name of the place had charms for me. "You will find it a beautiful place," said one informant; "It's a pretty place, but not so romantic as Fern Tree Gully," said another. So I started for the "Hotel" in Swanston Street, where the Melbourne "Bradshaw" told me I should find a 'Coach' at 10½ A.M. I found the 'Hotel' to be an ordinary public house, and the 'coach' to be a street car with a lanky horse. "Really now,

and did you expect a coach?" said the country driver, in reply to my inquiries as to where the coach was, "This is the coach that goes to Heidelberg," he exclaimed, pointing to his car, "and I'll engage to take you down there and back safely." So I mounted to the back seat with other passengers, and away we went as fast as a lean horse, well-whipped, could drag us. The time of the year was summer. The summer of 1868-9, was a very dry one; it was more than dry, for the whole country was parched up, and thousands of sheep and cattle had died in the outlying districts for want of water. Under these circumstances I was going to see the country under its worst aspect, that of a droughty Australian summer. The rainfall for Melbourne in 1868 was only 18·3 in. The average for the last ten years was 25·2 in. The greatest annual fall during these ten years was in 1863, when it was as high as 36·4 in. It was in this year that the great Yarra floods occurred.* As we left the town, and got on to the country road leading to Heidelberg, the fields, gardens, and farm-houses, had a neat English look about them. There were gentlemen's villas, too, with their plantations and pleasure-grounds, all beautifully arranged, and laid out with great neatness and style. Still I missed the

* Melbourne Observatory Records.

freshness and exuberant verdure which characterise a midsummer English landscape. Everything wore a parched look, save where a little irrigation had been resorted to: there all was green and sylvan; but generally speaking the grass was burnt up, and the trees and shrubs looked thirsty. How different, on this occasion, did the parks and fields about Melbourne appear to me, as compared with the greenness and freshness which they displayed, when I saw them in the early part of the summer of 1863.

We arrived at Heidelberg by mid-day. It consisted of several shops, a few private houses scattered about, a handsome stone-built church, and two public-houses. The country all round is a very pretty farming district, but rather hilly. Close to the village or hamlet of Heidelberg runs the Yarra-Yarra—which I looked upon as an old friend, rather diminished in volume compared with its appearance at the Botanical Gardens—still it was the same dark and sluggish stream, winding its way between the banks through an undulating country. I presume this place is called after Heidelberg in Germany, but though I looked about, for some features in the landscape, which might have suggested the propriety of naming this locality after a place famous for its scenery and historical associations, I looked in vain. Certainly there was the river Yarra, looking pic-

turesque; it had a ruin, too, on its banks (an old mill built of wood). It was a spot, perhaps, that might be attractive to a pic-nic party; but there was nothing that could recall the Neckar, nor the beautifully wooded heights above it, on which stand the still magnificent ruins of the Castle of Heidelberg. This is but a single instance out of hundreds or thousands that might be mentioned, of the singular inappropriateness of the names bestowed upon new localities by settlers in our colonies. Sometimes it is grandiloquent — applying old historical names to petty places; but more frequently the nomenclature is slangy, vulgar or trivial, or else it is barbarous and uncouth. This is a fact that must have occurred forcibly to all persons who have travelled in the colonies. However, to return from this digression, as we could get nothing to eat at the 'Hotel' but some biscuits, and as there was nothing more to be seen, we returned to town in our jolting car, in not the best of spirits. There was one view, however, that I had not seen—a water-view, always an agreeable object to look at in Australia. This was the Yan Yean Reservoir which supplies all Melbourne and its vicinity with water. It is situated near the foot of a range of hills called the Plenty Ranges, and is about 600 feet above high-water mark at Hobson's Bay. In going to see the Yan Yean we

made up a small pic-nic party, the sheet of water in question being a favourite resort of parties of this kind. The Yan Yean is 22 miles by road from Melbourne, but the length of the water-pipes, being laid in a straight line, is only 19 miles. We commenced our journey early, as we had to go and return on the same day, which would make the total distance to travel 44 miles. We had a conveyance to ourselves.

The country through which we passed was of a rolling or undulating character. The road was a well-macadamized one, fenced in on both sides with three and four-post and rail fences for nearly the whole distance. Most of the land through which we passed was covered with ugly gum-trees, with a brownish yellow grass under them. Now and then we saw the black Australian crow, looking exactly like an English one, only larger. Occasionally we heard the scream of some gaudy-plumaged birds, and sometimes saw them fluttering about or disporting themselves from tree to tree. This part of the country evidently was not famous for its agricultural produce: there was but little cultivation. The land was bare of vegetation, and of a dull yellowish colour—the colour of the roads. The grass was wholly burnt up *on the surface;* but the roots beneath were all safe, which were to send up their

myriads of green blades, and change the entire aspect of the country, as soon as their roots should have been watered by a copious rainfall. Here and there, were some small farmhouses with a field or two "stumpt" and ploughed. I observed several blue-stone houses, with neat gardens, which helped to relieve a landscape otherwise monotonous.

We had travelled about 20 miles or more, and were getting near the object of our visit, when we were stopped at a cross road by two barriers placed across the highway. "What does this mean?" I asked of the driver, who was getting down from his seat. "Why, Sir, these 'ere are two turnpike-gates, at which they makes us pay—a great shame—to raise money in this way to pay for keeping the roads." It is often considered a "great shame" to be made to pay taxes. In this case I fancied I understood the matter at once. Although a small rate on the adjoining lands would have answered the same purpose, yet, as the Australians love to keep the traditions and local institutions of the old country, they felt constrained, no doubt, to set on its legs once more, this relic of a barbarous and freebooting age—when the challenge of the highwayman (and of his brother the toll-bar keeper) was "stand and deliver!"

We alighted here and walked on towards the

Yan Yean reservoir. As yet we could see no signs of it. I expected to find the water pent up in a gully. The country now began to look a little hilly, with a range of higher hills peeping out in the distance. We passed through a gate and ascended the slopes of some high ground. Here we met one of the officers in charge of the works, whom I found very courteous, and who informed me that the reservoir, when full, covered an area of 1460 acres. "Go on a little further, and you will soon see it," he said. So I went. I came upon it suddenly. The full view struck me with astonishment. What, a reservoir? No: an artificial lake nine miles in circumference. There it lay at my feet, still and smooth as glass, what is probably the largest artificial sheet of fresh water in the world. We sat down upon the smooth turfy banks to have some creature comforts. Many a pic-nic party had preceded us on the ground,—judging at least from the *débris* of broken bottles and glasses, the fragments of biscuits and scraps of paper scattered about in all directions. At that moment a slight breeze ruffled the surface and rippled the edges of the lake. It was cool and refreshing as it came across the waters to fan the faces of our party as we sat lunching on the grass. The lake looked very picturesque; it lies in a shallow and smooth valley—at some distance from any high

ranges. On three sides it is surrounded by low and irregular banks; on the fourth, or its lower and narrow end is a huge dyke or great embankment thrown across to dam up the waters. It has been suggested to me that the idea of the reservoir has probably been borrowed from the Vartry Water-works in the county Wicklow near Dublin. Upon this I can offer no opinion, as I have not seen the works in question, which, however, I am told are on a magnificent scale—the "sheet of water" being about three miles in length by half a mile broad, formed in a sort of natural basin, surrounded on three sides by some of the Wicklow hills. The Australian lake is much longer, and varies in width from one to two and a half miles. There it was, indenting the land in one place, forming bays here and promontories there; at its head and sources it is backed by a range of wooded hills and bounded by grassy slopes, sparsely wooded on its two sides. On every side its aspect was agreeable and refreshing; and it looked all the more striking in that it was the gigantic work of a very young community. The depth of these waters, when I was there, a dry season, was 20 feet in the deepest part, which is increased to 25 feet during the winter. The waters are used not only for drinking and culinary purposes, but also for irrigating gardens about Mel-

bourne. This reservoir is estimated to contain about 6,500,000,000 (six thousand five hundred millions) gallons;—being a supply calculated to last three years at the rate of 30 gallons per day to each person of a population of 200,000 persons.*

The gigantic embankment, which hems in and keeps back this immense body of water, is 3159 feet in length, 170 feet wide at the bottom, 20 feet wide at the top, and 30 feet in height. The slope towards the water is three to one and is paved with stone; the outer, or land slope is two to one, and is merely turfed with sods. In the centre of the embankment is a wall of "puddle" 10 feet in thickness at the top and 30 feet at the bottom—where it is sunk several feet below the natural level of the ground. The total cost of the works was £664,452 —or in round numbers a little less than two-thirds of a million sterling.

I walked along the top of the embankment. It is so wide that a carriage and pair might easily be driven over its entire length. The outer slope was covered with long wiry grass. As I ascended it, my guide told me to look out for snakes; I did so, but found none. Snakes are often seen near water holes, but they like to bask about in the sun. The bite of some of them is very deadly. From what I

* Fairfax's Australia.

saw myself and from all I heard, the risk of being bitten by snakes is fortunately much less than has been generally supposed. Nor, indeed, were the musquitoes—those *bêtes noires* of travellers in some parts of the tropics—so troublesome as I had expected. The air and the ground are too dry for them in most parts of Victoria; but when you go *near water or swampy ground, then look out!* But why give the caution?—for before you had time to "look out" they would get on to you and torment you—especially if you were a new comer, for it is said they prefer fresh arrivals to old hands—foreign to domestic produce.

We left the pleasant waters of Yan Yean, situated in the parish of Yan Yean, highly satisfied with our visit to them, and with having seen what a priceless treasure Melbourne possesses in her waterworks.

Melbourne, among other matters, is well provided with watering places. She has St. Kilda, with its fine esplanade, within 10 minutes railway ride, and Brighton-on-the-Beach, on the same coast, within 35 minutes by rail, and possessing a very fine hall and bathing establishment. The future Brighton of Victoria will, I fancy, be Queenscliff, though not at present connected by railway with Melbourne. By sea (only across the harbour) it is but 32 miles distant, and is situated at and forms part of the "Heads" at the

entrance of Port Phillip. Being more southerly, and almost surrounded by water, it is much cooler than the sea beach near Melbourne. Here on the high grounds are the Lighthouse and the apparatus for signalling ships as they arrive and depart. On the one side is the view of Port Phillip Waters, on the other the sea, forming Bass' Straits, can be seen. Excursions can also be made inland with ease and pleasure. Those who choose the beach for a walk can find infinite amusement in gathering sea-weed, which for its brilliancy and the variety of its tints is already celebrated. There are moreover several good hotels, and symptoms are visible that a building mania will set in ere long in this quarter. I have myself visited all the three places I have named, and my opinion is that Queenscliff will eventually become as fine a watering place as could be desired, and that for this purpose it will take the lead in Victoria.

I think I have now said all that I intended to say about Melbourne and its suburbs; but I trust I have advanced enough to prove to the large class of Englishmen, who know but little and perhaps care still less about the Australian colonies, or about colonies in general, that Melbourne with its suburbs is one of the marvels of modern progress;—founded and built up, as it has been, by their own country-

men within a single generation. If I have thus far succeeded, by the proofs I have adduced, in pointing out and establishing the fact, as beyond question, to a portion of the British public, I may fairly hope, that for the time to come, they will evince more interest in, and exhibit more consideration towards the Australian colonies than has heretofore been shown them, whether by British statesmen or by the leaders of public opinion—in what is still called the Mother Country.

CHAPTER VIII.

A START FOR THE INTERIOR—THE RAILWAY STATION—GEELONG—THE COUNTRY TO LAL LAL—BALLARAT—GOLD IN THE ROADS, AND GOLD UNDER THE STREETS AND HOUSES — APPEARANCE OF BALLARAT — SURFACE DIGGINGS — DEEP SINKING — THE GOLDEN RIVER-BED UNDERGROUND—SEBASTOPOL—THE MINING SUBURB—ITS UNINVITING APPEARANCE.

HAVING explored the greatest city in Australia, I am now going to see the country which has made it so. But before I start, some of my readers will probably ask me the pertinent question, "How do you propose to travel—On foot, by bullock-dray, on horseback, by coach, car, or cab?" By none of these approved, but antiquated modes of conveyance, good reader. On this occasion my journey will be performed in the most modern and orthodox fashion,—speed in travelling—as in making fortunes—being the order of the day. By the time I have answered these questions, I find myself at the Spencer Street Railway Station by help of the inevitable and irrepressible "car"—the two wheels of which were "backed" against the kerb stone, or something

which answered that purpose, in front of the station, and from my position on the back seat, I was as good as "shot" out on to the pavement. "Just in time," exclaimed my Irish friend the driver,* "tould ye I would do it, sur," and then with a grin he added: "A little extra fare, sur," which I willingly gave him; for it was no fault of his if the jolting and lumbering vehicle which he drove, and which is in use all over Melbourne, had nearly "pitchforked me—all of a heap" into the street.

Here I was then at an Antipodean Railway Station at 6 o'clock in the morning. A real railway station—with a real platform—real line of rails—real engine and real carriages all before me. There were first, second, and, I believe, third class carriages in the train, with every variety of accommodation, from plain boarded seats, to spring cushions and padded backs. And then, too, there were real ticket clerks to take your money and to give you, in return, a real pasteboard pass-ticket of the proper colour,—of the same length, same width and same thickness, as if you were at the Paddington Station in London. Moreover, there was a real live specimen of the well-known genus, "Newspaper-boy," lustily shouting out, "Argus—Argus," "Herald — Herald," &c. Furthermore,

* On most occasions I hired the same car. The driver thus became known to me, and was always civil and obliging.

there was a real stall for the sale of fruit and cakes, and a real porter who rang a noisy bell and told me to "be quick, the train's a goin' to start." Over and above this, there were real passengers in real desperation to get into the carriages. Then once more the burly (and surly) porter rang out a final peal, while another banged the doors with a crashing thud. (Why do railway porters and guards invariably do this at home and abroad? Is it to show their strength, or to frighten the passengers—or both?) And then the signal was given to the engineer, who stood ready with his hand on the crank. The train moved—first with a shriek—then a puff and a snort—next a gruff noise which grew fainter,—and at length we glided out of the station as smoothly and regularly as if we had been leaving one of the great stations of London or Paris.

I had taken a ticket direct for the "Golden Town" of Ballarat, distant from Melbourne 96¼ miles by rail. The fares for this distance were, first class 30*s*, second class 22*s*, return tickets being 45*s* and 33*s* respectively. Once a day, in the afternoon, a third class train ran from Melbourne to Ballarat. The fare, by this train, was 1½*d* per mile.

We passed Footscray, Williamstown Junction, Werribee, and Duck Ponds Stations, and arrived at Geelong, 45 miles from Melbourne, at 7.29 A.M.—

having started at 6 in the morning. Throughout this distance of 45 miles the railway may be said to run alongside the waters of Port Phillip, at distances varying from three to nine miles. The land through which the line passes is mostly flat, and has a bleak appearance. This arid and hungry-looking soil would gladly absorb the noxious sewage of Melbourne, and the railway might perhaps be made the base line from which to distribute it. The land was generally fenced in with post and rail, or else with stone wall fences, divided into large blocks for grazing purposes. Here and there we came across farm houses and duck-ponds. The soil in some places had a reddish hue,—some of it good, most of it improveable by draining and manuring; and as already observed the sewage of Melbourne would irrigate and fertilize it at the same time. When the virgin lands in the interior get taken up, these wastes will become more available and more valuable;—the more so as they are situated between two large towns.

Geelong stands on uneven ground, overlooking the waters of its harbour. It has the appearance of a quiet and pleasant seaport town in England. It was at one time a formidable rival to Melbourne, but it has now succumbed to fate, and become the second seaport in Victoria—instead of taking the lead. It has

some fine stone buildings, and tree-planting has greatly improved its appearance. The population of Geelong, exclusive of its suburbs, was 16,000 in 1867. One of its suburbs, Newton and Chilwell, contains 4000 inhabitants — the other 1400. Our train stopped for only nine minutes at Geelong. In travelling from Melbourne to Geelong, I had remarked a high range of hills to the north on our right, and now that we were about leaving Geelong our train headed in the direction of these hills. In fact we had ceased to run by the sea coast line, and had now turned and were running nearly at right angles to it—right into the interior towards Ballarat.

Shortly after leaving Geelong, the land on both sides of the line improved in quality and appearance. Farms became more numerous, and cultivation more general, though the country presented a burnt-up aspect. The weather threatened rain, and the air felt damp, and one could not see a long distance because of a mist that prevailed. How cheerful my fellow-passengers were at the prospect of rain! "We shall have rain soon"—"What a great deal of good it will do"—"The country is parched in the inland district"—"Stock is perishing there"—"It's many years since we have had such a dry summer as this," were some of the casual observations exchanged by those about me, as our train

approached a wooded country and a primitive-looking place with a station called Lal Lal, 83½ miles from Melbourne and 12¾ from Ballarat.

About Lal Lal and on towards Ballarat the country wore a forest-like and wild aspect. Here and there among the woods there were patches that had been cleared, in token of which might be seen the stumps of trees, some blackened, some fresh looking, standing in the ground. Scattered about were some woodmen's huts of rude construction, with piles of newly riven posts and rails for fencing. The locality through which we were passing appeared to be sacred to the craft of sawyers and wood-splitters.

By 9.33 A.M. I had reached the substantial and handsome looking station of Ballarat—the chief "Gold City" of Australia. It is a large and populous inland town built upon veritable 'deposits of gold,'—founded and erected by means of the gold discovered underneath and around it. While I was there, some "early birds," in the shape of Chinamen, were caught *in flagrante delicto* one fine morning, stealing the "dust" and metal from the road leading out of the town, for the purpose of washing it and abstracting the gold which they had found out it contained. They were accordingly taken up by the authorities, but after a severe admonition they were dismissed. After this who will venture

to assert that the streets and roads of Ballarat are not *macadamised*—if they are not actually "paved"—with gold? Here is an illustration of the adage that "truth is stranger than fiction." I travelled with several respectable "diggers" who knew Ballarat in its early days, and who are well known "men on 'Change" at the present day. The marvellous tales they related about the richness of some of the alluvial diggings around and near Ballarat—particularly of some, so famous for the richness of their yield, that they were called "the Jewellers' shops," will I trust some day "see the light," and be handed down among the annals of these truly Elysian (Gold) Fields. They told me that in many instances the streets and houses had been undermined—like so many catacombs—in the eager pursuit of gold; and that in one street in particular, which they named, several wooden houses had sunk, and had to be raised again—the foundations having given way—owing to the subterranean excavations. Not only this, but the street itself had actually sunk four or five feet, and had to be raised and remade. The proprietor of a brick house, whom they knew and whose name they mentioned, had agreed with some diggers to allow them to "prospect" and dig for gold on his ground and about his house. They set to work accordingly, and dug "with a

will,"—the proprietor all the while watching them narrowly for fear they should get too near the foundation of his brick mansion. But the cunning diggers proved more than a match for him. As they approached the forbidden ground on which the house stood, they found the soil very rich. Great was the temptation before them; great too the responsibility of breaking their agreement. But "Faint heart never won Fair Lady:" silently, secretly and cleverly the house was undermined, and "robbed" of its precious treasure—"unbeknown" to the proprietor,—who however discovered his loss and the "artful dodges" of the wily diggers—only when it was too late. The "steed was stolen out of the stable:" the foundations began to give way, and the building had to be taken down—to save it from falling. It appears the proprietor subsequently commenced an action at law against the aggressors, for what I suppose the lawyers call "breach of covenant," or "trespass and entry upon the premises;" but whether an action in that case would lie, or did lie, or whether the defendants ever "showed up" to "put in an appearance" to the pleas of the irate plaintiff, my informants were unable (or perhaps unwilling) to aver.

Ballarat stands, as a whole, upon an irregular and uneven site—a rough plain surrounded by hills. It

consists of two townships called East and West Ballarat, divided by a small stream called the Yarrowee Creek. The portion of the town called East Ballarat is the lowest as to situation, and the oldest. It stands on a flat piece of land,—while West Ballarat stands on higher ground, and is partly built on the slope of a hill. The two townships which together constitute Ballarat, contained in 1867 a population of 35,000, which with its suburb "Sebastopol" makes up a total of 40,000. Ballarat stands 1433 feet above the level of the sea, and has therefore a cooler and more agreeable climate than Melbourne—whose central street, Elizabeth Street, is but 22 feet above the sea level.

The appearance of the suburbs and of the country immediately about Ballarat is extremely unprepossessing, whether to the eye of the farmer or to the lover of the picturesque. The thoughts of the one run upon luxurious crops—of the other upon the beauties of nature and art. Not so, however, with the hardy, venturous and speculative gold miner who looks for riches underground. All round Ballarat the digger has left his mark—his "tracks" in the shape of confused and irregular mounds of dirty white earth,—"*rudis indigestaque moles*"—and beside them the gaping holes from which the earth was taken. These meet the eye in every direction.

Ballarat is environed with hills, gullies and flats, which have already yielded up their gold in abundance. On the eastern side of the town is a remarkable hill called the Black Hill. It is a desolate and dreary looking eminence, cut up into innumerable fantastic shapes and forms—whose white, rather than "black," jagged points, heaps of loose earth and yawning pits bear witness to the gradual demolition and removal piece-by-piece of the greater portion of a great solid hill to be "washed down" for the gold it contained. Everywhere about here there are traces of the digger. Here and there the "shallow sinker"—the surface digger—has dug and dug till he has disturbed, broken up and brought to the surface almost every square yard of gold-bearing ground, extending over an immense local area. This earth he has washed in water. By this process the soil, sand, gravel or stones, as the case may be, are separated from the gold, which by the commotion or "shaking up" of the water and earth together in a tin dish or "cradle," has by its greater weight subsided to the bottom of the vessel, while the earth held in suspense by the water is carried off.

No sooner did the shallow sinking diminish in extent, than the enterprising Ballarat miner turned his thoughts to deep sinking. Did the "wash dirt" extend under the high lands of the district? Was

it to be found hundreds of feet below the surface in some places where there was a mass of hard blue rock overlying it and to penetrate through? The shallow sinkings were supposed to have been found in the ancient bed of a river, the course of which appeared to have been arrested by high lands. Here was a problem to be solved, and the miner pondered it well:—Did the course of this ancient river actually lie hidden under these hills, which had by some convulsion of nature, been thrown down ages ago—filled up its bed and changed the face of the country? Who could satisfactorily solve this question? The Geologist might well remain silent, and the practical man feel confounded; and after all nothing but actual experiment could settle the point. Shrewd miners—daring practical men—set to work without ostentation. They sank shafts hundreds of feet in depth, and eventually cleared up the mystery by coming upon, what is believed by many to have been, the former bed of a river—of "pre-historic times"—permeated with gold. Here was a subterranean—What shall I call it? a gold-laden river-bed, with branches, and giving indications that the stream which had once filled this channel, pursued its course to the sea—and that its bed will now be found following in the same track to the same destination.

There is no room for hyperbole or exaggeration

in describing these matters, although the imagination does not at first realise fully the mysterious workings of Nature, in first forming and then hiding away this golden river bed—or the labours of Art—the unflinching audacity of man, in letting the light of day shine in once more upon the dark recesses—the fabled caves—that lie "stowed away full many a fathom deep" in the bowels of earth. But to return to hard practical matters of fact:—The subterranean river-bed which we are speaking of, and which is "supposed" to extend to the sea, winding in its course, varies from 300 to 500 feet in width, and from 5 to 7 feet in depth or thickness. The bed of this old river or "deep lead," technically called by miners "drift" or "wash-dirt," or "washing stuff"—is generally composed of clay, gravel, quartz, stones, and sand richly interspersed with gold, varying in size from small particles to lumps of the precious metal. This presumed river-bed rests on what is termed the bed rock or reef,—in the holes, clefts and crevices of which, generally speaking, gold is found in greatest quantities.

Overlying this river bed, and between it and the surface of the earth, are various strata—igneous and aqueous;—the igneous, mostly basalt (hard blue rock); the aqueous consisting of slate, marl, and clay; the whole mass or belt varying from 300 to

500 feet in thickness. Through this solid composite body or "crust," holes or shafts, square or rectangular in shape, have to be cut, the rock excavated, and the entire aperture or perpendicular shaft lined throughout with wood, down to the bottom, till the river bed, or "gutter," is reached. Up these shafts the "wash-dirt" is drawn to undergo the necessary process for extracting the gold from it.

