AN AUTUMN TOUR

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MODERN RATIONAL CHRISTIANITY. A Creed, by a Layman. Crown 8vo. cloth, 1*s.* 6*d.*; paper covers, 1*s.*

London: ROBERT HARDWICKE, 192 Piccadilly.

INDIA and INDIAN ENGINEERING: Three Lectures delivered at the Royal Engineer Institute, Chatham, in July 1872. Crown 8vo. cloth, 3*s.*

London: E. & F. N. SPON, 48 Charing Cross.

AN AUTUMN TOUR

IN THE

UNITED STATES AND CANADA

BY

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HENRY S. KING & CO.

65 CORNHILL & 12 PATERNOSTER ROW, LONDON

1873

TO

MY DEAR AUNT AND GODMOTHER

MARY THOMAS

THIS BOOK IS

AFFECTIONATELY INSCRIBED

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An Autumn Tour

in the

United States and Canada.

CHAPTER I.

INTRODUCTORY—THE UNITED STATES.

THERE are few of the usual attractions to tempt the ordinary tourist to America. The voyage across the Atlantic is always rather formidable, the cost of travelling is high especially since the Civil War, and the country has but few antiquities or historical memorials, —its cities and public buildings being mere copies of those in Europe. Even its natural beauties, great as they are, have scarcely enough speciality about them to tempt the traveller to undertake the voyage and the many hundred miles of wearisome travel necessary to reach them.

Yet, to the thoughtful and intelligent English traveller, there are, I think, ample inducements to be offered. It must surely be interesting to see this vast territory, so lately a part of the mother country, being gradually settled and peopled—to mark how the energy and ability of the race to which he himself belongs have, in so short a time, built large cities, cultivated great tracts of country, covered them with a network of railways and canals, and introduced all the modern appliances of science and civilisation into what was but a few years ago an uncleared wilderness—above all, to observe the development of English laws, social customs, and political principles, under totally different circumstances from those under which they originated.

Whether I may class myself amongst the thoughtful and intelligent or not, such, at any rate, were the motives that had long made me anxious to visit the United States; and though the time which I was able to devote to my visit was unfortunately but too short, still I trust I have brought away some clear impressions of the country and people, which are in the main truthful, as they certainly are honest. I went with every disposition to be pleased and with no pre-conceived theories to

maintain. I did not go altogether ignorant of the geography, history or politics of the country; and therefore, necessarily, I had formed opinions on many points. But I may fairly say that I held those opinions in abeyance, and though many have been confirmed, others have been considerably modified or altogether changed.

If it be objected that a traveller has no right to record his impressions after so short a visit, it may be replied that while a longer residence will of course give greater value to his remarks, yet those very peculiarities which are most important to be noticed will elude his observation as he becomes accustomed to them. Thus, though his picture would, in the latter case, be more highly finished, it would probably be wanting in sharpness of outline, and in the very individuality which makes it a portrait.

Perhaps an Anglo-Indian is more competent to a task of this sort than the ordinary Englishman. His ultra-English experience stands him in good stead; he has been accustomed to view things from a different stand-point, and to judge of them to a great extent apart from English prejudices. In many respects, however, no two countries

present a more striking contrast to one another than India and the United States : the one, so intensely conservative that even five hundred years count but little in modifying the physical aspect of the country or the social character of the people ; the other, so progressive that it is difficult for the annalist to keep pace with its rapid growth. The one, a country whose history reaches back into the far-distant past, with a civilisation, art and science of its own, however corrupt and degraded at present, with a dense population of many different races, under the government of a handful of foreigners, who rule it with a despotism tempered only by their own sense of justice and duty ; the other, a country whose history is not yet a hundred years old, with a civilisation, religion, customs and even political ideas brought second-hand from Europe, and whose small population, increasing yearly at a prodigious rate, and drawn from many distinct nationalities, yet converts them all into one homogeneous people, governed entirely by themselves.

In one respect, certainly, I found it an advantage, while in America, to have lived many years in a country like India—I was better able to realise the great distances and

vast extent of the States. The Englishman who has never quitted England, or even if he has only travelled on the European continent, has great difficulty in appreciating the magnitude of a single country which is larger than all the kingdoms of Europe put together. But having travelled 1,500 miles continuously on the Indian railways, I could at least comprehend the meaning of a journey more than twice as long from the Atlantic to the Pacific Oceans.

I had also travelled sufficiently in other countries, besides Great Britain and India, not to waste time in visiting what could be equally well seen in Europe—or in attempting to see too much; and I endeavoured to guard myself from the common fault of every traveller, that of generalising too much from individual instances.

Before attempting to give an account of my tour or of my impressions of the country and people, I shall take the liberty of offering to the reader a little general information about the United States, with which he may or may not be already acquainted.

The United States of America comprehend an area of more than three and a half millions

of square miles: larger, that is, than the whole of Europe, and entirely within the temperate zone. This great country possesses the longest river in the world, and many others second only to it, and that magnificent chain of fresh water lakes which, with the rivers, gives it such unequalled facilities for inland navigation. Its grand mountain ranges, the Rocky Mountains and Sierra Nevadas, besides the Alleghanies and others, hold untold mineral wealth and inexhaustible supplies of coal. It has vast forests of valuable timber; prairie lands of such extent and fertility that they could grow corn for ten times its present population; and bottom lands along the rivers which produce the finest cotton, sugar, and other tropical crops.

The climate is, of course, very various over such an extent of country. That of the Northern, Eastern and Central States may be said to be much drier than our own, with greater extremes of cold and heat. The Southern States are semi-tropical in character. The climate of the Western States, between the Mississippi and the Pacific, is modified considerably by the mountain ranges and the sea coast. The rain-fall is generally moderate and

pretty evenly distributed; but some of the States, such as New Mexico and Colorado, suffer greatly from drought, and have to resort to artificial irrigation to secure their crops.

The Northern and Eastern States are generally hilly or undulating and well wooded; as we advance into the interior, the country becomes flatter and more open, until we cross the great plains or rolling prairies in the centre of the continent; then we reach the great Rocky Mountain chain, and finally the beautifully varied scenery of the Pacific States.

The following list of the States and territories[1] with their area and population is taken from the official census for 1870.

Area, Population, etc. of the United States in 1870.

	Area. Sq. miles.	Population.	Chief Cities.
NEW ENGLAND STATES—6.			
Maine	35,000	626,915	*Augusta*, Portland.
New Hampshire	9,280	318,300	*Concord*, Portsmouth.
Vermont	10,212	330,351	*Montpelier*, Burlington.
Massachusetts	7,800	1,457,351	*Boston*, Worcester.
Connecticut	4,750	537,454	*Hartford*, *New Haven*.
Rhode Island	1,306	217,353	*Newport*, *Providence*.
TOTAL	68,368	3,487,724	

[1] The newly settled districts not yet entitled to be fully represented in Congress by reason of the sparseness of their population, are called Territories and not States.

Area, Population, etc. of the United States in 1870—(cont.)

	Area. Sq. miles.	Population.	Chief Cities.
MIDDLE STATES—6.			
New York	46,000	4,382,759	*Albany*, New York.
New Jersey	8,320	906,096	*Trenton*, Newark.
Pennsylvania	47,000	3,521,791	*Harrisburg*, Philadelphia.
Delaware	2,120	125,015	*Dover*, Wilmington.
Maryland	11,124	780,894	*Annapolis*, Baltimore.
District of Columbia	60	131,700	WASHINGTON.
TOTAL	114,624	9,848,255	
WESTERN STATES—9.			
Ohio	39,964	2,665,260	*Columbus*, Cincinnati.
Indiana	33,809	1,680,637	*Indianapolis.*
Illinois	55,409	2,539,891	*Springfield*, Chicago.
Michigan	56,243	1,184,059	*Lansing*, Detroit.
Wisconsin	53,924	1,054,670	*Madison*, Milwaukee.
Iowa	55,000	1,191,792	*Des Moines*, Davenport.
Minnesota	83,531	439,706	*St. Paul*, Minneapolis.
Kansas	80,000	364,299	*Topeka*, Lawrence.
Nebraska	70,000	122,993	*Lincoln*, Omaha.
TOTAL	527,880	11,243,307	
SOUTH-WESTERN STATES—8.			
Alabama	50,722	996,992	*Montgomery*, Mobile.
Mississippi	47,156	827,922	*Jackson*, Vicksburg.
Louisiana	41,346	726,915	*New Orleans.*
Texas	274,356	818,579	*Austin*, Galveston.
Arkansas	52,198	484,471	*Little Rock.*
Tennessee	45,000	1,258,520	*Nashville*, Memphis.
Kentucky	37,680	1,321,011	*Frankford*, Louisville.
Missouri	65,037	1,721,295	*Jefferson City*, St. Louis.
TOTAL	613,495	8,155,705	
SOUTHERN STATES—6.			
Virginia	37,352	1,225,163	*Richmond*, Norfolk.
West Virginia	24,000	442,014	*Wheeling.*
North Carolina	50,700	1,071,361	*Raleigh*, Wilmington.
South Carolina	34,000	705,606	*Columbia*, Charleston.
Georgia	58,000	1,184,109	*Atlanta*, Savannah.
Florida	59,268	187,748	*Tallahassee.*
TOTAL	263,320	4,816,001	

Area, Population, etc. of the United States in 1870—(cont.)

	Area. Sq. miles.	Population.	Chief Cities.
PACIFIC STATES—3.			
California	169,000	560,247	*Sacramento*, San Francisco.
Nevada	90,000	42,491	*Carson City.*
Oregon	100,000	90,923	*Salem*, Portland.
TOTAL	359,000	693,661	
TERRITORIES—10.			
Arizona	131,000	9,658	*Tucson*
New Mexico	110,000	91,874	*Santa Fé.*
Colorado	104,000	39,864	*Denver.*
Utah	121,000	86,786	*Salt Lake City.*
Idaho	100,000	14,999	*Boise City.*
Montana	150,000	20,595	*Virginia City.*
Dakota	220,000	14,181	*Yancton.*
Wyoming	100,000	9,118	*Cheyenne.*
Washington	71,000	27,955	*Olympia.*
Indian Territory	70,000	Est.60,000 [1]	*Tah-le-quah.*
TOTAL	1,177,000	375,130	
Alaska	400,000	Unknown.	*Sitka.*

Recapitulation.

STATES, &c.	Area.	Total Population 1870.	Free coloured.
6 New England States	68,368	3,487,724	30,805
6 Middle States, &c.	114,624	9,848,255	389,662
6 Southern States	263,320	4,816,001	1,975,116
8 South-Western States	613,495	8,155,705	2,312,177
9 Western States	527,880	11,243,307	154,915
3 Pacific States	359,000	693,661	4,973
10 Territories	1,177,000	375,130	1,499
Alaska	400,000		
GRAND TOTAL	3,523,687	38,619,783	4,869,107

[1] Not enumerated in the Census.

It will be seen that the area and population are very unequally distributed. Rhode Island, the smallest State, is not much larger than Yorkshire; Texas, the largest, is five times as large as England. The New England and Middle States, whose united area is little more than one-twentieth of the whole country, have more than one-third of the total population; and in wealth, education and influence are far ahead of the others, including as they do nearly all the great cities, commercial ports, and manufacturing centres.

The Southern and South-Western groups, comprising the old slave-holding States, are almost entirely agricultural, and rich in cotton, rice and other tropical productions. They have however one great port, New Orleans, besides three others of some importance.

The Western States are entirely agricultural and comprise the great wheat and corn growing area, the level or rolling prairie lands so admirably adapted to farming purposes.

The Pacific group comprises the great and rising State of California with its fine port, San Francisco, (the New York of the Pacific) its fertile soil, magnificent scenery, varied climate and important mineral wealth. The

other two States of this group are also rich in minerals.

The thinly peopled *Territories*, forming one-third of the whole area, with a united population less than that of the small State of Connecticut, are partly agricultural and partly mineral in character, and only await population to develope their vast internal resources.

The population of the States which is now about 40,000,000, is increasing so fast that in fifty years it will probably amount to 100,000,000. The number of immigrants is about 250,000 yearly, the Irish and Germans forming by far the largest numbers; but there are also many English, Welsh, Scottish, Swedes, Italians and others; and of late years there has been a very extensive Chinese immigration into the Pacific States. There are nearly 5,000,000 of coloured people in the whole country, who are now all free and have been admitted to the privilege of the franchise.

With regard to the political constitution of the country, each of the thirty-seven States delegates a certain portion of its power to the Central Government at Washington, returning two Senators to Congress as representing the State in its sovereign capacity and one

Member to the House of Representatives, for every 120,000 of its population: the Senators are chosen for six years, the Representatives for two. Besides this, each State has its own Legislative Assembly, consisting of a Senate and a House of Representatives, and makes its own laws, electing its own Governor and other officials.

The President of the United States is chosen every four years and is eligible for re-election. He has the power of a veto over any act passed by the two Houses of Congress, but if they then pass it by a majority of two-thirds, it becomes law. The Vice-President is chosen at the same time as the President, and is *ex-officio* President of the Senate. Manhood suffrage prevails in all the States without any educational or property qualification. The Senators are, however, chosen by the Legislatures of the various States, and not directly by the people; while the President and Vice-President are chosen by electors nominated by the people for that particular purpose, who are in number equal to the two Houses of Legislature of the State, but who must not be Members of either House. The Secretaries of State and other executive officers cannot sit in Congress.

The Supreme Court consists of a Chief and eight Associate Judges, who are nominated by the President for life or during good behaviour. The judges of the district courts are elected by the people.

The Revenue of the United States is at present about 75,000,000*l.* sterling, raised from customs, taxes, Government lands &c.; it has been largely augmented since the War, chiefly by heavy customs' duties being imposed. The States raise their own revenue for local purposes. The currency since the War has been entirely in paper, and consists of dollars and cents: the dollar being nominally worth about 4*s.* 2*d.*, and the cent a halfpenny. The premium on gold is at present about thirteen per cent. in New York.

There is no established religion in the States—no hereditary titles of any sort—no law of entail. There is a standing army of about 30,000 men and a small navy, both largely recruited from foreigners. The expenditure on both was only 11,000,000*l.* sterling in the past year. The public debt incurred during the War is being paid off at the rate of 20,000,000*l.* sterling annually.

CHAPTER II.

THE VOYAGE—NEW YORK—THE AMERICANS—THEIR ENERGY—THEIR SILENCE.

I LEFT Liverpool on Thursday, September 5th, 1872, in the Inman screw steamer 'City of Brooklyn.' We carried 110 cabin passengers, besides some 500 in the steerage. After a rough night in the Irish Channel, we reached Queenstown, Ireland, at 9 o'clock the following morning, and I took the opportunity of landing to call on General Sherman, Commander-in-Chief of the U.S. Army, who happened to be at the hotel, waiting to embark in the 'Baltic.' At 4 p.m. we had received the express mails, *viâ* Dublin, and were steaming along the south coast of Ireland on our way to New York.

Almost all our passengers were Americans, many of whom had been making a summer tour in England or on the Continent. We had also the late U.S. Consul at Liverpool on

board, to whose ability and energy during the War his Government chiefly owed their successful prosecution of the Alabama claims. I was indebted to this gentleman for much excellent advice and information in regard to my projected tour, and to his amiable family for an intimacy which made the voyage only too short. The weather was generally cold, and occasionally rainy; for two days we had strong head winds and the usual discomfort attending a pitching steamer. On the 12th we were running over the Great Bank of Newfoundland, passing Cape Race in the night; this is sometimes sighted on the voyage. This is the region of icebergs, which however are rarely met with at this time of year; from April to July a sharp look-out is kept for them, and a more southerly course is generally pursued on the Great Circle.

The 'City of Boston,' which was lost three or four years ago, belonged to the Inman line; she sailed from Halifax in the month of February and was never more heard of; it is supposed that she perished in the pack-ice floating down from the north; a hurricane was blowing at the time and she probably broke up and foundered in a few minutes.

The passage of the North Atlantic can indeed never be considered free from danger. In winter there are storms which often last for days, and seas such as are probably met with on no other ocean; in summer there are thunderstorms and icebergs; so that a smooth passage at any time is altogether exceptional. In one season, three steamers went ashore one after the other, owing to their compasses being affected by a magnetic storm.

However, we escaped all these casualties, took the pilot on board on Sunday night, the 15th, and on Monday morning were running past Sandy Hook through a cold wind and drizzling rain. But the weather fortunately cleared up just in time, and leaving Staten Island with its green and wooded heights and picturesque villas on our left, we entered the beautiful harbour of New York, anchored in the North River about 10 o'clock, and after some delay were carried off by the tender to the Custom House Wharf. A cursory and very civil inspection of baggage followed and consigning it all to the care of one of the express agents, I started on foot and enquired my way to the St. Nicholas Hotel, in Broadway, to which I had been

recommended as a thoroughly American house in every respect.

New York is situated at the mouth of the Hudson River, in latitude 41°, longitude 74°. The city proper is built on Manhattan Island, which is separated by the Hudson from Jersey City on the west, and by the East River from Brooklyn and the smaller suburbs on Long Island. The south or lower end of Manhattan Island forms the business quarter of the city and is the older portion. The upper end contains the more fashionable quarter and the majority of the dwelling houses, and stretches along to the Central Park, which may perhaps be 'central' before many years. Broadway, the principal thoroughfare, runs about midway through the length of the city, and is in breadth and general appearance very like Oxford Street, London.

New York proper has about 1,000,000 inhabitants, but including Brooklyn, Jersey City and the other suburbs, the whole population is over a million and a half. The general aspect of the city is like London, with a touch of Paris about it. Stone and even marble are extensively used in the houses, and many of the public buildings, and even

the shops, or 'stores' as they are always called, are on a magnificent scale. The houses in Fifth and Madison Avenues, and the cross streets between Fourth and Sixth Avenues, which include the best of the dwelling houses, are generally of brown stone and of about the size and general appearance of our second-class residences in Belgravia or Tyburnia. The streets are generally wide, straight and well kept, and several of the Avenues are planted with young trees. Except Broadway itself, every principal street has at least one line of rail for the horse-cars, which are generally used by the whole population.[1]

The harbour of New York is among the best and handsomest in the world, and is crowded with shipping; while steam-ferries ply continually over the north and east rivers to keep up the communication with the suburbs. A project is now on foot for bridging the East River, and so connecting

[1] They are certainly a great convenience to the general public, especially as the cabs, or rather hackney-coaches, of New York, are little used for general purposes owing to their extortionate charges, but the rails of the horse-cars, both here and in every other town, are an abominable nuisance to private vehicles. In Broadway, omnibuses are used similar to our own.

New York and Brooklyn by a suspension bridge of 1,600 feet span, the towers of which are already nearly completed.

Among the most noticeable buildings in New York are the New Post Office (not yet completed), the Town Hall, many of the Churches, the principal Hotels, and several of the leading Banks, Insurance Offices, and Stores; for information about all of which I must refer the reader to Appleton's excellent guide-book. There are several squares in the city, but they all seem public property and have a very 'unkempt' appearance compared with ours. The Central Park is beautifully laid out and planted, and is more like the Bois de Boulogne than Hyde Park; in the evening it is crowded with carriages; but there are very few riders, and horseman ship is evidently not a favourite art with Americans.

The shops or stores are like those of London or Paris, but there must be a greater number of large ones than in either of those cities. The book-stores struck me as very fine; they have excellent reprints of all the best English works, and regular importations of English books as well. All the leading magazines and reviews are regularly received,

also 'Punch,' the 'Saturday Review,' 'Illustrated News,' and a few other weeklies.

Prices are everywhere very high: heavy duties have been imposed since the War in order to pay off the National Debt, and the cost of everything has been raised in proportion. Articles of clothing are double or triple the English price; books are dearer; meat and bread about the same as in London.

