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THE

CLIMATE OF JAMAICA.

BY

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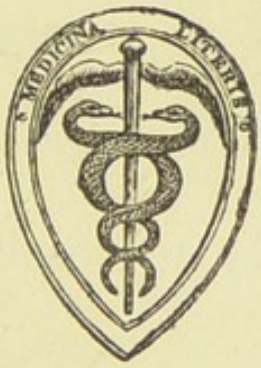

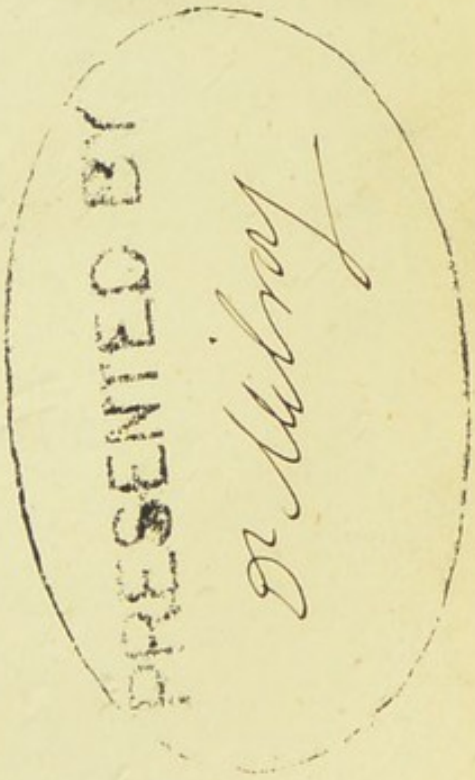

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CONTENTS.

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THE

CLIMATE OF JAMAICA.

THE VOYAGE TO JAMAICA.

TWENTY-THREE years ago, when in New York, desirous of getting a passage to Jamaica by steamer, I inquired of a clerk in a large steamship office there, which then ran a line of passenger vessels to Colon, whether their vessels touched at Jamaica. He stared at me, and, with a look of wonder, said, "Jamaica! where is it?" I informed him that it was a British island in the Gulf of Mexico, not far off Cuba, and that their steamers had lately called there on their route. He said, "Oh, that place! yes, our vessels did call there. Do you wish to go there?" I said, "Yes." He then looked at me with an air of commiseration, and added, "I tell you what, young fellow, if ever you go there you will never get away again!"

He may have referred to the difficulty of access

and egress from the island, owing to the withdrawal of the line with which he was connected; or perhaps he thought, as was generally thought then, that few people ever lived out the allotted span of human existence there; or he may have had some idea that I should turn black, marry a negress, and settle down in a semi-civilized condition, like the man described by Tennyson in "Locksley Hall"—but evidently he looked on me as a man going to the Ultima Thule, bent on self-destruction, and in a bad way altogether. Such were the opinions held generally in Europe and America in those days, and such being the opinions held by many still, I have taken the opportunity of a few months' relaxation, after so many years of constant and unintermitting daily work in the lowlands of Jamaica, to give the public, and especially the medical profession of Europe and America, the views that I entertain of it from personal experience, and from the experience of others; as also from the only statistics that I have been able to obtain, but which are a host in themselves—viz., those contained in the Reports of the Army Medical Department.

I shall, I hope, be able to convince the reader not only that Jamaica is not the deadly climate that it has been represented to be, but that it presents many advantages to the European and

American, both as a health resort for the invalid and as a temporary, and even permanent, sojourn for all those to whom the rigorous winters of the North are seasons of confinement, imprisonment, and death. Those also who have sufficient capital and energy, and are inclined to a pastoral life amongst the rich uplands and valleys of our mountains, and who are willing to devote themselves to the cultivation of coffee, ginger, tobacco, tea, cinchona, spices—among which is our indigenous product the pimento—grasses, and flowers, all of which grow luxuriantly, and none of which demand excessive fatigue, will be able to pass a life of refinement and leisure, without exposure to those malarious influences which too frequently abound in the lowlands, where the sugar-cane is cultivated and its juice manufactured into sugar and rum.

Jamaica, I must premise for the benefit of those whose geographical knowledge has mainly been kept up of late years by war correspondents and emissaries of foreign States requiring loans, is an island in the Caribbean Sea—one of the West Indies, in fact. It lies between the 17th and 19th degrees of north latitude, and between the 76th and 79th degrees of west longitude. It is about 160 miles long by 40 broad, and contains, according to De Cordova, "between 4500 and 5000 square miles, and rather more than 3,000,000

square acres of land, of which not more than one-fifth is under cultivation." Although a considerable portion of this is arable, by far the greater part is hilly and rocky, and more fitted for pasture land and for the cultivation of the various products already enumerated, and the edible roots and greens of the peasantry. A range of mountains, of which the Blue Mountains are best known, with its peak 7100 feet above the level of the sea, runs along the whole length of the island, completely dividing the north and south sides, sending down spurs into the plains, between the valleys of which are numerous streams. The scenery is varied and beautiful; few have been there who have not wished to revisit it, and many of its old inhabitants who have left it to end their days among their relatives and friends in Europe often regret their departure from it, and in the midst of the chilling winters, as they sit by their firesides, long to see once more its clear blue skies, and to feel the crisp winds from the sea and the balmy breezes from its hills.

By the traveller and invalid the first questions asked are not only, "Where is Jamaica?" but "How, when, and by what means is it to be reached?"