I visited the principal gold mining suburb of Ballarat, called Sebastopol. This place is a wonderful sight, industrially considered; but I cannot say it is either picturesque or pleasant to look at. The ground about here is utterly deranged and distorted in appearance,—spotted, or, I might say, "blotched" with scurvy-looking cottages, or shabby-looking shanties—mean and dingy looking at the same time; an evident proof that some of the miners bestow as little thought upon domestic comfort as they do upon personal appearance and cleanliness; that, in short, where their treasures are, there, too, are their hearts. The noise of the steam engines, and the tall, smoking steam chimneys gave diversity and animation to a scene in which artificial white mounds and hills of rock and clay, fields of mud and pools of dirty water were the principal and most conspicuous features. Still the sight is a singular—a wonderful one to gaze upon. One looks for miles ahead; and from

the works which generally stand over the bed of the "gutter," or river, can be traced the windings and the direction of the underground river bed. These "works," which sometimes combine quartz-crushing operations with deep-sinking for "wash-dirt," consist of an agglomeration of low buildings and of great piles of scaffold-like building, tall chimneys, and weather-boarded towers standing out like beacons, to indicate where gold is being got, and how far, and in what direction, the golden river bed beneath extends. The tall wooden erections constituting these "works" presented, to my mind, a strong resemblance to the operative machinery connected with coal mines in England. There were tall timber structures and the same naked and desolate appearance, only the *débris* of the *gold pits* at Sebastopol, were white, and the refuse of the *coal pits* in England is black.

CHAPTER IX.

BALLARAT MINING COMPANIES—PRINCE OF WALES GOLD MINING COMPANY, LIMITED; NATURE OF THEIR UNDERGROUND WORKS—SHAFTS AND TUNNELS—THE WORKS ABOVE GROUND—PUDDLING OPERATIONS—WASHING AND GOLD COLLECTING—RESULTS—DESCRIPTION OF THE QUARTZ-CRUSHING PROCESS—GOLD BUYING: DECEPTION—A SCENE AT THE MINERS' EXCHANGE—EAST BALLARAT.

In alluvial "surface diggings," one, two, or three men can set up business for themselves, with only a very small amount of capital, or even of skill; but in "deep-sinking" for "washing stuff," or in mining for quartz, it is necessary that there should be a combination of intelligence, patience, labour, skill, and capital—each in a high degree. In Ballarat, accordingly, steady, intelligent, and hard-working men, with only a small capital at their command, found it expedient to form themselves into companies, and some of their number continued to labour as workmen in their own concerns. Indeed, Ballarat owes its high and prosperous position to the individual and joint exertions of such men as these, rather than

to the assistance and support derived from the all-powerful modern capitalist. The men gave their labour, and the ground yielded the capital—gold. The result has been the establishment of many wealthy and prosperous mining companies in Ballarat. It must, at the same time, be admitted that gambling and speculation in mines, reefs and mining shares in this district was, and is still, carried on to an unhealthy and injurious degree. Nevertheless gold-mining has been reduced, or rather matured, to a system; and it is now conducted at Ballarat, and other gold fields in Australia upon sound, solid, and successful principles. The prosperous companies and the safe mining investments are far in excess, numerically considered, of the bubble schemes got up from time to time by adventurers and "birds of passage," who have nothing to lose.

Wishing to see some of the operations and machinery, in detail, of one of these enterprising companies, I was recommended to go over the Works of the Prince of Wales Mining Company, at Sebastopol. So I hired the inevitable "car" to take me there. I found two distinct and separate "Works," a short distance apart from each other, but connected by galleries underground. One of these establishments was devoted to quartz-crushing; the other to washing the "stuff" obtained from the "gutter,"

or subterranean river-bed. The quartz for crushing purposes was obtained from a gold-bearing quartz vein, 20 feet wide, which had been discovered on the Company's claim in the bed rock, at about 200 feet below the surface of the ground: and this vein extended downwards, in an oblique direction to an unknown depth.

I gathered from some sectional working drawings of the underground works that the main shaft, about 8 feet square, was sunk, chiefly through hard blue rock, into the ground to a depth of 384 feet, and was slabbed, or boxed in, from top to bottom. It would appear that this Company had had a disappointment at the outset; for their "first main prospect drive" was driven horizontally, at a depth of about 324 feet from the surface, for a distance of 610 feet on the bed rock, without finding the "gutter." However, after a drive of 450 feet in length, through an elevation of the reef, at nearly the same level, but in a contrary direction, they "broke into the gutter." This drive was called the "upper main level." A "drive" is a small tunnel, in this case boxed in with wood, the roof being supported by slabs and posts. It was about seven feet high, wide enough for narrow waggons to travel in, and was used in the first place for "prospecting" to find the deposits in which was the precious metal; and secondly, as a passage or

gallery through which the washing stuff and quartz were conveyed to the main shaft in small waggons. This drive, cut or traversed the quartz vein before reaching the "gutter."

Forty-five feet below the "upper main level drive" was another drive to further attack the quartz vein, and also to reach another part of the "gutter." This drive communicated with the bottom of the main shaft, and at 300 feet distance from it, cut the main quartz vein, and so continued on the same level till it reached a distance of 540 feet, when, by means of an upward inclined shaft, called, I believe, "a monkey shaft," rising 40 feet in height, it was connected with a third drive, which led to, and ended in the "gutter," at a distance of 600 feet from the bottom of the main shaft. In these damp, dreary, and often dark passages, hardy miners work on from day to day, apparently as contented and as cheerful as if working in a quarry above ground.

I have entered somewhat into detail with respect to this underground mining to shew the large amount of skill and labour required for an enterprise of this kind; the chances of a working man, who elects to go upon "his own hook," or otherwise; and the fact that miners must be an intelligent body of men to have accomplished the results which I have here glanced at. Being neither a miner nor a geologist

myself, I feel at some disadvantage in describing these works. For my purpose, however, it is not necessary to treat the subject from the point of view of the technical "expert" or man of science; my object is simply to give the reader a general idea of the nature, extent, and importance of the various operations carried on in the process of gold-finding.

Above-ground, the Works of the company, before mentioned, have a thorough business-like appearance. Some of the buildings are constructed of stone. The first works I inspected were those used for raising the "wash dirt," and for puddling and sluicing operations. Rising high above the rest of the buildings was the lofty brick chimney, to carry off the smoke from the flues connected with the fires of the large boilers of the engine. These fires were fed and wholly sustained by wood instead of coal. Near this chimney, and almost of the same height, was a tall tapering, weather-boarded square tower, not unlike a lighthouse. Within this erection descended empty little waggons, in (I think) iron boxes called "cages," down the main shaft to the mouths of the drives below; and, when filled, ascended rapidly, and with a startling noise high above the mouth of the shaft to a stage with a roof over it. On this stage the "wash dirt," a *wet* mass of dark-blue stones and earth (in which I could perceive no

traces of gold) was emptied into a puddling machine, and sluiced with water. The iron cages were drawn up by steam power, and by means of a flat wire band.

The puddling machines and sluice house occupied a large building two stories in height, and constructed of wood. The puddling machine was a large circular vessel, in fact a great iron tub, about 12 feet in diameter by 2 feet 6 inches deep. In the centre of it was a vertical iron spindle, to which, at the height of the tub, were attached two iron arms revolving round and round, and dragging with them two circular and small iron harrows through the wash-dirt and water,—till the gold with the finer wash-dirt had sunk to the bottom of the puddling machine. Then two labourers, called puddlers (who were paid 7*s* 6*d* per day of eight hours work), stopped the revolving apparatus, and with boots on up to their knees, stepped into the muddy mass and commenced picking out all the big stones with a large fork. The remainder of the puddled stuff looked somewhat like newly made mortar, and was dropped, through a hole in the bottom of the puddling machine, on to another stage below, where it lay in a great heap. From this heap it was shovelled into the wide hopper-like end of an inclined trough, measuring about a foot in width and nine inches in depth. Water was then pumped in at the upper

end of the trough,—at the same time that the wash-dirt was stirred about with a fork-like implement; and as the water ran down the trough in a stream it washed the "dirt" off the gold (which being the heavier body in the washing stuff, sank to the bottom of the trough) and carried away the lighter particles of earth and gravel. When the heap was thus washed and dispersed, they looked for the gold that was left behind—as a deposit. The greater portion of this gold was found at the upper, or hopper end, where the washing stuff was first put in. The gold which I then saw taken out varied in bulk from the size of a grain of sand to the dimensions of a bean.

Every precaution is taken to save as many of the minute particles of gold as possible. Just before the mortar-like wash-dirt, before described, is taken from the puddling machine, the water with which it has been sluiced, and which then covers it, and has become a thick muddy fluid, holding in suspension the finest particles of the gold, is allowed to run off, and is conducted to a sluicing machine (similar to a puddling machine); here it is diluted with water, stirred about, and after the water has been drained off, the residuum, by means of an admixture of mercury, has the gold extracted from it—an attraction for gold being one of the properties of mercury. When the mercury has thus sucked up,

or rather become amalgamated with the gold, it is collected and placed in a chamois leather bag. This bag of mercury, in a certain state of combination with the gold, is next subjected to pressure on its sides, by the hands, when a considerable portion of the quicksilver is forced through the pores of the bag, leaving what is called the "amalgam" to be further dealt with, by placing it in a retort and subjecting it to a high degree of heat,—when the whole of the mercury is eliminated and runs off through a pipe in the side of the vessel, leaving the gold in a plate-like shape at the bottom of the retort.

The gold I have spoken of as sinking to the bottom of the inclined trough went through a process peculiar to itself. It was collected and placed in a perforated tin basin. Being sifted about, the basin retained the small stones and fine gravel, while the gold and sand dropped through the holes at the bottom,—falling into another tin basin underneath, in which water was placed. This second basin being shaken in a peculiar way, allowed most of the still remaining sand and dirt to escape over its sides—leaving the residue nearly all pure gold. This gold was then taken to the office and put into a vessel resembling a frying-pan, which was placed over the fire till its contents became dry, when they were turned into a copper basin with a projecting mouth.

Once more the golden residue was shaken, and (to clear it still further of all foreign matter) was well blown by a pair of vigorous human bellows, by the person entrusted with this important function, until all the particles of fine sand had been got rid of; when nothing remained with the gold but bits of quartz. These were picked out with the fingers, and when found to contain any gold they were pounded in a mortar and the gold separated. The total weight of the precious metal thus obtained was fifty ounces, worth nearly £200—the result of one day's operations in one portion only of the Company's Works.

In another department of these Works they were mining a quartz reef, which I have spoken of as measuring twenty feet in width. The quartz was quarried below and brought up the shaft in the same way already described respecting the "washing stuff." It is then taken to the quartz-crushing machine, and placed in the rear of the battery of "stampers"—where (often on higher ground) it is laid in heaps, composed generally of pieces about the size of a man's fist; if much larger, they are broken smaller by the man who attends to supply the "stampers" with their hard food: to a great extent these "stampers" are self-feeding.

But what is a "Battery of stampers?" my readers

may fairly inquire. It is a powerful and ponderous quartz-crushing machine kept in motion by steam-power, and so effective in its action as quickly to reduce the hardest of stone to powder and fine particles. In the Works which I have endeavoured partially to describe they had a Battery consisting of sixteen square-headed stamps, in four bays, with four stampers to each. This battery has crushed 140 tons of quartz per week—the quartz yielding about 15 dwts. of gold to the ton. In looking at the quartz in bulk I could see no gold in it; but it was impregnated with gold nevertheless. One piece which was shewn to me in the office was richly streaked with the precious metal.

This Company's battery was placed in a long shed at the upper or rear side of which were placed ponderous stampers, lifted up and let down alternately by ingenious contrivances, kept in motion by steam. The stamps went up with a clinking noise, and came down with a crunching thud. They appeared to me somewhat like the piston-rods of a steam engine, with club ends to them: in reality they are so many pestles and mortars worked by machinery and on a gigantic scale. They are pounding machines doing their "crushing" work most effectually. The lower or club ends (or heads) of the stamps, work in a trough-like iron box. They are

plentifully supplied with water. The broken quartz at the back of the stamps is so disposed as to fall, of itself, and find its way under the stamps where it is speedily reduced to atoms—to powder. These iron boxes are provided in front with a moveable door or front (I have seen some of them locked up when the battery was at work) made of perforated sheet iron, with the perforations so minute, as scarcely to allow a pin's head to pass through them: some of these perforations in the front are so fine and close together as to have 120 holes to the square inch. Crush, crush, go the stamps incessantly when at work,—at the same time the heaviest gold sinks to the bottom of the boxes, while the muddy and dirty water charged with pulverized quartz and particles of fine gold, rushes through the perforated box fronts (technically called "gauzes") on to inclined wooden platforms, sometimes oscillating, over which are spread woollen cloths called "blankets." Across this inclined plane grooves are cut in the wood to hold quicksilver and arrest the gold contained in the muddy waters, forced out of the stamp boxes. At the lower end of the platform is a gutter, also containing quicksilver. This gutter receives the surplus waters from the incline, and retains whatever gold has escaped the grooves and the blankets.

According to official records for 1867 the power and weight respectively of these "stamps" vary at the different quartz works in the Ballarat district. The weight of the stamps, including the stamp-heads, shanks and lifts range from 4 cwt. to 8 cwt. 2 qrs. The distance they rise and fall in the process of crushing is from seven to ten inches; and the quantity of quartz crushed by each stamp in 24 hours varies from one to four tons. In the same space of time the quantity of water used by each stamp averages from 864 to 950 gallons. The number of holes in the "gauzes" are as few as 40—sometimes as many as 200 to the square inch. After the thick muddy water leaves the "gauzes" it leisurely flows over the blankets (sometimes green baize) and over the grooves into the gutter, from which it is allowed to escape—deprived, or nearly so, of its precious freight. The results are—that by reason of its gravity a portion of the gold remains attached to the blankets; another portion has been abstracted and taken up by the quicksilver in the grooves; while a third portion has been arrested and absorbed by the mercury in the gutter. At the Prince of Wales Works I put my hand into the gutter and found it about half full of mercury.

The "golden fruits" of these operations are disposed of as follows:—The bits of quartz and quartz

sand are taken out of the stamp-box and the gold readily separated from the dross by the means I have described. The blankets are washed in hot water, and the gold-dust, sand and dirt which they contain find their way into a barrel containing mercury; the barrel is made to revolve, and the gold becomes attached to the mercury. The gold and mercury in the gutter, having formed an "amalgam," the latter, together with the amalgam from the barrel is "retorted," and the gold cake produced as before described. Such then is a somewhat detailed, if not a complete account of the complicated process of gold finding and gold mining; as far as I was able to discover from personal inspection of the elaborate machinery constructed for that purpose—first at the Prince of Wales Works at Ballarat, and afterwards at the Hustler's Reef Works at Bendigo.

Ballarat gold is noted for its purity. It averages in fineness from 23 carats 2 grains to 23 carats 3 grains, and is worth as much as £4. 1*s* per ounce. In consequence of this high standard value, it was much sought after in the early days of the gold fields;—so much so, that a great deal of sharp practice and deception prevailed in the purchase and sale of it. The inferior quality gold of other districts was too often sold as Ballarat gold, and the buyer felt justified in passing it off again as Ballarat

gold to the next purchaser; just as a person who has taken a bad coin in change from somebody thinks that somebody else ought, in return, to take the spurious article off his hands. There were, of course, not the same facilities for assaying gold then as there are now, and purchasers were bound at their own risk to adopt the necessary precautions, and to remember the old legal maxim "*Caveat Emptor.*"

A well-known and extensive gold buyer for the Banks related to me how this disreputable trade was conducted. "We used to carry on," he said, "a fine game at one time, in early Ballarat days, in buying inferior gold at Castlemaine and other places, and taking it to Ballarat and selling it to novices as Ballarat gold, at Ballarat prices, which were from 3*s* to 4*s* per ounce higher than the prices current at some other gold-bearing districts. Sometimes we re-melted a bar of inferior gold, and stamped it with the mark of a district noted for the fineness and purity of its metal. Thousands of pounds sterling were made in this way." "And did you consider this honest trading?" I inquired. "As honest as any other trade," he replied. "Besides," he continued, "I was employed by the Banks to do it, and sometimes I sold the inferior gold of one Bank, to another Bank as the best gold: one Bank relished *doing* another; and if respectable Banks,

often to protect themselves from loss, engaged in this trade, why should not private persons do so likewise. The Banks would do it again if they had the chance. You see one purchaser was sold and he recouped himself by selling another. If a man buys what he is no judge of, he is likely to be taken in, and perhaps he deserves it for dabbling in what he don't understand." Such were the free and easy and mature opinions—matured by long *practice* apparently—of my informant. These opinions, however, it should be observed, applied to an unprecedented state of affairs that once existed in Victoria. But these are now things of the past, which are never likely to occur again: as a rule the trade in gold is now conducted with as much regard to commercial probity, as any other kind of merchandise.

Ballarat West is the principal part of the town for banks, merchants and hotels. Its main street—Sturt Street, is a noble central thoroughfare about 200 feet in width, having a considerable portion of its centre and length occupied with a garden, planted with trees. It is in this street that the "Mining Exchange" is situated, and also the handsome stone-built banks, and other public edifices and institutions. There is too a handsome and spacious theatre, and the houses are mostly brick or stone built. The Mining Exchange is a stand point and centre of

attraction; it is sometimes termed the "Corner:" why, I do not know, for the next house to it is the Unicorn Hotel, which occupies the corner position. To account for this, however, I was told that the opposite corner to the Unicorn Hotel—now the site of the London Chartered Bank, was at one time the *habitat* of the mining offices and the real "Corner."

From ten to twelve o'clock in the morning—at times—the street and the pavement in front of the Miners' Exchange present a crowded, bustling and animated appearance. One morning I saw a crowd collected at the Exchange, standing under its large verandah, stretching across the pavement and extending into the street. This assemblage was made up of stock jobbers, shareholders, speculators, lookers on and idlers. It was a motley group. The individuals composing it bore but little resemblance to the "Men on 'Change" of a London or Liverpool Stock Exchange. Not the least in fact. They appeared to me to be a plain practical and orderly lot of people engaged in some absorbing business or exciting pursuit. Some of them indeed were "seedy" looking parties—haggard of face and pallid of cheek; others were smartly dressed enough and had an expression of *nonchalance* and of *blasé* unconcern. Some few were excited, and many anxious and careworn. Little knots here and there were eagerly discussing

the prices of shares and the prospects of North Clunes Consols, Black Wood, Garibaldi, Queen Victoria and other Companies, long established and just commencing practical operations. Taking the assemblage as a whole it resembled, in outward appearance, a crowd of respectably dressed working men waiting outside a large London contractor's establishment on some day when a number of fresh hands were to be taken on. Only that the head gear of the Ballarat men was distinctive: the felt wide-awake was all but universal, and in shape, height, form and colour, it displayed every variety—from the low crowned "Jim Crow" to the wide-brimmed, sugar-loaf-peaked *sombrero* of the Spanish or Italian brigand—a species of picturesque "roofing" which bids fair to be adopted in London before long.

Some of these "men on 'Change" were worth their thousands. A few, no doubt, were desperately hard up, but all eager to make money by speculating, and not seldom by gambling in mining transactions —under different circumstances, but on like principles to those that influence their brethren on the Stock Exchange of London.

From the Exchange I walked down to Bridge Street, in East Ballarat. It commences where Sturt Street ends, and in width and appearance presents a striking contrast to it. Compared with Sturt Street

Bridge Street is narrow—about a chain wide—both sides of it closely packed with shops for the sale of hard and soft goods, of edibles and potables, and of divers miscellaneous wares and commodities, to a population that looks fresh and healthy. Some of the pavements, in Bridge Street, were planked with wood. East Ballarat is sometimes designated as "the old town;" yet where it stands was a wild forest but nineteen years ago. With West Ballarat it now forms one great inland city, the largest in Australia, which, from the vast treasures of gold yet to be brought to the surface of its auriferous lands — from the great agricultural capabilities of the country which surrounds it — from its thriving local industries—and last, but not least, from its salubrity —is certain to go on improving and prospering, and attracting settlers for many years to come.

CHAPTER X.

A COACH-RIDE ACROSS THE COUNTRY—MY FELLOW-TRAVELLERS—DIGGINGS IN THE RANGES—CRESWICK—A VOLCANIC FARMING COUNTRY—CASTLEMAINE—MOSQUITOES—ECHUCA: ITS PECULIARITIES AND POSITION—A STROLL INTO THE ADJACENT BUSH LANDS—MEET WITH TWO NEW "CHUMS" AND AN OLD HAND—A COTTAGE IN A WOOD—THE OLD MAN'S TALE—AUSTRALIAN GRASSY PLAINS AND BUSH—AUSTRALIAN TIMBER, AND HEAT EXPERIENCES.

Being bent on seeing as much of the interior of Victoria as possible, I took Cobb's coach for a fifty-mile ride in the country situated between Ballarat and Castlemaine. The railway from Melbourne to Ballarat goes no further than the latter town, but coaches run daily to connect Ballarat with Castlemaine, which latter is on the Grand Trunk line of rail that extends from Melbourne *viâ* Castlemaine and Sandhurst, to Echuca, on the banks of the river Murray.

Our coach had four wheels to carry it, four horses to draw it, and a fat, rubicund "whip" to drive it. He was a jolly, and, withal an unassuming fellow, who understood his business. I rode inside with

other passengers, farmers and diggers—apparently all intelligent men. One of them, who sat next to me, was smoking hard. He saw I did not like smoking, and said, "Does the smoke annoy you?" "Yes, a little," I replied. "Oh, then, I'll drop it," and saying so, he put away his pipe. Now, in a country like the interior of Australia, where so many people smoke, and become rough and ready in their habits, I hardly expected this mark of civility and consideration inside a Cobb's coach. I found this fellow-passenger had his mate with him. I entered into conversation with them, and discovered that they were miners going to "prospect" some lands they had heard of as gold bearing. They imparted to me a variety of useful information, founded on many years' experience in this part of the country.

Shortly after leaving Ballarat we commenced crossing a range of wooded hills that divide Ballarat, in the county of Grant, from Creswick, in the county of Talbot. As we continued the ascent of the hills by a good macadamised road, I noticed surface diggings in many places on both sides of it—in gullies and on flats. To dig the ground the trees had been cut down, and young trees had actually sprung up again in their places, from the stumps and roots of the old ones. They were growing luxuriantly, from six to ten feet high, looked fresh and beautiful,

as very young gum-trees always do, and were likely, if left undisturbed, to obliterate, by means of a new forest, the white heaps, the holes, and the uprooted ground where surface diggings have been carried on, to the great disfigurement of the landscape. Trees, I imagine, would grow well at these diggings, for the ground has certainly had the advantage of being well trenched.

Eleven miles from Ballarat, we arrived at the pretty village town of Creswick. It presented a new and smart appearance, though its population was only 3670. From here to Glengower (represented by a single public-house) a distance of about 18 miles, I travelled over a fine agricultural country. Here was a rich soil, easily cultivated, combined with a beautiful landscape. The district wore a volcanic aspect, being dotted over with low, cone-like hills, and the soil was generally of a chocolate colour. In one place I counted ten of these cone-shaped hills, all in sight at once. They resembled so many extinct volcanoes. There was a marked absence of trees and woods—the country looked smooth and fruitful. It is not unlike the volcanic area about Auckland, New Zealand. The macadamised road over which we travelled was fenced in on both sides with post and rail fences. The whole country around was under cultivation, and was enlivened

by numerous farm-houses, fields, gardens, and orchards. Several of the conical hills I have spoken of were undergoing a course of ploughing. The farm-houses, often built of wood, were not so neat as I expected to find them; neither were there (except in isolated cases) the quickset hedges and thriving plantations which give such charms to an English landscape. But, then, we must take note of the difference in age of the two countries. This district was only surveyed and laid out in 1854. It had scarcely been known twenty years, whereas the mansions and the farm-houses, and the cottages of England, with their respective groves and avenues, their hedge-rows and plantations, their lanes and thorn fences, their fruit gardens and flower beds, are the result of centuries and centuries of cultivation under the most favourable circumstances. As a matter of course, then, rural life in Australia still lacks that beauty and wealth of culture that have been lavished so abundantly upon the ancient and mellow homesteads of the Old Country. But the tree of civilization has been planted, and will bear fruit in due season.

We stayed a short time at Glengower, and soon after we had left it, found that our road was no longer made or macadamised, and that we had now to cross the forest ranges between here and Castle-

maine as best we could. Our coach went jolting along through the bush; sometimes we had to vary our course, from the direct line, to avoid a soft hollow in one place, a deep hole in another, a tree yonder, and the stump of a tree close by. But the ground was generally hard, and we arrived first at Joyce's Creek, and next at Castlemaine, at 6.30 p.m., having done the distance of about 52 miles in eight hours.

Castlemaine is the centre of a digging district. It contains a population of 9000. It has some new and handsome public buildings, with a number of neat private dwellings, and looks like an oasis in a desert of upturned ground. Castlemaine is just half-way between Melbourne and Echuca, the distance being 76 miles, which I got over by train, in three hours and twenty minutes, and arrived at my destination, Echuca, at half-past ten o'clock.

On getting into bed I quite expected to be worried by mosquitoes, for if they should come, there were no muslin curtains to keep them off. However, I slept soundly, and never saw or heard, and what was better, never *felt*, the presence of any of these petty tormentors. In Melbourne there were mosquito curtains to the beds at the Port Phillip Hotel, and there the lively little insects were rather troublesome, as well as numerous, owing, no doubt, to the proximity of the waters of the Yarra. In no other place, how-

ever, did I see precautions taken against those "ticklish customers;" but, in fact, as I have elsewhere observed, mosquitoes abound chiefly in localities that are at once warm and moist, and there they are found in myriads. I have seen the air black with them, buzzing and darting about, as if bent, like so many vampires upon sucking the life blood out of one's veins. In Echuca and other places the air is too dry for them. The swamps and streams are mostly dried up at this season, and so there is no harbour left to give them shelter.