If I were asked what first struck me when I landed in New York, I should say it was the feeling of surprise, which I scarcely liked to own to myself, at finding so large and substantial a copy of London, 3,000 miles across the ocean; and this feeling continued to increase as I visited the great cities of the West. It is doubtless an absurd confession to have to make, but knowing, as one does, the youthfulness of these great towns, one has a vague idea that they cannot but be flimsy affairs after all—wooden or lath and plaster houses, and a new-country look about the whole thing. But a very short inspection is enough to show the falseness of such an idea; the splendid edifices of granite and marble which everywhere abound, and

the substantial character of the streets and houses and stores gave me the first insight into the energy and force of the American character. It is that energy which has almost rebuilt Chicago in a year after the greatest fire of modern times, and which commenced to clear away the ruins in Boston while the fire was still smoking. It is the same energy which has covered the country with railroads, which are pushed into the heart of the most thinly settled districts, at once attracting settlers and paying for their cost by the sale of the lands opened up, and which, in a hundred ways, forcibly impresses the traveller with the conviction that he is amongst the same race that has conquered India and colonised two great continents.

As I sat at dinner the first day of my arrival, at one of the largest hotels in New York, and studied the countenances of the four or five hundred men at table who swiftly and silently despatched their dinner and then glided rapidly and gravely from the room, I instinctively felt that I was amongst a strong, earnest, resolute people, whom one would rather have as friends than foes. They were not at all English-looking; they are, as a rule, darker and sallower than our-

selves; the face is longer and leaner, and the almost universal practice of shaving the whiskers and growing a beard, tends still more to give them a foreign look. Of course New York has a large foreign population in it, and the feeling I have mentioned faded somewhat as I went West; but I have a strong belief in the value of first impressions, and am inclined to think that on the whole mine were correct.

The foreign immigration into America is so great that it seems to me one of the strongest points of the American institutions that these foreign elements are so quickly assimilated, and that after the lapse of a single generation, Irishmen, Germans, Swedes, Italians, and others, are all turned into American citizens with a distinct nationality about them. Of late years, I am told, this assimilating process does not go on so fast as it ought; both the Irish and German elements are yearly becoming stronger and more separated from the mass of the population. Fortunately, I think, these two important elements are radically opposed to each other in character, religion, and politics, and thus may neutralise each other. It is also said, and I believe with some truth, that

there is a want of vitality in the original Anglo-American stock. Whether the Anglo-Saxon race will not bear transplanting without degenerating, or whether there are other reasons, it is asserted that but for the constant importation and admixture of foreign blood, the original race would soon die out. Such an opinion can of course be nothing but a theory; at any rate the original stock gives the tone and colouring to all the rest, and I believe it is strong enough to assimilate them all in time.

The Americans struck me generally as a silent people; though the very contrary idea is prevalent in England, I know not on what grounds. But they certainly seemed to me more taciturn and reserved than ourselves, and I think most travellers will confirm the remark. In the dining-rooms of the large hotels, in the railway cars and elsewhere, they made less noise than half the number of English would have done; there was but little conversation even amongst those acquainted with each other, and those who were unacquainted never spoke at all. In the whole course of my travels, I don't think I was ever addressed in the first instance; I always received perfectly civil replies to my

questions and had many pleasant conversations with strangers on the steam-boats, railways, and other public places, but there was always a certain amount of ice to be broken through first.

No one can deny them the faculty of wit, or at least an extravagant humour which is characteristically American, yet you rarely hear jokes or a hearty laugh amongst them; there seems a total absence of jollity or joviality in all classes, a tendency rather to gravity or even melancholy,[1] and an American owned to me, half-seriously, that he thought there was something of the Red Indian reticence and gravity appearing in the national character.

I am inclined to think that this *tristesse*, as the French would call it, arises from the general absorption of all classes in business and money-making; no one is idle, no one *loafs*, and nobody seems to have time for enjoyment or pleasure. It is the same charge that other nations make against the English, and with a certain amount of truth, that we take our pleasures *sadly*, which means, partly, that we work hard at our pleasures, carrying the same seriousness into them as into our

[1] The almost invariable habit of wearing black cloths probably adds to this impression of the men.

business, but which also, I think, arises from the greater manliness of the English character, that prevents our finding pleasure or relaxation in the same childish amusements as the French or Italians. In America, this national trait has been reproduced, and is intensified by the simple fact that there is no idle class there; no class, as with us (though of course there are individuals), which is exempt from the necessity of working for a living. I never fully appreciated the value of this class at home before; now that I have been to America, (and I make the remark in all sincerity), I recognise it fully. Such a class, removed from the anxieties inseparable from the conduct of business or the practice of a profession, has leisure not only for the cultivation of the taste, the pursuit of art, science and literature, and for studying the amenities of social intercourse, but also for the not less valuable art of pleasure-seeking generally, and of carrying manliness and refinement into our sports and amusements. To the value of such a class in politics I shall allude further on.

CHAPTER III.

AMERICAN SOCIETY—SPEECH—HOSPITALITY—ABSENCE OF PAUPERISM AND DRUNKENNESS—TOBACCO-CHEWING—VANITY—INFERIOR EDUCATION—LOW TONE OF THE PRESS—AMERICAN PATIENCE—GENEROSITY—RELIGIOUS FEELING.

Of American society I scarcely saw enough to enable me to say much about it. So far as I could judge, good society in America, *i.e.* the society of well-educated men and women in easy circumstances, is much the same as in our own country; but I am disposed to think that it is inferior to the very best English society; or, rather, that there is nothing in America corresponding to the latter, partly from the general abstinence of the upper classes of Americans from politics, and partly from an inferiority in the highest kind of education, of both of which I shall speak presently. The travelled American is as superior to his untravelled compatriot as is the travelled Englishman, and if there

are but too many amongst them who have seen every country in the world *except their own*, it is not for us to find fault with them on that account. Few Englishmen know anything of our own great Colonies, and many of those who flock annually to Switzerland, the Rhine, or the Italian lakes, are utterly ignorant of the scenery of the United Kingdom.

I have often been asked whether what is generally termed 'the American accent' is as common as is generally supposed. Amongst the educated classes, I think the only difference from the English accent generally noticeable is a slight raising of the voice at the end of the sentence, or what is commonly called a *sing-song* intonation; and even this is by no means universal. With other classes, the nasal twang is often very strong in some; in others it is less, or even not at all, perceptible. At any rate, the very broadest Yankee accent or provincialism is more easily understood, and not more offensive to the educated ear, than that of the Yorkshire 'tyke' or Glasgow 'body.' As to the use, or misuse, of English words, many Americanisms are well known; but there are very few used by the best classes. 'I guess' is common enough,

and certain strange verbs such as 'collided,' 'loaned,' and a few others; also the use of 'some' and 'any' adverbially; as 'Did you sleep *any* last night?' A shop is always called a 'store;' a railway station is a 'dēpot.' 'Quite a number' means a great number. Amongst other classes, 'Say' is constantly used for, I say; 'Mister' for Sir; 'On time' for in time. 'Donated,' 'interviewed' and 'excursed' are also strange verbs to English ears. 'Stranger' I never heard used; and 'You bet' and 'I want to know,' as expressions of assent and incredulity, are provincialisms, even in America.

I have already noticed in passing the peculiarity of American humour—its extravagance, and I may add its grimness—both of which seem to characterise it specially. Mark Twain and Bret Harte, both well known to English readers, appear to me to stand at the head of the list; the former especially, in 'The Innocents Abroad' and 'The New Pilgrim's Progress,' seems to me to have produced the best and most original book of travels that we have had for several years; while his 'Roughing it' is scarcely inferior. The illustrations of all three in the American editions are nearly as good as the letterpress, and I am

surprised that they have not been reproduced in England.

Of American hospitality, I had heard a good deal and was rather disappointed with it. The reserve and coldness of which I have already spoken require so much time to break through, that a mere passing traveller is apt to be chilled by the want of warmth in his reception. In India, if you are the bearer of a letter of introduction to a resident, he throws open his house to you and expects you to be his guest for as long as you choose to stay. In England, such a letter at least insures you an invitation to dinner. In America it may or may not do so; I found often that a man thought he had done all that civility required by leaving his card on me at the hotel. In one case, while at Boston, I called upon one of the leading merchants to whom I had a letter, and not finding him at home left the letter and my card. He called three times upon me at my hotel, finding me out each time, but did not invite me to his house, delaying to do so, I presume, until he could first *see* me to make sure that I was worthy of the honour. From other people, however, and in many cases of chance acquaintanceship by the way, I received great kindness and a cordial wel-

come, and regretted only that I could not stay longer to know more of them.

If I were asked what struck me most agreeably during my visit to America, I should say it was the general absence of the pauper class of the population, to whose presence we are unfortunately but too much accustomed at home; there is nothing of that squalid misery, or abject poverty, which forms so painful a contrast to the luxury and refinement of London and other European cities. In the two months of my travels I was only twice accosted by beggars, and of those one was blind and the other lame. This happy state of things of course arises from the fact that the country, so far from being crowded, is still eagerly demanding all kinds of manual labour. Vast provinces are awaiting the advent of the farmer and labourer to break their virgin soil; new railways are every year projected; new towns are everywhere being built; new mines are being discovered and worked. While I was at Chicago, bricklayers were getting four dollars and a half (about eighteen shillings) a day, for twelve hours' work; and 5,000 of them were on strike for a reduction to eight hours on four dollars. All over the West, common labourers were in

demand at from eight to ten shillings, and carpenters and mechanics at from twelve to twenty-five shillings a day. Miners in Colorado were getting seven dollars in gold, equivalent to nearly thirty shillings, a day. And in the West, meat is sixpence a pound and other things in proportion, except clothing which was a good deal dearer than in England.

I have no doubt there is a pauper class in the back slums of New York and possibly elsewhere, but every great city, especially if a sea-port, collects a certain population of this sort who prefer the life of the streets to life elsewhere under healthier conditions; there is always ample means of escape from such a state to the newly settled towns and vast plains of the West.

Nothing perhaps can better illustrate this ready absorption of labour in America than the quiet subsidence of the great armies raised during the Civil War, after the struggle was over. In no country in Europe could half a million of men, who had been withdrawn from civil life for military duties, have been safely disbanded at once; their former places would have been filled up and they would have found themselves adrift on the world, a mob of disciplined men, bound

together by military habits and instincts, and dangerous to the community they had saved. In the States, fortunately, the War did not last long enough to give the citizen soldiers a distaste for their civil work; no leader of commanding genius arose (on the Federal side at least) to attach his men to him, by strong personal ties, and the whole army was absorbed so rapidly and quietly into the civil population that the event scarcely excited remark.

Another point that struck me everywhere as an agreeable feature was the absence of drunkenness. I should have set down the whole population as singularly temperate, had I not been assured by many Americans that I was giving them more credit than they deserved, and that there is a good deal of hard drinking amongst many classes. It may be so; I can only say I did not see it. I scarcely ever met a drunken man, and the streets at night, in all the cities I visited, certainly presented a favourable contrast to those of English towns. I believe, however, that there is a good deal of whisky and brandy drunk at the hotel bars and drinking saloons, and abominable stuff it is. No good ale is made in the country, I don't know why;

the German Lager beer is the best. There seems no reason whatever why a good and cheap light wine might not be produced in most of the vine-growing States, but the native wine usually sold is as dear as that imported from Europe. As men of the Anglo-Saxon race *will* drink, it seems really an important matter to provide them with a cheap and wholesome beverage that may save them from the pernicious vice of dram-drinking.

In the vicinity of New York is one of the Asylums for the Inebriate (as they are elegantly termed), of which I understand there are several in the States; in which people of the respectable classes who have become drunkards are confined, at their own request, until they are discharged as cured. In thus treating drunkenness as a disease, the Americans, I believe, show more sense than ourselves, who are accustomed to look upon it simply as a vice. There is no doubt it may be treated as a vice in its early stages, but as to the confirmed drunkard, it is about as useful to preach to him to abstain as it would be to implore him not to catch the small-pox—the vice has become a disease in his case and he must be treated accordingly,

though of course it is not the only disease which has commenced in vice. The best chance of cure is total abstinence and the entire removal of temptation; and this should be the aim, as it is the true defence, of all legislation on the subject. It may be perfectly true that you cannot make men moral by Act of Parliament, but you can to a great extent protect them from disease; and in this sense, by diminishing the temptation to drink, there can be no doubt that you can diminish the habit of drunkenness.

If I have praised the Americans for their comparative freedom from drunkenness, I cannot help expressing disgust at the general frequency of the habit of tobacco-chewing, and the consequent hawking and spitting that go on incessantly. The entrance halls of every hotel in the country are liberally furnished with spittoons, but are also stained all over with discoloured spittle. It is the same in the railway cars, in almost every public place, and on the staircases and in the lobbies of the Houses of Congress. I do not believe that gentlemen in good society indulge in the filthy habit, but everyone else does, and the effect on the Englishman is simply disgusting. It is an unpleasant sub-

ject to allude to, but the practice is so general everywhere that it is impossible to pass it over in silence.

The trait of character, however, that strikes one most forcibly and disagreeably, is their national vanity and egotism. That they have much to be vain of is undeniable; they feel how much they have done in a short time, how much they are still doing, and what a great future lies before them. But their conceit of themselves and their own achievements is perpetually displayed in a manner that would be irritating if it were not amusing. They are not even satisfied by your admiration unless you admire exactly what they do, and their admiration is often bestowed on objects which do not seem to *you* admirable simply because you look at them from a different point of view and measure them by other standards. It was not enough that I praised the Niagara Falls and the scenery of the Hudson and St. Lawrence, as beautiful in themselves and differing from anything I had yet seen; I must also praise the scenery of Lakes George and Champlain as being far superior to any lake scenery in Europe—which they are not; I must admire the prairies simply because

they are so vast, and the Mississippi because it is the biggest river in the world. Indeed, size is evidently their great criterion of beauty, and I suspect they are disappointed that the Rocky Mountains are not as high as the Himalayas. I could admire New York in all honesty, with its noble harbour, its crowds of shipping, and its beautiful suburbs, though I could not admit that the Fifth Avenue quarter was as fine as Belgravia, or the city itself is as large as London or as handsome as Paris. But the town that I was always called upon to admire was Chicago, for no other reason but that it had sprung up so rapidly into existence, and after being half burnt down, was so quickly being built up again. As, however, Chicago is a mere mass of streets and houses erected on a perfectly flat piece of ground, as the ravages of the great fire were still everywhere visible, and the town was in all the discomfort incidental to workmen, stone, and mortar, all that could properly call forth a stranger's admiration had really to be taken on trust.

It is the same with other things. American oysters I was told were very superior to English oysters; if I did not think so, it was because I missed the 'coppery' taste in the

latter (whatever that may mean),—at any rate they were bigger. American peaches were better than English peaches—at any rate they were more numerous and cheaper. American hotels, with their noisy, spitting crowds and bad cookery, were superior to the quiet comfortable English hotels, or the brilliant, well-furnished French hotels with their perfect cookery and cheerful *tables-d'hôte*—at any rate they could accommodate twice as many people.

I think they like Englishmen to praise their country, but I doubt if they care very much about it; the mass of the people seem to take very little interest in any other country except their own, and are, on the whole, very self-sufficient and too self-satisfied to care about the good opinion of other nations, or indeed to waste much thought or attention on other parts of the world. The brief notices of foreign affairs contained in the American papers generally appeared to me to be drawn up in a tone of good-natured contempt, as if America was rather amused than otherwise at witnessing the vain struggles of Europe to imitate her greatness, and preserve itself from ruin and revolution!

A good deal of this conceit of course arises

from the youth of the nation; it is the natural arrogance of a young man who has had his head turned by success, and who does not yet foresee the rocks and shoals of life that are ahead. But much of it also arises from their narrow education. I had expected to find this very much the reverse as compared with England; and undoubtedly education is more widely diffused in the States, and the lower classes are better instructed than our own. But it is certainly not the case with the middle classes, *i.e.* the mass of the nation; they have less information, are narrower in their views, and less capable of generalising. There are plenty of schools and colleges, no doubt, but very few with any high standard of scholarship; the education given is too utilitarian and the pupils leave too early. Moreover, they miss the education which an Englishman insensibly gets by living in Europe, and being perpetually interested in other politics besides his own.

What I have asserted is, of course, a matter of opinion and hardly susceptible of direct proof, but I think the difference in the tone of the Press of the two countries goes far to corroborate my views. There are more newspapers in the States than in Eng-

land, because education, as I have allowed, is more diffused in the former; they are inferior in tone and character, because the education of their readers is so too. It is impossible to suppose, if there existed a demand for a superior class of journals, that in such a country as America, there would not be at once an adequate supply. If any one doubts the inferiority of which I have spoken, let him compare a number of 'The Times,' or 'The Daily News,' or 'The Standard' with 'The New York Times,' or 'Tribune,' or 'Herald.' The leading articles of the latter are simply beneath criticism; their regular or special correspondence and critical notices are poor and meagre, while their columns of intelligence are sensationalised in headings, style and contents, in a way that would disgrace a penny-a-liner. As to such papers as the 'Saturday Review' or 'Spectator,' with their brilliant criticism and scholarly information, there are none like them in the States; they would not be appreciated if there were.

While travelling in America, you appear to be altogether cut off from the European world of politics and news, so meagre is the flippant summary put before you in the American papers, and so shallow and ignorant are their

comments on the scanty scraps of news they furnish. Doubtless it is a good thing for America in many ways that she should be self-reliant, and even all-sufficient to herself in most things; but so long as she has to import so largely from Europe her literature, science and art, she should interest herself more in that current literature and that political life from which, in truth, the others all really spring.

Lest it may be thought that in my delinea tion of the American character I have dwelt too much on the blemishes, let me hasten to express my admiration of other features in it, one of which I may call their patience; they have the good temper and forbearance of a strong race, which are the more to be commended as their great energy might fairly be expected to produce impatience and irritability. So far from this, you rarely hear quarrelling, or bad language, even amongst the lowest classes; and there is a singular quiet ness and patience shown everywhere, which are a pleasant contrast to the grumbling of an Englishman. I never heard a dispute about a fare, in omnibus or railway; a complaint about a dinner; or a threat of an appeal to the Press or to superior authority. In fact,

anyone in authority appears to be deferred to at once, for, after all, he is their servant; and the principle of self-government is carried out fully and effectually. Its abuses, of which I shall speak presently, arise from mistakes and excrescences which in no way affect the main principle. Thus, a disorderly mob is a rare thing in America; I was there during the height of the presidential contest and on the day of the election. Not a day passed without party processions and political meetings where the speeches were often of a virulently personal character, yet I do not remember a single instance of a row, or that the militia were once called out, or that a single extra policeman was sworn in. The public-houses are closed everywhere on election day by universal consent, the whole thing passed off quietly and good-humouredly and impressed me forcibly with an idea of the self-restraint and self-respect of the people. Let me also add that I never was treated otherwise than with perfect courtesy by every official with whom I came in contact, and that I never asked a question or enquired my road from anyone, without the greatest pains being taken to give me the desired information.

Another point too I may honestly praise,

and that is their generosity and liberality, or at least their want of pettiness or meanness. You are not subjected to irritating exactions either at hotels or elsewhere, and men are not always touching their hats and expecting you to *tip* them for doing some act of common civility. If the Americans make money fast, they spend it freely and generously, and I cannot imagine such a being as a Yankee miser. Large sums are easily raised by subscription for any religious or charitable purpose. Mr. Henry Ward-Beecher raises annually, I am told, from 50,000*l.* to 100,000*l.* for the support of his church and different institutions connected therewith. After the Boston fire, Chicago sent the sufferers 40,000*l.* as a free gift; it was declined, as also aid from other places, on the ground that the Bostonians were wealthy and could afford the loss, and were too proud to let their poor be aided by other cities.

Let me add too, that although there is no established church, the religious sentiment is generally strong everywhere, at any rate in those States which I visited. I never sat down to the simplest meal in a private house without grace being said, and in a reverent

manner very different from the mode in which it is often slurred over amongst ourselves. There is no town or village without several churches or chapels, and Sunday is generally pretty strictly observed, except in those towns which contain a large foreign population, as Chicago for instance. The Houses of Congress and of the various State Legislatures and even the Courts of Law are, I believe, opened with prayer. The Monday newspapers always contain long abstracts of the Sermons delivered the previous day, and the excellent institution of Thanksgiving Day, appointed by the Governors of the States, on which the people are enjoined by proclamation to repair to their several places of worship and thank God for the good harvest and the various blessings of the past year, is universally observed and might with advantage be copied by ourselves.