Of course, though (for many are ignorant of the fact, Jamaica being a small and unimportant place) as it is an island, a sea voyage is neces-

sary in order to reach it, but this is by no means a necessary *evil.*

There are many to whom a sea voyage proves to be a great advantage, and that it is so is shown by the fact that many young people who have been sent to Jamaica from England with coughs, incipient phthisis, and spinal irritation, have arrived already cured, or in a fair way for recovery. The rest on board, the invigorating sea air, the daily companionship of strangers of different countries and nationalities, many of whom have seen the world in all its shapes and have mixed in society of every grade, and are all equally and necessarily idle and inclined to pass the time agreeably to themselves and others, make life at sea not only endurable, but enjoyable. Though statistics show that a maritime life is by no means exempt from phthisis, many are prepared to prove that a long sea voyage is decidedly advantageous to those suffering from that disease in its incipient stages; and at all events there can be no doubt as to the value of a voyage of from three to six weeks' duration. It can be made by the magnificent steamers of the Royal Mail Company, which start from Southampton on the 2nd and 17th of the month, in eighteen or nineteen days. These vessels have been running now to the West Indies for over thirty years, with such regularity that they are

looked for to the day and hour ; and though unfortunately for the company some of their vessels have been lost, but on one occasion has there been any loss of life among their passengers, and that was caused by the burning of the *Amazon*, now many years ago.

The voyage to Jamaica by the packet of the 2nd of each month is first broken at Barbadoes, after about fourteen days' sail ; then at Martinique, St. Thomas, and Jacmel, in Hayti. That of the 17th stops first at St. Thomas, and then at Port au Prince. The traveller, if he wishes to prolong his voyage, might tranship at St. Thomas or Barbadoes for the Windward Islands, French, English, and Dutch, or on reaching Jamaica, continue on the route to Savanilla, Santa Martha, Colon, and along the Mexican coast to Vera Cruz and Tampico, or across to Panama and thence down to Peru, or upwards to San Francisco, on his homeward route across the United States of America. To one in ill health or obliged to leave England in October, it would be advisable to break the voyage in some way so as not to arrive in Jamaica until the rainy seasons, which occur in October and last sometimes until early in November, shall have passed away. The middle of November is quite soon enough to arrive in Jamaica.

A French line leaves St. Nazaire once a month

for Colon, by way of the French islands, St. Thomas, Cuba, Hayti, and Jamaica. The West India and Pacific Screw Steamship Company, too, send vessels from Liverpool twice a month to Jamaica, calling at Hayti, and going on to the Spanish Main. They generally reach Jamaica after a voyage of twenty-two days, including stoppages.

Another line has lately despatched a vessel from Liverpool for Mexico, by way of Jamaica, every month, which on returning frequently calls at New Orleans, Mobile, or some port in the Southern States of the Union, for cotton cargoes.

To one who is afraid of even so short a sea voyage as fourteen or twenty-two days consecutively, there is the American route, going to New York by one of the numerous lines of steamers which are constantly leaving Liverpool, Glasgow, Bristol, and Southampton. Some of these make the voyage to New York in seven and a half days, and all in less than ten. The "White Star" particularly is all that can be desired for speed, accommodation, civility of its officers, and excellency of its *menu*. If the traveller has strength, time, and money to spare, he may well spend a few weeks in America during the Indian summer, which is said to be the pleasantest time of the year there, visiting its

cities, its public institutions, its magnificent scenery, and mixing with its people, as a body the most intellectual and active of modern nations, and then leave New York for Jamaica.

From New York the "Atlas," an English line subsidized by the Government of Jamaica, sends one or two steam vessels every month to Kingston, some of them calling at Hayti *en route.* They make the voyage generally in seven and a half or eight days, but sometimes in five and a half or six days when a larger vessel than usual has been put on; and if the owners found the amount of passenger traffic sufficient to warrant it, they would no doubt place larger and swifter vessels on the line. This must be said however for them—they are good and safe sea boats, and do their work steadily. The officers are attentive and well up to their work, and if the fare is not so varied as on the larger vessels with large passenger traffic, it is at all events wholesome and well cooked. Another, an American line of steamers, expressly fitted up for tropical climates, with deck houses and plenty of ventilation, sometimes calls at Jamaica. These vessels are larger than those of the "Atlas" line, and carry large numbers of passengers to Colon, *en route* for California. They are unfortunately not subsidized by the Government, and therefore go irregularly; they however possess advantages particularly

valued by Americans and by Jamaicans who are used to the luxuries of American travel.

Having arrived at Jamaica, the traveller can still avail himself of the sea air, for a vessel belonging to the Royal Mail Steam Ship Company of Southampton sends a steamer round the island once a month, calling at all the principal ports, at very moderate charges.

Should that not be sufficient, he can visit the Havanna by a Spanish steamer which, leaving Jamaica once a month, calls at all the principal ports in Cuba *en route*. By these various lines he can travel all round the islands of the Gulf without difficulty, and a few weeks could be passed in the Tropical seas by persons with moderate means at their command, amidst a variety of countries and peoples of various colours and tongues, sufficiently interesting to banish *ennui*, soothe the troubled mind, and restore enfeebled health to many an invalid, who perhaps at home would be obliged to remain for weeks together shut up in the four walls of his house; comfortably and luxuriously, perhaps, but certainly far less agreeably and far less healthfully than a life on board a vessel sailing or steaming through the blue waters and under the blue skies of the Tropics, into the mild climates of which but fourteen days' voyage from England and three or four from New York will place him.

During the past winter we were visited by two parties, who came down in steam yachts, and one who came down in a very pretty sailing yacht of about one hundred tons; a mode of travelling which, though very pleasant, is very expensive. Those who go from New York sight the first island in three or four days after leaving, and pass successively during the latter days of their voyage Watling's and Crooked Islands, Cuba and Hayti.

To the European and American these seas have always possessed a singular interest. These Islands of the West were the first discoveries of the great Columbus: the seaweed which floated from them was to him the first sign that there were worlds beyond the wild waste of waters over which, with mutinous sailors, and in small and wretched caravels, he had sailed for so many weeks. He it was who first gave to the Old World the priceless present of the New, and introduced to it as one of its newest jewels the island of which I write, under its Indian name of Jamaica.