Next morning, on getting up and walking out into the open air, the sun had just risen with that peculiar splendour that belongs to the Australian Aurora. The sky was clear, the air cool enough to be refreshing, yet of such a balmy warmth, as to make it deliciously pleasant and exhilarating to walk about.

The inland Port of Echuca is situated at the bottom of a bight or deep bend which the Murray makes in the northern boundary of Victoria. It lies about 150 miles due north of Melbourne, with which it is connected by a direct line of railway, 156 miles in length. The River Murray is here, and for many miles to the east and west of Echuca, navigable, and forms the boundary line that separates Victoria from New South Wales. Strange to say, the waters of the Murray are

all within the limits of the colony of New South Wales—the Victorian boundary being simply the southern bank of the river, instead of extending to the middle of the stream. From this circumstance neither a bridge can be thrown across, nor a ferry established over the Murray without the previous sanction and assent of the New South Wales Government. This, however, has not prevented the Victorian authorities from taking the full advantage of Victoria's favourable geographical position, by constructing across the narrowest part of that colony a substantial and durable railway from, I may say, the sea at Melbourne to the waters of the river Murray, at Echuca. By this stroke of policy a railway is carried through fine agricultural districts, important townships—in fact, right across the entire Colony from its southern limits to its northern boundary. This great artery of traffic and transit cuts Victoria into two almost equal halves; and not only commands the traffic to the right and to the left along its course, but also at its terminus at Echuca, on the banks of the Murray, it taps the trade of the southern territory of New South Wales, and drains it off to Melbourne. This gives to Echuca an importance which will increase with every year that passes away; not only that, Echuca is also the centre of a pastoral and agricultural district of great extent.

The railway has in reality its terminus at a fine and commodious station at the outskirts of Echuca; but from here a branch line, of a mile or two, connects the terminus with a large and substantial wooden wharf erected on the bank of the river Murray, to load and unload the steamers as they ascend and descend that river.

At present (1869) Echuca is a straggling place with a population of about 1500 souls. It possesses a good hotel and several minor ones, a few neat private dwellings and shops constructed of red bricks. It has also a pretty circular water-tower faced with tastefully arranged red and white bricks. It is two stories in height, and is surmounted by a large circular iron tank, into which the waters of the Murray are pumped and stored for the supply of the town. There is no stone suitable for building or paving purposes about here. The soil is generally sandy alluvial deposit liable to *bake* in hot weather. Some of the streets, I observed, were paved with wood in this manner:—The natural surface of the road was levelled and rounded transversely; across the rounded street were laid narrow gum boards one inch thick; and upon these was laid a pavement formed by round blocks of wood placed close together—the interstices being filled with the sandy soil. Hot winds blow occasionally here. I

experienced one myself, when the dust and heat were as usual very disagreeable, but they did not last long. Here also I might mention there is a fine vineyard.

Early one morning I set out to examine the vicinity of Echuca. It is all flat land, and forms part of a great plain through which runs a never-dry river—the Murray. Where I was, the country was sparsely covered with timber, and presented a monotonous appearance. As I walked along just outside Echuca, I came to a river called the Campaspé. It looked like a monster ditch, 30 feet deep, 100 feet wide at the top and 20 feet at the bottom. To my surprise this "river" in some places contained no water, while in other parts here and there were detached pools of stagnant water. I descended one steep bank and walked across the bed of the "river" dry shod, and climbed up the opposite bank, which was also steep. Here I found myself in a wood—a clear grass plain being visible outside it. The trees in the wood stood wide apart—the spaces between them being clear of underwood and open. The ground, the grass and the trees, seemed dried up. It must be borne in mind that it was now in the height of an unusually dry summer. Hardly a blade of grass was to be seen. The ground looked as if it were baked, and was cracked and

destitute of vegetation. The leaves of the trees had a scorched and withered appearance, and among the branches might be seen flitting about numbers of black-and-white birds, yellow-breasted, and blue and green parrots,—uttering discordant cries as though lamenting the want of rain. Yes rain—rain—that Australian blessing, would come in a week or perhaps a month hence;—when, after a few days, it would transfer as if by magic the whole scene, — changing the dull and dismal yellow all round, into a bright emerald green,—enough at once to make the heart of man rejoice, and the beasts of the field exhibit signs of gladness.

As I continued my walk in the bush, I came up with two labouring men fresh from the old country. They had small packs on their backs and were in good spirits; they were going further into the interior in search of work. They had had cheap lodging, for they had slept out all night under a tree. Further on I espied a conical shaped hut. It resembled a bee-hive. It had a hole in its side and a tree apparently growing out through its top. When I got close up to it, I found that it was a hut, or in native Australian parlance—a *mia-mia*. It was constructed of the branches of trees, resting on their thick ends, spread out in the form of a circle on the ground, and meeting so as to form a round

top at the summit. The trunk of the tree, under which it was built, was at the rear of it, and there was a hole close to the ground, large enough for a man to creep through. As the branches were close together and had their leaves on, they formed a shelter from rain and a screen from the cold night wind. Curiosity prompted me to look in. The interior of this primitive mansion was about seven feet in diameter. It seemed rather snug—if not very commodious—the floor being spread all over with a sylvan carpet of small branches covered with leaves. Close outside the *mia-mia* stood an aged labouring man,—stout, tall, and blear-eyed, busily engaged in driving off the flies from his blood-shot visual organs. I accosted him with the customary salutation—"Good morning," which he returned. "Have you been sleeping here?" I inquired, pointing to the hut. "Yes," he replied. "I found this *mia-mia* empty, and I've been sleeping in it. You see it keeps out the winds but not the insects, of which there are lots at this season of the year." "Have you no employment," I asked. He replied that he had not, and then continued. "I'm out of work; I'm in search of work; I have no home; I'm getting old; I have no money: I've had a good deal of money in my time—but it's all gone." "How then do you get your food?" I said. "Why,

you see, I travel from station to station to get work. At most of the stations they give me something to eat, and I sleep out at night." This man was what would be called in England a "tramp"—or, in other words—a candidate for the "casual ward" of the nearest Union. Here in Australia he was one of that class who would continue sober and work hard at fencing, or other station work, for a "spell" of six or twelve months, and then having made a little money—a few pounds—strike work and spend his hard earned money in roystering about and getting drunk — until all was gone. What finally becomes of these men, in the interior, it is difficult to say. A friend of mine, a New South Wales settler, told me that some of these tramps are a lazy set of fellows. Many of them work hard and drink hard all their lives; and as there are neither workhouses nor hospitals in the bush or in the unsettled districts—when these men become old and infirm and are searching for work or food, the probability is that in some cases they walk on until they can proceed no further—until at length they lie down in the unfrequented bush, to die under a gum-tree.

From the Campaspé Bush, I went on to the open plain on Mr. Glass's Run. Mr. Glass was one of the great Australian run-holders. He had a good run

here, and a fine house and garden on the banks of the Murray. The great flat plains about here, where the plains alternate with belts and clumps of bush, present a very striking and agreeable aspect. And yet there is a certain sameness and monotony in this constant repetition of bush and plain, plain and bush throughout Australia. Years ago I had read of the park-like appearance of these Australian plains, and how you could drive a carriage through the bush. But I must confess that those which I saw, bordering on both banks of the Murray, produced a certain feeling of disappointment, so far, at least, as regards the appearance of the trees in the bush. Trees there were, it is true, wide apart, with but little underwood or scrub, and the hollows that occurred here and there, and the unevenness of the ground in some places, did not prevent the passage of horsemen and drays through the bush. But, then, the trees for the most part had a stunted, dwarfed, and weird appearance, crooked in the trunks, gnarled in the branches, and with such a sparseness of foliage, as to leave the limbs exposed in all their naked deformity. Nothing could be more unlike the umbrageous and stately trees peculiar to English parks, than the trees I have described as they are found in the Australian forests on the plains, where hot winds blow, and the soil is so often parched up for lack of

moisture. In the valleys, however, and in the bush-ranges, proper, of Australia the case is widely different. There the trees attain a gigantic size, and exhibit a dense foliage. While I was in Melbourne a gum tree was felled in the Dandenong ranges, measuring 365 feet to the topmost branch, and 295 feet up to the first branch. The trunk was quite straight, and the topmost branch measured 3 feet across where it had been broken off by the wind or other causes. One gum tree felled at the Black Spur is stated to have been 480 feet in length.* The gum tree, of which there are several varieties, is of the *eucalypti* tribe. It is the oak of Australia, and about as hard, as durable, and as strong as the English oak, which it resembles in colour and in the strength of its fibres.

The forests of Australia, in the valleys and in the ranges, have sufficient moisture, while on the plains they have either too much or too little. In the hills there is uniformity in the appearance of the country all the year round. On the plains there are exhibited the striking contrasts of scorched vegetation and scarcity of food for stock in summer, on the one hand; and on the other, the luxuriant pastures and rich grassy plains—the land of plenty

* See *Illustrated Australian News* of February 22, 1869.

for flocks and herds, and the result of the autumnal rains, as I have noticed elsewhere.

About Echuca, I heard no complaints from the settlers, of intense heat. One gentleman, the manager of a large station, told me he could not bear cold. "When the sun is 100 or 110 in the shade I don't mind it, I like it," were his words. Another gentleman, a friend of mine, a settler on the Liverpool Plains of New South Wales, was warm in admiration and praise of the climate of his own Colony, which he affirmed to be the finest in the world. "It is always warm—you can sleep out all night in the open air. If you are out on horseback, and get soaking wet, your clothes will be dry on your back by the time you're at home." "But are you not likely in after years to suffer from rheumatism from such exposure?" I inquired. "Well, perhaps so," he replied, "but I have felt no ill effects from it at present. We can do things here with impunity, as regards exposure to the weather, that would be death to us in England. Besides, when we are engaged about the duties and the work that belong to station life we seldom think of the effect they may have upon our health."

CHAPTER XI.

THE GREAT AUSTRALIAN RIVER—THE FERRY—THE PONTOON BRIDGE—FLOODS IN THE MURRAY—PROSPECTS OF A RAILWAY BETWEEN SYDNEY AND MELBOURNE—THE RIVER STEAMERS AND THE FERRYMAN—DISCOVERY OF THE MURRAY BY STURT—HIS ADVENTUROUS PASSAGE—A ROW ON THE RIVER—A SNAG IN THE WAY—A DANGER SURMOUNTED.

How many thousands of persons there are who have heard of the great American river—the Mississippi! How few there are on the contrary who have heard of the great river Murray in Australia! Yet the Murray is to Australia what the Mississippi is to the Continent of America: it is the largest river in Australia. It is about 2400 miles in length, is navigable for 2000 miles, and drains 300,000 square miles of country. Vessels used formerly to go from the sea mouth of the river up to Albury, a distance, by the windings of the river, of nearly 1750 miles. Latterly they have ascended much higher—into the upper waters of the Murray above Albury. Albury is a town on the north bank of the river in New South Wales, and is estimated to be 413 miles from Echuca. Small steamers have gone up the river for a distance

of 450 miles above Echuca. Throughout the winter the Murray flows deeply, and though shallow, in some places, in summer, yet it is very deep in others, and is never dry in any part of it. The Darling, one of the tributaries to the Murray, has a course of over 1800 miles.

I recrossed the Campaspé by a good wooden bridge, 120 feet in length and about 13 feet in width, outside measurement. It had a singular appearance in spanning a river almost dry, and which just below here falls into the Murray. From the Campaspé I proceeded to the Murray. I am now at the Ferry-house on the Victorian side of the Murray. The opposite side is New South Wales territory. I am looking down on its dark waters. The Ferryman has handed me a glassful of Murray water, it is the colour of gin, and tastes very well. I cannot see far up or down the stream. I perceive that its course is tortuous and its current sluggish, and that its banks are high, steep and thinly covered with trees —straighter, more leafy, and better looking than the trees on the plains close at hand. Though below the summer level, the river is here 18 feet deep, and at the surface of the water about 180 feet wide. A short distance up the river is the Steamboat and Railway landing-wharf; there, steamers are laid up, and just above them the river takes a turn, almost, at

a right angle. Below me is the Ferry, consisting (when all together) of a pontoon bridge of nine spans, formed by thirteen punts on which are laid, from punt to punt, 18 arches—nine on each side of the bridge roadway. These arches are light and low—each forming a segment of a circle with its chord line at both ends resting on two punts: the arches are formed of bent plank, and about 30 feet in length, and as they span from punt to punt they also carry the platform of the bridge; and when all the nine spans are in place and connected it enables the river to be crossed in a flood, when it is 270 feet wide. Originally, I was told, the pontoon bridge was 354 feet in length, which, I should say, was nearly the full width of the river, from high bank to high bank. The river being now at its low summer level, there are but six spans, which makes the bridge only 180 feet long. In one place a double punt is moored, in such a way as to admit of quick removal, to enable steamers to pass through the bridge of boats. This bridge is only for horses and foot passengers—light traffic. For the crossing of drays and heavy vehicles there is a large punt worked by a rope and windlass. While I was standing talking to the Ferryman the two "new chums" I had met in the Campaspé bush came up to cross the bridge. As they said they had no money, the Ferryman refused to let them

pass without the usual payment of 6*d* each, I think; after some grumbling, however, he did so, on my saying I would pay for them. He had, he said, been taken in before and was not to be taken in again by *tramps*.

In October, 1867, there was a great flood in the Murray. It was the largest known for twenty years,—so at least Mr. Hopwood, the founder of Echuca, and the "oldest inhabitant," is reported to have said. On the occasion of this great flood the river at the Ferry was 45 feet deep. A short distance from the Ferry, at the Steamboat and Railway landing-wharf (which rises, from the summer level of the river to the platform of the wharf, to the height of 40 feet), the flood waters rose up to a height of 31 feet. This is proved by a mark made on one of the front piles of the platform. Echuca, with the flood waters of the Murray on one side, and those of the Campaspé on the other, was, for the time being, almost an island. The Murray at Echuca was nearly a mile wide, and the passage of goods and wool was stopped for several weeks. At length, however, the waters subsided—when the accumulation of goods to supply the several stations, and bales of wool for Melbourne, was enormous, and had become so serious a matter, that when the first dray load of wool passed over, the occasion, I was

told, was made a great day of rejoicing. What with the punt—freighted with a team of horses, a dray laden with bales of wool, pile above pile, and a crowd of passengers and spectators—the scene must have been both bustling and exciting, and such a one as had never before been witnessed on the banks of the Murray.

The floods in the Murray are not, as a rule, of a very serious character, as regards the damage they may do. From the height of the banks, and the naturally slow current of the river, the floods cannot commit the devastations which are sometimes occasioned by more rapid-flowing rivers and mountain streams.

A bridge is much wanted where the Ferry now is at Echuca. I should think that the cost of a light iron trellis bridge—for ordinary road traffic, or even a light railway—would not exceed £15,000. It might be made to span from bank to bank. But as the wider the span—the higher the sides or girders would have to be; the latter might become inconveniently high, and therefore one span, of about 150 feet, and two, each 80 feet might suffice, and be supported on abutments: and two piers; the latter formed by means of 4—6 feet cast iron cylinders, sunk 15 or 20 feet below the bed of the river, and filled with concrete.

It is to be hoped that the Victorian and New South Wales authorities may come to some amicable arrangement, whereby each government shall contribute in proportion to the benefit it receives from the bridge. New South Wales is fully alive to the advantages of rapid communication between its capital, Sydney, and *its* river Port, Albury on the Murray. In a very few years, it is said, the Railway, which now extends from Sydney to the city of Goulbourn, a distance of about 128 miles, will be continued on to the town of Albury, and there be connected with the sanctioned line of Railway from Melbourne to the banks of the Upper Murray opposite Albury: then persons will be able to travel all the way from Melbourne to Sydney by rail.* Albury is about 207 miles, by road, from Melbourne, and it is nearly 351 miles from Albury to Sydney, making a total journey between the two capitals, Sydney and Melbourne, of 558 miles, or thereabouts.

* From the following extract, from the speech of the Governor of Victoria, delivered on his closing the parliamentary session of 1869, it will be seen that a railway to the upper waters of the Murray (which upper waters may be said to commence at Albury) is decided upon. The Bill for constructing this new line of railway is entitled "The Essenden and Upper Murray Railway Construction Bill:—

"Preliminary steps have been already taken for commencing the important work of the railway to the Upper Murray, and it will be the duty of the Government to prosecute the undertaking to completion with all convenient speed."

The steamers which ply on the Murray are of various kinds: they are small but compact, and built specially for inland river navigation. They range from thirty to ninety and up to 200 tons burden. "About 36 steamers are engaged in the trade on the river," said my informant, the sun-burnt Ferryman. He had been twenty-one years on the Murray and knew "all about it." He was quite a character in his way. An elderly man, with a square and saffron-coloured frontispiece dotted with small brown spots. An expression of jollity pervaded his jocund countenance. In stature he was a broad-built stout man—muscular and well-fitted for hard river-work, and was shrewd and intelligent. As the river was so low at this time, the greater number of the steamers had ceased running. As a general rule, these river boats can only run, continuously, for about five months in the year—owing to the shallows and sand banks which occur here and there in the Murray: one of these shallows was about four miles below Echuca; and a little above and below this place several steamers were laid up. One steamer that I saw was two stories in height—in imitation of the American river-boats — only of course on a much smaller scale. Another was propelled by a stern wheel, like boats I have seen on the Seine in France. The paddle, or side-wheeled steamers, how-

ever, appeared to be most in use, and best adapted to the river.

Though navigable—to a great extent—for only a few months of the year, the Murray is certainly a noble river. I was not disappointed with its appearance. On the contrary, its aspect, volume and magnitude, exceeded my expectations.

The upper waters of the Murray were first discovered and crossed by those bold pioneers of settlement, Messrs. Hume and Hovell, in the year 1824. The lower waters of this river were first brought to light by the adventurous explorer, Sturt, who was also the first to launch upon them his "frail bark." Mr. Sturt made his discovery in the year 1830, when he little expected it. After endeavouring (during the years 1828-9) to find out the riverine system of this part of Australia, in the year 1830, he committed himself with his trusty companions in a small boat, to the mercy of the, then, unknown waters and currents of the Murrumbidgee, a river of New South Wales. Down the Murrumbidgee he was borne, until he reached a swift-flowing and narrow part of this river, when he was suddenly and rapidly floated out of the Murrumbidgee, into the wide and deep river Murray some distance below Echuca. To the eyes of Mr. Sturt the Murray must have appeared a majestic river, all the more striking and

attractive, because it enabled him to claim the honour of having first solved the South Australian river problem.

Bent upon further exploring these waters, he pursued his boating expedition down the course of the Murray, until he reached Lake Alexandrina by the sea, on the south-west coast of Australia. From here Sturt and his followers had now to row back against the current of the Murray for nearly a thousand miles, by the windings of the river, to the mouth of the Murrumbidgee, and then up this river till they reached their depôt on its banks. They had spent eleven weeks on the waters of the Murray in their little boat; during which time the hardships and sufferings to which they had been exposed, from heat, fatigue, and shortness of food were almost without parallel, until they at length regained their starting point.

As all the steamers were at this time laid up, I hired a man and a boat for a row on the Murray. Years ago I had read with deep interest Sturt's narrative of his discovery and navigation of the Murray. Its thrilling incidents were still fresh in my memory. I pictured to myself the then solitary grandeur of this noble stream (now the commercial highway of three great colonies) bearing along into unknown regions, Sturt's frail craft, with its little crew of

daring explorers, the vanguard and harbingers, so to speak, of that new civilisation which was so speedily to dawn upon the Australian horizon, a result which they could not have anticipated in their most sanguine forebodings. In imagination, I contemplated, as they first appeared to Sturt,* the boundless and untenanted plains, the wide uncultivated tracts of territory that everywhere met the eye along his route; and was struck with wonder and astonishment at the marvellous changes that had been brought about in these regions within the brief compass of a single generation—since the tide of civilization first began to flow towards the Australian shores. These, however, are ideas which must naturally occur to any one who takes what may be called a cosmopolitan view of "Social Science," or who investigates the great problem of Emigration on the spot, with the logic of accomplished facts staring him hard in the face.

To return to our boat on the Murray. We quietly rowed down the river, at the rate of four or five miles an hour,—assisted by a slow current. We passed the mouth of the Campaspé, where it flows into the Murray—the banks of which just below here were steep, high, dry, and lined with trees.

* Captain Sturt died in England during the year 1869.

We could see nothing of the surrounding country—so much were we below its level. The colour of the river was very dark, and its course exceedingly tortuous. We had to steer round long-projecting points—having corresponding indentations on the opposite banks. Parts of the river were alternately deep and shallow, with snags over and under water in endless variety. These peculiarities, I was told, were characteristic features for many miles above and many miles below Echuca. This makes travelling up and down the Murray somewhat monotonous, and a few miles sail, up or down-stream, enables one to form a tolerably accurate idea of the aspect presented by the river, over a great part of its length. Near Echuca I noticed in one or two places that the banks were green and garden-like—the result of cultivation. In the future it will be the recurrence, at frequent intervals, of these cultivated spots that will give an agreeable variety to the landscape along the banks of the Murray.

As we proceeded a little further down the river the scenery was still the same; so I decided to "'bout ship," and our boat was accordingly headed for Echuca. It was a stiff pull for my boatman, against the current, particularly in rounding the points. There was some danger too from the snags under water—though "snag boats" are em-

ployed to remove them. We kept a sharp look out, first to one side and then to the other, but we could not see well a-head. So we thought it best to hug the shore a little, rather than keep out in the middle of the stream. I held the rudder lines, and I suspect I must have been steering badly, for as we worked slowly up the river, I suddenly felt the boat give a lurching lift, as its keel grated harshly against a hard substance in the water under it. I grasped at the higher side of the boat, near to which there stood out of the water the arm of a dead tree. "Keep quiet, sir," said the boatman, "fear often makes danger when there is none." So I kept still. The boat had stopped. We looked over the side. We were in deep water; and there low down was the trunk of a huge tree with large limbs. It looked like some "vasty monster of the deep"—black and misshapen—with long crooked legs and arms outstretched, as if to bid the unwary traveller "stand and deliver—his boat or his life"—or both. At all events we soon found that our boat was fast caught on one of the branches,—not exactly "impaled" or "stove in"—but arrested. In short we felt that, in more senses than one, we were "in a fix." What was to be done? The boat was slightly tilted to one side, so we naturally threw our weight into the opposite scale, lest another lurch might cause us to

come "keel upwards." Not knowing exactly what to be at to extricate ourselves from this dilemma, we continued gazing into the dark waters—when after a brief period of suspense, the branch on which we had been fixed broke or gave way, and to our great relief we found ourselves once more safely afloat—having escaped one of the dangers incidental to boating in some parts of the Murray. However, I returned to Echuca well satisfied with my first excursion on Murray Waters.

CHAPTER XII.

OVER THE MURRAY INTO NEW SOUTH WALES—FREE SELECTORS' LAND — THE FOREST TREES — A FREE SELECTOR'S HOME—THE FARMER'S WIFE AND FARMING OPERATIONS—LAND THE COVETED PRIZE—ACREAGE OF VICTORIA — LAND REGULATIONS — CLASSIFICATION OF THE LAND IN THE COLONY.

Being desirous of seeing something of the New South Wales side of the river, I hired a four-wheeled car, with a lively and voluble Frenchman for my driver. We crossed the Murray by the ferry-boat, and after having ascended the bank for some distance by a rough road, I found myself in the bush in New South Wales territory. The land all about here was as level as a barn-floor, and was lightly timbered with scraggy "box" bush and light underwood—or scrub. We continued our drive for about four miles through the bush, till we came to a plain which now looked greenish from a recent fall of rain. Beyond this plain was bush, and beyond this bush was plain again, alternating in this way for many miles. My driver appeared to be familiar with the country all round, and his accounts of it were verified by what I saw myself.

I was now in the district in which the New South Wales "Free Selectors" had chosen their lands. The part selected, which is occupied by small farmers, is situated in the bush, near the banks of the Murray. I expressed a wish to see a part of the "Free Selectors'" land, and my Jehu accordingly drove me round it. I here saw that bush had been fallen, fences raised, and land cleared in a rough-and-ready sort of way. In one of the "paddocks" I noticed young trees of the gum tribe shooting up again. This indicated slovenly farming: the ground had not been properly cleared of the roots—an expensive job no doubt for a man of small means. One would perhaps imagine that it would be an easy task to get rid of these young gum shoots, and prevent the paddocks from becoming embryo forests; but these blue gums are endowed with wonderful vitality: a fire may pass through them—you may cut them down to the ground—you may lop them and top them at all times of the year—you may mutilate them as you will—but this will not prevent them growing again. Nothing succeeds but total extirpation. They will not however grow from cuttings, but are easily raised from their seeds. Nowhere have I seen them grow so rapidly and luxuriantly as in New Zealand: the English climate is too cold for them. Though frequently

small in size and scraggy in appearance they are excellent as firewood; and where the trunk is straight and of good girth they are extremely valuable as heavy timbers for carpenters' work. The wood is too hard for the purposes of the joiner, but is well adapted for wheelwrights' work, and for fencing. Iron bark is another hard wood found in the colony, possessing nearly the same qualities as the blue gum, and almost equally useful, but of a reddish colour; this, together with the Sidney cedar (a wood equal in colour to Honduras mahogany, and as easily worked), grow in certain localities only, and the growth of the latter is, I believe, confined to New South Wales and the country north of it.