I have no religious statistics to inflict upon the reader, but I believe all the leading Protestant sects are well represented all over the country, and the Roman Catholic Church is of course strong amongst the Irish and their descendants. The Episcopal Church of the U.S. uses our prayer-book with a few unimportant alterations, has its High and

Low Church divisions, and I should say generally includes the bulk of the upper classes in its communion. In the New England States, once the great home of Puritanism, I understand that Unitarianism has greatly increased and Evangelical principles have proportionally declined; the former I should say numbers among its votaries the majority of the most intellectual men in the States. Though my own prepossessions are strongly in favour of an Established Church, I cannot say that I observed any ill consequences resulting from the want of it in the States, but it is not a subject on which the opinion of a passing traveller is worth much. It is perhaps in small scattered communities such as we have in India, that an established form of prayer has always seemed to me to meet a definite want; without such a form, such communities, of which there must be many in the new settlements of America, are apt to fall into strange religious vagaries. Authorized forms of prayer in such cases become bonds of nationality rather than of religious doctrine, and in a small community dwelling amongst non-Christians in a strange land, the forms and words which have so often

been followed and heard at home, with no particular reverence perhaps, acquire a new meaning and interest in our eyes. It is, however, too extensive a subject to be discussed here.

CHAPTER IV.

AMERICAN POLITICS—AMERICAN AND ENGLISH SOCIAL SYSTEMS CONTRASTED—POLITICAL QUESTIONS.

THE curse of the country seems to be Politics—the perpetual electioneering and voting that are always going on, and the low tone of politics and political morality generally. Perhaps I saw the very worst of it, as the time of my visit was that of the Presidential election ; but more or less of the same kind of thing must be generally going on, owing to the short tenure of the various offices. The President, as I have said, is elected every four years, the Senators of Congress every six years, the House of Representatives every two years. The Legislatures of the several States have different rules, but generally the members of the Lower House are chosen annually. Then there are the States' Governors, the Mayors and Aldermen of the towns, the States' Attorneys-General,

Coroners, Auditors, Presidential Electors and a host of other functionaries, including even the District Judges, who are all changed or liable to be changed so frequently, that the country is kept in a perpetual turmoil and excitement. Not only are all these offices paid, but there are thousands of placemen who are, as a matter of course, removed if the opposition party comes into power, and that too just as they have begun to learn their work, while the struggle for an office of any kind under Government is as keen as in France. Moreover, it is so generally asserted, that the assertion may be assumed to have considerable truth in it, that most public men, to use a vulgar expression, 'feather their nests' pretty comfortably during their tenure of office, and that public corruption is the rule and not the exception. The tone of the Press on this point is perfectly amazing to an Englishman; the most scandalous charges are every day coolly made against the politicians of the opposite side, which, if only a tenth part were true, would render such men infamous in England. No doubt there is but little truth in them, but the effect of such language must be to lower the whole tone of politics throughout the

country, and no one who has travelled in the States can deny that the tone *is* very low indeed.

One effect of this has been to degrade the business of politics to such a level in the public estimation that the best and highest classes of the country keep altogether aloof from it, and it is given over entirely to second-rate men and the lower classes generally ; the leading politicians are as a rule successful journalists or sharp lawyers. The race of statesmen does not exist, and as is well known, in late years at any rate, none of the really great men of America have ever been chosen as President.

It is not too much to say that the controversy on the Alabama question is a proof of this. Our negotiators were statesmen and gentlemen ; those on the other side were politicians, who thought that the art of statesmanship consisted in chicanery, and that a question of national law between two great countries was to be determined on the same principles as a petty case in some inferior law court. I have more than once heard the remark made by Canadians that so long as England continues to send such men as she usually sends to negotiate treaties

with America, she is certain to be over-reached in every transaction, and that if Canadians had been employed who understood the nature of the American politician, the Alabama and San Juan questions would have terminated very differently.

For the state of things that I have been describing, Universal Suffrage has been largely to blame. The swarms of uneducated Irishmen and others, and now the newly-enfranchised negroes, simply swamp the respectable voters who have a real stake in the maintenance of order and good government, fall into the hands of designing and unscrupulous politicians, and are, it is generally understood, bought wholesale; while it is constantly asserted that thousands of them are transferred from one State to another on purpose to vote, and often vote many times over. I conversed on the subject with many Americans, and I never met one who did not condemn Universal Suffrage, and I never found one Canadian who did not thank his stars that they were not cursed with it. If I am rightly informed, the same evils are showing themselves in the Australian legislatures. They are due to the same cause, and I fear the States have not seen the worst of them.

The consequence of the highest classes keeping aloof from politics is that the Press does not address itself to them: hence the very men most fitted to give the Press a proper tone have no connection with it, and it naturally panders to the passions and prejudices of its supporters. When such journals contain bitter attacks on England, as they often do, you are generally told by respectable Americans that such articles do not really represent the American sentiment; but the answer naturally is, that although that may be true so far as regards the respectable minority, that class as a rule does not influence the politics of the country, and that the papers are not likely to write what would be displeasing to the great majority of their subscribers, who unfortunately *do* influence politics very materially. It is these violent and ignorant men who may any day plunge the two countries into war, which none would regret more than the respectable Americans themselves, though unhappily it would then be too late.

It is a curious fact that Anglo-Indians, on returning home, are as a rule decidedly radical in their political tendencies, perhaps from a species of re-action after living so long

under a (virtually) despotic government. I should certainly call myself an advanced Liberal as regards English politics; but my visit to America has decidedly had a strong tendency to make me a Conservative. 'Take warning by us,' said an American gentleman to me at Cincinnati, 'I see with regret that the republican feeling is spreading in England; you don't know when you are well off For God's sake beware of Universal Suffrage or anything approaching to it: you have made a downward step by adopting the Ballot.' I told him, what I sincerely believe, that the general feeling of the English people is still healthily Conservative; that they are warmly attached to the Monarchy, and feel that they have everything that is really good in a Republic already; that there is nothing to prevent a man rising in England out of the ranks of the people into the upper ranks; that there is no aristocracy so democratic as ours, and no people so aristocratic in its instincts, and that I had been long enough in America to see the advantages of an aristocratic class, so long as it is not separated by any broad line of demarcation from the people.

A man in England rises out of the lower

orders and accumulates a fortune in trade. Neither his education nor his habits fit him for the society of the upper classes, and he feels no grudge at not being admitted amongst them on the strength of his money alone; but his great ambition is to make his son a gentleman, and to be the founder of a family that shall take its place amongst the gentry of the land. So he buys an estate, sends his son to Oxford and looks forward to the time when he may possibly represent the borough, or even the county, in the House of Commons. Surely this is an honest and healthy ambition, even if it has to be gratified to some extent at the expense of his younger children. The old man's fortune divided amongst all his sons might make them all comfortably off, but they would all be freed from the necessity of working, without any sentiment of duty or responsibility being aroused in any of them, and would probably dissipate the money faster than it had been earned. Whereas, in the other case, the eldest son naturally feels a duty—towards his family as the head of it, towards his dead father to whom he owes so much, and towards his country as one of the magnates of the land. And these sentiments are fostered at his

public school and university, by the example of hundreds of others, many of whom represent families founded like his own. By such a state of things we get the very best kind of aristocracy—men well educated, of good means, with leisure to cultivate or foster art, science or literature and those refinements and graces of life which constitute the great charm of good society, and animated by a sense of responsibility which is recognised and encouraged by the full strength of public opinion. Above all, we get a class which has not merely leisure for the business of politics, but whose highest ambition is to serve their country in this way, without fee or reward, and simply for the honour of the thing. It is in this way that in England politics become respectable and honourable; our politicians are clean-handed, and a political career is at least unsullied by even the suspicion of corruption. And it is their instinctive liking for men of this stamp who have so large a stake in the country, that makes the English people very shy of spouting demagogues and political adventurers generally.

Now, see what happens in America. A man makes a large fortune, and spends it in building a marble palace in town; for the race

of country gentlemen is unknown. His son succeeds to his wealth, but neither by education, habit, or association, has he imbibed any of those feelings or tastes which would lead him to recognise the responsibility attached to the possession of wealth. Of the healthy country life of his English cousin he knows nothing; as to politics, he knows it is considered a dirty calling unworthy the attention of a gentleman; the only social position or influence he can acquire depends on the amount of money he has to spend. Without recognised position, duties or responsibility, without ambition or a career to animate him, what wonder that he spends recklessly and extravagantly? if he does not, probably his son will after him, for there is no law of entail by which he can save for future generations what has been so hardly earned.

I do not think I am exaggerating this contrast. This class of young Americans seems to me much inferior to the corresponding class at home; they are more like Parisians, with few manly tastes, and none of those high-bred manners and instincts which we are accustomed to associate with the term gentleman. It is this class which forms the true aristocracy of England—an aristocracy

not of birth, or rank, or talent, or money; but formed by associations and circumstances which are the out-growth and product of our national life and political institutions, and the absence of which and of a consequent high standard of refinement, lowers the tone of American society and vulgarises it in contrast with that of England.

I should be ashamed of descanting in this manner on first principles, were it not that I think we are too apt to forget what we owe to the present constitution of English society, and too eager to spy out its defects and blemishes. I am fully aware that the sketch I have drawn is, in many cases, not borne out by facts, and may be laughed at as too ideal—that many of the class of our young 'parvenus' fall painfully short of a high standard, and that even those who have the traditions and fame of a long ancestry to keep up, often sacrifice them recklessly and selfishly; but I am talking of the tendency of our institutions in general, and of their effect on the great majority, and I maintain that it is, on the whole, such as I have described, and affords a healthy stimulus to the great body of the people, giving them worthy objects to pursue which ennoble mere money-

making, and go far to prevent its demoralising influences.

I may be told that what I have said above applies only to the upper classes of the population, and that the absence of a superior standard of 'gentility' in America is more than compensated by the absence of pauperism. Granted most fully. I have already admitted this immense advantage that they possess, as well as the greater diffusion of education, of our short-comings in which respect we ought indeed to be thoroughly ashamed, and which we are I hope now in real earnest to remedy. But the difference between the two countries as regards the lower classes is easily accounted for by the difference in each case between the area and the population. I can see nothing in their respective social or political systems to which it can be attributed, and the only remedy for our own case I believe to be in education, which will result, first, in increased emigration until labour in England commands a fair price; secondly, in the correction of those improvident and helpless habits which so often defeat all efforts to assist the English working classes. It certainly appears to me that, at the present time, the class most requiring help in our own

community is that large section of the middle class which so often finds itself struggling to maintain its position on insufficient means, for whom the avenues to respectable employment are yearly becoming more crowded, and which is prevented, by the force of opinion and other circumstances, from descending into a lower social stratum in order to earn the means of an honest livelihood. I have referred to this question further on.

I see no reason why what I have complained of in America should not be remedied without any radical change, if only the upper classes recognised their duty of asserting and maintaining their legitimate influence in the state—the influence due to intellect and fortune, as opposed to mere numbers; but it can only be by adding the weight that is always gained by integrity and public spirit. They can then rescue politics out of the hands into which it is fallen, and would themselves form an aristocracy in all essentials like our own. I am not foolish enough to propose transplanting English institutions, which have been the growth of centuries, to a country whose circumstances differ so widely from those of England.

In contrasting England with America in

this and other respects, I am perfectly aware that 'comparisons are odious,' and that no sane man would desire to see a dreary uniformity of national character and institutions all over the world, even if it could be produced by any possible combination of circumstances. But there is a large class of Americans who are always making such comparisons, and such an increasing class amongst ourselves who appear to take it for granted that England is verging towards Republicanism, and that this is a step in the right direction, that I cannot help bearing my weak testimony to the contrary, and asserting that, in all the essentials of good government, we Englishmen have a decided advantage over our Trans-Atlantic cousins, and that even with the present defects in our social condition, we have no reason for envying theirs.

The reader is probably aware that the terms applied to the two great political parties in the States, Republicans and Democrats, would be more correctly designated as the constitutional and aristocratic parties respectively. The former include all the New England States and the Middle States also, with the exception of New York City; they may also claim the majority of the Western

States. The Democrats had, and still have their strength in the South; and though always inferior in numbers and resources to the Republicans, made up for that deficiency by a compactness of organisation and a singleness of aim which, for many years, gave them a strong preponderance in the government. The North and West, which together were irresistible, were for years in antagonism on questions of tariff, and the Southern politicians pulling together and possessing great influence in society by the charm of their manners, aided by the fascinations of their women, who took a keen interest in politics, returned president after president, monopolised many of the great offices of state, and filled the army and navy with Southern officers. Then came the determined attempt of the South to extend slavery into the newly settled Western territory; the Northerners got alarmed and returned Mr. Lincoln as president, and the Southerners, who had for years been preparing for the crisis, at once declared for secession, a step followed by the great Civil War.

In that war, for a long time the South had the advantage naturally accruing from unity of purpose, a superior organisation, and

greater military skill. No general on the Northern side possessed the talent or commanding influence of Robert Lee, and both his authority and that of Jefferson Davis were unquestioned from first to last. We in England, misled by those early successes of the South, utterly ignorant of the difference in numbers and resources of the two belligerents, and understanding so little of the question at issue that we thought it was a struggle for freedom, and not for the extension of slavery, sympathised strongly with the Southern side, not so much perhaps because we wished them well, as because the tone of the Northern press had been so long offensively hostile to England. Remembering what one does, of the general opinion expressed in all classes of English society in 1860–61 as to the results of the struggle, and the terrible suffering caused in England by the absence of the usual supply of American cotton, it is impossible not to do justice to the loyalty of the English Government in turning a deaf ear to all suggestions made to them to recognise the South as an independent Confederacy and to break the blockade of the Southern ports.

Most people indeed thought that the result

of the struggle was practically decided in favour of the South, and that though the North might sullenly refuse to acknowledge it, the independence of the rebels was as virtually secured as that of the thirteen States was after July 4, 1775. But none who really knew the North made that mistake; we forgot that they were of the same stock as ourselves, slow to be roused to war, clumsy in first attempts, and requiring time to organise their resources; but that the dogged Anglo-Saxon resolution lay beneath, and even supposing it had been shared equally by the opposite side, that the superior numbers and resources of the North and West together must make them irresistible. So the event proved; the South was beaten by sheer exhaustion, and so utterly crushed that the most sanguine partisans of the cause have never made a struggle since. To the honour of the North be it remembered that, although passion had run high throughout the struggle, victory was unmarked by a single political execution, or even any wholesale confiscation. A certain number of the most prominent men were simply disfranchised and declared incapable of holding office, and that was all. But mourning was in every household

throughout the land; the great Southern families were ruined, ladies bred up in affluence and luxury had literally to beg their bread, and the negro slaves were not merely freed but invested with the privilege of the franchise. For some time a reign of terror was established, not by the conquerors, but by the 'mean whites' of the South, who, under the name of the Kuklux Klan, formed themselves into bands ostensibly to intimidate the blacks from voting at elections, but really quite as much for marauding purposes. A judicious mixture of firmness and armed force has put all this down and the South is now fast recovering, though much of the property has changed hands since the war.

That a very bitter feeling should still remain on the part of many of the sufferers is but natural, but I do not think there is any chance of the struggle being renewed; the Southern cause, as it existed, is indeed extinct. The Western States, whose soldiers mainly decided the struggle, and whose political relations with the North and East were for a long time not very cordial, would be much more likely to become antagonistic to the dominant party, but that their growing wealth and population and the quiet agencies

of the railway and telegraph tend daily to create a fusion of interests between them. The most likely 'split' in the lifetime of the next generation would be that of the Pacific States, which, separated from the others by a chain of mountains, with vast agricultural and mineral resources, and a sea-board of their own which makes them independent of outlets on the Atlantic, give them a feeling of independence that may one day involve important results in the future political history of America.

The late Presidential election was invested with a certain significance, because Mr. Greeley's avowed object was to restore the disenfranchised ex-rebels of the South, and it was therefore looked upon as a virtual attempt to resuscitate the Southern party. His overwhelming defeat virtually disposes of that question; henceforth the leading political questions of the day appear to be the reform of the civil service, and the question of protective tariffs. Of the necessity of the former I have already spoken; the attempt to effect it will arouse a storm of opposition amongst the large class of hungry place-hunters, but it will meet with the cordial approval of every

honest man in the country, and General Grant has pledged himself to the task.

The tariff question is a more serious affair. It is curious, in a progressive country like the States, to find the ghost of protection revived, and to hear the old threadbare arguments against free-trade, which have long been abandoned in England, seriously brought forward and defended by specious reasoning. The result of the attempt to protect native industry and to foster native manufactures appears to the unprejudiced traveller to be to saddle the general public with bad and dear articles for the benefit of a small class, to prevent that healthy competition which alone produces superiority by fostering enterprise, and, amongst other results, to have ruined the American mercantile marine.

I wish I could see any prospect of a restriction of the franchise, which the best friends of America ought most earnestly to desire; but of that there is no hope. The theory of our constitution is that the franchise is a privilege to be exercised as a trust; in America, it is regarded as a right, and appears to involve no idea of duty. Unless the modern doctrine of the representation of minorities can

be made to work, all that remains is to diffuse education as widely as possible, and to raise the educational standard higher than it is at present. There is an amount of good sense and religious feeling in the country that goes far to keep things straight and to rectify the extravagancies of an ignorant democracy, if only they are not swamped by the intrusion of foreign elements such as the Irish and the Negro, which are less susceptible of those influences than the original Anglo-Saxon race.

And here I am tempted to make a digression on the tendency of political writers to over-estimate the advantages of representative government, or rather to take for granted that it is the best kind of government for every race, simply because under it *we* have become a great and prosperous nation. I might point out that even with us it has certain inherent defects, some of which are even now only beginning to be felt—that its inevitable tendency is to rate the talkers above the thinkers or the doers—to bring into undue prominence the men of ready speech, rather than the men of profound thought or of prompt action, and hence to produce a slowness and cumbrousness in the

executive functions of Government which in times of national danger are often painfully felt, and have even led to wild proposals of decentralisation as a possible remedy for its defects. But granting that those defects are far outweighed by its advantages, the question remains, is it applicable to men of other races who differ widely from us in character and temperament? Does it not pre-suppose the existence of a degree of self-restraint in the national character—of a phlegmatic and cautious temperament, which is almost peculiar to the Anglo-Saxon alone? I cannot help fancying that the characteristics of the Celtic races (for instance) are really inconsistent at present with the possession of representative institutions and even a perfectly free press. The hot temper, the quick sensibility, and the poetical imagination that can be roused to enthusiasm or lashed into fury by an eloquent speech or a sensational newspaper article, until reason is lost sight of and prudence is thrown to the winds, appear to me quite antagonistic to those principles by which alone popular institutions have been found to succeed. France and Ireland may be educated up to such institutions in time, but Frenchmen and Irishmen seem

to me hardly fit to be trusted with such dangerous weapons at present.

I should like to say something of the Negro question, but as I did not go further south than Washington, what I can say can hardly be of much value. I have lived for so many years amongst Asiatics that I certainly have no inherent antipathy to the mere colour of a man's skin, but the excessive ugliness of the Negroes certainly struck me as very repulsive. It is not merely the thick blubber lips and the woolly hair, but the monkey-like conformation of the skull that is so disagreeable to European eyes, though possibly habit might reconcile one to these peculiarities. I came across some specimens of the third of the great human families, in the shape of some of the Japanese youths who are being educated in the States, and certainly their physiognomy struck me as little less ugly than that of the Negro. Is there really a totally different standard of beauty amongst the three great races of the earth, or would the Caucasian standard be admitted to be superior by the Negro and the Mongol?

The Negro is essentially imitative, and does his best to copy his white fellow-citizen,

while the Hindoo (for instance), and the Asiatic generally in fact, though of the same parent race, makes little or no attempt at such imitation, and preserves throughout his own dress, manners, and religion. If this imitative faculty is a virtual admission of his inferiority, at least the Negro imitates to some purpose, and it seems to give him every chance of progressive development. The Negroes are said to be keenly desirous of knowledge, and I heard of numerous instances of intellectual progress amongst them, even of a very high order. Whether they are increasing or diminishing in numbers since the War I could not ascertain, but I understand they are taking heartily to free labour, and are generally contented and prosperous.

CHAPTER V.

AMERICAN TRAVELLING—RAILROADS—STEAMBOATS—HOTELS.