It was in these seas and amongst these islands that France and England contested with Spain the question of her exclusive right to the proprietorship of the New World; here it was that Morgan and his buccaneers looted the "plate fleets," and established their rendezvous; and in after times Benbow, Rodney, and Nelson fought

and won victories, which more or less played important parts in the history of the Old World.

All vessels bound to Kingston from the East, on approaching Jamaica, make for Morant Point lighthouse, though its mountains are to be seen many miles out at sea, rising high up in the air, their summits not covered with snow but hidden by clouds, below which they are covered with trees and have so blue an appearance that they have obtained the name of "the Blue Mountains." Travellers who have once seen them, even from a distance, can never forget them, and the most ardent worshipper of the "blue ray" would there find enough extracted from "the sunlight." Several hours elapse before Kingston harbour is reached, and the traveller passes numerous sugar estates in the neighbourhood of Holland and Morant Bays, Yallahs and Cow Bay, where formerly Morgan, the famous buccaneer, lived when he was "at home" and cultivated his sugar-canes. Houses and negro settlements are to be seen amongst the hills, and the green fields and tall chimneys in the plains give an air of civilization to this naturally beautiful scene. Then comes the pilot—black, probably—sailing in his little canoe, dug out of the trunk of a cotton tree, but with his Blue Peter flying before the breeze. In due time he boards and takes the vessel under his charge, and in due course first the lighthouse on the Palisades

is seen ; then the Palisades, forming the barrier of Kingston harbour against the sea : a long bank covered with sand, stretching out for miles from its base on the mainland into the sea, on which grow clumps of mangrove trees, the branches of which dip into the lagoons on the harbour side, forming the *points d'appui* of our native oysters ; molluscs, small, but sweet and inexpensive.

Here too is to be seen a large though young cocoa-nut grove, which was commenced as a plantation by our late governor, Sir John P. Grant, with the labour of the convicts in the Penitentiary, who may possibly, in a few years, by the aid of these fruits of their compulsory industry, present to the world the unique spectacle of convicts not only paying for their own board and lodging, but adding something towards the payment of the expenses incurred in their arrest and conviction. Port Royal is soon after reached, the vessels passing so near the point that almost any one could throw a stone on shore. Small keys or islands surround this point, which are evidently the summits of some submarine hills, for the water is deep all round them. The salute is made to the Fort, the usual routine is passed through with the Health and Custom-house officers, and the vessel proceeds up the harbour, through a narrow, winding channel, passing close to the Hospital and Dockyard, the guard-ships and vessels of war on the station, the

Fort of the "Twelve Apostles;" Port Henderson, formerly a watering-place for the invalids of the lowlands in its neighbourhood, and Fort Augusta, once a cavalry station of England's dragoons, of fatal reputation on account of the fevers bred in the lagoons behind it, and now used as a powder magazine. These forts, however formidable they may have been in former days to privateers and pirates, would be useless in these days against Armstrong, Whitworth, Parrott guns and Woolwich infants; but the harbour is difficult of access, the channel is tortuous, and known only to the initiated; and the sandbanks of the Palisades would make far better bastions and ramparts than all the stoneworks or even the iron plates that can be put together. The mountains rise from the plains and are to be seen in front and on both sides, as the harbour is entered, the Blue Mountains being still in view, with the military encampment of Newcastle some 3800 feet above the level of the sea far away in the distance, with its "white huts looking like a flock of sheep," as Sir Sibbald Scott expresses it, "grazing on a Highland mountain side."

KINGSTON AND THE LOWLANDS.

I CANNOT say much in favour of Kingston. No one can ; though some people like its climate who have lived not only in Colon and New Orleans, but who have come from colder lands.

The wharves jut out into the sea like those of New York, but without any of the imposing façades which, though of wood, set them off to some extent. There are no high terraces in Kingston, and no river steamers, though the naval authorities work a steam launch, and the Penitentiary a tug, and the vessels either lie close up to the wharves or at various distances in the harbour, according to their various stages of loading or unloading. The town is hardly seen from a distance, not on account of thick fogs or smoke which obscure so many of the cities of Europe and America, for fogs are unknown there, and coal but scantily burnt ; but because the houses are generally low and surrounded with trees. As soon as the vessels are made fast to the wharf a crowd of people rush on them to see their friends, and to take away the luggage of the passengers.

There are no recognised porters with badges, so that the traveller must trust to his own eyes and legs to look and run after his worldly goods, which are immediately taken to the shed where the Custom-house officers make their examination. Here, however, there is no fear of extortion or unnecessary trouble; no need for consultation as to how much should be given as a bribe, or how it is to be done, for the strictest honesty prevails, and no one whose hands are clean need fear any trouble or annoyance.

The hotels are few in number, and though far behind the palaces so designated in Europe and America, are at all events clean and comfortable. One can hardly expect to find in a city of 30,000 inhabitants, with but few travellers, the same conveniences, luxuries, accommodation, and *cuisine* to be found in cities where travellers of wealth are to be counted by thousands and tens of thousands, and archdukes, princes, and even emperors, are occasional visitors. At least one does not see such magnificent hotels in every small city, and there are "one-horse towns" in America as well as elsewhere.

Our hotels are invariably managed by the gentler sex, who do their best with the material at their command; they are civil and obliging, and provide as good and substantial food as is to be obtained anywhere. Nevertheless it cannot

but be evident that a good hotel on a larger scale would be more attractive to visitors and would be a paying concern to its proprietors, as well as a stimulus to those now open to attempt a higher class of entertainment that would ultimately benefit them. At present the charges are moderate and the rooms airy. The "Clarendon," the "Victoria," the "Caledonian," "Blundell Hall," and Gall's "Marine Villa" are the favourites, particularly the first, the landlady of which is well known and much esteemed, and the last, which is generally frequented by American and Canadian invalids. There are many smaller houses that take in boarders varying in accommodation and expense.