In the course of my excursion I called at the house of one of the small farmers—better known as "Free Selectors." The house was a comfortable weather-boarded cottage. The farmer's wife only was at home. She was a stout, civil, and middle-aged "Scotch boddie." She kindly invited me in, asked me to sit down, and inquired if I was "thirsty." No need of such a question in such a thirsty climate. She then gave me some tea, and apologised for not having any milk to put in it. In answer to a string of inquiries on my part, she replied, "We grow fine wheat on our land. In

very good seasons we grow 40 bushels to the acre; but in bad dry years like what we now have, we can only get about 15 bushels to the acre. The land is good, but gets 'baked' in summer. It is too warm for potatoes, but maize and wheat grow well: wheat likes a dry heat when well up out of the ground, and vines thrive. We should have nothing to complain of if we could only depend upon the seasons. [All farmers would be of the same opinion.] As it is we are doing well enough." In her turn she asked if I was on the look out for land to select from? I told her not—that I was going to England. "Oh, are you—I come from Scotland; and are you going to the *North?*" I replied, it was quite possible—when she continued, "Please, then, if you go through Gretna Green call on Mr. G—, he is my brother, and is the Station-Master there;—tell him you saw me, and he will be so glad to see you." Of course I promised to comply with her request, should the opportunity offer. As I mounted the conveyance, and we were driving away, she called after me, "Good bye, sir! mind you call upon my brother if you can." I rejoined—"All right!" From the land of the "Selectors" I returned to my comfortable brick-built and well appointed inn near the Ferry at Echuca.

Land, from the earliest periods of civilized society,

has been the great prize coveted by the bulk of mankind,—eagerly sought for by the many but only attained by the few. Nor can we marvel that such should be the case. Beyond doubt it is the most "solid" and "substantial" (*ex rei naturâ*) kind of property that a man can possess; and if only moderately fertile, it is a source of "perennial wealth." It is a "standing concern" to all intents and purposes: it cannot run away like a frandulent banker or merchant: it cannot collapse, like a bubble company: it cannot "repudiate" like a dishonest or bankrupt State: it cannot melt away like flocks and herds smitten by plague or murrain:—in short it cannot be lost, stolen, or burnt up—nor otherwise "improved off the face of the earth:" it is a "perpetual treasure" to its fortunate possessor. What wonder then if Victoria with such "solid" and abundant wealth of this kind at command, should possess so many powerful attractions for the great army of the Lacklands, who "vegetate" ignobly upon their native soil at home, without ever a hope of calling one square foot of it their own? Abundance of land—as well as of gold—are the rich gifts which Victoria has to bestow upon those who seek them with energy at her hands; and her favours are chiefly reserved for the "unsophisticated children of nature"—the hardy—the "iron-fisted sons of toil,"

who are prepared, with all their might, to seize upon and appropriate the wealth that lies within their grasp. These are no idle figures of speech: they are *facts*. Let us "condescend to particulars."

The total acreage territory of Victoria comprises about (55,644,160) fifty-five millions six hundred and forty-four thousand one hundred and sixty acres of land. Of this there were at the end of 1867 no less than 20,848,623 acres of unsold land available, *temporarily*, I may add, in the occupation of squatters. Besides this there were of waste lands, *unoccupied*, 15,463,747 acres.

The disposal and allotment of these waste lands has hitherto been regulated by the Land Act of 1862 and by the Amended Land Act of 1865, under which, Selectors could apply for lots varying from 40 to 640 acres of agricultural land: the latter number not to be exceeded. These Land Regulations are now altered by another Amending Land Act (No. 360, Vic. 33) passed (December last) in the Session of 1869. This newest and latest Land Act of the Victorian Parliament, is a long Bill and is intended to amend and consolidate the various Acts passed for the regulation, occupation and sale of the several descriptions of the Crown Lands of the Colony of Victoria.

The Amended Land Act of 1869 appears to me

to deal even more liberally with the agricultural and pastoral interests than did former Land Acts. The great object of the promoters of this Act would seem to have been, to give real encouragement to the occupation and cultivation of the agricultural lands of the Colony by *bonâ fide* settlers. The wisest plan a colony can adopt.

1. The Act of 1869 places squatting on a legal basis by giving the runholders ten years further occupation by leases—to be annually renewed—and subject to a proviso, that any portion of the lands so leased may be selected for Agricultural Settlement.

2. The standard price of land remains at £1 per acre, under various conditions of sale and occupation. Every year 200,000 acres of land—but not more—may go to auction, for cash, at the upset price of £1 per acre. £200,000 worth of land revenue is annually to be set aside for railway purposes.

3. The most important portion of the Land Regulations, are those relating to the disposal of the Agricultural Lands, under an improved system of Free Selection. Under these regulations, of the new Act, persons have a right of free selection—under certain restrictions—extending over the whole of the unsold or undisposed of lands of the colony.

4. The principal conditions under which selections are to be made, may be briefly described as under:—

5. A Free Selector can apply for a license to occupy an allotment of land of from 40 to 320 acres in extent: the latter number not to be exceeded. On selecting the land he must pay half a year's rent, as a deposit for the same.

6. The license entitles him to occupy the land, so leased, for a period of three years at the rate of 2*s* per acre per annum.

7. The license further stipulates:—That the rent is to be paid, half yearly, in advance.

8. That certain improvements, in substantially fencing in the whole of the ground, and cultivating one acre out of every ten acres of the total number—shall be effected within two years of the issue of the license: and before the end of the third year, a total of improvements, to the value of £1 per acre of the allotment, must be performed.

9. The whole of the conditions being complied with at the end of the three years: then, in that case, the licensee can obtain the fee-simple of his land—on payment of 14*s* for each acre of his allotment.

10. Should he not be prepared to pay the 14*s* per acre at the end of his three years license, he has the further privilege and right to take up a seven years' lease, at the same annual rental as before, namely, 2*s* per acre.

11. At the expiration of the seven years' lease (if the lessee has complied with the conditions) he will have been ten years in occupation of his land, and have paid, in annual rents, the sum of 20*s* (the standard price) which will entitle him to a Crown Grant for his allotment.

12. Should the lessee possess the means and have complied with the conditions, he may at any time—between the three and ten years—purchase the freehold by paying the remainder of the rent in advance. For instance, if he has been in occupation for a period of six years, he will have paid in annual rents the sum of 12*s* per acre, and if at the end of that time he wishes to purchase the freehold he has only to pay down 8*s* per acre more, which process is simply paying in advance the four years rent his lease has to run, and makes the total of 20*s* per acre.

From the above it will be seen—*that any settler in Victoria can acquire a farm of from* 40 *to* 320 *acres in extent, by occupying it, improving it and paying a rent of* 2*s per acre for a period of ten years.*

Land thus acquired is paid for at the rate of 20*s* per acre; by a system of deferred payments on which no interest is charged. The late system of free selection was popular; the present mode ought to be more so.

The best proof of the success of the late land

system under the Regulations of 1862 and 1865, is that up to December, 1867, no less than 2,571,172 acres had been taken up, at a rental of 2*s* per acre per annum, and (under the certificate selection) of an exhaustive rent of 2*s* 6*d* per annum.

The following is the official detailed classification for 1867, of the whole of the lands comprised in the colony of Victoria:—

	Acres.
Land held in fee simple . . .	7,343,275
Roads, &c., in connection therewith .	367,163
Leased agricultural lands, at 2*s* and 2*s* 6*d* per acre per annum . .	2,571,172
Roads, &c., in connection therewith .	128,586
Held under residence and cultivation licenses, at 2*s* 6*d* per acre . .	226,150
Occupied as commonage . . .	1,845,444
Held under pastoral license, at 2.07*d* per acre	20,848,623
Unavailable land held in connection with above	6,850,000
Waste lands unoccupied . . .	15,463,747
Total . . .	55,644,160

CHAPTER XIII.

A BOILING-DOWN STATION IN THE BUSH—SHEEP SLAUGHTERING—BOILING THEM DOWN—EXTRACTING THE TALLOW FROM THEM—MUTTON-FED PIGS—COST OF BOILING-DOWN—GENERAL OBSERVATIONS—IMPORTANCE OF IRRIGATION.

I HAD now been across, and some way down the Murray, but as yet I had not been up stream. Not quite satisfied, therefore, and thinking there might still be something more worth notice higher up, I took a conveyance one afternoon, accompanied by a gentleman from the hotel, intent upon visiting a boiling-down establishment. It was but a short distance from Echuca, and situated on the left or Victorian bank of the Murray. Onwards we went through the woods, in the midst of which, hidden away, we found the establishment in question. There were trees all around it, and clumps of trees scattered here and there, the ground being partially cleared. The Murray, though close at hand, was not visible. The "establishment," was the property of Messrs. Leanord and Symerton, and consisted of a group of

buildings strongly constructed of rough timber fresh from the bush. Some of the workmen's huts were built of branches of trees, *mia-mia* fashion. The works had been recently set up, and had a new and unfinished appearance as a whole. Still the concern was in full working order, and numbers of sheep were sent to the slaughter-house daily. The manager, in a most obliging way showed me over the premises, and gave me all the information in his power.

"What is your first process in your boiling-down business?" I inquired of the manager. "The first process," he jocularly answered, "is to follow the instructions of Mrs. Glass as nearly as we can: first catch your sheep. The other stages in our mode of proceeding you can see for yourself; whatever is not clear to you I shall be happy to explain." And with this brief introduction, he took me at once to the large sheds and pens, where active operations were in progress.

When duly "caught," and brought into the premises, the sheep were put into pens, where they were knocked on the head, by the "barrowman," with the blunt head of an axe. Thus stunned, they were forthwith dragged out of the pens up into a shed, where they were laid on a large floor in rows —about 50 sheep to each row—with their heads towards a gutter. The heads were then cut off, the

blood being carried away, by the gutter, to a receptacle, or trough, where it was speedily eaten up by a host of pigs. The headless sheep were next hung up on hooks by the hind legs, skinned and "viscerated." A good hand will skin on an average about 200 sheep per day. The entrails were sent down below through a trap door to the "gutmen," to take off the fat. From 20 to 30 of these carcases, thus "gutted," were then placed on a truck working on a tramway, and taken to another higher floor, called the "boiler platform." Here two large iron boilers were fixed standing on their ends, with man-holes at the top, and capable of holding from 500 to 600 carcases packed and wedged close together, by a man placed inside the boiler for that purpose. This man's occupation appeared to me to be anything but pleasant, with the sun at 90 in the shade. Under the old boiling-down system, the boilers were supplied with furnaces, and, in skipper's lingo, "when the cargo was duly stowed away in the hold, and the hatchways were battened down;" or, in other words, the man-hole at the top was closed, and the fires were lighted. The boilers being heated, made their own steam for separating the fat and oil from the other parts of the carcases. This was the old process. But by the new mode, the steam was generated by means of two other boilers fixed at some distance

from the carcase boilers, the steam being conveyed by pipes from the former to the latter. The carcases were then allowed to steam in the two boilers for about five hours, at a pressure of from 25 lbs. to 30 lbs. When the steaming process was completed, cold water was poured on the sodden and seething mass of sheep's flesh, to "settle" the dirt, which was thus precipitated, by the cold water, to the bottom of the boiler. This operation effected a two-fold purpose, for it served also to raise the fat, or tallow and oil to a level with the "fat-cock," or tap, which was fixed about half-way up the boiler. The tallow and oil issuing from this tap were then conveyed, by means of spouting, and made to pass through strainers, to a large cooler. This cooler is first prepared by water being placed in it; the fat is then allowed to run into it, and more water poured upon the fat. This process of running water under and over the fat, has, I understood, the double effect of purifying the tallow, and of raising it up to the "fat-cock." This done, the tallow is still liquid enough to be run off into casks. And finally, when in the cask, (which holds about 7 cwt.) the entire mass of fluid matter is well stirred up to mix the oil with the tallow, and at the same time to allow the remaining steam to escape. The process of tallow-making for the English market is thus completed.

The casks are then headed up, and sent off by railway to Melbourne.

In these great "Tallow Factories," as I may call them, all sorts of sheep are boiled down, young and old, male and female, fat and lean; nothing comes amiss. A good fat sheep will yield about 24 lbs. of tallow; one moderately fat of average condition, about 15 lbs.; but an old lean and scraggy animal will only yield from 1 lb. to 2½ lbs. of tallow. Besides the tallow there are the skins of the slaughtered sheep. These skins are "fell-mongered" for their wool by a process of soaking in water and sweating, by which means the wool is easily separated from the skins, leaving the pelts to be dressed for sale.

Over-stocked sheep-owners wishing to have their sheep slaughtered for their tallow and skins, send their flocks, great and small, to this establishment to be boiled down, at so much per head. The prices charged for this operation, were, for any number under 5,000, 1*s* per head; from 5,000 to 10,000 only 9*d* per head. By special arrangements these prices might probably be varied, but these were the terms as given me by the manager. The owner of the sheep agreeing to these terms, takes the tallow and pelts as his share; the former being casked and delivered to his agents in Melbourne, free of expense. The pecuniary result of this arrangement is that for

certain flocks of sheep, which average per head 15 lbs. of tallow, the net proceeds accruing to the owner will amount to from 3*s* 9*d* to 4*s* per head, at the present market price of tallow. This amount will, of course, vary with the size and fatness of the sheep.

The proprietors of the Boiling Down Establishment employ a large number of men at a considerable expense; but they work on safe principles—for they are sure of their 9*d* or 1*s* per head. Besides this, there is a little short wool from each skin, and all the raw offal and boiled mutton to feed pigs with. I noticed from 300 to 400 pigs of a good breed roaming about the ground—some three or four acres in extent. In one place I saw what might be termed a "pigs' acre" or "pigs' paradise"—being a field covered all over with raw sheep's heads laid close together—upon which the porcine gourmands regaled themselves, when their appetites had been satiated with feasts of boiled mutton, and literally—orgies of "blood." Passing along, I looked into a shed where a gaunt Scotchman was engaged in curing thousands of sheep's tongues, and as it was a little enterprise of his own, he seemed much interested in his work. Among other matters, I asked him if the mutton-fed pigs turned out well, as to the quality of their flesh? He told me that

when they were "corned up," and *hardened* with maize they made excellent bacon and hams for the Melbourne market. I should expect, however, that the flesh of animals, fed in this way, would savour somewhat of mutton, for it is a well known fact that in parts of Great Britain, where swine are fed to a great extent upon fish and offal, the flesh of this omnivorous animal tastes strongly of its fishy diet. It was intended when these works were completed that they should be devoted to the several operations of tallow-making, tanning, wool-washing, tongue-curing and pig-feeding on a large scale.

I have but little doubt that this boiling-down and pig-feeding establishment will become as extensive as successful. It appeared to be simply and systematically managed, though so far away in the bush. In fact, it may continue to prosper until the influx of population treads upon its heels, and bids it cease its operations in the destruction of human food in the shape of mutton. At present it utilizes surplus stock—flocks of sheep, which otherwise must be left to starve, die, and corrupt on their runs.

Having completed my inspection of all the arrangements connected with this boiling-down station, and expressing my thanks to the obliging manager, I prepared to return to Echuca. My hotel-friend was with me. He had made a cursory survey of the

establishment, and wondered why I had made a detailed one. Was I going to set up a boiling-down business? He merely wanted to ascertain what number of sheep this place would boil down in a given time, and the price per head for doing so. I informed him that my object was purely to see the place, and to understand what I saw of the working of it, that I might be enabled to impart to others the nature and current mode of operation, in a modern Australian boiling-down station. We returned to Echuca just in time to see the colonial sight of a dusty coach, dusty horses, and dusty and heated passengers of a Cobb's coach cross the Ferry—having arrived from Deniliquin in New South Wales, and taken the greater part of a day to perform the journey of 51 miles.

The river Port of Echuca is likely to have 'local industries' of its own. 'Local industries' are favourite terms in Australia, and mean foundries, machine works, breweries. tanneries, saw mills, tallow factories, soap factories, wine-making, potteries, paper mills, and workshops for making tinware, furniture, &c. An attempt, on a more ambitious scale, has been made in Victoria by the formation of distilleries and one or two woollen cloth factories. The former are generally successful; but the latter, the distilleries and cloth manufactories, may be said to be

on their trial. The "local industries" of Echuca, would, I presume, be confined to some of the former.

Irrigation would be of immense advantage to the lands about Echuca and the borders of the Murray. It has been proposed to utilize the waters of the Murray, for irrigational requirements, by means of locks in that river.* To effect this on a large and profitable scale, no doubt, a large amount of capital and skill would be required. But if the rich, prosperous and progressing colonies of New South Wales and Victoria were entirely to lay aside local jealousies—now yearly decreasing in force—and would combine to accomplish an object so desirable and mutually beneficial, as a system of irrigation works on a large scale, there is little doubt but that, eventually, they would succeed in the enterprise. What would the teeming populations of India, Egypt, and nearer home, of Italy, do without their fructifying systems of irrigation? and what may not yet be done for the lands on both banks of the Murray if the vast waters (now waste) of that river are only made available for irrigative purposes? As it is, Echuca will become an important town, but with irrigated land all around, it might speedily become a populous inland City.

* See Victorian Blue Book of 1867—containing voluminous and interesting information on this vital subject.

CHAPTER XIV.

THE COUNTRY BETWEEN ECHUCA AND SANDHURST—SANDHURST—A SCENE OF DESOLATION AROUND IT—THIS THE CAUSE OF ITS WEALTH — A PLEASANT PLACE, WITH A FAMILIAR NAME—LEAVE SANDHURST FOR CASTLEMAINE AND MELBOURNE—IRISH SETTLERS NUMEROUS — A GOSSIP IN A RAILWAY CARRIAGE — OPINIONS OF A VICTORIAN COLONIST — WHAT VICTORIAN COLONISTS HAVE DONE FOR THEMSELVES — ENGLISH MISAPPREHENSION OF AUSTRALIAN COLONISTS —THE DUKE OF EDINBURGH—OPINIONS ON COLONIAL AND IMPERIAL RELATIONS — ASPECT OF A RURAL DISTRICT—GENERAL REMARKS.

ECHUCA is a very quiet place. So quiet that a person residing in it, without something to employ his time must soon feel dull and troubled with a sense of *ennui*. I had "done" Echuca: seen all I thought worth seeing; and so, early on one lovely morning, I left by the first train for Sandhurst, a distance of 55¼ miles from Echuca.

From Echuca, to within four or five miles of Sandhurst, the railway runs through a fine sheep farming country, consisting generally of a series of

plains, more or less level, and belts of bush presenting a very agreeable and picturesque appearance—the sun-burnt yellow plain forming a striking contrast with the long stretches of green bush. I observed that a great portion of this land was fenced in,—but there were only some half-a-dozen farm-yards and houses, and three or four ploughed fields in sight for a distance of 40 to 45 miles. The thought naturally occurred to me, as it must to any one, what an immense population this extensive area of available land would maintain in abundance—if only capital and the labour of the husbandman were added to the fine soil and Australian climate! Sheep-runs and boundless untenanted plains would then speedily be converted into "broad-acred" farms and thriving homesteads;—nay, the country seats of rich landowners would spring up from the ashes of the bush, and all the outward symbols of ease, cultivation, luxury and refinement which characterize the "ancestral halls" and "stately homes" of England, would, in the course of a generation or two, mark the progress of that civilization which the sons of Britain would have carried with them to their new abodes.

In due time I arrived at Sandhurst—the second gold-field town in Victoria, and situated in the noted Bendigo district. It contains a population of 17,000

inhabitants. In returning, after a visit I had paid to two of the Sandhurst quartz-mining Works, I took my stand on the top of a hill that commands a view of the surrounding country—Sandhurst included. I observed, as far as the eye could reach, that Sandhurst was surrounded at some little distance by ranges of low wooded hills. Between these hills and the town the country presented a broken up and desolate appearance. There were countless low mounds and heaps of white and yellow earth, looking like miniature volcanoes—features in fact resembling those exhibited by the *debris* of the surface digging around Ballarat. There were, too, numerous tall chimneys which seemed as if they had grown up out of the ground, and that their foundations must be sought for a long way below the surface, where the adventurous miner was hard at work, delving away in the bowels of the earth at hard quartz veins; instead of loose stuff like that in the deep sinking of the "gutter" at Ballarat.

Such were the surroundings of Sandhurst, which latter stood out in bold relief from the dreary background, to which it offered a striking contrast. Sandhurst is an active and bustling corporate town, with well-formed streets, well-built churches, hospitals, banks, hotels, gaols, and other public buildings; neat red brick dwelling-houses, and trim gardens.

In short, it is a smart, compact town in the midst of a mining country. But, strange to say, it is to the surrounding desolation that this town owes its existence, otherwise it would have been merely a village. The picturesque and the useful seldom go hand in hand; utility and beauty are rarely combined. True, the surface of the country about Sandhurst has been cut up and disfigured—for a time at least—until nature and art combine to remove the scars and wounds of the miner's pick, and make the face of this virgin soil "beautiful for ever;" but in the mean time thousands of men and their families have found profitable employment in the neighbourhood, and have established homes for themselves supplied with every English comfort. When I was there it was on a Saturday afternoon; many of the labouring class were assembled on a large plot of ground in Sandhurst, enjoying themselves in the sunshine, with games of quoits, and other amusements.

In the town of Sandhurst is a very plesant walk, or promenade. It is called by the familiar, but aristocratic, name of Pall Mall. On one side is a row of fine shops, in which are tempting displays of articles of various kinds, both useful and ornamental, which you can admire at leisure from under a verandah that shelters you from the rain and shades you from the noonday sun. On the other side of

the street is a garden with green trees, and green lucerne as a good substitute for grass.

From Sandhurst I continued my journey on to Castlemaine, through a park-like country, with but little cultivation visible. The distance between the two places is 22¾ miles. From Castlemaine to Melbourne the distance is 78 miles. Along this stretch of country I saw much gold land. The country about here has not that monotonous appearance peculiar to the great Australian plains, the surface in places being hilly and undulating, and if fenced in with live hedges would have a very English appearance. The soil is fertile, and is better watered than other parts of Victoria. In the carriage in which I travelled were one or two land agents, and several farmers, many of the latter being Irishmen. In fact, I was struck with the number of well-to-do Irish settlers of both sexes, as well in the country parts as in Melbourne. They were engaged in various capacities—farmers, publicans, cabdrivers, barmaids, labourers, and domestic servants, being chiefly conspicuous. I should imagine that the Irish element constitutes a fifth, at least, of the population of Victoria. In the carriage in which I sat, the doings of the Fenians in England were alluded to, but only in terms of disapproval; the price of land, however, and the prospect of large importations of New

Zealand oats lowering the price of that grain in Melbourne, were discussed with animation, shewing that the public took more interest in business that touched themselves, than in politics, that did not. The second arrival of the Duke of Edinburgh also formed a topic of conversation. I asked a fellow-passenger sitting next me if the Duke was popular in Australia. He replied, "Yes, I think so." "Are you going to make another fuss with him this time?" "Certainly not; in the first place, we can't afford it, and in the next, we look upon his coming back again as merely intended for a short visit, to shew his courage, and to prove that he has no fear in trusting himself among Australians." "Do you think the Australian colonies are at all likely to separate from the mother country?" This was a sort of leading question put for the purpose of eliciting the opinion of my interlocutor, whom I perceived to be a sort of representative man—intelligent and shrewd. His answer was thoughtful and deliberate, and to the following purport:—"We are not—exactly—ready for it—yet. I dare say people in England think us a burden. Some say we are not taxed to support England. I say why *should* we be? We have our own poor, our schools, our churches, and our law courts to keep up, our roads to make, our public works to carry out, and to bear

all the expense of our militia and volunteers, and of a local and general Government as extensive (in proportion to our population) in its ramifications as that of England. Why, then, should we be taunted with not contributing to the revenues of England? Surely it can't be expected that we should keep up two Governments. England contributes nothing to ours; she merely supports her own. But the fact is, English people don't take the trouble to understand the Australians. They don't know the value of the colonies, nor how loyal the colonists are. We have had to make the country and provide certain special laws for its government. We have *fitted* it with social and political institutions, imported, it is true, from our native country, like so many manufactured goods for general adoption, if not consumption. Yet, we have done this during the life of the present generation. These are great facts which ought, and must, go far to outweigh our short-comings in the scales of impartial criticism. As regards the Duke of Edinburgh, he is a little wild, like many other young men, but when he has sown his wild oats, and is sobered down a little, I shouldn't wonder (if the present good feeling towards England continues), when we do set up for ourselves—as one of the Confederated States of Australia—some day, perhaps, in fifteen or twenty years' time, or less, if

he were to be asked to put himself at the head of our Government." My intelligent companion was here cut short in his observations by the arrival of the train at Taradale Station, where he got out, and I saw no more of him; but I am bound to say that the interpretations of his remarks, as I have here given them, express my own and the prevalent sentiments of the more intelligent Australians upon the points at issue between the colonies and the parent country.