THE Americans deserve great credit for having so early and clearly recognised the immense importance to the country of good means of communication, as absolutely essential to open up the newly-settled States and develop their agricultural and mineral resources. Instead of looking on railways, as we long did in India, as expensive luxuries, only to be provided as money could be saved to make them, they have regarded them as the very first essentials of civilisation. In no country has the railway system been so rapidly and completely developed—in no other country has a wise and liberal policy been so splendidly rewarded. The system of making grants of land for some miles on each side of the line to the Railway Companies has enabled them to construct their

roads with a very moderate expenditure of capital. Money, too, has not been squandered in costly buildings and in attempting too great a perfection of roadway; many of the lines are of the rough-and-ready style of construction. But on all those on which I travelled, the pace was fair and the arrangements sufficient for safety and comfort, while the older railways I thought quite as good in every respect as the English lines.

The carriages (or cars, as they are always termed) are fifty or sixty feet long, open at both ends, and hold fifty or sixty passengers, who sit facing the engine in pairs on each side, leaving a passage down the middle. The cars have a stove at each end, a w.c., and are also provided with drinking water, iced in the summer. There is a railed space outside the doors at each end and across the connecting platforms, so that it is easy to pass from one car to another even on a dark night with the train going at full speed, and this counts for something on a long journey.

Nominally there is only one class of cars; but there are drawing-room cars attached to all through trains on the main lines, in which by paying an extra dollar for about every 200 miles, you can have a seat in a luxurious

saloon, with sofas, arm-chairs, mirrors, and washing-rooms—besides the inevitable spittoons. At the ends of these cars are a few small rooms holding two passengers each, for those who wish to be quite private.

Besides these, there are the sleeping cars for night journeys, the drawing-room cars being often convertible thereinto. In these, you can have a comfortable sleeping berth for two dollars, larger than those on board a steamer, with clean sheets, pillows and blankets, and curtains all round, in which you can sleep comfortably enough and can even have your boots blacked in the morning! There are also dining cars on some of the long lines, in which you can dine very well and as moderately as at an hotel.

These Pullman or Wagner cars are run by their own proprietors on the lines, for the sake of the extra payments made by those who desire the extra accommodation, and which are collected by the conductors of the cars. The railway company charges nothing for the haulage, as of course the presence of such cars is an inducement to travellers to use the lines; the system appears to work well.

Another special feature of American railway travelling is their ticket system. You

can buy your ticket, as with us if you choose, at the station before starting, but you can also buy it at any of the general ticket offices, of which there are several in every town, and one at each of the large hotels, and you can purchase it there at exactly the same price as at the station, and a week beforehand if you like. The comfort of this arrangement is indescribable, and why on earth our conservative railway companies do not adopt it, except on special occasions, such as the Derby or Ascot cup days, no reasonable being can understand. The tickets for long journeys are issued in coupons, and you can break your journey where you choose.

The American ticket system would be specially useful in India, as it would protect the natives from imposition by the subordinate railway officials, who, there is good reason to believe, often defraud travellers in the hurry and confusion which always prevail at a large railway station under the present system, previous to a train starting. But I should like to see an attempt at some uniform classification of fares on the principle of the penny postage; by which tickets might be bought by the dozen, (if necessary), to be used on any railway, at any time, for any

distance, not exceeding, (say) 100 miles. And if the mileage classification corresponded to a particular coloured ticket for every 100 miles, great simplicity would be attained, and perhaps as much uniformity as could be expected in our long Indian distances at present. In England, where the distances are short, I believe if the railways were all brought under Government control, we might safely establish a uniform rate of say one shilling per journey, provided only that the lines could carry the traffic.

Equally good are the American luggage arrangements; by the bye, luggage is always called 'baggage,' and a station is always a 'depôt.' You take your boxes to the baggage room at the depôt, mention its destination, and a brass label with a number on it is forthwith strapped on each piece of baggage, duplicate labels being handed to you. On arrival at your destination, you can claim your baggage yourself if you wish, by producing the brass checks, or you can make these over to the hotel porter or to the agent of one of the express companies, who is waiting at the station, and he will procure it for you and forward it without further trouble. If you wish to stop at any intermediate station, you

can let the baggage go on if you like ; it will be safely cared for in the baggage room, and the company is responsible so long as you retain the brass checks.

There is great competition amongst the rival lines for carrying passengers, and special time tables are to be had gratis at all the hotels and ticket offices, issued by the various companies, with a map of the railway, (occasionally distorted to show that their line is the shortest), and often with lithographs of the scenery along the road. One I have by me of the Union Pacific line shows the train charging through a herd of bison on the prairies, while the travellers are knocking them over with revolvers from the windows of the cars !

The locomotives are very shiny and glittering, and are provided with a bell which is sounded all the time that they are running through a town, as the trains often do, or over the level crossings of roads, which are seldom protected by gates, but merely by a notice board, with 'Look out for the Locomotive'—painted thereon.

One feature of an American train consists in the boys who traverse the whole of the cars at intervals with stores of books, papers,

fruit and lollipops for sale, whereof the main stock is kept in the baggage waggon.

The general rate of travelling is slower than with us, from twenty to twenty-five miles an hour including stoppages. The cost is two to three cents per mile, except on the Pacific Railway, which being the only one yet completed across the Continent, charges higher fares. This line runs from Omaha 400 miles west of Chicago, on the Missouri, across the States of Nebraska and Wyoming, in the latter of which it crosses the Rocky Mountains, the highest station on the line, and indeed in the world, being Sherman, which is 8,235 feet above the sea-level. After descending to the plains, it passes within thirty-six miles of Salt Lake City, the home of the Mormons, with which it is connected by a branch, and then crosses the States of Nevada and California to San Francisco, passing over the range of the Sierra Nevadas by an extensive series of tunnels, high trestle bridges, snow-galleries and other engineering works, through some of the finest scenery in the world. The summit level of this portion is 7,041 feet above the sea, the track going west descending 6,000 feet in seventy-five miles, and that

in the opposite direction descending 2,500 feet in fifty miles. The whole distance from Omaha to San Francisco is 1,914 miles, owned by the Union Pacific, Central Pacific and Western Pacific companies. Many of the works are said to be still very incomplete, the trestle bridges especially being in several places in a very shaky condition. However, the daily service appears to be performed regularly enough, and I have not heard of any serious accidents.

No country in the world has been so well provided with natural facilities for internal navigation as America, in the great lakes and by such rivers as the Mississippi, St. Lawrence, Ohio, Missouri, Hudson and others. All these are navigated by hundreds of steamers carrying passengers and cargo, and admirably adapted in their construction to the special requirements of each stream. The finest of these boats are those plying between New York and Boston, by the Long Island Sound, and those on the Hudson and St. Lawrence. They have three decks, of which the lowest is devoted to cargo, and to the use of the crew and officers of the boat. On the middle deck is a splendid saloon, luxuriously furnished, with most comfortable

sleeping cabins on both sides, which, by the way, are always called 'State-rooms.' The upper deck is used as a promenade. Many of these boats are used as floating hotels by people who desire fresh air, change of scene and pleasant company for days together; newly married couples are especially addicted, it is said, to this kind of life. The charges on all these boats appeared to me very moderate, and the style of accommodation is certainly very superior to anything I have ever seen in Europe—on the Rhine, or the Swiss or Italian lakes, for instance.

The American telegraphs are not under the control of the Government as with us, and though there is a uniform postage rate of three cents throughout the States, I was astonished to find in such a progressive country that there was no uniform telegraph rate, so that telegraphing is there a very expensive luxury.

Under the head of travelling, it is proper to say something of the American Hotels, of which I had heard much and was greatly disappointed. They are huge establishments, often holding from 500 to 1,000 guests; indeed the 'Union' at Saratoga can accommodate 1,800; but both in cookery and

general comfort are inferior to the best European hotels. They are all on the same general plan; a large entrance hall contains the office-counter, where rooms are allotted and bills made out, a railway ticket office, a letter and post-office, a telegraph office, and a book stall. Leading out from the hall are generally a barber's shop, lavatories, a writing room, reading room, and a smoking room with a bar, also billiard rooms. On the first floor are the dining rooms, ladies drawing rooms and private sitting rooms; on the other floors are the bed rooms, plainly but neatly furnished.

The usual hours for meals are breakfast from 7 to 11; early dinner or lunch from 1 to 3; late dinner from 5 to 7; tea from 7 to 9; supper from 9 to 12. You pay four and a half dollars per day (about 18 shillings) which includes *everything* except wine and beer, and can eat as many meals as you like. Between the above hours, an extensive bill of fare is provided, from which you choose what you like and have it brought to you in portions, and you are generally expected to order everything you want at once, the result of which is that while you are eating one dish, the others, which are ranged in front of you

in a semi-circle, are getting cold. It is a barbarous and uncomfortable fashion of dining, but few Americans would sit out a long dinner at a *table d'hôte*. The bills of fare are comprehensive enough ; indeed, a great deal too much so, for if there were fewer dishes provided, there would be more chance of getting them well cooked and served hot ; and the worst is that all the hotels at the several towns in the West are as ambitious in their aims as those in New York, charging exactly the same, while you can seldom find anything fit to eat. The meat in the West is lean, tough and tasteless ; little wonder in that when stall-feeding is rarely practised and the cattle are fed on nothing but coarse prairie grass. The poultry too is very inferior and the game always roasted to death. The pastry as a rule is excellent, so are the soups. Ice cream is always given at dessert and is generally good. I never saw a good floury potato, but the sweet potato is very fair, also stewed tomatoes, spinach, cauliflowers, lima beans, and above all, the boiled ears of green corn, eaten with butter, pepper and salt. Fish is of course scarce and bad a thousand miles from the ocean ; on the Atlantic sea-board you get cod, salmon (pretty good), 'sheep's head' (excel-

lent) and quantities of oysters. These are greatly inferior in flavour to our natives, and their size takes one somewhat aback at first; but they are cheap and plentiful, and good when fried, stewed or roasted.

The bread is generally good and made in great variety, white bread, brown bread, corn bread (i.e. Indian corn), buckwheat cakes, which are like small pan-cakes and eaten hot with butter and maple syrup. But there is nothing so good as our French roll, muffin, crumpet or tea cake. Butter is generally fair, cheese is rarely eaten, milk always good.

The fruits I saw were peaches (cheap, but generally unripe and very inferior to ours); pears (excellent but dear); apples of many kinds, all good and cheap; grapes of the scented kind; musk melons very good; and that nasty, tasteless fruit, the water melon.

With regard to the beverages, beer is made in several places, but is always thick muddy stuff. English draught ale is sold at sevenpence half-penny a glass and two shillings the pint bottle. Wine is extravagantly dear also, a pint bottle of St. Julien Claret costing three or four shillings, a bottle of Sherry twelve to sixteen shillings, and others in proportion. The American wines, such as still and spark-

ling Catawba, are very fair, but cost from six to ten shillings a bottle. Iced water, iced milk, and iced green tea are constantly drunk at all meals, as also tea and coffee made in the usual manner, which, as in most hotels, are generally bad. A variety of drinks are sold at the hotel bars, generally of bad whiskey, rum or brandy, with water, sugar, and mint or other flavours; also sweet soda-water, and syrups of various kinds.

Ice is cheap and plentiful everywhere, and everyone has it at every meal, both in winter and summer; the usual way is to pay so much a month and the ice cart calls and deposits a lump of from ten to thirty pounds weight on the pavement in front of the door, daily or every other day.

It may be useful to other travellers if I state that the cost of my tour, including travelling, hotel-charges and all etceteras, was eight dollars or about thirty-two shillings per day, exclusive of the cost of the voyage out and home, which amounted to thirty guineas.

CHAPTER VI.

THE HUDSON—WEST POINT—LAKES GEORGE AND CHAMPLAIN—NIAGARA—DETROIT—CHICAGO—THE MISSISSIPPI—ST. JOSEPH—THE MISSOURI—THE EMIGRATION QUESTION.

On a fine morning in September, I left New York by steamer to go up the Hudson River. The navigable length of this river is about 150 miles, up to Albany, the capital of New York State, and for 120 miles it has sufficient depth of water for vessels of the largest class. The scenery throughout is very fine, and much resembles a chain of the English lakes; steep cliffs, wooded heights and picturesque towns, villages and villa residences, are found on both banks; and as we proceed upwards, the imposing background formed by the Kaatskill Mountains heightens the effect of the scenery above anything of the same kind that I have witnessed in Europe. It is the fashion to compare this river with the Rhine; but they are in truth very unlike each other.

The prevailing colour of the scenery of the latter is brown, on the Hudson it is green, except when the changing tints of the autumnal foliage produce a brilliant variety of red and yellow. The Hudson has no mediæval castles, and few legendary tales but those preserved or created by the charming fancy of Washington Irving, but it has beauties of its own quite as admirable as those of the more historical river.

Fifty miles up, we come to the buildings of West Point, the famous military school of the States, where I landed in order to visit a place of which I had heard so much. I was received very kindly by General Ruger the Governor, and Colonel Upton the Commandant, who showed me over the whole place.

The Academy was founded in 1802 for the education of officers for the United States Army, and comprises the barracks with accommodation for 250 cadets, a riding school, laboratory, observatory, chapel, hospital and quarters for officers. The nominations are made by the House of Representatives, the candidates having only to pass an easy qualifying examination. But during the course of study, which lasts for four years and is very complete and severe, about two-thirds

of those entering are gradually eliminated, the remainder being recommended to Congress for commissions in the Engineers, Artillery, Cavalry or Infantry. The cadets wear a neat grey uniform, and the discipline is very strict and even severe. The value of the training received here was remarkably shown in the great Civil War, when the West Point men came signally to the front, and scarcely a single man rose to distinction throughout the war who had *not* been trained at West Point. Grant, Lee, Sherman, McClellan, Beauregard and Meade were all graduates of the academy; Sheridan was, I think, the only man of note who was an outsider. Many of the graduates stay but a short time in the service and afterwards betake themselves to the more lucrative occupations of civil life; for, in the United States, as in England, the pay of the officers is but small.

The United States Engineers have for many years borne a high reputation all over the world for their scientific attainments, and in the American war showed that such acquirements certainly did not disqualify them for high military commands, as it was the fashion to imagine in England up to very

recent times. Nearly all the best generals on both sides had been in fact Engineer graduates, and to the names already mentioned may be added those of Humphreys and Abbott, whose work on the physics and hydraulics of the Mississippi is the most valuable contribution of modern times to the science of Hydraulics; Gillmore well known for his writings on Limes and Cements; Cullum for his work on Military Bridges; Newton for the extensive and original Blasting operations executed by him; Merrill, Gillespie and others, all alike distinguished in peace as in war. I had the pleasure of meeting many of these officers, from whom I received a very cordial welcome and much personal kindness, which I am sure my brother officers of the corps in England and India will reciprocate if they have the opportunity. The United States Engineer officers are employed similarly to our own; besides the care of all forts, and river, coast and lake defences, they have charge of all works for the improvement of river navigation and of harbours generally, which are carried on by appropriations made annually by Congress for the purpose.

I left West Point after a very agreeable visit and proceeded up the Hudson to Rhine-

beck, whence I took the train to Saratoga. This is the well known fashionable watering-place where people meet in the summer months to drink the waters all day and dance all the night. It was, however, nearly empty at the time of my visit, and I travelled on to Lake George, the scenery and islands of which are very beautiful, though inferior I think to the Scottish lakes from the absence of any high mountains in the immediate vicinity. A steamer carries you up the lake, and a short coach ride over an abominable road takes you to Ti landing on Lake Champlain. This is a much larger body of water than the other, but the surrounding hills are low, and the scenery inferior. Another steam voyage of several hours lands you at Rouse's Point, near the Canadian frontier, whence the train carries you to Montreal over the great Victoria Bridge.

From Montreal I made a short tour through Canada, but will reserve what I have to say of the Dominion to a subsequent chapter.

I re-entered the United States at the famous Falls of Niagara. What can I say of these that has not already been said? I suppose all the world knows that the Falls are on

the Niagara River, which drains off the surplus waters from Lake Erie into Lake Ontario, the difference of level between the two lakes being 334 feet, whereof about 190 feet are absorbed in the Falls, and the remainder in the Rapids. Goat Island, in the middle of the river, divides the Fall into two, which are known, respectively, as the American, and the Canadian or Horse-Shoe, Fall, from its curved shape; the latter is three-quarters of a mile in length along the crest, the former about 500 yards. By far the finest view is to be obtained from the Canadian side of the river, whence a front view can be had of the American, and a three-quarter view of the Canadian, Fall. There are also several other points of view, from the top and bottom of each, and from the central tower at the end of Goat Island, and you can also pass behind the Falls between them and the rock if you don't mind getting wet.

In mere height, the falls are surpassed by many others in the world; it is in their great breadth, in the enormous mass of water that they momentarily precipitate, in the clouds of spray that are sent up and which are visible for miles, in the mighty rush and roar of such a stupendous volume,—that the peculiar beauty of the spectacle consists.

Goat Island, which is approached by a bridge, is well wooded, and prettily laid out with walks and drives, and the rapids above the island are well worth a visit. By a sensible arrangement, the guides are prohibited from troubling visitors with their officious attentions, and as their services are really not needed, you can explore the place in peace, and enjoy the different views of this great wonder of Nature by yourself.

Niagara! what language can express
The sense of thy majestic loveliness
That fills us as with silent awe we gaze.
In those primæval days
Ere yet these forests had their birth,
When man as yet trod not upon this earth,
The roaring of thy waters then resounded,
Thy clouds of spray aye heavenward then rebounded.
Thou, mighty cataract! still poured'st down thy flood,
And thunderd'st forth the praises of thy God!

I looked on great Niagara, 'neath its silvery arch I stood,
And the mighty torrent above me poured down its terrible flood.
The awful rush of its waters enthralled me as with a spell,
And the smoke of that seething cauldron seemed the smoke of the nethermost hell.

But a softer feeling came o'er me as that snow-white mist arose,
And the sunset's dying glory spoke peace and calm repose:
And as the glittering rainbow across the waters strode,
I thought of the incense of faithful prayers rising up to the throne of God!

From Niagara I went by train to Detroit, crossing the famous railway suspension bridge, and passing chiefly through Canadian territory, along the north shore of Lake Erie. The country is pretty and undulating, and as we passed London, Paris, Chatham, and Windsor, in the course of the day, it was rather an extensive journey! Detroit is the principal town of the State of Michigan, and contains a good many German inhabitants; but except that it has some nice clean streets, with good wooden pavements, one or two pretty avenues bordered with trees, handsome stone houses, and a fine monument to its citizens who fell in the War, I do not know that there is anything remarkable about it.

Another day's journey through Michigan, carried me into Illinois, (pronounced *Illinoy*) to Chicago, situated at the southern extremity of Lake Michigan. The country is flat and open, and a curious formation of white sand-hills, which I was told extended for many miles, made me almost fancy myself in the plains of the Punjab.

Illinois is a great corn-growing State, and it is in this staple, as well as wheat, cattle, pigs, and lumber, that Chicago does such a thriving trade, as the centre of a great system

of railways, and as a port on a large navigable lake. Its growth, as is well known, has been prodigiously rapid: though scarcely forty years old, it has a population of nearly 300,000, and though its prosperity was momentarily checked by the great fire of September 1871, it has been rebuilt with marvellous energy and rapidity, and abounds in substantial and handsome buildings of granite and marble. The Sherman hotel, where I stopped, was in temporary premises, and the guests had to sleep four in a room, and sometimes two in a bed, so thinking it possible that I might have some one thrust into my bed, I left rather earlier than I had intended. Through the kindness of Mr. Chesbrough the city engineer, I was shown over the great water-works of the place, and other lions, and by the courtesy of Mr. Hjortsberg the chief engineer of the Chicago, Burlington, and Quincy Railway, I was presented with a free pass on the line and had my further journey westward pleasantly smoothed for me.

From Chicago to Burlington on the Mississippi, the road lies through the flat prairies of Illinois to the edge of the neighbouring state of Iowa. I came down the Mississippi,

from Burlington to Quincy, in a steamer, but the water was low, and the scenery of the banks, though pretty enough in its way, was not remarkable after the Hudson and St. Lawrence. The water was very muddy, and the river nearly at its lowest. The navigation is very intricate, but the pilots are skilful and steer the boats, from the high wheel-house above the upper deck, chiefly by marking the colour of the water. These boats are all high pressure, to economize weight, and draw only about thirty inches.