Kingston, as I have before said, is far from being a handsome city. The houses are irregularly built, and ugly wooden shanties are placed by the side of large handsome houses. There are no side walks in the other streets nor are any of them paved, but yet they are tolerably good when compared with some to be met with in other countries. There is no drainage whatever beyond what Nature has provided, and there is no doubt that in this respect much remains to be done for the sanitary condition of the town. The heat caused by the almost vertical rays of the sun; the dryness of the atmosphere and the sandy soil, speedily incinerate and evaporate all decaying

or decomposing material on the surface ; the sea breezes sweep away the odours and gases evolved, which rise quickly to higher atmospheres, and the periodical rains wash away the surface soil and dirt which the city scavengers overlook. Of late years attempts have been made to improve the streets ; sanitary regulations for the removal of refuse matter are enforced, the water supply is abundant and equal in purity to that of most cities, and gas is about to be introduced to the streets. Churches and chapels of all denominations abound, and there are several masonic lodges, schools, and a theatre. The latter is in bad repair and not much patronized by the inhabitants, most of whom belong to the Nonconformist bodies, and the remainder far too few to keep up for any time an expensive nightly amusement. Passing players may for a time reap a good harvest, but as in all other small cities where strangers are few the play-going community is limited, and the theatre is generally closed. Occasionally an operatic company finds its way to Kingston whilst *en route* to South America or from thence homeward, but amateur concerts of a superior class, amateur theatricals and readings, are frequent. A spelling bee has made its appearance, as a forerunner, let us hope, of a skating rink, which there is no doubt will be a favourite

place of amusement for our Creole ladies, who are never too fatigued to dance, and who would no doubt eagerly join in the substitute for it.

Every one who can spare sixpence drives. The conveyances are far from being elegant, and the drivers are not always civil ; but at all events they are not worse than cabbies are elsewhere, and they cannot overcharge, for there is but one fare from one end of the city to the other, an extra fee of sixpence being allowed for a drive beyond certain limits. One great advantage is, that these conveyances, and there are dozens of them, take their passengers just where they want to go, for the drivers know every one who has lived in the town for a few months, and the places of public resort are few.

Buggies for the country, and carriages for drives in the town, or on band evenings to the camp or its neighbourhood, can be obtained at the livery-stables by the hour, day, week, or month. There are, unfortunately, no coaches, and but one railway, which runs for about twenty-four miles. It is far from being efficient, is not bound to keep time, and the carriages are dirty. Accidents, however, seldom occur, this exemption being due, of course, to the fact that the trains run very slowly, are few and far between, and that there is but one line of rail.

The market is a very fine one, is built of iron,

and situated near the sea. Near it is a very fine statue of Lord Rodney, by Bacon, the famous sculptor of the last century. The market is adapted for the sale of meat, fish, poultry, vegetables, and fruit, and is cool and airy, with good slate slabs, butchers' hooks, blocks, cleavers, &c.

Beef, mutton, pork, and turtle are at all times to be seen there early in the morning, all very good, though not quite so tender as in Europe and America, owing to its being necessary to eat or cook meat on the same day on which it is killed. The turtle is cheap, and turtle soup and turtle steaks, calipee, and calipash are everyday articles of diet.

Our fish are very fine, but our fishermen content themselves with merely obtaining enough for each day's supply. Fish is the principal meat food of the peasantry, but it is salted codfish that they prefer. They were accustomed to use it in the days of slavery, and a little flavours a large pot of yams, especially if it is somewhat tainted. I doubt whether our fishermen could sell more fish than they do, unless the tastes of the people change.

This peculiar taste is all the more to be deplored, inasmuch as it leads to the importation of a large amount of pickled fish, inferior to those taken on our own shores.

Very fine mackerel are caught in the harbour,

and snappers, mullet, jacks, calipiver, June fish, barracouta, and kingfish are daily to be seen on the stalls. The inmates of the Lunatic Asylum, under the direction of their energetic superintendent, Dr. Allen, have earned some hundreds of pounds sterling by the cure, consumption, and sale of fish that they have caught in the harbour, which, of course, he is allowed to apply for the purchase of musical instruments, magic lanterns, and other means for their instruction and amusement.

The vegetables are such as are to be seen elsewhere. Potatoes and onions, which are principally imported from the other islands; lettuce, radishes, gourds, melons, cresses, cucumbers, beans, and peas, and other articles of garden growth are supplied by the coolie gardeners of the neighbourhood; whilst yams, cocoas, plantains, pumpkins, chochos, cabbages, and tomatoes are brought down from the country by negro women in baskets, which they carry on their heads. Beet and artichokes, turnips and carrots, asparagus, and other vegetables can also generally be obtained if required.

There are other delicacies, too, for which Jamaica is famous; but for these there are times and seasons, and some are seldom seen in Kingston. The traveller, however, should not leave without trying to taste the ringtail, the blue and the bald-pate pigeons, the mountain mullet, and the black crab.

Our fruits are, of course, tropical, for though our high mountains are capable of producing any European fruits, but few find their way into the market. There is an abundance, however, of oranges for at least eight months in the year, and pineapples and melons, starapples, custard apples, sour sops, sweet sops, neasberries (a delicate, luscious fruit), mangoes of all kinds, but particularly the "number eleven," as it is called, for want of a better popular name (which, when nearly ripe, has a subacid taste, with something of the nectarine flavour), shaddocks and bananas, are amongst our most esteemed fruits. The starapple is of two varieties, the purple and white. When cut across, the arrangement of the seeds gives a star-like appearance, hence the name. When the pulp is mixed with orange juice and served in a glass or dish, the stranger can hardly distinguish it from strawberries and cream. Wild strawberries also grow on the mountains, and apples and other European fruits might even be brought to perfection if proper varieties were selected, and a little care and attention were bestowed on them.