There can be no doubt of the loyalty of the Australian colonies: but beneath an exuberant loyalty there sometimes peeps out an under current of adverse criticism—if not feelings of irritation—at the persistence of the Imperial Government in, what has been described as a "haggling" policy, of requesting and receiving payment for one or more companies of soldiers stationed in some of the Australian colonies. It is not that they complain of the amount they have to pay, but rather that such a small amount—as a sort of tribute—should be asked for by Government, of the richest and Greatest Empire the World has ever seen.* This policy is,

* I find, from the Army Estimates of 1870-71, that the contributions from the Colonial Revenues of Australia to the Imperial Government Expenditure were, for the year 1869, as follows :—New South Wales, £24,095; Victoria, £23,590; Queensland, £6340;

by many persons, viewed as unwise, short-sighted, and unworthy of a country like Great Britain. For after all what does she get out of it? but a few thousands to add to her revenue of over seventy millions sterling. Irrespective of this view of the case, a certain number of British troops must be kept somewhere; and the expense of doing so must

South Australia, £6043; making a total Australian contribution, for one year, of £60,068. The military expenditure for New Zealand for 1870-71 is the sum of £200.

If one may judge from the following statement in the *Times* of February 25th, 1870, the probable withdrawal of nearly all the troops (excepting a few in the convict settlement of Western Australia) in the Australian Colonies—is seriously contemplated, and therefore the Colonial contribution, for 1870-71, may be exceedingly small or nil:—

"THE ARMY IN THE COLONIES.—The Army Estimates include charges for military purposes in the Colonies as follows:—Australian colonies, £23,278, of which sum nearly £19,000 is for Western Australia; British North America, £226,293; Bermuda, £187,134; South Africa, £132,376; West Africa, £34,754; West Indies, £197,596; Mauritius, £78,832; Ceylon, £160,026; Straits Settlements, £78,748; St. Helena, £20,630; China, £166,523; Gibraltar, £270,005; Malta, £329,343. The total is £1,905,538, being £684,000 less in the financial year 1869-70, now nearly closed. The probable Colonial contributions in aid of this military expenditure in the year 1870-71 amount to £309,000. They are as follows:—Ceylon, £160,000; Straits Settlements, £59,300; Mauritius, £45,000; Hongkong, £20,000; Malta, £6200; West Indies, 4000; South Africa, £13,500; Labuan, £1000. This statement of Imperial expenditure is exclusive of the cost of arms, accoutrements, barrack, hospital, and other stores, the greater portion of which is supplied from this country; it is also exclusive of any proportion of recruiting expenses, head-quarter administrative expenses, and non-effective charges."

be incurred in England, or out of it. If it costs, say—for the sake of argument—fifty per cent. more to support troops in the Australian Colonies than in Great Britain, and if Australia pays the whole Colonial expense of maintaining the troops she is permitted to retain, she not only pays the extra cost of keeping them in Australia—but also what they would cost if they were stationed in Great Britain. If a whole regiment was wanted by an Australian Colony the request for payment would not appear unreasonable.

A resort to the alternative of withdrawing the troops altogether, and leaving an important British Colony without an Imperial soldier in it, would, I imagine, be attended with grave consequences, and be considered as an unprecedented event—the beginning of a new colonial policy, the results of which no one could foretell. If such an event were to take place, there would be, in the Colony, but the Governor to represent her Majesty the Queen, and the Union Jack as the sole symbol of British authority in that portion of the empire. The Governor would be without a British soldier to place as a sentry in front of his residence, and the "Flag" without a single red coat for its defence. Then the Colony might come to think itself abandoned.

I leave my readers to judge for themselves,

whether such a state of affairs would not be calculated to prepare the way for speedy separation under *irritating* circumstances, instead of, as I have before stated, parting as good friends.

It is far from agreeable to give expression to such fears as these, but, as I know them to exist to a wide extent, it appears to me desirable that they should be more fully known; for—if it is not an *understood* intention to break up our Colonial Empire—there is yet time to counteract their effects.

It is not the Colonies that will lose by separation. At first it would be a shock to their social and political ideas. It would be but a temporary derangement of their relations with the mother country, resulting, eventually, in proportionately less loyalty towards and less trade with England.

I was much struck with the English appearance of the country on both sides of the railway, at Malmesbury, Kyneton Woodend, and all about Mount Macedon. The soil was of a light reddish hue, and was nearly everywhere under cultivation. The whole country wore a picturesque yet homely aspect. There were hills, dales, flats, ravines, some woods, and many fields: there were cottages, farm houses, villages and towns to complete an Australian scene of rural life. The river Campaspé, which flows inland to the Murray, takes its rise in the ranges

here about Mount Macedon. From Echuca, by rail, we had partly followed its direction, and crossed and re-crossed it several times. A resident farmer of this district informed me that the lands about here, which had been under cultivation, were worth from £8 to £10 per acre. It was good land, and yields crops well. They were always sure of water by sinking for it, at a depth of from 15 feet to 40 feet.

In due course I arrived at Spencer Street Station. And now my journey was over: my excursions in the interior of the colony at an end. I had now gratified a curiosity which I had long felt a craving to satisfy—I had seen some of the principal sources of the wealth—commercial—mineral and agricultural of the great colony of Victoria—the wealth that is produced from the surface of the ground, and that which is raised from the bowels of the earth. The recollection of all these scenes is still fresh in my mind—of Ballarat and the banks of the Murray. Imagination dwells with pleasure upon the visions of thriving homesteads, of green fields, of villas and lawns, of pleasure grounds and shrubberies, of rills and streams, that will one day border and occupy the now lonely forest banks of the river Murray. No snows are there here in winter to cover the grass and hide it from view; no locking

up the land by frost; no suspension of out-door labour for three or four months of the year; no raising fodder to feed the cattle and sheep in the winter; no housing of stock, because of inclement weather and lack of out-door food; no closing of the Murray from ice in the winter—as in Canada and the Northern parts of the United States. But much as there has been done, how much more might there not have been accomplished, if Australia (and New Zealand) had had but a tithe of the capital and the new blood which have been poured into the United States—emigrants counted by hundreds of thousands year after year. Australia is no doubt at a disadvantage from its distance away from the multitudes who want to emigrate—from the European hive. Steam has done much for Australia in shortening the voyage, but it will do much more. Meanwhile Australia can wait until fuller knowledge shall enable Englishmen to perceive the superior advantages, which the Australian Colonies hold out to settlers, and until they can realise the fact that there is no country in the world but Australia that can offer such attractions to emigrants—as the "British El Dorado."

OBSERVATIONS AND SUGGESTIONS ON EMIGRATION.

INTRODUCTORY REMARKS—THE WANT OF EMPLOYMENT AND ITS CAUSES—EMIGRATION SOCIETIES — WHAT SHOULD BE THEIR ULTIMATE AIM—GREAT BRITAIN AND HER COLONIES EQUALLY INTERESTED IN EMIGRATION—A GOVERNMENT EMIGRATION BOARD—HOW THE GOVERNMENT MIGHT GIVE ASSISTANCE—VICTORIAN GOVERNMENT ASSISTANCE TO EMIGRANTS—RATES FOR EMIGRATION, PAROCHIAL AND NATIONAL—EMIGRANTS CONVEYED BY STEAM-SHIPS—CONCLUSION.

In the course of writing this work, the emigration question has naturally been brought vividly before me and engrossed much of my attention. I may, therefore, with propriety make a few observations and suggestions on this all absorbing topic. Besides several years experience of colonial life have made me familiar with the subject, and without any undue pretensions to exclusive sources of information, I may add that I have had special facilities for gaining a practical knowledge of all that pertains to emigration,—knowledge derived from many years of personal intercourse with settlers of every social grade

in towns and cities and rural districts. None of this knowledge is "second-hand"—it was acquired on the spot;—so that what I state may be relied on. But I might even further add, that long before the commencement of my career as a colonist, now twenty years back, my attention had been turned to the all-important question of emigration—of which I have never since for a moment lost sight. It is under these circumstances that I thought it would not be inopportune (in connection with the foregoing chapters) to offer some hints and observations which may, in some measure, have the effect of promoting discussion upon, and of creating an interest in colonial topics in general—more especially as they bear upon emigration. This result, at least, may be attained, even though my views or suggestions may not be adopted.

I have painted the province of Victoria as I found it—one of the most promising and prosperous emigration fields within the British dominions. The picture is not overdrawn. It will be for that portion of the public who take an active interest in the welfare of the colonies, and in the well-being of the industrious classes of the United Kingdom, to turn the information and the facts here set forth to a practical account. Individual readers will of course apply the subject matter of my observations to their own par-

ticular case, whenever they have the means of doing so. But it must always be borne in mind that to benefit and relieve the parent country to any perceptible extent, and at the same time to develop the resources and the wealth of our great Colonial Empire in a sensible degree, Emigration must be carried out on a large "national" scale, and not by driblets—not by the desultory, though laudable, efforts of philanthropists, of small societies, or of individual exertions.

To whatever causes the depressed condition of trade now existing may be attributed, the fact is patent to observing men that distress is wide-spread and deep-seated, and that an alarming amount of destitution pervades the ranks of the working classes. And what is no less deplorable, this untoward state of affairs presents no immediate prospect of a change for the better—no visible symptom that matters are about to mend—no solid grounds for believing that we are in a mere "state of transition," or that the future will provide a remedy for the Want, that, gaunt and grim-featured, has of late knocked at the door of many a British working man, and—found an entrance.

If we take the Metropolis itself as a gauge of the present condition and future prospects of the labour market, with reference say to the building and other

trades and occupations dependent on them, we find that such gigantic public works as the High, Middle and Low-level Sewers, the Thames Embankment, the Undergound Railway, St. Thomas's Hospital, Holborn Viaduct, Blackfriars Bridge, the monster Railway Stations and Hotels, the palatial Warehouses and Offices in the city, the opening up of new Streets, and the mania for Suburban buildings, have all contributed to attract thousands of artizans and labourers from the country to London. Now the works just enumerated are nearly all completed. Those few which are not, will be so, during the incoming summer, and there is no likelihood of other great public works being undertaken to supply their places. As far as one can see, the New Law Courts, some additional Government Offices in Downing street, the new Telegraph Offices, Tramways, and a few other projected building operations, are the only public works, of any great importance, likely, for the present, to be a source of employment to the working classes of the metropolis. Ratepayers cannot always be effecting great sanitary improvements, nor can railway or other companies be continuously erecting immense piles of building—for there is a limit to *their* means and to the *public* requirements. As to speculating builders —they appear to have accomplished one object at least very effectually—namely, (many of them) their

own ruin (judging from the number of them who have appeared in the "Gazette" within the last twelve-months). They have also, for a time, overbuilt London. A like result has been brought about in some of our large provincial towns; and the consequence is—a general cessation of building and excavating operations throughout the kingdom. If to this we add the commercial and manufacturing depression that exists, can we wonder that so many thousands of working men are out of employment, and that there are but faint hopes that public works on any considerable scale, as in the last few years, will be undertaken for years to come?

These labourers and artizans without occupation —these men of brawny arms and vigorous muscle— are the very class of which Victoria stands most in need—*now more than ever*. For she has succeeded within the last two months in raising a loan of over a *million and a half* sterling on the most favourable terms, for the construction of railways, waterworks, &c. And as a guarantee that the colony is fully warranted in embarking upon costly enterprises of this character, we find, from the latest accounts from Melbourne, that such is the vigour and elasticity of the revenue for the past year (1869) that the receipts have exceeded the estimates by no less a sum than £200,000. This fact has been made known within the last few

days, and it affords a striking corroboration of the statements which I have put forward in the foregoing work as regards the flourishing condition of the colony. And more particularly so as regards my statements of the rates of wages, which I was anxious (to prevent disappointment) should not be overrated. It is therefore a source of gratification to myself to find that I have understated rather than overstated them, as may be seen from the following extract I have cut out of the *Melbourne Argus* of January 3rd, 1870:—"For the information of our readers in Great Britain, numbers of whom we hope to include among our readers in Victoria, we have been at some pains to collect from independent and authentic sources the rates of wages actually current at this moment in Melbourne. They will be found in another column, and it will be seen that for skilled labour generally—for artisans engaged in the building trades, for example—the rate is 10*s* per diem, the working day being limited to eight hours. For cabinetmakers, ironfounders, and mechanical engineers, this may be taken as the minimum, the maximum ranging from 12*s* to 14*s*, according to the quality of the work to be performed and the special capacity or technical skill demanded for its performance. Builders' labourers receive 7*s*, and pick-and-shovel men 6*s* per day of eight hours.

Good tailors are said to be scarce, and can earn from £3. to £3. 15*s* per week, but in the factories they do not average more than from £2. 10*s* to £3. Tailoresses earn from 30*s* to 40*s*, and machinists from 20*s* to 30*s*. For girls the rate varies from 12*s* 6*d* to 47*s*."

Many men among the labouring classes in England, and now residing in towns, have been brought up to agricultural work, and are accordingly well adapted for those rural colonial operations now so much in demand.

Judging from what we read in the columns of the press day after day, the public are at length fully alive to the importance of emigration, as a means of alleviating the existing distress. The only difficulty is how to work out the problem in an effectual manner.

There are several societies in London, each doing good in a small way; but they are like a variety of little rivulets that never combine to form one goodly river. Men of wealth and position, as well as intelligent working men, are strenuous in their efforts to forward the cause of emigration through local committees and otherwise; but they all act without co-operation, without any systematic and combined mode of action. The result is a waste of power, from the forces being distributed over too wide a surface, instead of being united for the working out of a

common object. It is like using hand-labour instead of powerful machinery worked by steam: the amount of work turned out is very small—though good of the kind. But in order that the emigration movement should have an appreciable effect both at home and in the colonies, it must be carried out on a broad basis—on a large scale:—the movement must become essentially a *national* one. But now comes the difficulty that assails philanthropy, men of action, and it may be statesmen:—Given plenty in the Colonies and want in the United Kingdom, the problem is to find a *tertium quid*—an efficient means—by which Poverty and Plenty shall be brought together, and the former absorbed—"taken up and done for"—by the latter.

One party maintains that the Government should take the matter in hand, another, that the Colonies themselves should do so; another party advocates parochial action, by the levying of a special rate; another thinks that the wealthy should subscribe largely; another recommends that the working classes should help themselves, and each other, by contributions to emigration clubs; another is of opinion that the "Emigrant and Colonist's Aid Corporation's" plan of acquiring lands in the Colonies and assisting emigrants to settle on them, is the proper way; while yet another party in the country denies the neces-

sity of emigration altogether, and advocates a scheme of its own—that of locating the unemployed and surplus population upon the waste lands of the United Kingdom—as a *panacea* for existing distress.

Whatever may be the merits of the last-mentioned plan (and I will not for a moment deny that it possesses certain claims to attention, considering the large amount of unreclaimed land in some parts of England and Scotland and more especially in Ireland) I must here decline to entertain or discuss them, beyond stating that I have grave doubts of the feasibility of such a scheme. The "waste lands" of Great Britain are not public property: they belong for the most part to *private individuals*—excepting forests and crown lands; but in any case, even if such a proposal were entertained and could eventually be carried out, there would be great delay and difficulty, and its application would be remote; whereas emigration affords immediate relief to distressed working men, who must needs starve if they have to wait until the British Legislature (in which the landed interest is paramount) may be constrained, at some future period, after long years of agitation and irresistible pressure, to introduce a Waste lands bill, to carry it through both Houses of Parliament, to get the lands surveyed and allotted, and to provide the "settlers" with everything they require at starting,

to wit, farming implements, seeds and live stock—leaving "capital" out of the question.

Now in each of the other plans which I have enumerated, there appears to me to be contained a germ of practical wisdom and utility, and if we could only succeed in combining them systematically and harmoniously—of welding them together into a consistent whole—then we might be able to produce a simple and uniform scheme of emigration, applicable to the kingdom at large.

But first of all we must clearly understand, that besides the persons immediately interested—namely, the emigrants themselves, there are two other parties whose interests are also involved in any general scheme of emigration: the one, the Mother country, the other the Colonies—or what may, perhaps, be termed the *children's country*. Both parties are gainers by emigration, and perhaps in an equal degree. The parent country is at once relieved of a surplus population for which she cannot find employment, and which become a burden to the ratepayers and a danger to the state;—for times of distress are apt to beget terrible commotions, and to breed lawlessness and crime. On the other hand the Colonies, are glad to receive a population that supplies them with abundant labour, and that enables them to develop all the resources of the

soil; while the rapid increase of colonial wealth and population is directly beneficial to the parent country by the growth and extension of commercial relationships and by the great additional consumption of British manufactures.

It is no part of my wish or intention here to argue the question from a colonist's point of view, and if I do so it is done unconsciously. I am desirous of regarding it in the light in which a disinterested British subject, anxious for the welfare and integrity of the whole empire, would consider it. If, then, the position which I have taken up be allowed, that emigration is a reciprocal benefit to the old and to the new countries alike, it will, I think, be granted, as a necessary consequence, that the expenses of any great scheme of emigration should, for a time at least, be shared equally by Great Britain and her Colonies. The Imperial Government, so far as I am aware, has hitherto contributed nothing in aid of Australian emigration. Recently it has done a little as regards Canada (and, I may add, wisely too) in the way of lending vessels of transport; and thus the injudicious rule of *not* doing something now, for the reason that it had never been done before, because there was no "precedent" for it, and that it was not so urgently required, has at length been broken through, and there is a bright prospect that efficient

state support and assistance will in future be given by the Imperial Government, if those gentlemen who are agitating so strenuously for assistance to enable the unemployed to emigrate, will be reasonable in their demands and will put forward practical schemes.*

Now, if every Emigration Society, or Club, or Board of Guardians, acting and keeping within its own sphere or district, would contribute the money it raises by subscriptions or weekly payments, or rates, as the case may be, to a GENERAL FUND, to be placed in the hands of an Emigration Board to be set on foot by the Government, for the purpose of sending out emigrants chosen by each society, in proportion to its contributions, the work could be done on a large and uniform scale and upon economical principles, instead of each local body acting for itself, one sending out a few emigrants, and another a few, by passenger vessels taken at random, and at rates exceptionally high. Another waste of force! The motto of Emigration Socities should be, "*Concentrate your energies.*" A Government Emigration Board, established to *promote* and *control* emigration to the Colonies, might be grafted on, or might

* Since these remarks were penned an important debate on emigration has taken place in the House of Commons, during which the Government—through Mr. Gladstone—has given a definite promise to give assistance, in ships, in the good work of emigration.

supersede the Park Street Emigration Commissioners, who appear to have little or nothing to do. A Board of this kind, constituted of practical men, who understand the wants of the colonies, and who are sufficiently conversant with the working details of emigration, whether at home or in the colonies, to be able to deal with ship-owners and agents on equal terms, and to enter into contracts without being obliged to depend upon the judgment of third parties—of deputies' deputies—a Board of this kind—which should be essentially a *working Board*, and not a mere ornament, sitting for a few hours daily round a table, and requiring an expensive set of offices, with a regular staff of clerks to make a show—would accomplish more in the course of a twelvemonth, *in results*, than could be effected in as many years by the desultory efforts of individuals, by societies, or by boards of guardians. A Government Board of this character would enjoy the confidence of colonial Governments, in conducting negotiations that may be necessary for inducing them to take part in the colonial management of emigration, for contributing to its cost, and for directing their various London agents to act in concert with the Imperial Board in selecting such emigrants—on the Board's books—as the agents might deem eligible for their respective colonies. I cannot too strongly insist upon the fact

that the Board here contemplated must not be an expensive one; if it be, it will be above its work, and worse than useless. In short, we want a *Board*, some of the members of which will go down to the docks and examine the ships for themselves, overhaul the stores, test the provisions, look into the accommodations, and tell the emigrants by word of mouth what line of conduct they are to pursue on their voyage, and what course of action they will have to adopt on landing in the colony. Work of this kind is generally considered beneath the "dignity" of most Boards; but emigrants are not an over-refined class, and they can dispense with the shadow, when they get the substance.

Under these circumstances, and taking all the foregoing facts into consideration, would it not be good policy on the part of Her Majesty's Government to relinquish the project of selling off the best of the various war ships which have lately been put into the market, as being—from recent changes in naval warfare—no longer useful for the purposes for which they were built, and of placing them, under certain conditions, at the service of an Emigration Board? These are good ships, and have cost the nation many thousands of pounds sterling. If put up for sale they would not fetch a tithe of their original value, not having been designed for mer-

cantile purposes. Instead, therefore, of selling these vessels at a merely nominal price, would it not be wise on the part of the Government, at a great crisis like the present, to have these vessels, as well as some of the spare troop-ships, fitted up for the transport of emigrants, under their own direction? It cannot be that the British taxpayer, or the British public, would raise any objections to a scheme of this kind on the score of economy, or otherwise; the outlay would be inconsiderable; the boon to the emigrant solid; the advantage to the nation at large obvious and palpable.

To any large free grant of money from the public purse for the purposes of emigration, I see obstacles. There would, probably, be many objections raised. It might, perhaps, have the effect of giving an undue stimulus to emigration for a time, and of causing a reaction when the fund was exhausted. This is a danger to be avoided. Emigration is a stream that must be fed from the regular and constant sources of the country—sources which can never run dry. In other words, emigration, to be successful, must *in the main* be self-supporting. Can it be supposed that the Colonies would vote money in aid of emigration, if emigrants were sent to them "free gratis for nothing?" Or, again, what inducement would there be to some workmen

to save up and contribute to their passage expenses, if it were once known that Government had relieved them of all care and responsibility in looking after themselves? And, finally, would the public give donations, or would vestries levy rates for the support of emigration, if Government were to assume the task of sending out the surplus population—the paupers in *posse*, if not in *esse*—at the expense of the nation?

It might fairly be presumed that when it is proposed to extend Imperial assistance, in the way of loans, to Irish tenant-farmers, to enable them to purchase lands they now hold as tenants at will, there would not be any sound objections to the Government advancing certain sums as loans, to send out *assisted* emigrants to such colonies as are not in a prosperous financial condition—provided the Government of each of such colonies so assisted guaranteed the repayment of principal and moderate interest added thereto. Tasmania and Western Australia offer but limited fields for emigration. But to New Zealand, with its teeming and undeveloped resources, the offer might be gracefully made, and would, I should imagine, be gratefully received and accepted.

Such are a few of the difficulties that beset one at the outset in considering the problem how far it is possible and feasible for the Imperial Govern-

ment to deal with the question of emigration on a "national" scale. If, however, a practical arrangement could be arrived at, by which the Government contributed, by ships and management, to the value of £3. 10*s* per head, for each eligible emigrant to be sent out to Australia or to New Zealand, and the public gave, by subscriptions and special poor-rates, £4. 10*s* per head—the various Australian Governments supplementing the sum by a like amount (£8);—this would make a total of £16, which might be expended in this way:—£12. 10*s* as the passage rate, £3 assistance and outfit, and 10*s* to each emigrant on landing. A scheme of this kind, if it could be carried out, would relieve the strong, able-bodied, and unemployed poor. The qualification entitling a man to relief in this way would be the fact, testified by competent evidence, that the recipient had been out of work for many months, and was utterly destitute of the means of support for himself and his family. In this way, and after being duly approved by their respective colonial agents, the Colonies might also not object to take a considerable number of the school-trained workhouse lads and girls above 14 years of age. The lads would be found very useful at light work upon the farms, while the girls would be found very valuable (especially if properly trained to do washing, cook-

ing, and cleaning), as domestic servants, for which there is a universal demand.

The Colonies, as a rule, will take out no confirmed paupers or "street Arabs" as emigrants:—but an honest man, steady, able and willing to work—who, to save himself from starving, has accepted out-door relief—surely should not be shut out from the benefits of emigration.

The Victorian Government at present grants free passages to eligible single women under 35 years of age, and "assisted passages" to males under 15 years of age at £2 per head; under 40 years £5 per head, and 40 years and upwards £8 per head. For females under 15 the charge is £1 per head; under 40, £2; and 40 and upwards, £5 per head.* The sums I have named are the total amounts required to be paid as passage money by the emigrants. There is, however, this condition attached, which is somewhat restrictive, that the parties accepted under the above terms must have been *nominated by their friends in Victoria.* It is not likely that these conditions could be extended to persons recommended by ordinary Emigration Societies in England. Nevertheless, a Government Board, acting under Imperial Authority, might fairly be expected to succeed in negotiating with the

* The contract price for taking out emigrants to Victoria, under good regulations, varies from £12 to £13 per adult.