From Quincy, I struck off again westward across the state of Missouri to St. Joseph on the Missouri River, chiefly for the sake of inspecting some engineering works of interest. Missouri is another of the great agricultural States of the West, but the character of the prairies is here rolling or undulating. The river is a sluggish, muddy stream, very like those of the Punjab, the channel winding and ever shifting, and exceedingly difficult of navigation in the dry season.

St. Joseph (or St. Joe, as it is usually called) was my farthest point westward. I was some 1,500 miles from the Atlantic, and still 2,000 miles from the Pacific. I should much have liked to take the rail onwards, to have

seen something of the great mining states intersected by the Rocky Mountains, and especially the grand scenery of the Sierra Nevadas and the Yosemite valley in the great rising State of California. But time did not permit, and I reluctantly turned my steps eastwards, travelling viâ Kansas City, and recrossing the state of Missouri to the city of St. Louis.

Before quitting the West, I may as well say what I have to say on the subject of Emigration, for it is to these great Western States that emigrants chiefly resort. I talked with many of all classes in the course of my travels; I came across more than one of the active emigration agents, and obtained papers from them, and information from other sources, which I think justify me in offering an opinion on the subject.

As to the classes who ought to emigrate it is as well to remember that, although numbers do well and are thriving, there are many who do not, but return to Europe disgusted. For gentlemen's sons who are on the look-out for clerkships, for professional men, and for all those classes generally who work with their heads rather than their hands,

there is no room in America. A vacant situation in a banker's or merchant's counting-house in New York or Boston calls forth almost as many eager applicants as in London, and the remuneration is nearly as poor.

Even agricultural settlers, for whom there is of course plenty of room in the unoccupied lands of the West, should not go off there without careful enquiry, and a full knowledge of what lies before them. Since the War, I am told that many good farms in Virginia have been purchased and occupied by English settlers at very moderate prices, and Virginia has the advantages of a fine climate, a fertile soil and easy access to good markets; but this is an exceptional case, caused by an exceptional state of affairs. There is also quite an English colony of respectable tenant farmers with small capital, chiefly, I believe, from the west of England, in the state of Nebraska. Others choose Kansas or Minnesota. In all three States, land is to be procured on very easy terms, the soil is good and there is railway communication with the older States. The lowest price of Government lands is a dollar and a quarter (say five shillings) an acre. On the North Missouri and other railways, the land has been granted

to the railway companies for twenty miles on each side of the line, in alternate lengths of one mile with the Government, and these companies are always prepared to sell their lots at low rates and on easy terms of payment, looking to a return from the increased traffic on their lines rather than making much profit by the land itself.[1] The drawbacks are—the dearness of labour for clearing, breaking up and fencing the land; the hard life and absence of home comforts; and the trying climate, which is subject to great extremes of heat and cold, and to sudden and violent changes. But many men of small capital who are prepared to work hard do well here, and the interest of money is so high that simply by lending it on good security, a return of fifteen to twenty-five per cent. may be realised. California is another very promising State in this respect, with a finer and more enjoyable climate and great richness of soil. Cattle-farming also pays well in Kansas, Texas, and other States, and large sums are constantly given for imported stock for breeding purposes from England or Canada. Agricultural exhibitions are annually held in most of the

[1] See Appendix.

States; there was one at St. Louis while I was there, and the very fine specimens of grain, vegetables and fruits exhibited from nearly all the Western States, showed how admirably adapted they all are by soil and climate for agricultural purposes. The great space devoted in the grounds of this exhibition to farming implements of the best and latest designs, and the quantity of steam-driven machinery, showed how important an item in Western farming is the economy of manual labour.

For the emigrant with no capital, he must make up his mind to manual labour, and if indisposed for that, he had much better remain at home. A good mechanic, trained in any of our great machine shops, can always command from three to six dollars a day all over the States. In England, such a man would probably have to pay a heavy premium to be taught his work, and for some time would get no wages at all. In America, however, his unskilled labour would always have a certain value, even at the outset, and he would probably receive about a dollar per day, besides learning his work for nothing. A good carpenter or blacksmith will earn nearly as much as a mechanic all over the West.

Dock labourers were actually getting four dollars a day when I left New York, but there prices are exceptionally high, and the cost of living is in proportion. But able-bodied labourers in the West, either on farms or railway works, can earn from two to three dollars a day anywhere; and there meat is sixpence a pound, and other things in proportion except beer and clothing. While travelling between Chicago and Burlington, a mechanic in the train told me he was getting three and a half dollars per day, and after supporting his wife and family was putting by fifty dollars a month.

Of course, amongst this class of men, there are numbers who like the dissipation and excitement of a large town life, and for these, life in the thinly populated States will have few charms. It may also perhaps be said that the steady, industrious, self-denying man who really does well as an emigrant, would succeed in his own country. On the other hand, for such men there is doubtless a wider field in a new territory, and if he can make up his mind to forego the attractions of town life, he is pretty sure to do well.

What I have said above is of course equally applicable to most of the British

Colonies, as well as the Western States of America, and I should be the last to persuade any Englishman to seek his fortune under any other flag than his own, so long as his prospects in either case were even moderately balanced. I have referred specially to the States simply because I am now writing about them. Of Canada, I will speak presently.

It appears to me that with the increasing difficulty yearly felt in England by us of the middle class in providing careers for our sons, we should seriously ask ourselves the question, whether it is not better to revise *in toto* our ideas of what constitutes a gentleman, and see if in new countries, such as America, or our own Colonies, we cannot find openings for our sons without any other capital than such an education as may fit them to earn their living by their own exertions. When we know, as unfortunately we *do* know but too well, how many gentlemen's sons are earning a bare subsistence at home on from 100*l.* to 200*l.* a year, as clerks, with but slow prospects of promotion, no hope of marriage, and all the heart-burning struggles caused by having to maintain a good appearance on insufficient means, it seems worthy

of consideration whether we should not give up the common idea that manual occupations are beneath the dignity of a gentleman. In Germany, I believe, at one time, it was the custom to have every nobleman's son taught some trade or handicraft, by which he could always earn his bread, if misfortune overtook his family. Why should we not do so too? An eminent Peer, now in the Cabinet, has shown by example that he does not think commerce a degrading pursuit for the sons of a great nobleman. Why cannot we who are one step lower in the social scale, let our sons take a similar step to the next lowest?

I make bold to say that a man who has been thoroughly well trained as a practical mechanic is really better educated, in the proper sense of the word, than one who has merely learned what are termed 'the usual branches of a gentleman's education,' although there is no reason why these should not be superadded to the other, or why a man should drop the refinements of social life because he has charge of a steam-engine instead of a set of banker's books. If gentlemanly habits and instincts are as valuable as we all believe them to be, they will be not less valuable because the gentleman

has been taught a trade or calling which in itself is almost a liberal education, developing as it does the faculties of intelligence and invention, far more than copying law papers or transcribing accounts. In fact, such habits when once formed by early training and home associations, should be independent of a man's daily work or occupation, provided only that such work is honest and not in its nature degrading. As there are many men pursuing what are called gentlemanly occupations who, even in the common sense of the term, are not gentlemen, so I maintain that the real gentleman will not cease to be so because he is splitting rails or working at a forge, instead of sitting at a desk.

The one drawback to what I have been urging is no doubt that the gentleman who turned workman would have to associate with so many who are workmen and not gentlemen. Doubtless he would have to pay the penalty always devolving on those who are bold enough to disregard conventionalities and strike out a new path for themselves; but I do not think that such a man would long remain in the mere rank and file of working men. Moreover, we must

remember that in new countries there is not the same prejudice against manual occupations that exists with ourselves; there is greater respect paid to the dignity of labour; and after all, the one drawback seems to me more than counterbalanced by the certain advantages.

There are hundreds of young men at home, as we know, whose talents for book-learning are not brilliant and who have an instinctive antipathy to desk work, who yet are most willing to work, and who are shut out from doing the very work for which they are best adapted by that foolish pride which teaches them that manual labour is degrading. Is it not far better that their superabundant energy and bodily activity, which seek relief from the drudgery of the counting-house in climbing mountains or playing cricket, should be turned to profitable account in forest clearing, in ploughing land, or at the carpenter's bench? Are they more likely to grow up true gentlemen (not to say Christians) amidst the temptations of a large city after daily drudgery which they hate, than they would be in a new country with healthy and intelligent occupation in which they took a real interest, and with a career before them depending, not upon

the interests of friends, but on their own steadiness, energy and talent? I earnestly commend these questions to the attention of the many fathers and sons in England for whom the subject has a real and pressing interest.

CHAPTER VII.

ST. LOUIS — CINCINNATI — PITTSBURG — WASHINGTON — PHILADELPHIA — BOSTON — THE GREAT FIRE — HARVARD UNIVERSITY — AMERICAN TECHNICAL EDUCATION.

ST. LOUIS, the capital of the West, and the largest town in the State of Missouri, contains more than 300,000 inhabitants and is situated on the Mississippi, about eighty miles above the junction of that river with the Ohio. It has some fine streets and buildings, but I do not know that there is anything particular to be said about them. I travelled hence to Cincinnati, the chief city of Ohio, passing through the States of Illinois and Indiana, through an undulating country which appeared to be well wooded and cultivated.

Cincinnati is a large and populous city of more than 200,000 inhabitants, which like Chicago, does a great trade in pork and grain. I here made the acquaintance of Col. Merrill of the U.S. Engineers, in charge of the Ohio

Navigation works, who kindly showed me the lions of the town, including the great suspension and railway bridges over the river, and a bronze fountain erected by Mr. Tyler Davidson, which is the most beautiful and appropriate work of the kind that I ever beheld. It came however from Munich, and though it owes its existence to American munificence, is not an example of American art.

From Cincinnati, I journeyed to Springfield, to spend a pleasant day with a fellow passenger across the Atlantic, a retired Judge of the State, who had kindly invited me to his house. I had left the prairies behind me, and the pretty, hilly country reminded me of the west of England. A long day's journey carried me to Pittsburg in Pennsylvania, the seat of extensive iron and glass works and the head-quarters of the great mineral wealth of the Quaker State. It also does a large trade in coal and petroleum. In spite of these mineral resources, however, there is a considerable importation of English iron into the country for important engineering structures, and a large quantity of cannel-coal was even imported until very lately for the use of the American gas-com-

panies. On the other hand, owing to the late excessive rise in prices at home, many orders for coal at foreign ports were being executed from American mines at the time of my visit.

From Pittsburg to Harrisburg, my way lay along the Pennsylvanian Central Railway, one of the finest roads in the States, which crosses the Alleghanies by a series of steep gradients and sharp curves through some of the finest scenery in America; from Harrisburg, I travelled through Baltimore to Washington, passing the beautiful Susquehanna River and its lovely islands.

Washington, as everybody knows, is the political capital of the States, of no importance in a commercial point of view, very busy during the annual session of Congress in the winter, and rather empty and uninteresting at all other times. It is, however, well laid out, and has some fine streets and avenues, besides some very beautiful public buildings. The U. S. Treasury, the Post Office and the Patent Office are all built of white marble and are worthy of a great country.

The Capitol, which contains the two Houses of Congress and the necessary Offices, is also of white marble, and is one of the largest and

handsomest buildings in the world. It stands on a very commanding site, and its splendid dome is visible for many miles in the flat country around. The Senate Chamber and the Hall of Representatives are handsome and convenient structures, but not particularly striking. They have however ample accommodation for the public in the galleries, a large portion of which is reserved for ladies, the whole arrangement contrasting favourably with the niggardly accommodation provided in our own Houses.

In the Rotunda beneath the dome, are eight interesting historical paintings, depicting various scenes in early American history, notably the signing of the famous Declaration of Independence, and the surrender of Lord Cornwallis to Washington at Yorktown which virtually ended the war. I confess I regarded these pictures with feelings of as deep an interest as if I had been an American. Every Englishman now-a-days must sympathise with that gallant resistance to tyranny and successful struggle for freedom, and do full justice to the patriotism and virtues of Washington and his contemporaries in the difficult task that lay before them. After all, they were our own countrymen who dealt us this heavy

blow, and what Englishman is there that looks on the great empire they have reared in the west on the basis of English laws, customs, religious and political ideas, who does not feel that he too has a share in that goodly heritage? and that the two great branches of the Anglo-Saxon race, in spite of local differences and petty jealousies, are virtually one family, with a common religion, literature, civilisation and even history, and foremost always in the march of intellect and freedom?

The President's mansion, the 'White House' as it is often termed, is an unpretending-looking dwelling, whose not very spacious rooms must be inconveniently crowded at his regular receptions. I had the honour of a private interview with General Grant a short time previous to his re-election, being presented to him by Professor Henry of the Smithsonian Institution. An usher took in our cards, and we found the President seated at his writing-table in a plainly furnished room. He is rather below the middle height, squarely and powerfully built, and apparently about forty-five years of age. He was very civil, but as usual excessively silent and reserved. He is no doubt a man of considerable power and force of

character, and his remarkable talent for silence amongst the crowd of blatant, speech-making politicians that abound in America, probably causes him to be credited with more power than he really possesses. If the Americans are silent as a nation, or in general conversation, their politicians make up for it, to some extent, by their amazing gifts of stump-oratory.

I had also the pleasure of an introduction to our Ambassador at Washington, in whom the country possesses one of the best specimens of the modern diplomatic school, which has a good deal more to do in these days than to play a courtly part in salons, turn elegant phrases and complimentary speeches on State occasions, and carry on a system of political intrigue with favourites and ministers—which qualifications at one time were supposed to constitute the whole art of diplomacy. Ambassadors now-a-days are hard-worked officials, who are expected to be posted up in statistics of all kinds, and to furnish to their Government reports on all manner of subjects; and as to their special function of representing and upholding the interest and dignity of their country, that must be anything but a sinecure in these

peace-at-any-price days, and amongst a set of men like the present race of American politicians.

I spent a very agreeable day at the Smithsonian Institution, which is located in a fine pile of buildings close to Washington, standing in some acres of ornamental grounds. This institution was founded by Mr. Jas. Smithson, an Englishman, 'for the increase and diffusion of knowledge among men,' which object is chiefly carried out by scientific explorations and investigations, accounts of which are annually published and exchanged with other learned societies all over the world. The Secretary and general Superintendent is Professor Henry, a man well known for his high scientific attainments, and who shares with Professors Cooke, Wheatstone, and Morse, the honour of the invention of the Electric Telegraph. Besides a museum of natural history, a good library, and other objects of interest, I was shown a remarkable and valuable ethnological collection, comprising numerous specimens of the stone and bronze implements, now so well known as representing the earliest traces of man on the earth, and a large number of other objects of later date,

illustrative of the manners, customs, and religious ideas of the primitive inhabitants of America, especially those of Mexico and Central America, and of the North-Western territories.

Washington was my farthest point South, so that I saw nothing of the Southern States, much to my regret. I proceeded, *viâ* Baltimore, to Philadelphia, where I stayed about a week. This fine city is the second in the States in point of population, and is said to cover more ground than New York. The only interesting building to a stranger is the old State Hall in Chestnut Street, where the famous Declaration of Independence was originally drawn up and signed by the delegates of the thirteen revolted States. In the room is shown the arm-chair in which sat the President, John Hancock, and the original writing-table used on that great occasion; also part of the stone step on which John Nixon stood when the Declaration was read to the assembled crowd outside. Truly those brave men must have given their heads an extra shake that day, to make sure that they were still safe on their shoulders, and could they have foreseen the seven years' struggle that was to ensue

before that independence would be acknowledged by the mother country, the feelings of passion and meanness that would be aroused, and the jealousies and littleness that had to be overcome before success could be achieved, they might have hesitated from taking the pen in their hands on that memorable day.

I spent a very pleasant evening at the Philadelphia Saturday Club, a social gathering where I met about a hundred of the leading gentlemen of the place, including the newly elected Governor of the State, Mr. Hartrant. I had also an agreeable evening at the house of Mr. Carey, well known as a leading political economist in America, and a determined advocate of those protectionist theories which, though as extinct as the Megatherium in England, still flourish among a large party in the States. I had also the pleasure of an introduction to the Rev. W. H. Furness, an eminent Unitarian preacher and writer, and to his son Mr. Horace Furness, well known to Shakespeare commentators, and look back on the evening I spent in the house of the latter as one of the most agreeable of all my American reminiscences. Truly it is one of the greatest

drawbacks to the pleasures of travel that one so often makes acquaintances, perhaps friends, from whom it is a sincere regret to part, knowing that in all probability one may never meet them again.

Philadelphia, like New York, possesses its park, and Fairmount, like the Central Park, is as *un*-central as possible; it is however very tastefully laid out and it is possible that the city may grow round it in time. Perhaps I may tell the English reader that America possesses no city answering to the position occupied by London, as at once the political, commercial and social capital of the whole country. Washington is only the political capital, and its society is as migratory as that of a watering-place. New York is, perhaps, the commercial capital, but its claims to *social* superiority would not be admitted for a moment by Boston or Philadelphia. Even the various State capitals are not the principal towns in the States, as a rule, but have been chosen with reference to their central position. I think it not unlikely that the great men who founded the Republic had a wise prevision of the dangers of centralisation by which all other republics have been shipwrecked hitherto, and were

determined to guard against it if possible. In this respect, I think, the Americans are more fortunate than we are ; for it is impossible for us not to regret the manner in which, since the introduction of railways, London has swallowed up and virtually extinguished the life of the great provincial cities, such as Edinburgh, Dublin, York and others. Such an amalgamation cannot but tend to create a sameness and monotony in the tone of society which are greatly to be deprecated. Of course, variety may and does exist in the numerous circles of London social life, but still the tendency of this centralising process is towards monotony, and the cosmopolitan traveller, at any rate, appreciates the local colouring of different societies as that which gives them their greatest charm.

From Philadelphia I returned to New York and took up my old quarters at the St. Nicholas Hotel. The following Sunday I spent at a charming country residence on the Hudson, close to the house which Washington Irving inhabited for many years, and in the society of kind friends from whom I parted with regret.

The next day I left for Boston, travelling *viâ* Newhaven, New London and Providence.

Boston, the capital of the Old Bay State, as they call Massachusetts, is one of the oldest of American towns, and the older part of the town with its crooked streets has a very English look about it. Boston Common is laid out like a park and is surrounded by the best houses like our own parks. From the top of the dome of the State House, a fine view is obtained of the town and the harbour, memorable in history for the destruction of certain chests of tea, which was the precursor of the battle on the neighbouring heights of Bunker's Hill, and the virtual beginning of the Revolutionary War.

Being the day of the Presidential election, I repaired to the old Faneuil Hall, where the voting was going on for Ward Number Four of the city. Everything was conducted in a most quiet and orderly manner, and while the votes were being taken, I stood by the returning officer who courteously explained the mode of proceeding. The names of the candidates for the various offices, from President downwards, are settled by the political conventions of the different parties, and printed in a list on paper, thus constituting the Republican or Democratic 'ticket.' The voter can alter these as he likes by striking out some names

or inserting others; he then comes to the table, gives in his name, which is checked from a printed list of the registered voters of the ward, and deposits his 'ticket' in one or other of the ballot boxes on the table. The tickets were given in open, to prevent two being folded together, so that there was no secrecy in the matter. Nor was there any apparent check against fraudulent impersonation, though, of course, if a man not entitled to vote had given in a wrong name, he *might* have been detected by a bystander. I mention these points, as it is the fashion to vaunt the American system of voting as securing secrecy and preventing fraud, whereas, so far as I could judge, it did neither.

In the evening, I attended a meeting of the Republican party at Faneuil Hall, where I heard some very fair speaking. I believe the Americans decidedly excel us in this respect, and considering how much of this kind of thing goes on in England, it seems strange there should be so much wretched after-dinner oratory, and such miserable stammering and stuttering. For worn-out platitudes and vapid commonplaces, the unfortunate listener is of course prepared; nine people out of ten are commonplace by nature and taste,

and are not at all grateful for originality, which always gives them the trouble of thinking, and costs them an effort to understand, even if it does not shock their sense of propriety; but fluency at any rate one would think might be acquired by practice and study.