Unfortunately for Jamaica, the settlers of former days never made it a home, as did the emigrants to America, Canada, and the Spanish colonies have done, and still do ; but contented themselves with importing negro slaves to work in their fields, with amassing as much money as they

could, and retiring after a few years to spend it "at home."

Hence it is that so few public works were performed, that the houses were built only for temporary occupation, that the streets were unpaved and unlighted, and the public buildings few and ugly. Though much of the same habit still exists, much has been done since emancipation, in the building and improvement of penitentiaries, hospitals, churches, chapels, and schools, and a fine lunatic asylum has been established, which is a credit to Jamaica and an object of admiration to the inhabitants of the surrounding islands. It is to be hoped that our people will yet wake up and rouse the Government to a sense of its responsibilities in sanitary matters. We have no army or navy to maintain, no foreign policy to divert our Executive from home affairs, and the erection of markets and churches, bridges and court-houses, may surely be laid aside for a time in favour of some sanitary works, which, if properly conceived and executed, will make Kingston one of the healthiest of cities; for, though far behind the age in sanitary matters, it is not worse than many other towns, and even some parts of cities were in England and Scotland not longer than five-and-twenty years ago; and if the same advance is made in Kingston as has been made in them, I have no doubt but that (though in

the tropics) yellow fever and other diseases will be blotted out of the calendar of our bills of mortality.

In conclusion, I must add that within the last few years a large, dry, arid waste in the centre of the town has been enclosed and converted into a garden, which has been laid out with flower-beds and gravel walks, and in which have been placed fountains and seats, and last, but not least, a very fine, large marble statue of Lord Metcalfe, a former Governor much beloved in Jamaica, and of Indian and Canadian fame, and another of Edward Jordon, of local celebrity.

FROM KINGSTON TO THE MOUNTAINS.

TRAVELLERS should always leave Kingston in the early morning, when the air is fresh, and the first beams of the sun have dispelled the vapours of night, and have not yet commenced to heat the surface of the earth. They should leave before the land winds have died away, if they wish to get out of the hot dusty roads of the plains into the narrow gorges of the cool mountains, before the commencement of that hot and still and most disagreeable period which succeeds the arrest of the land wind, and the advent of the sea breeze. It is much better to get into cooler regions in the morning than to travel, hot and perspiring, in the plains by day, to reach the mountains when the temperature is falling. The unscientific and scientific will alike find much to amuse and interest them in the diversities of climate and scenery, as well as in the botany and geology of the different elevations as they are reached.

On leaving the town, whether for the hills im-

mediately behind, or for those on the right or left, the traveller will find himself on a plain composed of alluvial deposits, with nothing to recommend it to the view beyond the fact that its peculiar vegetation makes an interesting foreground for the magnificent scenery beyond. It is interesting, because to the stranger it is new and ugly. Along the roadsides are little copses of scrubby bush, composed of acacias, cactus, and penguin. Here and there are fences of cactus fourteen to fifteen feet high, but sometimes trimmed down to the height of three or four feet, over which one may see close cropped pastures, sometimes green, and covered with yellow flowers, but more frequently dry and barren; and occasionally there will be seen large fields of high Guinea grass, on which our horses and cattle luxuriate, to the exclusion of mashes, turnips and hay. Some roads run for miles by the seashore, where are to be seen the seaside grape with its thick green leaves, the Turk's-head cactus, the mangrove and various scrubby-looking bushes, with here and there huge rocks, large rivers, and rippling brooks. Other roads, that of the Bogwalk particularly, lead through deep gorges, by the side perhaps of a clear swiftly rushing river, on either side of which are perpendicular rocks, from two to three hundred feet high, like massive walls, in the interstices of which are to be seen trees and plants and creepers, of various

colours and sizes. Sometimes large clumps of bamboos are to be seen waving aloft their grass-like leaves, like huge Prince of Wales' feathers, and the lesser reeds, the wild plantains and the cocoas spread their huge leaves over the cool river, and the wild convolvuli and lianas hang from tree to tree in large festoons, and the waters rush through narrow channels, leaping over the rocks or lazily spreading over the sands. Hot and dusty roads there are too, on either side of which are ugly fences of penguin, the leaves of which are formed of an excellent fibre ; but even these roads in the early morning are frequently made pleasant for the traveller by the presence of forests of log-wood and ebony, the flowers of which exhale a delicious odour, only to be equalled by those of the "cereus," which hangs on to the acacias, the guango and the cotton tree ; and there are quiet roads, with trim logwood hedges, like those which are to be seen in our English lanes ; and good driving roads are to be found in all directions in the lowlands. There are no highway robbers, nor brigands, nor even rebels to be met with in these roads, and one may travel at any time in the night, meeting perhaps only a few people going to market, or carrying their woods and coffee to the towns and ports.