Australian Governments for an extension of this system upon equitable and satisfactory terms.

In any scheme that may be adopted, it is highly expedient that the emigrant should be landed in the colony, wholly free from indebtedness on account of his passage money—repayment of which, to any great extent (where the emigrant's note of hand—payable to the Government—is the sole security), judging from my own experience of the system, cannot be relied upon, and the results in most cases are unsatisfactory.

As regards the application of parochial rates to the purposes of emigration in London, metropolitan rate-payers might perhaps urge, "If we levy an emigration rate we shall have the poor from the provinces flocking in to participate in it." But the remedy for this would be, that all persons selected to emigrate should be required to have resided a certain time—say 12 months at the least—in the parish by which the rate is levied. But if the distress is general (which is an admitted fact) why not levy a uniform national emigration rate—which need only be moderate;—in which case each district or parish would be entitled to nominate as many eligible persons as would absorb the amount it contributed in rates.

There is but little fear that too many of the industrious bees would thus be taken away from the

British hive, with its thirty millions of people. The population swarms too rapidly for that—too fast in fact for the pace at which trade moves. It should also be borne in mind, that Great Britain no longer commands or monopolizes (as it did formerly) the greater part of the trade of the world: much of it has passed into other hands; and those who refuse to encourage emigration on the ground that we may shortly anticipate a revival of trade, as well as others who look for the development of Malthusian theories, may probably be disappointed in their expectations, and may live to witness (if emigration on an extended scale be not resorted to) a state of indigence and crime—which may prove disastrous to the welfare and stability of the Empire.

Besides, the unemployed and destitute poor to whom I have here been alluding, there is another large class daily becoming poorer: I mean those who have saved a *little* money—and who, through dearth of employment, or total lack of employment, are anxious to improve their condition by emigration. Now, as many of this class of persons have not the means of paying the high rates of passage to Australia, they emigrate to the United States, to which they can go quickly and comfortably by steam for from £6 to £8. This is all in favour of America and against Australia as a field for emigra-

tion. To counterbalance these drawbacks as against Australia, a powerful Steamship Company was announced to be formed in Melbourne at the close of the year 1868. So feasible did the scheme appear that the Victorian Government itself took up the matter. The first thing they did was to advertize on the 28th of January, 1869, for tenders for a monthly postal steam service for the conveyance of mails and immigrants *viâ* the Cape of Good Hope (both ways). The steamships were not to be less than 2500 tons burthen, and were to be capable of carrying 500 steerage passengers comfortably. Tenders were to be sent to the Victorian Government not later than the 25th of November, 1869;—so there is at present hardly time to know what their decision is. It is known, however, that tenders to perform the service have been sent in. It was calculated that the distance from England to Hobson's Bay might be done in 46 days, at the rate of the high speed of 10½ knots per hour for a distance of 11,000 miles. This, in point of time (if practicable), would compete with the overland route *viâ* Suez; and if the Victorian Government would fix a low rate of passage money, they would attract a large population, and become successful rivals of the United States. It is impossible to exaggerate the importance of an enterprise of this kind, and I know

of no other measure that would promote, in an equal degree, the emigration of persons of small means, and contribute at the same time to the material welfare and prosperity of Great Britain and of her Australian Colonies. I trust, therefore, that the project may find favour with English capitalists, who already derive so much advantage from successful enterprises connected with the Australian Colonies.*

The whole of the six Colonies which constitute Australia Proper, contained in 1867 a European population of 1,697,339 souls. New Zealand, at the same time, had a European population numbering 218,668 souls. At present the total population of Australia and New Zealand together may be estimated at two millions—every man, woman, and child of whom are consumers of British

* Since the above was written, I see—from the recent speech of his Excellency Sir J. H. T. Manners Sutton, delivered in proroguing the Victorian Parliament in December last—that the consideration of the project for establishing this line of steamers is postponed until next session. Thus full time will be given for the development and settlement of this most important measure. The following is a copy of the paragraph referred to :—

"In response to a notice published in the colony and in London, tenders have been received for the establishment of a postal and passenger service with Great Britain by the way of the Cape of Good Hope. My advisers regard the establishment of such a line of communication as of great importance; but in the absence of legislative authority for any expenditure for immigration, further action must be deferred until the re-assembling of Parliament."

manufactures. Besides wheat, wine, and wool, the staple produce of each of the four principal Colonies in Australia, South Australia is well known for its copper mines; New South Wales is noted for its coal mines; Queensland is attracting attention for its cotton growth; and Victoria is famous for its gold mines. Here we have Wheat, Wine, Wool, Copper, Coal, Cotton, and Gold, as the solid bases of Australian prosperity.

And now, in conclusion, to reiterate the pith of the foregoing suggestions in a few words. I would recommend combined action of all local societies, whether clubs, parochial bodies, or otherwise—all acting under a central working Board, appointed by the Government. By this means there will be a saving of time, labour, and expense. I also recommend that strong pressure from without should, if necessary, be brought to bear upon the Government, to induce them to give up their surplus war-ships for emigration purposes. On the whole, it appears to me both unwise and impolitic to delay any longer the organization of a scheme of emigration to our colonies. It was never more urgently needed than at present, and years may elapse before we have a change for the better. There are not wanting indications that point to a continuance of commercial depression. Great Britain is at present surrounded by manufac-

turing populations. France, Belgium, and Germany compete successfully with us, not only for the trade of the whole world, but even, in some cases, for the internal trade of England itself. We have only to look at the daily increasing consumption of articles of foreign manufacture, in wool, in *iron*, and cotton, our own staples. At one time we had none of these foreign rivals, now so formidable,—but at present we have to encounter them by land and sea. Nevertheless, with all these odds against us, we need not despair. Keener competition in the contest for foreign trade should rather stimulate us to increased exertions. All the energies, all the abilities, all the inventive faculties, and all the industrial resources of our race—which has given to the world the benefits of its machinery, its railways, and its electric telegraphs—are not yet "used up"; but they will be taxed and strained to the utmost to enable us to hold our own for the time to come. One source of consolation we have left, if we can so regard it—we have still the Colonies to fall back upon—at least while we can yet call them our own; and there we can find a home for our surplus population and a market for our surplus manufactures.

THE END.

LONDON:
G. NORMAN AND SON, PRINTERS, MAIDEN LANE, COVENT GARDEN.

SELECTED

List of Books and Maps

ON

THE BRITISH COLONIES

PUBLISHED BY

EDWARD STANFORD,

6 & 7, CHARING CROSS, LONDON, S.W.

Just published, super royal 16mo. cloth, 5s 6d,

(Uniform with "Victoria" the "British El Dorado,")

FOUR YEARS IN QUEENSLAND,

By. E. B. KENNEDY.

With Photograph of a "Squatter's House," and a Coloured Map, (Scale 64 miles to an inch ; size, 23 inches by 18) showing all the latest Discoveries from Private and other Sources, with the Agricultural Districts and Gold Fields clearly defined.

SELECTED OPINIONS OF THE PRESS.

"We close with regret Mr. Kennedy's useful and compact little volume. It contains in a small compass a mass of useful suggestions to intending emigrants, while it will furnish to stay-at-home readers an admirable summary of the position and prospects of one of the most promising of England's colonies * * * Thoroughly interesting and readable from beginning to end."—*Examiner.*

"Gives much information to the intending emigrant. The map seems excellent."—*Athenæum.*

"Will supply a great want. Being written by one who has actually gone through what he describes, gives the benefit of his (the author's) experience and observations to the intending settler, for whom, no matter what his career is to be —whether sheep farmer, agriculturist, cotton or sugar planter, miner, or gold digger—it will be found a very complete manual and guide in all his proceedings. Prefixed to the volume is an excellent map."

Australian and New Zealand Gazette.

"This is the kind of book which an emigrant wants * *. We are convinced that he will learn more of the real condition of things in the colony, and be able to judge more exactly as to his future prospects, if he goes there, than from any other book of the kind it has ever been our fortune to peruse."—*European Mail.*

"There is more valuable matter in this small book than will be found in many volumes of much larger size and much greater pretensions. It is marked by thorough conscientiousness ; it reads like an honest book."—*Manchester Guardian.*

QUEENSLAND, the FUTURE COTTON-FIELD OF GREAT BRITAIN, and a highly eligible Field for Emigration; with a Disquisition on the Origin, Manners, and Customs of the Aborigines. By JOHN DUNMORE LANG, D.D. A.M. Second Edition, post 8vo. with Two Coloured Maps, price 12*s*.

"Whatever Dr. Lang does is done thoroughly: accordingly we have here a complete account of the colony in all its aspects and capabilities."—*Daily News.*

OVERLAND from SOUTHAMPTON to QUEENSLAND. By M. H. MARSH, M.A., F.R.G.S. With Three Coloured Maps. Crown 8vo. cloth, 3*s* 6*d*.

"There is scarcely a subject upon which the traveller or emigrant wishes to be informed which is not discussed with the greatest care, and explained with the utmost preciseness."—*Bell's Weekly Messenger.*

NEW ZEALAND, THE BRITAIN OF THE SOUTH. With an Appendix on the Native War in New Zealand and our Future Native Policy. By CHAS. HURSTHOUSE. Second Edition, thoroughly revised and corrected, post 8vo. with two Coloured Maps, price 15*s*.

"For practical information, for an account of the country, its conveniences and ways of living, advice as to who should go there, and how and when to settle, and what to do when there, this is the book of books. There is no class of New Zealand emigrant which will not find in this volume the counsel it needs to settle wisely and well."—*Daily News.*

COLONIAL POLICY and HISTORY—REVIEW of "THE COLONIAL POLICY OF LORD J. RUSSELL'S ADMINISTRATION, BY EARL GREY, 1853," and of SUBSEQUENT COLONIAL HISTORY, by the Right Hon. Sir C. B. ADDERLEY, K.C.M.G., M.P. Demy 8vo. cloth, 9*s*.

"The appearance of this volume is extremely opportune * * *. A Complete Summary of our recent Colonial History."—*Edinburgh Review.*

BRITAIN and HER COLONIES. By J. B. HURLBURT, M.A., LL.D., Member of the Convocation of the University of Toronto, Canadian Commissioner and Juror at the International Exhibition, London, 1862, &c. Demy 8vo. cloth, 10*s*.

"We know of no better book than this to explain the true and relative position between "Britain and her Colonies," and recommend it for the most earnest consideration of all those who are engaged in the development of the wealth of the realm."—*Bell's Weekly Messenger.*

OUR RELATIONS with the COLONIES and CROWN COLONIES. An Attempt of the Passage between Scylla and Charybdis. With some Remarks on Pilots. Price 1*s* 6*d*.

COLONIES and EMIGRATION.—A List of BOOKS and MAPS on the BRITISH COLONIES, &c. may be had Gratis on application, or per post for one stamp.

LONDON: EDWARD STANFORD, 6 & 7, CHARING CROSS, S.W.

MAPS.

AUSTRALASIA.

STANFORD'S LIBRARY MAP of AUSTRALASIA. Scale, 64 miles to an inch; size, 65 inches by 58. This Map delineates the Colonies of New South Wales, Victoria or Port Phillip, South Australia, Queensland, and Western Australia, divided into Counties; with all the Discoveries of Burke, Wills, Stuart, Gregory, and others. TASMANIA and NEW ZEALAND are shown in their relative position to Australia, and the latter contains various improvements over former Maps. NEW CALEDONIA, NEW GUINEA, and adjacent parts of the ASIATIC ARCHIPELAGO, are also included. Coloured and Mounted on Linen, in Morocco Case, £3. 13*s* 6*d*; or, on Roller, Varnished, £3.; Spring Roller, £6.

AUSTRALIA.

STANFORD'S NEW MAP of AUSTRALIA: compiled from the latest and most authentic Documents, embracing all the recent Surveys of Messrs. Burke, Wills, Gregory, Stuart, McKinlay, Walker, and others. Scale, 64 miles to an inch; size 48 inches by 44. On Two Sheets, Full Coloured, 21*s*; Mounted on Linen, in Case, 25*s*; or, on Roller, Varnished, 30*s*.

MAP of AUSTRALIA, showing the Provinces and Counties, Towns, Villages, &c. Scale, 86 miles to an inch; size, 42 inches by 34. Price, Coloured and Mounted on Linen, in Case, or on Roller, Varnished, 9*s*.

AUSTRALIA.—Stanford's Map of the Australian Colonies. Scale, 135 miles to an inch; size, 28 inches by 17. Coloured and folded in Cover, 1*s* 6*d*; Mounted on Linen, in Case, 3*s* 6*d*.

POCKET MAP of AUSTRALIA.—Size, 14 inches by 17. Coloured, in Cover, 1*s*; Mounted on Linen, in Case, 2*s* 6*d*.

VICTORIA.—A New Map of the Province of Victoria, showing all the Roads, Rivers, Towns, Counties, Gold Diggings, Sheep and Cattle Stations, &c. Scale, 20 miles to an inch; size, 31 inches by 21. In Sheet, 2*s* 6*d*; Mounted, in Case, 4*s* 6*d*.

QUEENSLAND.—Stanford's New Map of Queensland; showing all the latest Discoveries from Private and other Sources, with the Agricultural Districts and Gold Fields clearly defined. Scale, 64 miles to an inch. Size, 23 inches by 18. In Sheet, Coloured, 2*s* 6*d*; Mounted on Linen, in Case, 4*s* 6*d*.

QUEENSLAND.—HAM'S New Map of Queensland, compiled from the most authentic and recent Public and Private Surveys, showing the Squatting Districts and Explorers' Routes, with the valuable Discoveries of Landsborough, Walker, Burke, and Wills. Scale, 40 miles to an inch. Size, 25 inches by 33. Sheet, Coloured, 7*s*; Mounted in Case, 10*s*; Roller, Varnished, 12*s* 6*d*.

LONDON: EDWARD STANFORD, 6 and 7, CHARING CROSS, S.W.

NEW ZEALAND.

MAP OF NEW ZEALAND; constructed from the most recent Official Documents. Scale, 25 miles to an inch. Size, 42 inches by 34. Price, Coloured and Mounted on Linen, in Case, or on Roller, Varnished, 9*s*.

STANFORD'S MAP OF NEW ZEALAND: Compiled from the most recent Documents. Scale, 64 miles to an inch. Size, 17 inches by 19. Full Coloured, in Sheet, 2*s*; Mounted on Linen, in Case, 3*s* 6*d*

POCKET MAP OF NEW ZEALAND; Size, 17 inches by 14. Coloured and folded in Cover, 1*s*; or Mounted on Linen, in Case, 2*s* 6*d*.

CANADA.

STANFORD'S MAP of CANADA, New Brunswick, Nova Scotia, Prince Edward and Breton Islands, extending from the Gulf of St. Lawrence to Lake Superior, including the adjacent parts of the United States, from New York to Chicago, with the Railways, Roads, and Canals. Second Edition. Scale, 29½ miles to an inch. Size, 60 inches by 33. Four Sheets, 12*s*; Mounted on Linen, in Case, 18*s*; on Roller, Varnished, 25*s*; also in separate Sheets, 3*s* 6*d*; in Case, 5*s* each.

CANADA.—Upper and Lower Canada, with the Railways. Maps of these Provinces. Scale, 26½ miles to an inch. On two Sheets, 17 inches by 15 each. Folded, 1*s* 6*d*; Mounted on Linen, in Case, 3*s* 6*d*. The same Map can also be had with the Map of Nova Scotia and New Brunswick. Mounted on Linen, in Case, 6*s* 6*d*.

UNITED STATES.

STANFORD'S NEW RAILWAY AND COUNTY MAP OF THE UNITED STATES AND TERRITORIES, together with Canada, New Brunswick, Nova Scotia, and the Gulf of St. Lawrence. Scale, 54½ miles to an inch. Size, 57 inches by 36. Two Sheets, Coloured, 21*s*; Mounted on Linen, in Case, 25*s*; Rollers, Varnished, 30*s*.

STANFORD'S SMALLER RAILWAY MAP of the UNITED STATES; distinguishing the Unsettled Territories, the Railways, Cities and Towns according to the Population, also the State Capitals and County Towns. Scale, 120 miles to an inch. Size, 29 inches by 17½. Two Sheets, Coloured, 4*s* 6*d*; Mounted on Linen, in Case, 6*s* 6*d*.

LONDON: EDWARD STANFORD, 6 & 7, CHARING CROSS. S.W.

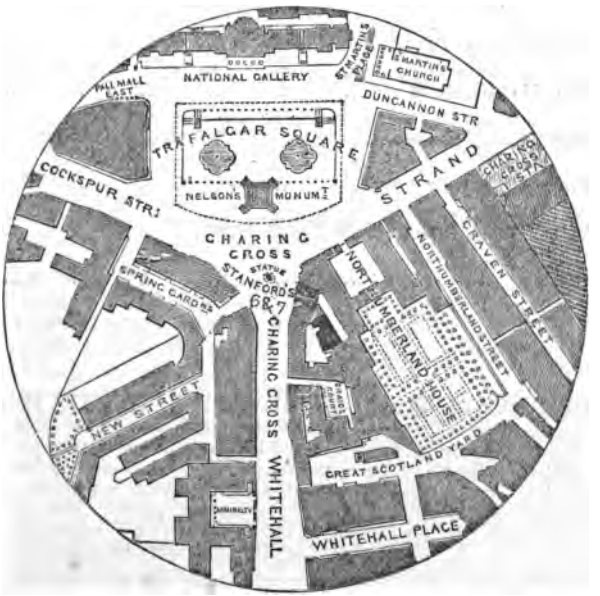
LIST OF BOOKS

PUBLISHED BY

EDWARD STANFORD, 6 AND 7, CHARING CROSS,

LONDON, S.W.

AGENT, BY APPOINTMENT, FOR THE SALE OF THE ORDNANCE AND GEOLOGICAL SURVEY PUBLICATIONS, AND THE ADMIRALTY CHARTS.



CONTENTS.

LIST OF BOOKS

PUBLISHED BY

EDWARD STANFORD,

6 and 7, CHARING CROSS, LONDON, S.W.,

AGENT, BY APPOINTMENT, FOR THE SALE OF THE ORDNANCE MAPS, GEOLOGICAL SURVEY MAPS, AND ADMIRALTY CHARTS.

ADDERLEY (Sir C.).—REVIEW of "THE COLONIAL POLICY of LORD J. RUSSELL'S ADMINISTRATION, BY EARL GREY, 1853," and of SUBSEQUENT COLONIAL HISTORY. By the Right Hon. Sir C. ADDERLEY, M.P. Part I.—Colonies with Representative Governments. Demy 8vo, boards, 2*s.* 6*d.*

DITTO. Parts II. and III. [*Preparing.*

ANDLAU'S (Baron) GRAMMAR and KEY to the GERMAN LANGUAGE: Being an easy and complete System for acquiring this useful tongue; with Progressive Exercises, &c. By the BARON VON ANDLAU, Director of the German, French, and Classical College, Clapham Rise, London. Fourth Edition, revised and greatly enlarged. Demy 12mo, 3*s.* 6*d.* cloth.

—— **GERMAN READING BOOK**: Containing Sentences, Descriptions, Tales, and Poetry, with the necessary Explanations in English, for the Use of Schools, Private, and Self Instruction. First Course. Demy 12mo, 3*s.* 6*d.* cloth.

—— **GERMAN READING BOOK.** Second Course. Demy 12mo, cloth, 4*s.* 6*d.*

ATLASES. *See* Special Catalogue of Atlases, Maps, and Globes.

BAILEY.—CENTRAL AMERICA: Describing each of the States of Guatemala, Honduras, Salvador, Nicaragua, and Costa Rica —their Natural Features, Products, Population, and remarkable capacity for Colonization. With Three Views. Cloth, 5*s.*

BEAUVOISIN'S (Mariot de) FRENCH VERBS at a GLANCE: A Summary of the French Verbs, embracing an entirely New System of Conjugation, by which the forms of any French Verb may be ascertained at a glance, together with numerous Practical Illustrations of their Idiomatic Construction, copious Notes, and a List of the Principal Verbs. New Edition, Sixteenth Thousand, enlarged and entirely rewritten. Demy 8vo, price 1*s.*

BEAUVOISIN'S (Mariot de) COLLECTION of ANECDOTES and STORIES in FRENCH: Interspersed with Epigrams, Bon-Mots, Repartées, Maxims, &c. In Prose and Verse, with an Explanation of the Difficult Words, Phrases, and Idioms, at the end. Post 8vo, cloth, 2*s.* 6*d.*

—— **FIRST BOOK of GIL BLAS:** Arranged for Students of the French Language. With an Introductory English Verbal Collateral Translation, and numerous Grammatical and Idiomatical Notes, explaining the Difficulties of the Text. New Edition. Demy 8vo, 1*s.* 6*d.*

BOLLAERT (Wm.).—The WARS of SUCCESSION of PORTUGAL and SPAIN, from 1826 to 1840: Containing an Account of the Siege of Oporto, 1832-3; Reminiscences, Political, Military, &c.; with Résumé of Political History to the Present Time. By William Bollaert, F.R.G.S., Corr. Mem. Univ. Chile; Ethno. Socs., London, New York, &c. With Map and Illustrations. 2 vols. demy 8vo, cloth, 30*s.* [*Preparing.*

BOOK-KEEPING.—THOUGHTS on DOUBLE ENTRY and BALANCE SHEETS. Addressed more particularly to Shareholders in Joint Stock Companies. Post 8vo, cloth. [*Preparing.*

BOULOGNE.—GUIDE to BOULOGNE and its ENVIRONS. With Maps and Illustrations. Demy 12mo, cloth, 2*s.* 6*d.*

BRADLEY (Lonsdale, F.G.S.).—An ENQUIRY into the DEPOSITION of LEAD ORE in the MINERAL VEINS of SWALEDALE, YORKSHIRE. With Geological Map of Swaledale, and numerous Geological Sections. Royal 8vo, cloth, 21*s.*

BREES.—PICTORIAL ILLUSTRATIONS of NEW ZEALAND. By S. C. Brees, late Principal Engineer and Surveyor to the New Zealand Company. Cloth, 21*s.* (published at 42*s.*).

BRITISH ARMY, The. SKETCHES OF BRITISH SOLDIERS; a Series of Coloured Prints, from the drawings made by Command for Her Majesty the Queen, by George H. Thomas, and graciously lent for publication.

The Series Comprises:

1. Life Guards and Royal Horse Guards.
2. Dragoon Guards and Light Dragoons.
3. Royal Artillery.
4. Royal Engineers and Military Train.
5. The Guards.
6. Regiments of the Line.

On Six Sheets, size of each 25 inches by 19, price 27*s.* the set; or, sold separately, price 5*s.* each.

*** This beautiful Series of Coloured Lithographs is printed on Superfine Thick Paper, and can be had framed in any style to order.

BROWNE (W. A., LL.D.).—The MERCHANT'S HANDBOOK. A Book of Reference for the use of those engaged in Domestic and Foreign Commerce. Demy 12mo, cloth, 5*s*.

This work affords full and reliable information about the currencies and moneys of account, and the weights and measures of all the great commercial countries in the world.

The information it contains is to a great extent official, having been almost wholly supplied by Foreign Ministers and Consuls in the United Kingdom, and British Ministers and Consuls abroad.

It shows the English and Metric values of Foreign Weights and Measures. It enumerates under distinct heads the gold, silver, and copper coins of the several countries, and gives their British values.

—— **MONEY, WEIGHTS, and MEASURES of the CHIEF** COMMERCIAL NATIONS in the WORLD; with the British equivalents. Fourth Edition. Demy 12mo, cloth, 1*s*. 6*d*.; or paper cover, 1*s*.

—— **ARITHMETICAL EXAMPLES for MILITARY and** CIVIL SERVICE STUDENTS: Being a Complete Treatise on Arithmetic. Consisting of the Questions that have been given at the Military and Civil Service Examinations, with Rules, Solutions, and Answers. Demy 12mo, cloth, 5*s*.

KEY to same. By MAYERS. Demy 12mo, cloth, 4*s*. 6*d*.

—— **CIVIL SERVICE TESTS in ARITHMETIC**: Being Specimens of the more Difficult Questions in the Civil Service Reports, with full Solutions. To which are appended the Questions in the Eleventh Report, with Answers. Demy 12mo, cloth, 2*s*. 6*d*.

—— **ARITHMETICAL QUESTIONS in the 8th CIVIL SER-**VICE REPORT, WITH SOLUTIONS. Demy 12mo, 1*s*.

—— **CIVIL SERVICE GUIDE to HISTORY and GEOGRAPHY.** Part I., being the Historical Questions in the Civil Service Reports. Arranged under the several Periods and Reigns to which they belong. Demy 12mo, cloth, 2*s*. 6*d*.

—— **DITTO.** Part II., being the Geographical Questions in the Civil Service Reports, showing those that refer to the different Countries. Demy 12mo, 8*d*.