I was at Boston during the time of the Great Fire, which broke out on the evening of Saturday, November 9, and lasted till Monday morning. It was a terrible sight, and the more so because the night was calm; the fire broke out early, and there had been heavy rain only two days before, yet, from the first, the firemen seemed quite unable to grapple with the flames. The chief reason of this was, undoubtedly, the high Mansard wooden roofs on the top of the lofty granite buildings, by which the fire was communicated rapidly from block to block, and which could not be reached by the hoses. But there was also great want of organisation and 'head;' the police were insufficient to keep the streets clear, and it was said that a great deal of plundering went on.

I spent two very pleasant days at Cambridge, three miles from Boston, in visiting the Harvard University, the leading educa-

tional institution of America, where I was most kindly welcomed and entertained by General Eustis, the professor of Engineering, formerly a graduate of West Point. Harvard is more than two centuries old, a venerable antiquity for an American institution, and contains some 600 undergraduates. The buildings are chiefly of red brick, and not remarkable for beauty; but a fine Memorial Hall is being erected as a Senate House, which will add considerably to the architectural appearance of the place. The buildings contain a library, chapel, laboratories, museums, and various dormitories. I visited two of the latter and found the undergraduates' rooms very comfortable, and handsomely furnished, and the occupants thereof very gentlemanly young men, much resembling the average of our own great Universities. There is a sort of private dining club at which some 400 of the students take their meals, but nothing answering to our College Halls. The system at Harvard is more stringent than our own as regards work, less so in respect to discipline. No student can take even an ordinary degree without a good deal of hard reading and the possession of considerable attainments; on the other hand, when once released from the class-room, he

can go where he choses, and do pretty much as he likes—there is no 'gateing;' in fact, such a restriction would not commend itself to those ideas of freedom and self-government which are everywhere current in America.

The curriculum of instruction at Harvard is much the same as at Oxford, but there is a separate school attached to the University, called the Lawrence Scientific School, for the more special pursuit of mixed mathematics and the applied sciences, and for instruction in chemistry, natural history, philosophy, and engineering, which are to a certain extent embraced in the general University curriculum.

Harvard is not richly endowed, and has no pretensions to exercise that commanding influence over the general educational tone of the country which Oxford and Cambridge assume and possess in England, and which is, to some extent, due to the splendid prizes they have at their disposal. The absence of this influence in the case of Harvard is perhaps the less to be regretted as that University seemed to me rather an English exotic than a healthy plant of American growth. Doubtless, American colleges and schools generally have been based too much on

modern utilitarian views of education, and though I have a strong opinion that our English educational system is grievously hampered by over-adherence to traditional classical studies, I think in America such studies are to be encouraged, if only because they serve to correct that utilitarianism and to create a reverence for the past, greatly wanting in Americans generally. But I think if Harvard, while declining to abandon those classical studies consecrated by long traditional usage, as well as by the deliberate judgment of many eminent men even of the present day, had devoted its chief efforts to be the first scientific school of the country, such a position, aided by its ancient prestige, would have given it a more commanding influence than it now exercises. It is, however, no light thing for America, amidst the utilitarian views which have so much stunted its educational growth, to have at least one University where the object of education is held to be the training of the mind and not the cramming of the memory.

The undergraduates are generally drawn from the wealthy and higher classes, and their general tone is as gentlemanly as could be desired. In athletic exercises, which play

so prominent a part in our older Universities, Harvard also excels ; it has its boats on the Charles River, and, as will be remembered, sent over a crew to do battle with an Oxford crew a few years ago. 'Base-ball' takes the place of cricket, and is indeed becoming quite a national game in the States, where cricket is still an exotic. I do not know the rules of the game, and never even saw it played, but I understand it to be a modification of our old school game of 'rounders.'

Harvard enjoys a very pleasant society of its own, numbering among its members Longfellow the poet, who resides here, and Agassiz the great naturalist, who is permanently attached to the University. I had the pleasure of meeting many of the most distinguished Professors, whom my host very kindly invited to his house one evening, including Mr. Eliot the President, and Professors Lovering, Trowbridge, Bartlett, Cooke, Torrey, and others. I have a most agreeable recollection of clever men and charming women that evening, which was only too short, and which is marked in my memory with a white stone. I remember a similar evening at our own Cambridge, where I had the honour of meeting several men

whose names I had known for years on the backs of certain mathematical books, and of which I also cherish a grateful remembrance. It is the fashion to talk of University society as 'shoppy;' doubtless it is so to a certain extent, like that of any other body of men associated together for a particular purpose. But there is shop and shop; and some difference, I trow, between the conversation of men whose daily occupation brings them into contact with the great minds of all ages, or the study of the great secrets of nature, and those whose intellects are constantly employed in the ordinary avocations of trade or commerce, or even the quibblings and subterfuges of the law-courts.

Yale College, at New Haven, is the only rival of Harvard in general estimation, but I had not an opportunity of visiting it. Professor Tyndall was lecturing there while I was at Boston, having lately quitted the latter place, where Mr. Froude the historian was delivering his course of lectures on the relations between England and Ireland. The Americans are very fond of lectures; almost every town having one or more convenient lecture halls, where courses

of lectures are given during the winter on an endless variety of subjects.

While at Boston, I also visited the Massachusetts Institute of Technology, interesting to me as a specimen of a peculiar class of schools which, so far as I am aware, have no exact counterpart in England. They are, in fact, based on the Technical Schools of France and Germany, and are intended specially for instruction in applied science, and for granting degrees to civil, mechanical, and mining engineers and others. There are several of these schools in the States, among which I also visited the Steevens' Institute of Technology at Hoboken, New York, presided over by Professor Morton, and made some enquiries about that at Troy, which is said to be the best civil engineering school in the States. Having been the head of a similar establishment in India for some years, (the Government Civil Engineering College at Roorkee),[1] I was naturally specially interested in these institutions. The students are generally admitted at the age of sixteen, and stay four years; the qualifications for

[1] I had the pleasure (natural to an author) of finding our Roorkee books on Engineering well known and appreciated at these schools, and by many American engineers.

admission are very low, and much time is therefore consumed in teaching subjects which could be equally well taught at an ordinary school, and ought not to take up time at a technical college. Instruction is given in pure and mixed mathematics; in chemistry and natural philosophy, including laboratory practice; in drawing and surveying; and, generally, in modern languages and English composition as well. The laboratory instruction, both at Boston and Hoboken, appeared to be very complete and extensive, involving both quantitative and qualitative analysis; and the collection of models and philosophical apparatus was very extensive. The method of tuition is by lectures and recitations, the latter term signifying that the student recites in class, or explains on the black board, what he has previously been desired to prepare.

Excellent as the instruction undoubtedly is, the question still remains, which has been so often debated in England, whether such very practical subjects as the various branches of engineering can be satisfactorily taught apart from regular workshops and actual practice. The English Engineers, who have certainly taken the lead in these

modern professions, have never encouraged institutions of this kind, maintaining that a college education unfits men for working with their hands, and that the only valuable engineers are those who have risen from the ranks and been trained in the shops as practical mechanics. One consequence of this neglect of technical education by the profession has been that the Government of India has been forced to establish a College of its own in England for training young engineers for the Indian Public Works Department. Of course, if technical schools pretended to turn out efficient engineers, the pretension would be absurd; the art can only be learned by practice. But they do nothing of the kind; they only profess to give such a training as will enable a young man to enter on his practical work well prepared and not forced to work by 'rule of thumb.' In the particular case of Mechanical Engineering, I believe a certain amount of training in the shops to be indispensable, and the difficulty is to combine this with the theoretical instruction, as both should be acquired when young. At Hoboken, they are attempting to dispense with it altogether, but I doubt if the experiment will be successful.

I visited the Free Library at Boston and found it used extensively by all classes; books are freely lent out to residents of any class, and the librarian informed me that the average annual loss was one in 9,000!

I walked one day from Harvard to the famous cemetery at Mount Auburn, some four miles from Boston. A more lovely resting-place for the dead I never beheld, and the view of the surrounding country from the tower overlooking the cemetery, with Boston and the sea in the distance, and a charming English landscape of woods and hills around, has left me one of my pleasantest reminiscences of American scenery.

> Sweet Auburn! loveliest village of the dead,
> Whose ashes round my feet lie thickly spread—
> Warriors and statesmen, whose unfaltering hands
> Reared Freedom's banner in these Western lands,
> Accept this tribute from an English heart.
> May I in life as nobly bear *my* part,
> And when death comes, in some such lovely dell,
> After life's fitful fever sleep as well.

CHAPTER VIII.

CANADA—MONTREAL—QUEBEC—OTTAWA—THE COLONIAL QUESTION—TORONTO.

FEW Englishmen are, I think, aware that Her Majesty's possessions in North America are greater in area than those of the United States. Yet such is the fact; and though their value, in agricultural and other resources, is very inferior, and the population very much less, yet the progress of the more favoured portions during the last few years has been nearly as rapid as that of the best parts of the States. Much of the northern territory is, however, very unproductive, owing to the long and severe winter, and, with the exception of Halifax, there is not a port on the Atlantic sea-board that is open during the winter months.

The Dominion of Canada includes the six provinces of Quebec, Ontario, Nova Scotia, New Brunswick, British Columbia,

and Manitoba. Newfoundland and Prince Edward's Island have as yet declined to join the Dominion, but will doubtless do so before long. The six provinces above mentioned return Senators and Members to the Houses of Parliament at Ottawa, the capital of the Dominion, and have also local legislatures of their own; the suffrage is restricted by a small property qualification. The Governor-General is appointed by the Queen, and the Ministry is dependent on Parliamentary support as at home. There are no regular troops except at Halifax, but the Canadian Militia is excellently organised and could be mobilised rapidly. Of the provinces above named, that of Manitoba, formerly known as the Red River Settlement, has only been lately constituted and is still scarcely explored. It is said, however, to be an enormous territory, of great fertility and extensive resources, capable alone of sustaining a population of at least 50,000,000! yet even its name is scarcely known to the majority of Englishmen. A great railway is now projected to connect Canada West with British Columbia, which will traverse this territory; it may give some idea of the area of these unoccupied countries when I mention that

the railway company is to receive a subsidy from the Government for the construction of the line of 30,000,000 dollars and 50,000,000 acres!

I reached Montreal, as already recorded, from New York *viâ* the Hudson and Lake Champlain. It is the largest and most thriving city in the Dominion; and has a considerable commerce, both up and down the St. Lawrence and with the States, by the Great Western Railway, which crosses the river by the noble (but excessively ugly) Victoria Bridge. Indeed, in the winter, the river navigation is completely suspended by ice; and but for the bridge, Montreal would be nowhere. The city has many good streets and public buildings, and the finest quays of any town in America. I took a drive round the mountain which overlooks the city, and found some pretty suburbs and handsome villas, that of Sir Hugh Allan being especially noticeable.

Here, as well as everywhere throughout the States, I noticed the absence of flower-gardens. In Canada, perhaps, the winter is too severe for very successful horticulture; but in the milder climate of the States, there can be no reason for the neglect of orna-

mental gardening, save the want of taste for one of the natural elegancies of life.

From Montreal, I proceeded down the St. Lawrence to Quebec, by one of the fine river steamers which regularly ply, and which are similar to those on the Hudson. The St. Lawrence, one of the noblest streams in the world, is navigable from Montreal to the sea (600 miles) for vessels of 600 tons. Above Montreal there are several rapids, round which canals have been constructed, but down which the steamers shoot except in the very dry season. Navigation is thus secured up to Lake Ontario, 750 miles from the ocean.

Leaving Montreal in the evening, I reached Quebec early next morning, and took a drive to the famous Plains of Abraham, and through the old town to the Montmorenci Falls, nine miles distant. Very beautiful indeed they are; the height is greater than that of Niagara, and though the length along the crest is only some 400 yards, yet I had not seen the greater wonder, and these noble falls with the grand river rolling at my feet, the beautiful wooded heights on the opposite bank, and the fair city of Quebec in the

distance with its noble cliffs, formed one of the loveliest landscapes I ever beheld.

I stood beside the Falls of Montmorenci,
As its waters rushed in torrents towards the sea,
No such fairy vision ever charmed my fancy,
And I thought no brighter landscape there could be.

Fair Quebec the stately queen of the Atlantic,
Where Montcalm and Wolfe had met in glorious fight,
Smiled upon me from its dizzy cliffs romantic,
Proud St. Lawrence rolled beneath me in its might.

And I thought of that cold, grey September morning,
When the English boats were stealing o'er the wave,
And in Wolfe's brave heart the thought came softly dawning
That 'the path of glory leads but to the grave.'[1]

Ere once more that autumn sun should rise in glory,
The star of France would set in silent gloom;
Those green heights would ever live in English story,
And both leaders find that day a soldier's tomb.

Quebec has a quaint and ancient look, very different from the bustling liveliness of Montreal; the aspect of the population, and the names over the shops, show that we are in Lower Canada, whose inhabitants are nearly all descendants of the old French

[1] As the boats with the English troops on board were rowing up the river previous to the attack, General Wolfe was heard repeating in a low tone Gray's *Elegy in a Country Churchyard.* When he came to the line 'The path of glory leads but to the grave,' 'I would rather be the author of that poem,' said he, 'than the conqueror of Quebec.'

settlers, and who still retain their old language, religion, and customs. These people were once very hostile to the English rule, but are loyal enough now; they are, however, indolent and slow of progress, and there is a marked difference in the aspect of town and country as you pass from the French to the English province. They are never recruited from France, and their French would hardly pass muster in Paris, but, like the people of the Channel Islands, they pride themselves on the excessive purity of their diction and accent.

The banks of the St. Lawrence are very beautiful for some distance above and below Quebec, but as you approach Montreal they are low and flat, and the scenery is uninteresting. After returning to the latter town, I took the steamer up the Ottawa River to the town of the same name, the political capital of the Dominion. This stream runs through a thickly wooded country, with some very primitive-looking settlements on the banks, including several extensive saw-mills for the conversion of the fir-timber into lumber, *i.e.*, planks of various thicknesses. As you approach Ottawa, the water is literally covered with a thick layer of sawdust, and

the whole atmosphere is impregnated with the turpentine odour.

Ottawa is a second-rate town, which appears to live on the lumber trade, and which has the vilest roads I ever saw. But on a height overlooking the river, rises the grandest pile of buildings in America, or rather three piles round an open quadrangle, containing the Houses of Parliament and public offices of the Dominion. The Colonial officials are most admirably accommodated in these buildings; and as to the Senate and House of Commons, though of course not so pretentiously lodged as their prototypes in London, I declare I thought the chambers both handsomer and more convenient. The Houses were not sitting at the time of my visit, the annual session being held in the winter. Portraits of the former speakers are on the walls of the corridors, and there is an excellent library attached.

As I stood in the empty Senate and saw the Queen's statue facing the Speaker's chair, and busts of the Prince and Princess of Wales on each side, as I observed the care that had been taken to preserve the old forms, names and usages of the mother country, consecrated by the history of a thousand years, I

felt that it was something to have come so far to find this attachment to old associations, this care to link the present with the past, and this pride in the name and connection with England. When I further reflected that the same feelings were cherished on the other side of the world, in that great Australian Empire now rising so rapidly into importance, in New Zealand—in South Africa—and in that great Asiatic dependency in which my own lot had been more especially cast, I understood something of the feeling that was embodied in the words, 'Civis Romanus sum'—and I felt it was something to be able to say in my turn, 'I, too, am an Englishman.' And then I asked myself the question, Is this feeling to be estimated in value by so many pounds, shillings, and pence; or rather, am I not willing to pay something, even in hard cash, for the privilege of that feeling? Would it compensate me to forego that privilege—to know that England had given up her Colonies and had sunk to the level of Holland—that she had become simply a densely populated shop and manufactory for the whole world, rich in money, and poor in everything besides—if, in return, I should get my tea and sugar a little cheaper, and pay a penny in the pound

less of Income Tax? If her riches tempted her continental neighbours to combine against her: if perhaps, her hour of humiliation should come as it had come to many before her: if those great Colonies, now so proud of calling themselves parts of the British Empire, were turned, by her wilful neglect or cold indifference, into rival nations like the United States, and, instead of rushing to her defence, chuckled at her downfall as that of a rich and successful competitor—would cheapness of food and reduction of taxation compensate me for that? Is everything, in fact, to be reduced to a money standard? and are those feelings of our nature of which Englishmen were once so proud to be weighed and measured like sacks of flour, or yards of cloth?

It would really seem childish to ask such questions as these, were it not certain that there is a section of the community which maintains that our Colonies are really a source of weakness to us, and that if we threw them off to-morrow, we should be stronger and greater—that is, richer; for such people are unable to comprehend any other kind of greatness except material wealth, and will not read history aright which shows how often riches and weakness have been allied, or how often

the countries poorest in material wealth have been strongest in all the most valuable qualities of a nation. These are the people who are always infatuated about a coming millennium of peace, and who would virtually disarm the country to-morrow if they could, because, forsooth, soldiers and sailors represent so much unproductive capital! It is saddening and humiliating to hear such talk; it is almost as bad when so many of our statesmen and writers parley with such people and parry their arguments as they do, instead of meeting them boldly, bidding them read history aright, and warning them that all are not like themselves, ready to sneer at sentiment and count nothing as valuable that cannot be paid for over a counter.

In travelling through Canada, I found, as every one finds, a strong sentiment of loyalty to the mother country everywhere expressed; and an indignant repudiation of any desire for a union with the States. They dislike the American swagger,—have a horror of universal suffrage, and of being swamped by Irish and Negro voters, have no fancy whatever for paying heavy taxes to clear off the American war debt, and are, perhaps, not a little envious of the superior advantages in

soil and climate possessed by their neighbours. But Canadians complain, and I think with reason, that with all their loyalty and attachment to the mother country, they should be so often coolly told by the English press that they are a source of weakness instead of strength, that the advantage of the connection is all on their side, and that if they like to sever that connection, England will be only too glad. The fact is, we have rushed from one extreme to the other in the course of the last hundred years. We gripped the States so tightly that they struggled and kicked themselves free; we now hold our colonies so loosely that it is plain to them, at any rate, how little value we set upon the connection. I cannot help thinking that there is a medium course which is both more dignified and safer in every respect; and that if we consulted the true interests of both parties, we should do all in our power to unite our colonies to us by the closest possible ties, until they really felt themselves to be regarded by us as an integral portion of the Empire. I am quite aware that there are difficulties in the way of such a course, but I do not think they would be insurmountable if an earnest attempt were made to overcome them, and if the mere

direct pecuniary aspect of the question were clearly recognised to be of secondary im portance.

What is chiefly required appears to be some ready means of getting accurate information in London of the real wants and resources of the colonies ; it is the ignorance on those points at home, even in the highest places, which is at the root of that indifference of which the colonists complain, as it was for some years of those acts of mal-administration which at one time threatened a violent severance of the connection. Then came a reaction, and English statesmen, seeing how ignorant they were of colonial wants and wishes, thrust upon the colonists self-government, in many cases before they wanted it or were ready for it ; for in every new country, the best class of men, who are alone fit to be its legislators and politicians, are really too much occupied to have time for parliamentary or official duties, and there are no men of leisure, fortune and education, as with us, to undertake this kind of work.

In the case of India, the difficulty of supplying the necessary information to the responsible minister was felt to be so great, and the danger of leaving him without it so

alarming, that, as is well known, a special Council was created for that purpose when the government of the country passed to the Crown, and in spite of some complaints, the arrangement has worked well. I cannot but think that some similar Council might be devised to represent Colonial interests at home, not of course with any executive power, but simply as an advising body ; at any rate, that some method should be devised for rewarding and honouring eminent colonists, and for letting them feel that they were trusted dignitaries of the Empire. It is the feeling of most Englishmen who serve their country in any of her dependencies, either as members of the public services or as private individuals acting in a public capacity, that such good service is often unknown and overlooked ; and that a third-rate politician or a second-rate soldier or lawyer at home has more chance of rising to distinction than the most eminent public servant in India or the Colonies. Amongst any other people but Englishmen, such a feeling would simply kill all public spirit ; and it is greatly to the credit of our countrymen that, acting as they do from a high sense of duty and an Englishman's natural love of work, so much excellent

service is daily done for the Government and the public by men who are condemned to obscurity and neglect.