Though there are good driving roads to all parts of the island, even leading to altitudes of

over 2000 feet, those of the higher, Port Royal and Blue Mountains, can only be reached on horseback, on foot, or on a chair carried by negroes. No sooner is one started on the mountain road than a feeling of exhilaration comes on, a lightness and elasticity impossible to describe. A rise of a few hundred feet makes all the difference. The steadiest begin to long for a brisk trot, to laugh, to talk, and even to sing; while the scenery gets wilder and more beautiful as the higher elevations are reached. Grand it is not, for the mountains lack the rugged barrenness of America, Scotland, and Switzerland; they are clothed in green and blue, and not in purple, grey, or brown; they are capped with clouds and not with snow. Lianas and convolvuli again are to be seen as the mountain pass is reached, but greener, lustier, and larger than those below. Streams rush across the bridle path at every turn as the traveller slowly winds his way among the mountains; a path on which two travellers cannot ride abreast, and a fall from which may in some places be dangerous, but in most places would result in no more than in being caught up against a tree or bush. It is surprising how seldom such accidents do occur, however, and how soon even ladies learn to handle and sit on the little sure-footed mountain ponies. Here and there glimpses are caught of the bright seas far below, and estates are seen far away in the low-

lands, some of them over and over again from different points of view, until one begins to think that there are ever so many of them.

Higher and higher rises the road cut out of the mountain side with the deep valleys far below, until the camp at Newcastle is reached, or the distant and higher cinchona plantations of Bellevue, or the coffee fields of Newton or Clifton. No heat is felt during the day on a mountain ride, fatigue is little thought of even by those who have lived for years in the lowlands, and are unaccustomed to any exercise beyond that obtained in a carriage or buggy.

The nights are cool and refreshing, there is no demand for iced water, but rather for "something hot." There is no necessity for musquito curtains, but blankets, counterpanes, and rugs are in request. As the sun sinks over the hills and the moon rises, throwing its beams over the mountains and valleys like a paler sun, or the stars and planets shine as if they were lesser moons, the fireflies rush about in all directions, lighting the dark places covered by the shades of the mountains, or hidden by the foliage, as if under orders to act as linkboys for one's special benefit, through the narrow roads, or in the mountain gardens.

And then the cicalas tune their wings to shrilly notes, and innumerable insects pipe, and

the hoarse gecko or tree lizard croaks, adding his coarse tones to the music of the night. Not being a word painter, I shall not attempt more in the way of describing scenery, but must refer my readers to the many works written by various travellers, such as Anthony Trollope, the Marquis of Lorne, Sir Sibbald Scott, to the letters of Gallenga, the *Times* correspondent, and others; but more particularly to two works of Michael Scott's, the retired Jamaica merchant—namely, "The Cruise of the Midge," and "Tom Cringle's Log," in which, mingled with unrivalled descriptions of tropical scenery, are scenes depicting the lives of the sailors, soldiers, planters, slaves, merchants and pirates of the West Indies during the earlier part of the century.

Bryan Edwards, Long, Phillippo, Underhill, Labbatt, and Gardiner, have written its history in its various phases, from the capture of the island to the present day. Gosse has written of its "Birds," and of "The Naturalist's Sojourn in Jamaica," and Sir Hans Sloane of its Natural History. Church has transferred some of its scenery to his canvas, and Sawkins has published the results of his geological survey in a large volume. A reference to these books, or to those of their authors who are still alive in England, and by our American friends to a pamphlet written some time ago by Dr. Lente, of Cold

Spring, near New York, on Jamaica; to Dr. Champlin, of Cornwall, on the Hudson, who with his friend Mr. Delano visited Jamaica a few years back as climatologists, and to the numerous travellers from the United States and Canada, who have visited it for the benefit of their health, will I think excite in the minds of many a desire to visit Jamaica, and to read what there is to be said about the climate and the diseases incident to it.

THE CLIMATE OF JAMAICA.

BESIDES the advantages of a sea voyage for invalids, now generally admitted, there is every reason to believe that as a mode of conveyance it is for many reasons far preferable to land travel. Instead of the rest, the bracing air, and thorough change of scene, to be obtained at sea, the traveller in search of health on the south coast of Europe, Algiers, or Egypt, frequently has to perform long and tedious railway journeys by night as well as day; to travel on the dry and dusty days of autumn in hot or draughty railway carriages; to rush from hotels to stations, and *vice versâ;* to submit to annoyances with his luggage, and to resist the allurements of sight-seeing. He is warned by more than one writer of authority to avoid certain towns and localities and mountain passes, where cold winds prevail at certain periods; to linger about certain districts, so as to make a rush through those passes at the right moment; to watch the temperature, in order to change his clothing even when he does arrive at these health

resorts ; so that he is very much in the position of a man condemned to run the gauntlet between the ranks of his foes before he can reach a place of comparative safety.

On the other hand, the traveller to the West Indies has simply to place himself on board one of the numerous lines of magnificent steam-vessels already described, and he will be gradually carried into calm seas, a warm climate and blue skies, without trouble or annoyance of any kind, beyond that *mal de mer* which is no worse at the commencement of a long voyage than it is in the few hours of the Channel passage. There are disadvantages connected with every change of residence. There is no place like home ; and travellers must put up with some amount of discomfort, with dangers and annoyances hard enough to bear when in good health and spirits, but harder still when strength is failing and often well nigh exhausted.

That the advantages of access are not altogether wanting to Jamaica, I think I have already shown ; and it now becomes necessary that I should give some idea of its climate and advantages as a health resort.

"Jamaica," says Scoresby Jackson, "offers a great variety of climate, and is therefore one of the best of the West India islands for invalids to reside at who can afford to move from place to

place in order to put themselves in the most advantageous positions. Scrofulous children and persons threatened with consumption, but in whom there is no active disease, might be sent there. Persons suffering from bronchial affections, as well as rheumatic patients in whom the constitution is not materially implicated, might derive benefit from a sojourn in Jamaica. But dyspeptic invalids and those in whom there is a tendency to disease of the nervous system would scarcely find it a suitable place of residence.

"The difference in elevation of various parts of the island, and varieties of exposure according to the relative position of the mountains, give to Jamaica a variety of climate which could scarcely be expected from its situation within the tropics."