—— **SPECIMENS of HANDWRITING**: Approved by the Civil Service Commissioners. Demy 8vo, 2*d*.

CAPPER.—AUSTRALIA, as a FIELD for CAPITAL, SKILL, and LABOUR, with Useful Information for Emigrants of all Classes. By JOHN CAPPER, late Editor of 'The Emigrant's Journal,' Author of 'Our Gold Colonies,' &c. 1*s*.

CHAPMAN (James, F.R.G.S.).—TRAVELS in the INTERIOR of SOUTH AFRICA, comprising Fifteen Years' Hunting and Trading Experiences; with Journeys across the Continent from Natal to Walvisch Bay, and Visits to Lake Ngami and Victoria Falls. With Maps and numerous Engravings. 2 vols. demy 8vo, cloth, 32*s.*

CHERPILLOUD'S (Prof. J.) BOOK of VERSIONS; or, Guide to French Translation and Construction. New Edition, revised. By Prof. C. J. DELILLE, late of the City of London School. Demy 12mo, 3*s.* 6*d.* bound.

—— KEY to the ABOVE.—PARTIE FRANÇAISE du LIVRE de VERSIONS; ou, Guide à la Traduction de l'Anglais en Français. By Prof. C. J. DELILLE. Demy 12mo, 3*s.* 6*d.* bound.

CHRONOLOGICAL PICTURES of ENGLISH HISTORY, from the ANCIENT BRITONS to the Reign of QUEEN VICTORIA. A Series of 40 Plates, containing 360 Illustrations, beautifully tinted. Designed and Drawn on Stone, by JOHN GILBERT. The P ates are accompanied with Tabular Sheets of Letterpress, carefully compiled; each Plate illustrates a period or a reign, and Facsimiles of the Autographs of the Sovereigns and the most distinguished Characters are attached. Imperial folio. [*New Edition preparing.*

COOK (T. B.).—BRITANNIA ALMANACK, for the Past and Future, comprising a period of 200 years. Price 6*d.*

CUMMING'S (Rev. J. G.) GUIDE to the ISLE of MAN, its Approaches, and Places of Resort, with numerous Walks, Drives, and Excursions; its History, Geology, Botany, &c., &c. By the Rev. J. G. CUMMING, M.A., F.G.S., Vice-Principal of King William's College, Castletown. With Map. Fcap. 8vo, cloth, 4*s.* 6*d.*

DALLY (F. F.).—GUIDE to JERSEY and GUERNSEY; with Notes on their History, Geology, Climate, Agriculture, Laws, &c. By F. F. DALLY, Esq., Author of an 'Essay on the Agriculture of the Channel Islands.' Third Edition. With Maps. Fcap. 8vo, cloth, 3*s.* 6*d.*; or separately, *viz.* Jersey, 2*s.*; Guernsey, 2*s.*

DAMON (Robert).—GUIDE to the GEOLOGY OF WEYMOUTH and the Island of Portland: containing a Map of the District, Geological Sections, Coast Views, Figures of the characteristic Fossils, and other Illustrations; with numerous Notes on the Botany and Zoology of the Coast and Neighbourhood. Fcap. 8vo, cloth, 5*s.*

A Supplement to the above, consisting of Nine Lithographic Plates of Fossils, drawn by BONE. 2*s.* 6*d.*

DEMPSEY.—OUR OCEAN HIGHWAYS. A CONDENSED ALPHABETICAL GAZETTEER AND TRAVELLERS' HAND-BOOK BY RAIL AND SEA, for all Chief Cities and Noted Places throughout the World: giving also the latest Statistical and Commercial information about the various Ports of Departure and of Call connected with the Great Ocean Steam Lines of Europe and America, with Tabular Lists of Chief Offices, Rates of Passage, Dates of Sailing, together with Telegraphic, Monetary, and other Tables. By J. MAURICE DEMPSEY. Crown 8vo, cloth, 5*s*.

EAST INDIA CIVIL SERVICE EXAMINATION PAPERS, for 1867, 1866, 1865, 1864, 1860, 1859. Fcap. folio, 2*s*. 6*d*. each.

—— Further Examination Papers. 1863. Fcap. folio, 2*s*. 6*d*.

EASY LESSONS in FRENCH CONVERSATION, adapted to the topics generally interesting to Schoolboys. Demy 12mo, 1*s*. 6*d*. cloth.

ETIENNE'S LITTLE BOY'S FIRST FRENCH BOOK: On the plan of Arnold's Henry's First Latin Book. Second Edition. Demy 12mo, 2*s*. 6*d*. cloth.

FOSTER (A. F.).—MANUAL of GEOGRAPHICAL PRONUNCIATION and ETYMOLOGY. By A. F. FOSTER, A.M., Author of 'A General Treatise on Geography,' and other Educational Works; late Editor of 'Chambers's Educational Course;' Assistant-Commissioner to the Royal Education Inquiry, &c. Fifth Edition. Fcap. 12mo, limp cloth, 2*s*.

This Manual furnishes Rules for the Pronunciation of the leading Languages: a Vocabulary of upwards of 10,000 Names, indicating the true Pronunciation; and an Etymological Table of Generic Terms, with their Literal Meanings, serving to explain a large number of Names.

GLASCOCK'S (Capt.) NAVAL OFFICER'S MANUAL, for every grade in Her Majesty's Service; to which is added a Chapter on the Steam Engine. Fourth Edition. Demy 8vo, cloth, 10*s*. 6*d*.

This work is patronized by the LORDS COMMISSIONERS OF THE ADMIRALTY; it has been translated into the French, Russian, Swedish, and Turkish Languages, and adopted by the Navies of those Powers, as well as by that of the United States.

GODLEY (John Robert).—A SELECTION from the WRITINGS and SPEECHES of JOHN ROBERT GODLEY: Collected and Edited by JAMES EDWARD FITZGERALD. Demy 8vo, half-bound, 16*s*.

GOOD'S (W. W.) POLITICAL, AGRICULTURAL, and COMMERCIAL FALLACIES: or the Prospect of the Nation after Twenty Years' "Free Trade." Demy 8vo, cloth, 10*s*. 6*d*.

HALL.—MANUAL of SOUTH AFRICAN GEOGRAPHY: Forming a Companion to the Map of South Africa to 16° South Latitude. Intended for the use of the Upper Classes in Government Schools, and of Candidates for the Civil Service. By HENRY HALL, F.R.G.S. Second Edition. Fcap. 8vo, cloth, 6*s*.

—— SERIES of TECHNICAL VOCABULARIES, in EIGHT LANGUAGES, comprising the leading terms in the following constructive branches:

CIVIL AND ECCLESIASTICAL ARCHITECTURE. 2*s*.
MILITARY ARCHITECTURE AND FORTIFICATION. 2*s*.
CIVIL ENGINEERING AND SURVEYING. 3*s*.

—— (Townshend M., F.G.S.).—The MINERALOGIST'S DIRECTORY; or, A GUIDE to the PRINCIPAL MINERAL LOCALITIES in the UNITED KINGDOM of GREAT BRITAIN and IRELAND. Post 8vo, cloth, price 6*s*.

More than Seventeen Hundred Mineral Localities are noticed, and the Geological formation in which each Species occurs has been described as far as possible; whilst the various Localities are arranged Alphabetically.

HANDBOOK to GOVERNMENT SITUATIONS; or, the Queen's Civil Service considered with reference to Nomination, Mode of Appointment, and Pay. With Examination Papers, and Specimens of Handwriting extracted from the Reports of the Commissioners. Crown 8vo, cloth, 4*s*. 6*d*.

"The rules as to the limits of age within which only candidates can be appointed, the prescribed subjects of examination, copious specimens of Examination Papers which have been actually set, and the classified salaries of the various offices, have all been given, with lithographed specimens of official handwriting, and extracts from the tables of marks published in the Civil Service Commissioners' Reports, from which candidates may form some opinion as to the degree of merit which will enable them to succeed in cases of competition. This is preceded by a few general observations, and by a description of the proceedings preliminary to appointment." *Extract from Preface.*

HERNE BAY.—GUIDE to HERNE BAY. 6*d*.

HULL.—COAL FIELDS of GREAT BRITAIN: their History, Structure, and Resources; with Descriptions of the Coal Fields of other parts of the World. By EDWARD HULL, B.A., F.G.S. (of the Geological Survey of Great Britain). With numerous Woodcut Illustrations, and a Map (Scale, 20 miles to an inch) showing the Areas of the Coal Fields, and the Extension and Depth of the Coal Formation throughout Great Britain. Second Edition, revised and enlarged. Post 8vo, cloth, 10*s*.

HURLBURT.—BRITAIN and HER COLONIES. By J. B. HURLBURT, M.A., LL.D., Member of the Convocation of the University of Toronto, Canadian Commissioner and Juror at the International Exhibition, London, 1862, &c. Demy 8vo, cloth, 10*s.*

HURSTHOUSE.—NEW ZEALAND, the 'BRITAIN of the SOUTH.' By CHARLES HURSTHOUSE, New Zealand Colonist, and formerly Visitor to the United States, Canada, and Australia. With an Appendix on the Native War in New Zealand and our future Native Policy. Second Edition, revised and corrected. Post 8vo, cloth, with Maps, 15*s.*

— NEW ZEALAND of TO-DAY: A Short Synoptical View. 6*d.*

HUTCHINSON (Capt. A. H.).—GUIDE to the ARMY COMPETITIVE EXAMINATIONS: Being a Compendium of Practical Hints for Candidates, with reference to Schools, Allowance, Outfits, and other Expenses; with Extracts from the Examination Papers, Official Rules and Regulations, and all other necessary information. Crown 8vo, cloth, 3*s.* 6*d.*

— (T. J.).—THE PARANÁ; With INCIDENTS of the PARAGUAYAN WAR, and SOUTH AMERICAN RECOLLECTIONS, from 1861 to 1868. By THOMAS J. HUTCHINSON, F.R.G.S., F.R.S.L., F.E.S., &c., H.B.M. Consul for Rosario; Author of 'Niger-Tshadda-Binuë Exploration;' 'Impressions of Western Africa;' 'Ten Years' Wanderings amongst the Ethiopians;' 'Buenos Ayres and Argentine Gleanings,' &c. With Map and Illustrations, including a portrait of Field-Marshal LOPEZ, the Paraguayan President. Demy 8vo, cloth, 21*s.*

— BUENOS AYRES and ARGENTINE GLEANINGS; With Extracts from a Diary of Salado Exploration. With Maps, Illustrations, and Statistical Tables. Demy 8vo, cloth, 16*s.*

INGLEFIELD'S (Admiral) NAVAL TACTIC BOARD. Size 17 in. by 15 in. Varnished, 10*s.* 6*d.*

By the use of this Board, with every change of Signal, the proper position of each Vessel is at once determined.

IRONS.—The SETTLER'S GUIDE to the CAPE of GOOD HOPE and COLONY of NATAL. Compiled from Original and Authentic Materials, collected by W. IRONS, Secretary of the Cape Town Mechanics' Institution. With some additional Notices of those Colonies, and Remarks on the Advantages they offer to Emigrants. Fcap. 8vo, cloth, with Map, 3*s.* 6*d.*

JERVIS.—The MINERAL RESOURCES of CENTRAL ITALY, including Geological, Historical, and Commercial Notices of the Mines and Marble Quarries. With a Supplement, containing a Geological and Chemical Account of the whole of the Mineral Springs of Central Italy; with the best Analyses of the Waters, and Medical Notices of each Spring; compiled from the Monographs of the most esteemed writers on the subject. By W. P. JERVIS, Conservator of the Royal Italian Industrial Museum at Turin; Member of the Royal Academy of Sciences at Palermo, &c. Second Edition. Illustrated. Royal 8vo, 5*s*.

JEVONS (W. Stanley, M.A.).—A SERIOUS FALL in the VALUE of GOLD ASCERTAINED, and its Social Effects set forth. With two Diagrams. Demy 8vo, cloth, 4*s*.

—— PURE LOGIC; or, the Logic of Quality apart from Quantity. With Remarks on Boole's System and on the Relation of Logic and Mathematics. Post 8vo, cloth, 3*s*. 6*d*.

JOURNAL of the STATISTICAL SOCIETY of LONDON. Published Quarterly, price 3*s*. 6*d*. Complete Sets, from the Year 1838 to September 1869, can be had, with General Index up to 1862, price 19*l*. 18*s*. 6*d*.

JOURNAL of TRAVEL and NATURAL HISTORY. Edited by ANDREW MURRAY, F.L.S., Author of 'The Geographical Distribution of Mammals,' 'Pines and Firs of Japan,' 'Coleoptera of Old Calabar,' &c. Nos. 1, 2, 3, 4, 5, and 6 are now ready. Demy 8vo, 2*s*. each.

KENNEDY.—LA PLATA, BRAZIL, and PARAGUAY DURING the PRESENT WAR. By Commander A. J. KENNEDY, R.N., from Notes made while in command of H.M. Gunboat 'Spider,' during her Service on the South American Station. With Map. Post 8vo, cloth, 5*s*.

—— (E. B.).—FOUR YEARS in QUEENSLAND. Super-royal 16mo, cloth. [*Preparing.*

LANG.—QUEENSLAND, AUSTRALIA, the Future Cotton Field of Great Britain; with a Disquisition on the Origin, Manners, and Customs of the Aborigines. By J. D. LANG, D.D., A.M., Senior Minister of the Scots Church, Sydney, and one of the Representatives of the City of Sydney in the Parliament of New South Wales, &c. With Two Coloured Maps. Post 8vo, cloth, 12*s*.

LAVALLÉE'S PHYSICAL, HISTORICAL, and MILITARY GEOGRAPHY. From the Seventh French Edition of TH. LAVALLÉE, late Professor of Military History and Statistics at the Military School of Saint-Cyr. Edited, with Additions and Corrections, by Captain LENDY, F.G.S., F.L.S., &c., Director of the Practical Military College at Sunbury. Crown 8vo, cloth, 10*s*.

"In 1836 Lavallée opened a new era in the study of Geography. Condemning the treatises put into the hands of youth as mere catalogues of Towns, Rivers, &c., he abandoned the path followed by his predecessors, and instead of taking for landmarks the political divisions, which are constantly changing, he adopted the physical features or natural divisions of the Globe. Lacroix, Humboldt, Ritter, &c., had already made an attempt in that direction, but it was reserved for Lavallée to render their ideas popular. The division of Continents into Watersheds, Basins, &c., rendered the study of Geography so much easier, that in a few years the method of Lavallée was generally adopted, and his work was translated into the principal European languages. In 1865, two years before his death, Lavallée published a new edition (the seventh), considerably enlarged, and authorized me, his old pupil, to give it an English garb. I was encouraged by his promise of a Preface in form of an Introduction. Owing, however, to the little time which daily occupation allowed me to spare, to the difficulty of rendering French names into English or foreign ones, and to the necessity of correcting numerous errors which had somehow crept into the original, my task was not accomplished till too late for the promised Preface of my deceased friend. Recent discoveries and surveys have rendered several alterations necessary, whilst the wars of America, Italy, and Germany, have obliged me to make many additions."—*Extract from the Editor's Preface.*

LEWIS (Rev. H.).—The ENGLISH LANGUAGE: Its GRAMMAR and HISTORY; together with a TREATISE on ENGLISH COMPOSITION, and SETS of EXERCISES for the ASSISTANCE of TEACHERS and STUDENTS. By the Rev. HENRY LEWIS, Lecturer at the National Society's Training College, Battersea. Fcp. 8vo, cloth, 3*s*.

LOBLEY (J. Logan, F.G.S.).—MOUNT VESUVIUS: A DESCRIPTIVE, HISTORICAL, and GEOLOGICAL ACCOUNT of the VOLCANO, with a NOTICE of the RECENT ERUPTION, and an Appendix, containing Letters by PLINY the Younger, a Table of Dates of Eruptions, and a List of Vesuvian Minerals. Illustrated with View, Map (printed in Colours), and Section. Demy 8vo, cloth, 5*s*.

LYTTELTON'S (Lord) LECTURES on NEW ZEALAND and the CANTERBURY COLONY. 6*d*.

MACKIE.—GEOLOGICAL and NATURAL HISTORY REPERTORY. Volume I. An Illustrated Popular Magazine of Geology, Palæontology, Mineralogy, Zoology, and Journal of Prehistoric Archæology and Ethnology. Edited by S. J. MACKIE, F.G.S., F.S.A., F.E.S., &c. 8vo, cloth, 7*s*. 6*d*.

MANLY.—PRINCIPLES of BOOK-KEEPING by DOUBLE ENTRY, in a Series of Easy and Progressive Exercises. By HENRY MANLY, Principal Writing Master and Teacher of Book-keeping in the City of London School. Second Edition. Demy 8vo, cloth, 4*s.* 6*d.*

The Author's object is, first, to place before the pupil the simplest operations in accounts, and then to prepare him gradually for the more difficult and complex part of the art. The book contains elementary practice in the five principal accounts; materials for making out Bills of Parcels and Invoices; carefully constructed Exercises on the Day-book, Journal, and Ledger; the Civil Service Examination Papers on Book-keeping, a set of General Questions, and a short Explanation of Commercial Terms.

MARSH.—OVERLAND from SOUTHAMPTON to QUEENSLAND. By M. H. MARSH, M.A., F.R.G.S. With Three Coloured Maps. Crown 8vo, cloth, 3*s.* 6*d.*

MASON'S (R.) GUIDE to TENBY and ITS NEIGHBOURHOOD. Fifth Edition. With 60 Illustrations. Demy 12mo, cloth, 3*s.*

MEMOIRS of a LIFE. Crown 8vo, cloth, 7*s.*

MINERAL STATISTICS of the UNITED KINGDOM of GREAT BRITAIN and IRELAND for the YEAR 1868; with an Appendix. By ROBERT HUNT, F.R.S., Keeper of the Mining Records. Published by Order of the Lords Commissioners of Her Majesty's Treasury. Royal 8vo, 2*s.*

The Mineral Statistics for previous years may also be obtained.

NEW ZEALAND HANDBOOK: Containing a New and Accurate Coloured Map, and giving a full description of the Provinces of Auckland, New Plymouth, Wellington, Hawkes Bay, Nelson, Marlborough, Canterbury, Otago, Southland, &c.; with Tables of Statistics, Prices and Wages; the Land Regulations; Instructions for the Voyage, Outfit, and Arrival in the Colony; also Observations on New Zealand Pursuits and Investments. Eleventh Edition. Fcap. 8vo, 1*s.*

NIGHTINGALE (Miss).—OBSERVATIONS on the EVIDENCE contained in the STATIONAL REPORTS submitted to her by the Royal Commission on the SANITARY STATE of the ARMY in INDIA. By FLORENCE NIGHTINGALE. Demy 8vo, cloth, 2*s.* 6*d.*

Ordnance Survey Publications, &c.

ASTRONOMICAL OBSERVATIONS made with Ramsden's Zenith Sector: together with a Catalogue of the Stars which have been observed, and the amplitude of the Celestial Arcs, deduced from the observations at the different stations. 4to, sewed, 7*s.* 6*d.*

ASTRONOMICAL OBSERVATIONS made with Airy's Zenith Sector, 1842 to 1850. Completed by Captain W. YOLLAND, R.E. 20*s.*

DOMESDAY BOOK; or, the Great Survey of England by William the Conqueror, A.D. 1086. Facsimile of Domesday Book, reproduced by the Photozincographic Process, under the direction of Colonel Sir H. JAMES, R.E., F.R.S., by Her Majesty's command. The following parts are already published, in imperial 4to, cloth, *viz.*:—

IN GREAT DOMESDAY BOOK.

		s.	*d.*
Bedfordshire	price	8	0
Berkshire	„	8	0
Buckingham	„	8	0
Cambridge	„	10	0
Cheshire and Lancashire	„	8	0
Cornwall	„	8	0
Derbyshire	„	8	0
Devonshire	„	10	0
Dorsetshire	„	8	0
Gloucestershire ..	„	8	0
Hampshire	„	10	0
Herefordshire	„	8	0
Hertfordshire	„	10	0
Huntingdon	„	8	0
Kent	„	8	0
Lancashire (*see* Cheshire and Lancashire) ..	„	8	0
Leicestershire and Rutland	price	8	0
Lincolnshire	„	21	0
Middlesex	„	8	0
Nottinghamshire ..	„	10	0
Northamptonshire ..	„	8	0
Oxfordshire	„	8	0
Rutlandshire (bound with Leicestershire) ..	„	8	0
Shropshire	„	8	0
Somersetshire	„	10	0
Staffordshire	„	8	0
Surrey	„	8	0
Sussex	„	10	0
Warwickshire	„	8	0
Wiltshire	„	10	0
Worcestershire	„	8	0
Yorkshire	„	21	0

IN LITTLE DOMESDAY BOOK.

Essex, price 16*s.*—Norfolk, 23*s.*—Suffolk, 22*s.*

Price of an entire set (as above), 17*l.* 3*s.*

Domesday Book complete; bound in 2 volumes, price 20*l.*

GEODETICAL TABLES. 1 vol. thin 4to, price 2*s.*

LOUGH FOYLE BASE.—An Account of the Measurements of the Lough Foyle Base. By Captain W. YOLLAND, R.E. 4to, 20*s.*, cloth.

MAGNA CARTA.—KING JOHN, A.D. 1215. Facsimile of Magna Carta; Photozincographed at the Ordnance Survey Office, Southampton, under the superintendence of Captain PARSONS, R.E., F.R.A.S. Price 1*s.* 6*d.*, with the Translation.

METEOROLOGY. INSTRUCTIONS for taking METEOROLOGICAL OBSERVATIONS; with Tables for their Correction, and Notes on Meteorological Phenomena. By Colonel Sir H. JAMES, R.E., F.R.S. 1 vol. 8vo, with Plates, price 7*s.* 6*d.*

—— TABLES for METEOROLOGICAL OBSERVATIONS, published separately, in 1 vol. royal 8vo, price 2*s.* 6*d.*

METEOROLOGICAL OBSERVATIONS taken at the Stations of the Royal Engineers in the Years 1853 to 1859. 1 vol. 4to, price 10*s.* 6*d.*

DITTO taken at the Stations of the Royal Engineers, 1853–4, 1 vol. 4to, price 2*s.* 6*d.*

DITTO taken at Dublin. 1 vol. 4to, price 5*s.*

DITTO taken at the Royal Engineers' Office, New Westminster, British Columbia, in 1860–1, price 1*s.*

NATIONAL MANUSCRIPTS.—A series of PHOTOZINCOGRAPHIC FACSIMILES of some of the most interesting of our National MSS., copied by order of Her Majesty's Government, by Colonel Sir HENRY JAMES, R.E., Director of the Ordnance Survey; with Translations and Introductory Notes, by W. BASEVI SANDERS, Esq., Assistant Keeper of Her Majesty's Records. This series, consisting of Royal Charters and Grants, and the Letters of Royal and Eminent or Remarkable Persons, has been selected under the direction of the Right Hon. Sir JOHN ROMILLY, Master of the Rolls; by THOMAS DUFFUS HARDY, Esq., Deputy Keeper of Her Majesty's Records; and includes some of the most remarkable Original Documents deposited in Her Majesty's Record Office, together with a few from other repositories, including the most perfect Original Copy of Magna Carta now extant. They are not only of the highest historical interest, but at the same time illustrate the changes which have successively occurred in our language and handwriting from the reign of William the Conqueror to the reign of Queen Anne. The Facsimiles are arranged chronologically, and the Translations are interleaved so as to appear opposite to each page of the Facsimile of the Original Manuscripts. The series has recently been completed, and is published in Four Parts, price 10*s.* each.

—— **SCOTLAND.**—Photozincographic Facsimiles of National Manuscripts of Scotland. Part I. Price 21*s.*

NETLEY ABBEY—PHOTOZINCOGRAPHED VIEWS OF. Sixteen Photographic Views, &c., of Netley Abbey, including illustrated Title Page and Plan of the Abbey. Photozincographed at the Ordnance Survey Office, Southampton. Colonel Sir HENRY JAMES, R.E., F.R.S. (Director). Price complete, in a neat portfolio, 25*s.*

These Views have been selected expressly for the purpose of showing the applicability of the Art of Photozincography or Photolithography, to the production of illustrations of historical or descriptive works of any kind. The negatives, the silver prints, and the photozincographs are absolutely untouched. The title page, the plan, and the note have also been printed by photozincography.

ORDNANCE TRIGONOMETRICAL SURVEY of the UNITED KINGDOM. In Four Volumes, royal 4to, illustrated with numerous Plates, bound in cloth, 3*l.* 5*s.* The Account of this Survey is now complete, and may be had as above, or in separate volumes as under:—

I. THE PRINCIPAL TRIANGULATION of the UNITED KINGDOM, with the Figure, Dimensions, and Mean Specific Gravity of the Earth as derived therefrom. With Plates, 1*l.* 15*s.*

APPENDIX TO DITTO.—Determination of the Positions of Feaghmain and Haverfordwest, Longitude Stations on the great European Arc of Parallel. 4to, price 4*s.* 6*d.*

II. THE LEVELLING TAKEN IN ENGLAND AND WALES. With Plates, 15*s.*

III. THE LEVELLING TAKEN IN SCOTLAND. With Plates, 10*s.*

IV. THE LEVELLING TAKEN IN IRELAND. Price 5*s.*

*** The Volumes of Levelling will be found of great value to all Engineers, Geologists, and Scientific Persons, as they contain the Lines of Levels taken throughout the Kingdom, and give the exact height of every Bench Mark or Bolt, or other object observed above the mean level of the sea.