While in Canada, I often heard the entire withdrawal of our regular troops from the country commented on and lamented. However sound the reasons for their withdrawal, their presence certainly produced a certain diffusion of information about the country and an interest in its welfare, through the officers who used to be quartered there, who were always coming and going, and many of whom married Canadian ladies. Their absence is, however, I think, to be regretted on wider grounds than these. In the event of war between England and the States, and the invasion of Canada by the latter, is it to be supposed for a moment that we should leave the colonists to fight it out alone? for fight I am sure they would. I am certain that the public sentiment of England would be too strong to permit of such a policy being tolerated by any Ministry for even a day. Our troops would be sent across fast enough, to fight side by side with the Canadian Militia; but the disadvantage of having no nucleus of regulars in the field at the commencement of the struggle is too great to require

pointing out. Quebec, Montreal, Kingston and Toronto might be seized before we could get an army into the field, and with the four principal towns of Canada gone, there would be little tangible to fight for. The loss of Quebec would be almost irreparable, as commanding the navigation of the St. Lawrence, and that of Montreal with the Victoria Bridge, hardly less so. I believe that a complete system of fortifications for both places was designed some years ago by an eminent Royal Engineer officer, but has not yet been carried out.

No one can deny, perhaps, that in the question of retaining or withdrawing the Queen's troops from the Colonies, the decision of the Home Government was based on very logical reasoning; the worst is that in the event of war, which in itself is a very *il*logical proceeding, logical reasoning is very apt to be thrown to the winds when a great and high-spirited people like the English are appealed to for protection by their own countrymen, and I very much mistake the temper of the British nation if it would not be so in the case of Canada. As to the result of a war between England and the United States, God forbid that such a fratri-

cidal struggle should ever be entered upon, but England has no reason to fear it, with her great superiority both in her Navy and mercantile marine. It is always a possible event in the present constitution of American politics, and I believe the best chance of averting it will be a determination on our part to uphold our national dignity and not to permit any invasion of our just rights.

I left Ottawa for Prescott, on the St. Lawrence, by train, travelling through uncleared or partially cleared forest, and then going on board the steamer, went up the river to Kingston, passing through the famous scenery of the Thousand Islands. For forty miles the boat threaded its way amongst these beautifully wooded islets of every shape and size, and as the evening was lovely and the autumnal tints were already on the foliage, I thoroughly enjoyed the voyage. At Kingston the river ends in, or rather emerges from, Lake Ontario, and all that night we were speeding across this great body of water, 240 miles long and 500 feet deep. The weather was rough, the waves rose to a considerable height, and it was easy to fancy one's self on the ocean.

At one P.M. we reached Toronto on the north shore of the lake.

Toronto, the chief town of Canada West, as this part of the country used to be called, is a very English-looking and thriving town, of 60,000 inhabitants. It was decorated with triumphal arches and banners to celebrate the arrival of Lord Dufferin, the new Governor-General, who had just paid his first visit, and seems deservedly popular.

From Toronto, I crossed the lake to Niagara on the opposite shore, and steaming up the pretty Niagara river, and taking the train at Lewiston, found myself at the famous Falls, as elsewhere recorded, thus finishing my tour in Canada.

CHAPTER IX.

AMERICAN ENGINEERING—RAILROADS—CHICAGO WATER-WORKS—ST. JOSEPH BRIDGE—THE MISSOURI—ST. LOUIS BRIDGE—EAST RIVER BRIDGE—TORPEDOES—HELLGATE RIVER WORKS.

ALTHOUGH I did not go to America with any settled purpose of visiting Engineering works, in which I was naturally specially interested, I took advantage of several opportunities that presented themselves on the road to study some of the specialities of American Engineering, and offer these notes on the subject for the benefit of those interested in the same pursuits as myself.

I have already said something regarding the peculiarities of *American Railroads.* The Permanent Way is noticeable for the universal adoption of the light flat-bottomed steel rail, weighing only 67 lbs. to the yard; chairs are dispensed with, the rail being spiked down to the sleepers, which are

about two feet apart; the 4 feet $8\frac{1}{2}$ inches gauge seems to be everywhere adopted.

The long passenger cars are supported at each end on 'bogeys,' or pivoted trucks, carried on four or six small wheels, which are convenient for the sharp curves prevalent on most of the lines. The cars are coupled together by the Miller coupler and buffer in one, but the springs of the latter seem generally too weak; by the use of this coupler a car can be immediately detached from the train. The Westinghouse air brake has been adopted on most of the lines, and seems very efficient. A cylinder of compressed air is fixed under each car, the connection between the cylinders being by elastic tubes. A larger cylinder is affixed to the engine or tender, and by the aid of a lever, the whole of this compressed force is brought under the control of the driver who can bring it to act on the brake levers by a simple movement of his hand.

The locomotives are generally provided with spark-bafflers to the funnels; also with cow-catchers in front, and with very complete glazed shelter for the men. Coal, coke, wood, and occasionally peat are used as fuel. The engines have generally two pairs of

driving wheels, with a four-wheeled bogey in front.

At *Chicago* I inspected the *Water-works*, of which the only peculiarity is a tunnel under the lake, from which the supply is drawn, made for the purpose of securing purer water than that found near the shore, which is rendered injurious by the town sewage and the drainage of distilleries and manufactories. This tunnel is of brickwork, two miles long, with a shaft at each end; the lake end being protected by a massive crib or hollow pentagonal breakwater, from storms, vessels, and ice. The diameter of the tunnel is five feet, which is sufficient to deliver a supply for 1,000,000 of inhabitants at the rate of 50 gallons a day for each person. The excavation of this tunnel was generally through stiff blue clay, and the only serious difficulty encountered was from the presence of inflammable and explosive gas, which had not been foreseen. Ventilation was effected by the aid of tin pipes, through which the foul air was drawn out and fresh air drawn in through the main opening.

The Crib for the lake shaft was fifty-eight feet in length on each side of the pentagon, and forty feet high, constructed of white pine timber,

the flooring and walls of which were made water-tight by calking. It was floated to its position, and then sunk to the bottom by admitting the water through sluices in the floor, when the interior of the walls was filled with loose rubble. A temporary wooden covering was then erected over it, with a lighthouse on top, and rooms above and below for the accommodation of the workmen. The work was then commenced from the lake end by sinking a cast-iron shaft, 9 feet in diameter, and 63 feet long, and $2\frac{1}{4}$ thick, which was made in seven separate pieces. The tunneling was then carried on from the bottom of the lake shaft, and continued until it met that from the shore end, which it did very exactly. The average rate of progress was about 9 feet per day in length.

The whole work was completed in three years, without any serious accident, on March 25, 1867; and since then there has been no cessation in the supply except a stoppage for a few hours on three occasions, caused by ice. The cost was about 90,000*l.*

Plate girders and other forms of rivetted structures for Bridges, are not in favour with American engineers; the cost of the rivetting is a serious item where labour is so ex-

pensive; and trussed girders are preferred, which, being made up in the factory, and then taken to pieces for transport, can be easily put together by unskilled men. I brought away some drawings of those in most general use, of which I saw several specimens from 150 to 400 feet span, the latter being over the Ohio at Cincinnati. The Keystone Bridge Company, at Pittsburg, whose works I visited, supplied me with these drawings, and state their cost to be as follows:—For a single track bridge of 100 feet span to carry a variable or moving load of 3,000 lbs. per foot run, 65 dollars (13*l.*) per lineal foot delivered at New York harbour. For 200 feet spans, 146 dollars (29*l.*); the prices covering only the iron-work of the trusses, lateral bracing and wrought-iron cross floor-beams; but stringers for supporting the rails are not included.

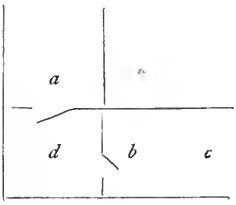
At *St. Joseph, the Railway Bridge* which I saw under construction over the Missouri, will have a superstructure of this kind. It consists of one pivot draw-span of 400 feet in length and three fixed spans of 300 feet, each span being measured from centre to centre of the piers. The height of the girders is 27 feet for the smaller spans

which are 285 feet long in the clear, and 27 feet at the ends and 40 feet in the centre for the draw-span. Clear width of bridge, 18 feet. The girders are to be built of cast and wrought iron ; the cast-iron parts of the fixed spans being the upper chords, caps and pedestals of posts, also the bed plates and washers of the draw-span and a few other pieces in the bridge. All other parts to be of wrought iron, tested to a breaking strain of 50,000 lbs. to the square inch.

The Piers are of stone, built on timber caissons made of four thicknesses of whole timbers in four rows, vertical and horizontal alternately. There is a cutting shoe of wrought iron below, and the top of the caisson is a timber grillage trussed from below, the triangular spaces between the sides and the diagonal supports being filled with concrete. A flooring of concrete is also laid inside, when the caisson has reached the firm bottom below, the rest being filled up with sand. The caissons are sunk by the pneumatic process. Compressed air is driven in by a condensing pump worked from a barge, and a stream of water is forced in through a nozzle under a pressure of 150

lbs. to the square inch by a Cameron's force-pump; this powerful stream liquefies the sand, which is then pumped up in a semi-fluid state by a steam-pump outside. Even clay is broken up by the strength of the injected water, and small stones are sucked up with the sand. Large stones, or pieces of timber, which are often found below, are broken or sawn up, and then lifted up through the chamber. This sand-pump was invented by Captain Eads, the engineer of the great bridge at St. Louis. Average rate of sinking in sand, 6 feet per day.

I descended into the caisson, by an iron ladder in the large iron tube which communicates with the air chamber below. On reaching the air chamber *d*, the valve *a* was closed by the hand and held up until the compressed air in the caisson *c* (which was admitted through a stop-cock) was sufficient to hold up *a* by force; the valve *b* was then opened and we entered the caisson. The sensation experienced on the drum of the ear by the pressure of the condensed air was very painful at first; it is alleviated by



opening a stop-cock, which permits the escape of a portion of the compressed air so as to accustom the ear gradually to the stronger pressure. No great inconvenience has been felt by the workmen at this bridge, as the depth of working is not very great; but in the bridge over the East River at New York, where a depth of 100 feet was attained, the injury to health was very serious and the men could not work in the caissons more than two hours at a time; the pain was chiefly felt on emerging from the caisson, caused, I presume, by the unequal tension of the air in the lungs and pores of the body which had been breathed in the caisson, from that of the normal atmosphere.

The Missouri River, where I saw it at St. Joseph, was exactly similar to the Chenab, or Sutlej, in Upper India. It has a bed of pure sand with a fall of 9 inches per mile, and the water was heavily charged with silt. I saw a large Spur which had been built to divert the stream under the bridge, and which I will describe as a useful specimen of this class of work. It was 2,100 feet long, 60 feet wide at the base, 30 feet at medium high water, and contained 56,000 cubic yards of brush-wood, timber and sand, after being weighted

with 'rip-rap' (broken stone) laid 12 feet wide and 3 feet high. At the point where this work was begun, the river was cutting away the shore rapidly. The channel at low water was 500 feet wide and 20 feet deep, and the velocity of the current was four miles an hour. The brush and timber were kept in position until sunk to the bottom by piles about 10 feet apart, well driven by a steam pile-driver. More than 700 piles were used in building the foundations. When the work had progressed so as to materially contract the channel, the current scoured the bottom to a depth of 26 feet, and in order to divert the current from the long Spur, or at least to reduce its volume, a temporary Spur 800 feet long was built a short distance above, of cotton-wood, willow brush and sand, with small piles driven by hand. The channel even here was 8 to 11 feet deep and moderately swift, but the Spur stood well, the brushwood and sand sinking down as the piles began to be scoured and being replaced by fresh material. In ten days' time it entirely diverted the low water channel of the river. The success of the whole plan was complete and the main body

of the river formed a channel 1,000 feet distant from its old bed.

The cost of the work was 60,000 dollars (12,000*l.*) The river works, as well as the bridge, have been designed and carried out by Colonel Mason, the engineer of the railway company, who very kindly took me over all the works and presented me with drawings and descriptions of them.

The 'bottom' lands, on this river as well as the Mississippi, are equivalent to what are called 'khadir' lands in India; the bluffs dividing them from the 'bangur' or high land, and forming the boundaries of the true valley, are well marked in both rivers. At St. Joseph, this valley was four to six miles wide. The Mississippi is similar to the Missouri in this part of its course, but has a somewhat greater fall of bed and is therefore not so troublesome to navigate or regulate. It is highest in June, and lowest in September or October, when the deep channel of the Upper Mississippi has only about 3 feet of water.

The St. Louis Railway Bridge over the Mississippi, now under construction, consists of three arches, the centre of 520 feet, the others of 502 feet span, supported on abut-

ments and piers of solid limestone faced with granite, the foundations being on timber caissons sunk to the solid rock below, in one case to the depth of 110 feet. The Approaches consist of a series of masonry arches adjoining the abutments on both sides, terminating at the one end in a tunnel 3,000 feet long; at the other in a series of iron trestles, carried out till the roadway meets the surface.

The Arches will consist of four ribs each; each rib consisting of two steel tubes, 12 feet apart, one over the other, braced together with diagonal bars. The tubes will be of 18 inches diameter throughout, and each composed of forty-three pieces fitting into each other with sockets and clamping pieces, and varying in thickness according to their position in the arch. The skewbacks are of cast-iron and weigh four tons each; the end pieces of the tubes are screwed into the skewbacks, and the mass, weighing seven tons, raised into its place and fixed by bolts passing through the piers or abutments.

As no scaffolding could be erected for several reasons, the ribs will be built out from each side for one-third of their length, and the projecting parts will be used as canti-

levers to hoist and fix the remaining third of each tube. The iron work is being made at the Keystone Bridge Company's works at Pittsburg, where I witnessed the construction of one of the tube portions. Into the outer envelope or cylinder of steel, 12 feet long and $\frac{1}{4}$ inch thick, seven steel segments are slid one by one, the last being steadily forced in by hydraulic pressure after being well greased. The cylinder portions are made by bending round a steel plate between rollers until the two edges meet; these are then rivetted together and covered by a rivetted lap-joint.

The superstructure will carry a double roadway; that for carriages being on the top of the upper rib, that for the rail-track some 20 feet below. The arches are the largest yet constructed or designed.

Much thought was required as to the effect of changes of temperature on so large an arch of metal, the extreme range allowed for being 160°, which would produce a change in form of 9 inches at the crown. The strains thus produced were very complicated and difficult to calculate.

The total cost of the bridge will be about 8,000,000 dollars (1,600,000*l.*)

The Suspension Bridge at Cincinnati, over the Ohio, is 1,010 feet in the clear, and the largest in the world yet constructed. It carries a central footway, two ordinary carriage tracks, and two railed tracks for horse cars. There is only one suspending cable on each side—a massive bundle of steel wires laid side by side and bound together (not twisted)—from which run a series of vertical suspenders carrying the roadway. Oblique stays run from the towers to stiffen and support the roadway for about one-fourth of the total length at each end; and girders are carried through from end to end to distribute the weight. There is a considerable rise in the centre of the roadway, which slopes down towards each end in a flat segmental curve. There is also an arrangement of horizontal lateral bracing to prevent lateral oscillation, but no under-bracing, as in the old Niagara railway bridge.

The new Niagara suspension bridge is on the same principle as the above and about the same span, but has only two foot-paths and an ordinary carriage-way.

Both these were designed and constructed by the same engineer, Mr. Roebling, and are perfect models of grace, lightness and stiffness.

The Victoria Bridge at Montreal, over the St. Lawrence, is 9,194 feet long, and consists of a series of wrought-iron tubes, similar to those of the famous Britannia Bridge, resting on twenty-four piers and two abutments of solid masonry, the central tube being 330 feet in clear length, 22 feet high, and 16 feet wide. The cost of the bridge was 1,300,000*l.* From its great length and low, uniform elevation, it is anything but a handsome structure. I was told, on good authority, of a peculiar effect not foreseen by the engineers, which has occurred owing to the sides of the bridge facing east and west. The expansion and contraction caused by the extreme daily variations of heat and cold, have resulted in a continual loosening of many of the rivets, which necessitates the constant employment of a number of rivetters to tighten them up again, but I had not an opportunity of verifying the statement. If it is true, it is of course an additional objection to the employment of rivetted structures in such a climate, or at least in such a position.

There are numerous *Wooden Bridges* of large span on the various American railroads; the favourite form is the Howe truss, with double or triple vertical wrought-iron

ties, the diagonals being also double or triple according to their position ; in the latter case, one strut passing between the other two and a simple bolt passing through the junction. In the case of very large spans, a stiffening arch of timber is carried through the truss. These bridges are generally covered in from the weather.

The Suspension Bridge over the East River at New York, now under construction by Col. Roebling, the son of the engineer mentioned above, will be of not less than 1,600 feet in length between the towers, which are nearly completed. These are of granite, founded on caissons, sunk through sand and boulders, in removing which much blasting was necessary. The drop of the catenary will be 1 : 12½ ; width of roadway, 85 feet. There will be four steel chains, similar to those of the Cincinnati bridge, and the general construction will be the same as in that structure ; there will be six stiffening girders, the two central ones 12 feet deep, the others 8 feet. This depth is fixed with reference to the calculated lengths of the waves of oscillation, which will be 100 feet to 120 feet. The contraction and expansion will cause a rise and fall in the main cables, and the

longitudinal girders have slotted joints to provide for that.

At *Willet's Point*, near New York, the Americans have a small establishment, similar to our Engineering School at Chatham, which I visited. General Abbott of the Engineers is carrying on Torpedo experiments there and had arranged some large explosions out at sea for my edification, but the day was too rough for the boats to go out. He showed me, however, some small explosions from the end of the pier, to enable me to see the mode of estimating the force of different charges. A large iron ring is used which can be lowered vertically into the water from the end of a crane; the charge is placed at the centre; and in the periphery of the ring are a number of small cylinders in which are pistons, which being driven outwards by the force of the explosion are pressed upon small tubes of lead inside the cylinders. Of course the degree of compression of the leaden tubes is an empirical measure of the force of the explosion. For larger blasts, a similar apparatus is employed, made on a very much larger scale and like a huge rectangular cage of bar iron. The charges are fired by a frictional machine which General Abbott praised highly. It is Dr.

Julius Smith's pattern, made by George Lincoln, 32 Summer Street, Boston, price 75 dollars. There are two sizes, 6 inches and 12 inches, but the former is only fit for the laboratory. General Abbott has tried all kinds of explosives, and at present seems to prefer Dynamite. I saw several of the Torpedo cases and Circuit closers, which are similar to our own.

I visited *the Hellgate Works* at Astoria on the East River, New York, which are for the purpose of clearing away the rocky obstructions in the channel and opening up this passage to the ocean for first-class vessels. These works are under the charge of General Newton of the United States Engineers, one of the ablest of that distinguished corps, who has himself designed and superintended the works, and who very kindly accompanied me on my visit. The principal work now being done is at Hallett's Point, where a huge mass of gneiss projects from the shore 300 feet into the channel, causing a fall of 18 inches in the tideway which here runs like a mill-sluice, forming a most formidable obstruction to navigation.

To remove this huge mass of rock, a large open air shaft, 32 feet deep, has

been dug at the shore end, whence a series of sixteen radiating galleries has been blasted through the rock to a length of from 200 to 400 feet, driven so as to leave a thickness of about 10 feet of rock overhead, and a minimum depth of 32 feet of water when the rock is eventually removed. Through these radiating galleries, which spread out from the shaft like the leaves of a fan, another series of concentric galleries are now being blasted, so as to leave a number of square pillars of rock about ten feet in length and breadth to support the roof. When these galleries are completed, heavy charges will be placed in all these pillars and connected together in the usual manner; the water will then be admitted into all the galleries, and the charges fired simultaneously so as to clear away the whole obstruction.

The rock is excessively hard and the stratification very irregular; considerable judgment has therefore been required in fixing the sizes of the different galleries, and in their deviation where necessary from the normal plan. The blasting is done by drills moved by compressed air, similar to the method employed in the Mont Cenis tunnel, the compressed air being also used for ventilation purposes. The

galleries are drained by iron pipes leading back into a cistern at the bottom of the shaft, whence it is pumped up into the river.