A residence of nearly twenty-two years there enables me to corroborate every word that I have quoted, except those in reference to dyspeptics and persons in whom there are symptoms of active tubercular mischief. My own experience leads me to believe that our mountain districts have been especially useful to both of these classes of invalids, as well as to the others that Jackson mentions. Within a radius of a few miles "we can obtain dry mountain situations with cheerful aspects, extensive views of tropical scenery, and an invigorating, stimulating atmosphere suitable to the hypochondriac and dyspeptic;" moist moun-

tain situations, such as Newcastle—our highest military station—is during the winter months for the nervous and those who suffer from a dry and irritable condition of the air passages ; dry inland and seaside situations for the leucophlegmatic and those who suffer from copious bronchial discharges ; saline baths for the rheumatic and gouty, and chalybeate waters for the weak, both in the lowlands and mountains—completing such a combination of advantages as can be shown by few other places in the world.

Over and beyond these advantages, Jamaica offers what few other climates can offer in the winter months, and that is what is now reckoned to be the greatest advantage of all—namely, an open-air life.

It is said that Dr. Blake, of California, so long ago as 1860, advocated in the *Pacific Medical Journal* the plan of an *out-door* life ; making his patients sleep in the open air without any tent during the summer months, with the result of an astonishing improvement in digestion and sanguification. Europeans live at all times in the open air in Jamaica ; for in the mountains as well as in the lowlands the windows and doors are kept open by night as well as by day, and there are few days in the year in which open-air exercise cannot be taken in some way or other. We could hardly advise Europeans to sleep in the open air ; but our

soldiers, both native and European, have often been placed under canvas in seasons of epidemics with advantage.

There is no necessity in Jamaica to watch the winds as in the South of Europe, and windows are left open at night in the lowlands without fear of harm, so long as the sleeper is out of the way of a direct current of air.

Authors in writing of Jamaica have too frequently lost sight of its *variety of climate*, deriving their impressions as to its insalubrity from travellers, sailors, and consumptive patients, who have had neither the inclination nor the means to visit the interior, but have hung about the towns and seaports in ships and malarious harbours, shut up in cabins or in close lodgings in the lowlands, neglecting to notice and to take advantage of the fresh air, and subjecting themselves to the same unhygienic conditions which cause so much ill-health in their own lands.

It is the open-air life which really cures so many invalids sent to the various watering-places and summer resorts of Europe and America; it is the open-air life which renders England's summer so beneficial to the invalid who has been shut up during the cold and dreary winter months; and it is the open air, combined with the clear and rare atmosphere of the mountains, which I venture to affirm has done and will yet do more for the in-

valid than Egypt or Syria, Mentone, Nice, or Spain, for the European ; or Minnesota, California, Nassau or Florida, for the American. Dr. Bennet regrets that Americans have as yet obtained no mountain resorts with a mild temperature for invalids, while deprecating their visits to Europe as fraught with danger to those suffering from phthisis, for various reasons, and more particularly on account of what he terms their futile attempts to combine the pursuits of health and amusement.

A visit which I paid to America enables me to state that there are health resorts on the mountains, and especially one at Cornwall on the Hudson, which are all that can be desired for invalids in the summer months ; and from personal experience I can affirm that they can find exactly the same climate and greater elevations in the mountains of Jamaica all the year round.

Jamaica, as I have before stated, being an island in the tropics, is generally warm. Snow has never fallen on its mountains, though hail-storms, such as I saw last July when at Cornwall on the Hudson, occasionally occur. In the low-lands the temperature is very equable all the year round, ranging to a casual observer from 75° at night to 85° in the day ; and this is tempered by the sea and land breezes, the former commencing at about 10 A.M. and lasting generally

until 6 or 7 P.M., and sometimes even later ; whilst the latter commences at about 8 P.M., and lasts until 5 or 6 in the morning.

The nights are invariably cooler than the day, except in the immediate vicinity of the sea-shore, and thus refreshing sleep is generally procured ; whilst the change of temperature is scarcely perceived by the sleeper, as it is at its lowest point between two and three in the morning.

Professor Parkes, in his excellent and unrivalled work on Hygiene, gives the following as the result of his inquiries into the Meteorological Reports of the army medical officers for a number of years, taken at Up Park Camp, a military station on the outskirts of Kingston, 225 feet above the sea level :—

Hottest month (July) mean temperature . . .	81·71
Coldest month (January) mean temperature . .	75·65
Mean yearly temperature	78
Mean fluctuation (annual)	6·06

At Newcastle, 3800 feet above the sea level, he gives as the

Hottest month (August) mean temperature . .	67·75
Coldest month (February) mean temperature .	61
Mean of the year	60°
Mean fluctuation (annual)	6°

In both places he says "the diurnal ranges were considerable," but as I have before said, these

changes are as between night and day, and therefore but little felt to an inconvenient extent by those who are in bed.

Humidity, he says, was considerable in the plains, being often eighty to ninety degrees per cent. of saturation, equal to from seven to nine grains of vapour per cubic foot, whilst at Newcastle the weight of vapour was at 5·77. In thus estimating the humidity of the plains, I am inclined to think that the Professor has taken several stations situated in the lowlands in former years together, as on reference to the Meteorological Tables for the years 1870-72-73, that of 1871 being only partial, I find that at Kingston in

1870	the mean degree of humidity was		60·0	weight of vapour		7·3
1872	„	„	57·2	„	„	7·3
1873	„	„	70·8	„	„	6·5

which shows certainly a smaller amount of humidity than he estimates, being an average of 62·67 and 6·70 weight of vapour for the three years.