PHOTOGRAPHS of SINAI.—The Photographs taken to Illustrate the Ordnance Survey of Sinai are published in 3 Vols., half-bound in morocco, price 13*l.*; or separately, price, Vol. 1, 5*l.* 5*s.*; Vol. 2, 5*l.* 5*s.*; Vol. 3, 2*l.* 10*s.* Any of the Photographs (numbering 153) may be purchased separately at the following prices, *viz.:* those in Vols. 1 and 2, unmounted, 1*s.*; mounted, 1*s.* 6*d.* each; those in Vol. 3, unmounted, 9*d.*; mounted, 1*s.* each.

—— **ONE HUNDRED and ELEVEN ADDITIONAL PHO-**TOGRAPHS are also published, and may be purchased separately; price 1*s.* each unmounted; or 1*s.* 6*d.* mounted.

PHOTOGRAPHS of SINAI.—STEREOSCOPIC VIEWS, Thirty-six in number, in a Box-Stereoscope. Price Two Guineas.

—— **The REPORTS, PLANS, MAPS, &c.,** are being prepared for publication, and will embody all the results of the Survey.

A Detailed List of the Photographs sent by post for Two Stamps.

PHOTOZINCOGRAPHY.—The Practical Details of, as applied at the Ordnance Survey Office, Southampton, for the production and multiplication of Facsimiles of Ancient Manuscripts, Maps, and Line Engravings; by Col. Sir H. JAMES, R.E., F.R.S. Price 6*d.*

STONEHENGE, TURUSACHAN, CROMLECHS, and SCULPTURED STONES. Plans and Photographs; with Descriptions and Notes relating to the Druids. Also an Appendix on some Sculptured Stones recently found in Ireland; accompanied by Plates. By Colonel Sir HENRY JAMES, R.E., F.R.S. 1 vol. 4to, cloth, price 14*s.* 6*d.*

Photograph of Stonehenge Restored, showing Druidical Sacrifice by night. Price 1*s.* 3*d.* unmounted; 1*s.* 9*d.* mounted.

OXFORD EXAMINATIONS (The). Corrected to October, 1866. By JOHN WILLIAMS, B.D., Rector of Wigginton, Oxon, late Fellow and Tutor of Jesus College, Oxford. 1*s.*

PALESTINE EXPLORATION FUND PHOTOGRAPHS. PHOTOGRAPHIC VIEWS of PALESTINE, taken expressly for the Palestine Exploration Fund in 1865, 1866, 1867. By Sergeant H. PHILLIPS, R.E., under the orders of Captain WILSON, R.E., and Lieutenant WARREN, R.E.

This beautiful Series of Original Photographs now comprises 348 most interesting Views of the Cities, Villages, Temples, Synagogues, Churches, Ruins, Tombs, Seas, Lakes, Priests, Pilgrims, Inhabitants, &c., of the Holy Land and Jerusalem. Any Photograph may be had separately. Mounted on a white board, size 13 inches by 11, price 1*s.* 6*d.* each; or, a Selection of 14 Photographs, in cloth portfolio, lettered, 21*s.* A List of the Views gratis on application, or per post for one stamp. Descriptive Catalogue, 6*d.*

PARTRIDGE.—The MAKING of the AMERICAN NATION; or, The Rise and Decline of Oligarchy in the West. By J. ARTHUR PARTRIDGE, Author of 'Coalitions and Frontiers in 1860–1;' 'The False Nation and its Basis;' 'Democracy,' &c. Demy 8vo, cloth, 16*s.*

PAUL (Archdeacon).—NEW ZEALAND AS IT WAS and AS IT IS. With Map, fcap. 8vo, 6*d.*

PERIGAL (F.).—The YEAR 1800; or, The Sayings and Doings of our Fathers and Mothers 60 Years ago, as recorded in the Newspapers and other Periodicals. Third Edition. Super-royal 8vo, 1*s.* 6*d.*

PLATTS' (Rev. J.) DICTIONARY of ENGLISH SYNONYMES: Comprehending the Derivations and Meanings of the Words, and the Distinctions between the Synonymes; with Examples. New Edition. Demy 12mo, 3*s.* 6*d.*

POPE (Rev. G.).—A CLASS BOOK of RUDIMENTARY CHEMISTRY. By the Rev. Geo. Pope, M.A., Fellow of Sidney Sussex College, Cambridge, and one of the Masters of the College, Hurstpierpoint. 18mo, stiff cover, 9*d.*

This little Work was intended for the use of the Compiler's own Classes at the College, Hurstpierpoint, preparatory to their using the text-book in 'Chambers's Educational Course.' Definitions and statements have, therefore, been put into the briefest and most dogmatic form, so as to allow of their being carefully stowed away in the memory for the purpose of familiarizing the mind with Chemical terms and processes of thought. Strict scientific accuracy has consequently been sometimes sacrificed to the necessity of imparting an idea.

RAMSAY'S (Prof.) PHYSICAL GEOLOGY and GEOGRAPHY of GREAT BRITAIN. Six Lectures delivered in the Royal School of Mines. By A. C. Ramsay, F.R.S., &c., Local Director of the Geological Survey of Great Britain. Second Edition, with a Geological Map of Great Britain, printed in Colours. Post 8vo, cloth, 5*s.*

—— GEOLOGY of NORTH WALES. By A. C. Ramsay, F.R.S., Local Director of the Geological Survey of Great Britain. With Map and Sections; and an Appendix on the Fossils, with Plates, by J. W. Salter, A.L.S., F.G.S., late Palæontologist to the Survey. Royal 8vo, cloth, 13*s.*

"The Memoir upon the Geological Structure of North Wales, which is now published, is, I consider, the most important work which has been issued by the Geological Survey during the ten years that have elapsed since I became Director.

"The Maps and Sections of North Wales, in the preparation of which the labours of Ramsay, Jukes, Aveline, and Selwyn were united with those of my eminent predecessor, Sir Henry de la Beche, have now not only obtained a full description, but all the characteristic fossils, from the very lowest of the Silurian Strata or the base of the Lingula Flags, are clearly described by our late Palæontologist, Mr. Salter."—*Extract from Notice by Sir Roderick I. Murchison, Bart., Director-General, preceding the work.*

*** This work is published by Order of the Lords Commissioners of Her Majesty's Treasury, and forms Volume III. of the 'Memoirs of the Geological Survey of Great Britain.'

RIFLE VOLUNTEERS' MANUAL.—Manual for Rifle Volunteers; their Duties, Privileges, and Exemptions; the General Volunteer Act, 44 Geo. III. c. 54; Instructions for the Formation of Volunteer Rifle Corps, and Model Rules and Regulations. By a Clerk of Lieutenancy. Seventh Edition, 1*s*.

SCOTT.—An INQUIRY into the CONNECTION between STRONG WINDS and BAROMETRICAL DIFFERENCES. Being a Report presented to the Committee of the Meteorological Office. By ROBERT H. SCOTT, Director of the Office. Royal 8vo, price 6*d*.

SHOOTER.—KAFIRS of NATAL and the ZULU COUNTRY. By the Rev. JOSEPH SHOOTER, lately a Missionary in Natal. With Maps and Views, 21*s*.

SULLIVAN (Sir Edward, Bart.).—TEN CHAPTERS on SOCIAL REFORM. By Sir EDWARD SULLIVAN, Bart. Demy 8vo, cloth, price 5*s*.

CONTENTS.

Chapter I.—Reform.
„ II.—The Working Classes.
„ III.—The Church.
„ IV.—The Residium.
„ V.—Pauperism, &c.
Chapter VI.—Drunkenness, &c.
„ VII.—Crime, &c.
„ VIII.—Education.
„ IX.—Demagogues.
„ X.—Objects of Radical Politicians, &c.

SYMONS.—BRITISH RAINFALL, 1868.—The DISTRIBUTION of RAIN over the BRITISH ISLES during the YEAR 1868, as Observed at about 1500 Stations in Great Britain and Ireland, with Remarks on various Experiments. Compiled by G. J. SYMONS, F.M.S., Member of the Scottish Meteorological Society. With Illustrations. Demy 8vo, cloth, 5*s*. (*Published Annually.*)

—— **RAIN: HOW, WHEN, WHERE, and WHY it is** MEASURED; being a Popular Account of Rainfall Investigations. With Illustrations. By G. J. SYMONS, F.M.S., Editor of 'British Rainfall,' &c. This work is intended to serve a double purpose—to be a manual for the use of observers, and to provide the public at large with an epitome of the results hitherto obtained, and their application to the wants of civilized life. It also contains interesting particulars of the Rainfall in all parts of the world. Post 8vo, cloth, 2*s*.

—— **The MONTHLY METEOROLOGICAL MAGAZINE,** Vols. I., II., and III. Demy 8vo, cloth, price 5*s*. each. Published in Monthly Parts, 4*d*. each.

—— **REGISTRATION FORMS.**—Forms for One Year, with Instructions, in stiff cover, 2*s*.

Forms for Five Years, with Instructions, half-bound, 7*s*. 6*d*.

—— **BAROMETER DIAGRAMS.**—Set of 12 for One Year. 1*s*.

TOOGOOD (Mrs.).—SIMPLE SKETCHES from CHURCH HISTORY, for YOUNG PERSONS. New Edition. 18mo, cloth, 1*s.* 6*d.*

TOYNBEE (Capt.).—METEOROLOGY of the NORTH ATLANTIC. Report to the COMMITTEE of the METEOROLOGICAL OFFICE, on the Meteorology of the North Atlantic between the parallels of 40° and 50° N., as illustrated by Eight Diagrams of Observations taken on board the Mail Steamers running to and from America. With Remarks on the Difference in the Winds and Weather experienced according as the ship's course is Westerly or Easterly, and on the probable Causes of the Difference. By Capt. HENRY TOYNBEE, F.R.A.S., Marine Superintendent, Meteorological Office. Royal 8vo, 1*s.*

—— On the USE of ISOBARIC CURVES, and a LINE of GREATEST BAROMETRIC CHANGE in attempting to FORETEL WINDS. Illustrated by Fourteen Diagrams of Gales in January, 1867, and August, 1868, &c. With some practical suggestions for Seamen, and a few remarks on Buys Ballot's Law. Being a Report to the Committee of the Meteorological Office. By Captain HENRY TOYNBEE, F.R.S.A., their Marine Superintendent.

VENABLES (Rev. E.).—GUIDE to the ISLE of WIGHT, its Approaches, and Places of Resort, with numerous Walks, Drives, and Excursions, and a general Synopsis of its Topography, Agriculture, Products, and Manufactures; Local Affairs, Civil and Religious; Antiquities and Architecture; History, Geology, Botany, and Zoology. By the Rev. EDMUND VENABLES, M.A., and eminent Local Naturalists. With Map, containing popular References to Fossiliferous Localities, Antiquities, Landing-places for Boats, Railways, Stations, &c.; and an Appendix, showing the Island, Southampton Water, and the adjacent country on a reduced scale, geologically coloured. Fcap. 8vo, cloth, reduced to 5*s.*

WALCOTT.—MINSTERS and ABBEY RUINS of the UNITED KINGDOM: Their History, Architecture, Monuments, and Traditions. With Notices of the larger Parish Churches and Collegiate Chapels. By the Rev. MACKENZIE E. C. WALCOTT, M.A., F.R.S.L., &c., Memb. Corr. Soc. Franç. d'Archéol., and S.A. de Normandie, &c., &c. Fcap. 8vo, cloth, 2*s.* 6*d.*

WALLACE'S (W.) MINERAL DEPOSITS.—The Laws which Regulate the Deposition of Lead Ore in Mineral Lodes. Illustrated by an Examination of the Geological Structure of the Mining Districts of Alston Moor. With Map and numerous Coloured Plates. Large demy 8vo, cloth, 25*s.*

WELD.—HINTS to INTENDING SHEEP-FARMERS in NEW ZEALAND. By FREDERICK A. WELD, New Zealand, Member of the House of Representatives, &c. With an Appendix on the Land Regulations. Price 8*d.*

WILKINS.—The GEOLOGY and ANTIQUITIES of the ISLE of WIGHT. By Dr. E. P. WILKINS, F.G.S., &c. To which is added the Topography of the Island—so condensed as to give all that is useful to the Tourist—by JOHN BRION. It is illustrated by an elaborately-executed Relievo Map of the Island, coloured geologically; by numerous finely-engraved geological sections; and by a fine lithograph in colours of the tesselated pavements of the Roman Villa lately discovered at Carisbrooke. Super-royal 8vo, cloth, 7*s.* 6*d.*

WILLIAMS.—The APPROPRIATION of the RAILWAYS by the STATE. A Popular Statement. By ARTHUR JOHN WILLIAMS, of the Inner Temple, Barrister-at-Law. With Map, post 8vo, cloth, 3*s.* 6*d.*

WYATT (Capt.).—REFLECTIONS on the FORMATION of ARMIES with a VIEW to the RE-ORGANIZATION of the ENGLISH ARMY. Together with a TRANSLATION of the ARCHDUKE ALBRECHT'S celebrated Pamphlet on the 'RESPONSIBILITY IN TIMES OF WAR.' By Captain W. J. WYATT (Unattached), formerly of the Radetzky Hussars. Author of 'A Political and Military Review of the Austro-Italian War, 1866,' &c. Royal 8vo, stitched, 3*s.*

—— A POLITICAL and MILITARY HISTORY of the HANO-VERIAN and ITALIAN WAR. With Maps and Plans. Royal 8vo, 10*s.* 6*d.*

—— A POLITICAL and MILITARY REVIEW of the AUSTRO-ITALIAN WAR of 1866, with an ACCOUNT of the GARIBALDIAN EXPEDITION to the TYROL: A REVIEW of the FUTURE POLICY of ITALY, and her PRESENT FINANCIAL DIFFICULTIES. With Photographic Portrait of the Archduke Albrecht. Demy 8vo, cloth, 6*s.*

YOUNG.—READABLE SHORT-HAND—SELF-TAUGHT: Being a system by which people can teach themselves, write the longest word without lifting the pen, read what they write, and correspond with friends at home or abroad on pleasure or business. It embraces a double set of vowels, with Liquid Consonants grafted on the other letters; together with a DIAGRAM of DOTS, and a Combination of Words in most familiar use into ready sentences. The whole forming a SYSTEM of READABLE SHORT-HAND, SHORTENED. By MURDO YOUNG. Demy 12mo, boards, 2*s.* 6*d.*

Pamphlets.

AGRICULTURAL LABOURER, The. By J. Bailey Denton, Honorary Member of the Royal Agricultural Societies of Sweden and of Hanover. Price 1*s*. Also, by the same Author—

AGRICULTURAL LABOURER, The (No. 2). A Series of Letters on Village Water-Supply, Village Drainage, the Cottage, Wages, School Teaching, and Technical Education. Price 1*s*.

CHURCH REFORM. NO MORE LORD BISHOPS. By Lay Church. Price 1*s*. Also, by the same Author—

CHURCH REFORM (No. 2). NO MORE SOLE PATRONS, and SOUL AUCTIONS. Price 1*s*.

HEATON'S PATENT PROCESS for the TREATMENT of CAST IRON and the MANUFACTURE of STEEL. With Plate and Appendix. Price 1*s*.

INDIA, TELEGRAPHIC COMMUNICATION with. By Francis Gisborne. Price 1*s*.

INDO-EUROPEAN TELEGRAPH.—The STATE and PROS-PECTS of the EXISTING INDO-EUROPEAN TELEGRAPH: Being a Reply to the Recent Public Assertions on the subject of Telegraphic Communication with India. By Lieut.-Colonel F. J. Goldsmid, C.B., Chief Director. With Map, price 1*s*.

MEIKLEJOHN'S RIVER, or EQUATOR-SYSTEM of MARK-ING LONDON, or any large City with a River (or other main dividing line), for Postal Purposes, Directions, Cab Routes, and general Guidance. With Map. Price 1*s*.

METHODS of TEACHING ARITHMETIC. A Lecture, addressed to the London Association of Schoolmistresses. By J. G. Fitch, M.A., one of Her Majesty's Inspectors of Schools, and late Assistant-Commissioner to the Schools' Inquiry Commission. Price 6*d*.

METRIC WEIGHTS and MEASURES. Speech of Mr. Beresford Hope, M.P., in Moving the Rejection of the Metric Weights and Measures Bill, Wednesday, May 13, 1868. Revised. Price 1*s*.

METROPOLITAN DRAINAGE and PURIFICATION DE-FECTS, with their REMEDIES; and an Appendix. By Sir William Worsley, Bart., M.A. Price 1*s*.

OUR MEAT and HOW WE TREAT IT. A Letter to the Right Hon. the Lord President of the Council: Being an Argument for the Establishment of Abattoirs for the Metropolis. By Fred. Feild Whitehurst. Price 6*d*.

OUR MILITARY ADMINISTRATION, Past and Present. Considered in a Letter to the late Viscount Palmerston, K.G. By W. O. Fourth Edition. Price 1*s*.

PARAGUAY and the WAR in LA PLATA. Price 1*s.* 6*d.*

PAUPERISM and EMIGRATION. By a Fellow of the Colonial Society. Price 1*s.*

PRINCIPLES of TOWN DRAINAGE, The. By CHARLES SLAGG, Ass. Inst. C.E., Borough Surveyor of Kingston-on-Thames. Price 1*s.*

PRUSSIAN AGGRESSION and ENGLAND'S INTERESTS. Price 1*s.*

QUADRATURE OF THE CIRCLE, The. By EDWARD THORNTON. Price 6*d.*

RAILWAYS and the STATE. PLAN for LESSENING the TAXATION of the COUNTRY by the ASSUMPTION and IMPROVED ADMINISTRATION of the RAILWAYS of GREAT BRITAIN and IRELAND by the STATE; in a Letter addressed to the Rt. Hon. W. E. Gladstone. By JOSEPH MITCHELL, F.R.S.E., C.E., &c., and Member of the Institution of Civil Engineers. Second Edition, revised. Price 1*s.*

RAILWAY FINANCE: Being Suggestions for the Resuscitation and Improvement of the Railway Companies at present in Financial Difficulties, in a Letter addressed to the Rt. Hon. Benjamin Disraeli, M.P. By JOSEPH MITCHELL, F.R.S.E., C.E., &c., and Member of the Institution of Civil Engineers. Price 1*s.*

REMARKS on the NAVAL, MILITARY, and FINANCIAL RESOURCES of GREAT BRITAIN. By JOHN COCHRANE HOSEASON, Captain Royal Navy. Price 1*s.*

SOUTH AFRICAN GOLD FIELDS. To OPHIR DIRECT; or, The SOUTH AFRICAN GOLD FIELDS. With a Map, showing the Route taken by Hartley and Mauch, in 1866–7; and an Account of the "Transvaal," or South African Republic, its Ways and Means; and a few words on a proposed New Port, as the Shortest Road for Diggers. By BAMANG-WATA. Price 1*s.*

SUBMARINE TELEGRAPHY.—FACTS and FIGURES RELATIVE to SUBMARINE TELEGRAPHY, as a BRANCH of COMMERCIAL ENTERPRISE. By JOHN MACINTOSH, C.E. Price 1*s.*

WATER QUESTION, The. A Letter addressed (by permission) to the Rt. Hon. the Earl of Derby, K.G., explaining a proposal for the Supply of the Metropolis from the Higher Sources of the Thames, in conjunction with the Storage of Surplus Waters. By J. BAILEY DENTON, Principal Engineer to the General Land Drainage and Improvement Company. With Map. Price 2*s.*

—— **On the FUTURE WATER SUPPPY of LONDON.** By GEORGE W. HEMANS, C.E., and RICHARD HASSARD, C.E. With Map. Price 1*s.*

EDWARD STANFORD'S

LIST OF PRICES FOR BOOKBINDING.

BEST STYLE.		Demy 18mo.		Fcap. 8vo, & 12mo.		Crown 8vo.		Demy 8vo.		Royal 8vo.		Demy 4to.	
		s.	d.	s.	d.	s.	d.	s.	d.	s.	d.	s.	d.
Cloth Lettered, or Half-roan		0	10	1	0	1	6	2	0	2	3	3	0
Half-bound Calf .. .. sprinkled edges ..	Lettered ..	1	10	2	0	2	6	2	9	3	6	6	6
	Gilt	2	0	2	6	2	9	3	3	4	0	8	0
Half-bound Calf .. .. marbled edges ..	Extra ..	2	0	2	3	3	0	3	6	4	0	8	0
Half-Morocco, mar. edg.	Neat	3	0	3	3	4	0	4	9	6	0	12	0
Calf, sprinkled edges ..	Lettered ..	2	6	2	9	3	3	4	0	4	9	9	0
	Gilt	3	0	3	3	4	0	4	9	6	0	12	0
Calf, marbled edges ..	Half-extra	3	6	4	0	5	0	5	6	7	6	14	0
	Extra ..	4	6	5	6	6	0	7	6	9	6	16	0
Russia, marbled edges	Lines ..	5	6	6	0	7	6	9	0	11	6	24	0
	Elegant ..	7	0	8	0	9	6	11	0	14	0	26	0
Morocco, gilt edges ..	Lines ..	5	0	6	0	8	0	10	0	14	0	26	0
	Elegant ..	8	0	9	0	11	0	16	0	21	0	33	0

THE MAGAZINES

BOUND EITHER IN CLOTH COVERS ESPECIALLY PREPARED

BY THE PUBLISHERS,

OR IN STRONG SERVICEABLE HALF-BINDING.

MUSIC CAREFULLY BOUND, from 3s. per Volume.

Estimates given for Binding or Repairing Libraries.

WHOLESALE AND RETAIL BOOK AND MAP SELLER.

CATALOGUES

ISSUED BY

EDWARD STANFORD,

6 and 7, CHARING CROSS, LONDON, S.W.

1. **GENERAL CATALOGUE of ATLASES, MAPS, and GLOBES,** published or sold by EDWARD STANFORD. New Edition just issued.

1.* **BOOKS.**—Selected List of Books, published by EDWARD STANFORD.

2. **ATLASES.**—Selected List of General, Educational, and Special Atlases. [*Preparing.*

3. **ORDNANCE MAPS.**—Catalogue of the Ordnance Maps, published under the superintendence of Col. Sir HENRY JAMES, R.E., Superintendent of the Ordnance Surveys. Price 6*d.*; per post, 7*d.*

4. **GEOLOGICAL SURVEY of GREAT BRITAIN and IRELAND.**—Catalogue of the Geological Maps, Sections, and Memoirs of the Geological Survey of Great Britain and Ireland, under the superintendence of Sir RODERICK I. MURCHISON, Bart., Director-General of the Geological Surveys of the United Kingdom.

5. **GEOLOGICAL MAPS in general.**—Catalogue of the best Geological Maps of various parts of the World.

6. **MAPS of LONDON and its ENVIRONS.**

7. **USEFUL KNOWLEDGE MAPS.**—Catalogue of Atlases, Maps, and Plans, engraved under the superintendence of THE SOCIETY FOR THE DIFFUSION OF USEFUL KNOWLEDGE.

8. **ADMIRALTY CHARTS.**—Catalogue of Charts, Plans, Views, and Sailing Directions, &c., published by order of the Lords Commissioners of THE ADMIRALTY. 200 pp. royal 8vo. Price 3*s.*

9. **EDUCATIONAL.**—Classified Catalogue of Educational Works, Atlases, Maps, Globes, and School Stationery. 60 pp. demy 8vo. Price 6*d.*; per post, 7*d.*

10. **EDUCATIONAL.** — STANFORD'S Catalogue and Specimens of School Stationery, with Lists of Educational Books, Atlases, Maps, and Globes.

11. **SCHOOL PRIZE BOOKS.**—List of Works specially adapted for School Prizes, Awards, and Presentations.

12. **COLONIES and EMIGRATION.**—A List of Publications on the British Colonies and the United States, selected from the Stock of EDWARD STANFORD.

13. **BOOKS and MAPS for TOURISTS.**—STANFORD'S Tourist's Catalogue, containing a List, irrespective of Publisher, of all the best Books and Maps suitable for the British and Continental Traveller.

14. **LIST of NEWSPAPERS, MAGAZINES, PERIODICALS, and** ANNUAL PUBLICATIONS.

15. **MILITARY, NAVAL, and OFFICIAL BOOKS for the Army** and NAVY.

16. **SAMPLES of GENERAL STATIONERY, with prices attached.**

LONDON: EDWARD STANFORD, 6 & 7, CHARING CROSS, S.W.