Some trouble has been caused by leakage; when occurring in the horizontal strata, leaks are stopped by driving in wedges of dry wood; vertical fissures are closed with clay thrown in at low water over the seam. But in one of the galleries, it was requisite to construct a strong shield fitted to the opening, in which 3 cwt. of oakum were driven and backed with ten barrels of cement.

The work goes on day and night; the miners being divided into three shifts of 8 hours each. Good wages are paid, and when hand drilling was employed, miners using one-hand tools, *i.e.* holding the drill bar in one hand and striking with the other, were expected to do five feet in length per shift in average rock.

The explosive used is Nitro-glycerine, which is most extensively employed for blasting in the States; the works have been in progress for two and a half years, and 15,000 lbs. of nitro-glycerine have been expended without a single accident! General Newton, however, seems to prefer Dynamite, which he considers by far the best and safest explosive yet invented. The nitro-glycerine is bought in

the market, and the preference given to that which is quite clear and freshly made. The General does not consider it to be more dangerous when frozen; indeed it is often transported in that state and in common country carts over very bad roads. At the Hellgate works, it is stored on one of the rocky islands in the channel, but about 50 or 100 lbs. are kept at a time in the place where the cartridges are made up—a slight wooden shed about 100 yards from the works. The cartridges hold from six to twelve ounces generally, and they are fired by Bickford's fuze, generally twice a day, when the men knock off work—the priming used being the ordinary chlorate of potash. The effect of nitro-glycerine, as compared with gunpowder, is to smash the rock to pieces, instead of breaking it up into masses.

The Dynamite sold in the States is usually called Giant powder—(the powder used for large guns, and corresponding to our pebble powder, is known as Mammoth powder). The giant powder is of two kinds; No. 1. containing 75 per cent of nitro-glycerine, and No. 2. only 35 per cent. General Newton told me there was no risk whatever in tamping this, with ordinary precautions. He had seen a

charge inserted in a tree, a charge of rifle powder put over it, and a fuze driven tightly in on top; on igniting the fuze, the powder exploded, and the dynamite did not, though it was separately exploded afterwards with full effect. Whether dynamite deteriorates or not by keeping he could not tell.

Besides the Hallett's Point Rock, there are several isolated rocks in the channel known as the Frying-pan, the Gridiron, the Pot Rock, and others. Several attempts at the removal of these had been made by previous engineers with but slight success, owing chiefly to the great strength of the tidal current which runs at from six to nine miles an hour. At length General Newton devised a large Scow or barge with a hollow space in the middle, in which is a moveable cast-iron hemispherical dome, 30 feet in diameter, which can be raised or lowered at pleasure by men working on the scow. Thus, the scow being securely moored over the rock to be operated upon, the dome is lowered until it rests on the rock, any irregularity of surface in the latter being compensated by adjustable iron feet which are fitted at the bottom of the dome. In the surface of the dome are fixed a series of nineteen tubes, in each of

which works a vertical drill which is raised from above by steam power, and falls by its own weight. Any number of these drills can be worked simultaneously, but as a rule about seven are used at the same time, and the holes are drilled at the rate of 10 to 20 feet in a day, their diameter being about 4 inches; the stuff is raised out by the action of the drill. As each hole is made, it is plugged to keep out the silt, and to the cords connecting the plugs a line is attached to serve as a guide to their position.

When a number of holes are ready, the scow is removed to a safe distance by warping, and the holes are charged, during the short time of slackwater, from a boat specially employed for the purpose. A long tin tube, just like an elongated plan case, is filled with nitro-glycerine (about sixty pounds in each charge); a priming of rifle powder in a corked glass bottle with an electric fuze is put inside the tube about half-way down; and the cartridge is lowered by a diver into the hole ready to receive it; when all are filled, the battery boat is brought up, the connected wires are led to it, and the charges fired through the platinum fuzes. If it is found afterwards by the divers that a

charge has not exploded, a smaller cartridge is fired over it, but misfires are rare, and there have been no accidents hitherto. The charges are always filled in during slack water.

The Scow has been found to work very efficiently; their only trouble has been from collisions with passing vessels, and this has been a source of great inconvenience, delay and damage. A few days previous to my visit, in fact, the whole top hamper of the Scow had been carried away by the paddle of a large steamer, and all the working arrangements were in consequence of a temporary and makeshift character.

I should mention that a huge Rake forms part of the apparatus, which can be dragged over the rock to rake off loose stones into deep water, or they can be grappled by another machine and lifted on board.

The cost of removing a cubic yard on Pot Rock will be 200 dollars; for the Hellgate clearances generally, about 20 dollars.

I think a similar arrangement to that of the dome might be very useful in getting in the foundations of a bridge or other work in a rapid current; it is not necessary that the hemispherical shape should be adhered to.

General Newton does not approve of

frictional electricity being used for firing mines, as the atmosphere may be in a highly electrical state when the charges are connected up and spontaneous explosion may occur. An accident in the Hoosac tunnel, which resulted in the death of several men, was attributed to this. All such danger is obviated by the use of the platinum wire fuze.

Here end my engineering experiences in America, which I would gladly have extended if time had permitted. I met several of the Civil Engineers, and they all struck me as remarkably able men, not merely of great practical talent, of which of course I had little opportunity of judging, but as men of considerable scientific attainments, quite as much at home in the theory as in the practice of their profession.

Here also I bring to a close my American experiences. I left New York on November 16th, exactly two months after my arrival, and after a stormy passage in the 'City of Paris' arrived safely at Liverpool.

In setting down these brief notes of what to me was a most interesting tour, I do not think I can give serious offence to any but

those very thin-skinned individuals who think no foreigner should presume to speak of their country except in terms of unqualified praise. If I have extenuated nothing, I have most certainly not set down aught in malice, and so far from depreciating America, have no hesitation in saying that were I not an Englishman I should be proud to be an American citizen.

APPENDIX.

EXTRACT FROM A PAMPHLET BY THE BURLINGTON AND MISSOURI RIVER RAILROAD COMPANY LAND DEPARTMENT.

MILLIONS of acres comprising many of the best prairie lands in Iowa and Nebraska, are for sale by the Burlington and Missouri River R. R. Co., on ten years' credit, at six per cent. interest.

No part of principal due for two years from purchase, and afterwards only one-ninth yearly.

Products will pay for Land and Improvements.

The prices of these lands are low, ranging generally in Iowa, from $5 to $16 per acre, and in Nebraska, from $4 to $12 per acre, with some less and some more.

They vary according to soil, location, water supply, timber and other advantages, in precisely the same manner as do other lands.

These Iowa and Nebraska Lands are located principally in the south-westerly part of Iowa, and the southerly portion of Nebraska, along the Platte,

Big Blue and other valleys. They are not exceeded in fertility, beauty, and all the attractions and advantages of locality and soil, which are essential, in the estimation of farmers, by any region in the world; while trade, manufactures, arts, science, and all the attendants of refinement and luxury, which enterprise can introduce and thrift maintain, are following rapidly the march of settlement.

The Railroad lands already sold have been wonderfully improved, and the increase in their value is large—in many cases almost incredible.

Much equally good lands remain unsold, can be purchased at low rates, on the same easy terms of payment, and with equally good prospects of steady and large increase in value.

The soil of this region is of exuberant fertility, and easily cultivated; the climate is healthful, winters short and mild, with very little snow, the stock subsisting principally out of doors, and feeding upon the dried grasses of the prairies, in preference to hay. Crops are large, markets good, taxes low, and education is free to all.

The Burlington and Missouri River Railroad was completed to Lincoln, Neb., in July, 1870. Its lands in both States came into market in April of that year.

At the end of twenty-seven months from that time, June 30, 1872, the sales had been:

In Iowa . . .	169,550 Acres for	$1,989,324	46
In Nebraska . .	229,963 ,, ,,	$1,952,546	80
Total . .	399,513 ,, ,,	$3,941,871	26

Nearly all these sales are made to actual settlers, on a credit of ten years, at six per cent. interest.

How is a Buyer to Select Lands?

All the lands the Railroad Company offer for sale, have been thoroughly explored and examined, and in the offices of the Land Commissioner, at Burlington, Iowa, and at Lincoln, Nebraska, are elaborate and carefully prepared plans and descriptions of every lot, which are freely opened to the inspection of all inquirers, with explanations by experienced men in the offices, who are personally familiar with the lands.

The only sure and satisfactory course for purchasers is to come and see for themselves.

After obtaining, at one or the other of these offices, all needed information to direct him on his way, the person in pursuit of land generally finds it convenient to go directly to some one of our local agents, who are to be found at various points along the line.

These agents are reliable men, thoroughly familiar with all the lands in their vicinity, and will cheerfully afford all reasonable aid in selecting and examining the lands for sale.

They are also authorised to receive applications for the lands selected, and to prepare and execute the preliminary papers necessary to consummate the purchase and secure the lands selected.

Subsequent payments are to be made, for Iowa lands, at Burlington, and for Nebraska lands, at

Lincoln. Our system is extremely simple, and perfectly intelligible to all.

A list of our Local Agents along the line, is furnished to each explorer, so that they may know on whom to call, wherever they stop; and as a general rule, all others should be avoided, for there are Land *Sharks* as well as Land *Agents*.

In order to pre-empt Government or Homestead lands, it is needful to settle on the land immediately, or within six months; on Railroad lands more time and accommodation can be had.

Terms of Sale.

The purchaser can pay cash, or divide the amount into three equal parts, paying one-third down, one-third in one year, and one-third in two years, with interest at ten per cent. annually, or he can have TEN YEARS' time in which to make up the sum by small annual payments at six per cent. interest.

Most buy on this latter plan of ten years' credit, in which case the purchaser pays at the outset one year's interest, at *six per cent.*, on the value of his land: at the end of a year he makes another similar payment of six per cent. only.

At the end of the second year, he makes payment of one-ninth of the principal of the purchase money and one year's interest, at six per cent., on the remainder, and the same at the end of each successive year thereafter, until all has been paid.

If he chooses to pay cash down, or one-third

cash, and the balance in one and two years, with interest at ten per cent. annually, he is allowed an outright discount of twenty per cent., or one-fifth from the ten-year price of the land.

Parties who purchase for Cash, receive a Certificate of Purchase, and a Warranty Deed as soon as it can be executed.

If purchased either on Short Credit or Long Credit, a Contract or a Bond for a Deed is executed, and, so soon as all the payments are made, a Warranty Deed, free from any incumbrance, is given, precisely as in the case of land purchased for cash down.

It is expected that those who are accommodated on long credit, will have improved at least three-tenths of the land bought, within three years from the date of purchase; but of those who buy for Cash or on Short Credit, no requirement of this character is made.

Advantages of Long Credit.

Our ten years' credit is practically a loan of so much money. It gives the man of limited means an equal chance with men of property, and helps him to compete with such men.

The Railroad Company require of the purchaser no other security than the land sold. That is ample for us.

Enterprising men can secure farms and homes by our long credit terms, greatly to their advantage. Before the ten years of credit expire, the

farm can be paid for from the productions of the land. Improvements can also be made, and the family supported. Let a man be of the right stamp, a good manager and worker, and he cannot fail of success.

He should have a few hundred dollars to start with, sufficient to meet the expense of putting up, at first, a low cost-house, to purchase a pair of horses, a wagon, cow, pigs, tools, etc., and such outfit as is needful for a beginner and his family.

Of sales thus far—amounting to nearly $4,000,000—by far the greatest portion have been made on ten years' credit, though lands are offered twenty per cent. cheaper either for cash or on two years' time. Buyers spend their money in breaking prairie, stocking farms, and building houses.

In case of unexpected reverses or disappointments, a reasonable indulgence can always be obtained by making a frank and honest statement of facts.

No speculator can be so much interested as the R. R. Co. is in the prosperity of the settlers along its line. It grows with their growth and strengthens with their strength. Local traffic is its life. Its policy and disposition is to help and encourage those who are seeking to help themselves.

Advantages of our System of Sales.

The Railroad Company allow the purchaser to enter upon, cultivate and improve the land he may select, and use and realise for the crops, for two

years, demanding no other payment or compensation than a simple interest or rent, amounting to the small sum of six per cent. per year on the value of the land for this term of two years.

At the expiration of the two years his land will have advanced in value, and he makes his first payment of principal, feeling that his land is *cheap*.

It will readily be seen that this provision enables many to secure land and enter upon and realise from it, who, under any ordinary system of payment as adopted by individuals, would be entirely unable so to do.

Most of these lands are sold on a credit of ten years, thus enabling the poor man to get along with ease, or the man who has money can retain the use of most of it for the *improvement* of his farm, the purchase of stock, and that endless variety of uses for which ready money is always useful and profitable; so that as a general thing those who have purchased these lands may be rated as in easy and thrifty circumstances.

The opportunities afforded by our system of sales are not excelled, and rarely, if ever, equalled, and are plainly of great advantage to every one, whether possessed of little money or much.

Suggestions to Land Buyers and Others.

Before coming to purchase lands, see to it that you have the necessary means, and make careful consideration as to their expenditure. None should

come without proper forethought and needful capital; but with these the way is open and the prospects are bright.

It is difficult to make progress anywhere without capital, and nowhere is the need of money more keenly felt than in a new settlement.

You will require money for the expenses of travel and transportation for yourself and family and such household goods and stock as you may determine to bring; for the first small payment of interest on the land purchased; for buildings and other improvements; for farming tools and needful provisions until you can make and sell a crop.

Business openings of all kinds are frequent, and labour and clerical assistance are required to a limited extent; but those coming without means and dependent entirely upon employment, must take their chances.

In selecting a farm you will have regard to the character of the soil, the location as relates to the facilities for getting to market, prospective as well as present, and the advantages for your family as relating to social, religious, and educational privileges.

It is not advisable to transport heavy or bulky material any great distance. Farming tools, agricultural implements adapted to the soil of the region, and household goods in all their variety, can be purchased here as cheaply as in the Eastern and Middle States, after adding the cost of transportation. Cattle and horses should not be brought

unless of superior class, as ordinary breeds can be purchased for much less than they could be landed here.

Iowa.

The State of Iowa is shaped like a brick, or an oblong block. From east to west is three hundred miles long, and two hundred from north to south. Its area is 55,045 square miles.

The latitude of the southern boundary, dividing it from Missouri, is nearly identical with that of New York city, and the northern line, where it joins Minnesota, is one degree north of Chicago.

It lies between the Mississippi and Missouri rivers, and stretches along each well-nigh midway between its mouth and the head of navigation.

The wheat crop of 1870 was nearly 30,000,000 bushels, Indian corn 69,000,000, and other crops abundant. Manufactures also amounted to many millions of dollars.

No State in the Union has made so rapid progress during the last ten years as this, either in population, railroad, agricultural or other improvements, and none has a better prospect for the future.

Nebraska.

It lies directly west of Iowa, the dividing line being the Missouri river.

It is the thirty-seventh, and the youngest among

the United States, but in June, 1870, it already had a population of 122,993, and has room for twenty times as many.

Those thousands have resorted to it, most of them within the last three years, because of its position, healthfulness, beauty, and productiveness.

The valuation of property for taxation in 1869 was forty-two millions; in 1870 it was fifty-three, showing an increase of twenty-five per cent. in twelve months. It has no public debt.

Its position is the most central in the Union. The longitudinal line, running midway between Washington and San Francisco, cuts it into two parts, almost equal. It also lies midway between the mouth of the Mississippi and the head of navigation on the Missouri. As to latitude, one-fourth of it lies south and three-fourths north of New York city.

Extending from the Missouri River, westward, nearly to the Rocky Mountains, it has an extreme length of about 400, by a width of about 200 miles, and a total area of about 76,000 square miles, or about 50,000,000 acres of the best agricultural lands on the American continent.

THE CLIMATE is temperate, healthful,—above most regions on the continent; epidemics are unheard of,—winters are short and mild.

SOIL.—The general character of the country is broad, undulating and rolling prairie, of rich loam, varying in depth from one to six feet or more, ab-

solutely free from stones and stumps, and perfectly adapted for cultivation and grazing.

WOOD is sufficient for all present requirements for fuel, and as civilisation progresses and prairie fires are stayed, its growth will be rapid. Farmers who have cleared wood-lands and prepared them for cultivation in other States, assert, in the most unqualified terms, that it is much easier to plant and raise a forest than to get rid of one.

COAL, of good quality, is mined in both Iowa and Wyoming, and easily transported to all points along the line of the B. & M. R. R.

PINE LUMBER for building, etc., is supplied in abundant quantities from the timber regions of Wisconsin and Minnesota, on rafts down the Mississippi to Burlington, and thence transported to all points along the line, at low cost.

STONE.—Ledges of limestone are numerous, adapted both for building purposes and for burning into lime. Sandstone occurs occasionally.

THE CROPS are principally corn, wheat, rye, oats, barley, sorghum, broom, corn, and flax, all of which yield bountifully. Root crops, melons, grapes, fruits, and vegetables, in great variety, are of the most prolific order. For wheat, Iowa stands prominent, and Nebraska is unquestionably the Banner State. The statement is made by the U. S. Land Commissioner, that the average yield of *wheat* in *Nebraska* is *greater* than any other State.

FRUITS.—At the meeting of the American Pomological Society, held at Richmond, Va., in

September, 1871, Iowa exhibited 118 distinct varieties of apples, and took the second largest premium, while 'Nebraska astonished every one,' exhibiting 176 varieties, 146 of which were apples, and bore off the highest premium of all.

STOCK-RAISING is a prominent feature through these States. Cattle, principally from Texas, are bought at very low rates, fed, cared for, and fattened at small cost, transported to market readily, and yield very profitable returns.

Cattle will live on the prairies, as buffaloes did before them, unfed and unsheltered; but shelter and care yield good returns.

Wild hay, more fattening than tame grass, is free to all, either for pasturage or fodder.

Bunch grass dries as it stands, but does not rot, and when thus self-cured, is preferred by cattle to hay from the stack.

HOGS are raised and transported with even less care and expense, and are always sure of sale at a profit.

SHEEP are raised, thus far, only to a limited extent, but the entire region is favourable to the growth of the healthiest sheep and the most valuable fibres of wool; indeed there is not on the globe a finer section of country for this purpose.

HORSES AND MULES are aised at small cost and great profit.

EDUCATION IS FREE TO ALL.—The School Fund is large. The grant of public lands for this

purpose, to each State, is ample and constantly increasing in value.

The late Superintendent of Public Instruction of Iowa, reports for 1871: 7,823 schools; 14,070 teachers, and 7,594 school-houses. Whole number of scholars, 341,938; average attendance, 211,561; salaries paid to teachers, $1,900,893,54; value of school buildings, $6,754,551,28.

In Nebraska the school lands embrace one-eighteenth part of the entire public domain—1,280 acres in each township. There were last year upwards of 32,000 scholars.

Universities and normal schools are established in both States, and a fine agricultural college in Iowa.

TOWNS AND VILLAGES are springing up in all localities, and churches, school-houses, post-offices, stores and mills, and manufacturing establishments, are rising as rapidly as necessity demands.

PRICES.—Oxen, $40 to $60; cows, $25 to $50; a mule or horse, $100 to $150.

Plows, $15 to $33; cultivator, $20 to $40; mower and reaper, $200 to $250; wagon, $95; harness, $35.

Hardware, groceries, dry goods, clothing, boots, shoes, drugs, medicines, books, furniture, stoves, and cooking utensils, crockery, glass, tin, iron, copper, and wooden ware, cordage, pumps, nails, iron and steel, tools of all kinds, wagons, agricultural implements in great variety—indeed, every article required for household, building and farm

purposes, may be had as freely in the numerous towns and cities of these States as in the older towns and cities of the East, and at moderate cost.

RAILROADS traversing these States afford ample market facilities. They are as well built and amply equipped, both for freight and passenger service, as any in the Union, while the numerous branches which are being rapidly constructed, even in advance of settlements, will traverse and cross the States in all directions.

THE HOMESTEAD LAW permits anyone to occupy eighty acres of public lands within Railroad grants, on payment of $14 in fees. Soldiers alone are entitled to 160 acres, within the limits of Railroad grants, or twice as much as any others.

The number who had filed claims in the Lincoln office alone, (which is only one of the six Government Land Offices in the State) up to January 1, 1872, was 9,822. Nearly 500 of these were women, and the number who have entered during the present year is very large.

The number of pre-emptors to same date was 11,907.

Of these new settlers, upwards of 5,000 came within the year 1871.

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