"In treating of humidity, it must be borne in mind that the rapid evaporation at an elevated temperature is a most important element in estimating the amount of humidity in an atmosphere; as the temperature rises, the evaporative power increases faster even than the rise in the

thermometer. An atmosphere which contains seventy-five per cent. of saturation, is very different according as the temperature is forty or eighty degrees." The daily sea and land breezes —and at Up Park Camp during the years 1871-72-73, but fifteen and a half calm days were reported—must also be taken into consideration.

The following statistical returns will give some idea of the winter temperature and the mean degree of humidity of Jamaica and Nassau, those of Jamaica are extracted from the Army Medical Reports, and those of Nassau from the Guide-book of Nassau, furnished by Surgeon Segrave, R.A., both islands being favoured by the sea and land breezes.

Kingston, four winter months of the years 1870 and 1873 :—

Mean temperature	78·50
Mean degree of humidity	65·66

Nassau, four winter months of 1873-74 :—

Mean temperature	74·12
Mean degree of humidity	75· 9

These may now be compared with the temperature and humidity of several localities in America and Europe, as shown by observations taken at midday on January 13th, 1874, by the Signal Service officers of the United States in

America, and furnished by the officers of various observatories in Great Britain and France :—

Place.	Temperature.	Weather.	Humidity.
Albany, N.Y.	... 20° F.	... Fair	... 86
Boston, Mass.	... 20° F.	... Fair	... 77
Breckenridge, Mass.	... 20° F.	... Clear	... 64
Jacksonville, Fl.	... 57° F.	... Cloudy	... 79
Key West, Fl.	... 67° F.	... Fair	... 84
Lake City, Fl.	... 50° F.	... Foggy	... 93
New Orleans, L.	... 59° F.	... Fair	... 82
New York	... 27° F.	... Fair	... 70
Philadelphia	... 25° F.	... Cloudy	... 68
Punta Rossa, Fl.	... 61° F.	... Fair	... 88
Washington	... 26° F.	... Fair	... 72
Dublin	... 46° F.	... Fair	... 86
Glasgow	... 42° F.	... Threatening	... 77
Greenock	... 43° F.	... Clear	... 70
Osborne	... 44° F.	... Fair	... 76
St. Helier's, Jersey	... 46° F.	... Foggy	... 92
Sidmouth	... 46° F.	... Cloudy	... 82
Kew	... 42° F.	... Fair	... 73
Mont Souris, France	... 45° F.	... Rain	... 93
St. Maur, France	... 45° F.	... Rain	... 96

Of course I do not mean to take one day as a sample of the whole, but the reader can make his own experience guide him as to what would be a likely average for the winter months, taking this chance sample as a basis. Unfortunately the observations were not made in Jamaica on that day.

The amount of cloud in the lowlands of Jamaica is much less than in more northern regions, for while at Halifax it amounted during

the year 1870 to 5·7 out of 10, and during the winter months to 7·1, in Kingston it amounted to only 3·4 for the year, and 3·7 for the winter months; and at Newcastle to 2·5 for the year, and 2·05 for the winter months of the same year, and 1·8 for the year and 1·3 for the winter months of 1872. Never have I seen a fog in Kingston, though fogs are of daily occurrence in the vales of the interior, and the morning clouds and mists hover around the mountain valleys, to be collected at midday around their highest peaks.

May and October are the months in which our rainy seasons occur; they are our most disagreeable and damp periods, and yet sometimes unfortunately for the planter, though fortunately for the sick, they pass away with a few slight showers. On the whole, the months of December, January, February, and March are the driest in the lowlands, and February, March, and April in the mountains. The average quantity of rain is about that of 1870, when, according to the Report, it amounted to eighty-five rainy days in the year, with a rainfall on the ground of fifty-nine inches, and twenty-one rainy days during the four winter months, with a rainfall of seventeen inches.

The climate of the mountains approximates very closely the English summer weather, though

without the extremely hot days with dense atmosphere which are often so oppressive and enervating. Dr. Bennet affirms that there is no place in the world so good for the consumptive invalid as England is in the summer months, and his authority must be taken in this respect as being all the more valuable, in that he shows in himself the advantages of hygienic and climatic treatment.

The mountains of Jamaica I shall show have the summer climate of England, minus the dense and plus a rarefied atmosphere and its exhilarating effects. Thus the Army Reports give the average temperature of Aldershot, the military encampment, in the months of June, July, and August, of 1873, as 63°, but during the summer this year, and especially during the months of July and August, it has risen to 90° in the shade in London, 94° at Nottingham, and 102° at the watering place of Cape May, in New Jersey, U.S. It has never been more than 97° at Newcastle in our hottest months, and 105° at Up Park Camp, and even then tempered in the lowlands by the sea breezes, and in the mountains by their altitude. There the air is more pure and sweet, whilst London and the Midland Counties are suffering from an oppressive atmosphere laden with coal dust, soot, and the thousand other impalpable gases, odours, and animal and vegetable organisms

kept in the lower strata by its dense condition, and undergoing decomposition and fermentation by the heat.*

As I have already given Dr. Parkes's average temperature of Newcastle at 3800 feet above the sea, which gives February as the coldest month, with a mean temperature of 61°, I shall now give the results of an average which I have taken of the winter months of 1871, '72, and '73, which was 66°, and of the observations of two other gentlemen. Dr. Wern, then army surgeon at Newcastle, who some time ago held a sub-professorship at the Military Medical School at Netley, thus wrote me in August, 1875: "All through the hot weather lately in my own room, true shade, my thermometer rarely reached 76° F.,

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* *Table of Temperature of various Health Resorts, extracted from Dr. Bennet's work, "A Winter and Spring on the Shores of the Mediterranean," prepared by Sir James Clark, and supplemented by Dr. Bennet as regards Mentone.*

	Mean temperature of the months of November, December, January, and December.		Of the year.
Cairo	64·63		72·17
Madeira	61·39		64·96
Ceylon, Hill District	72·22		70·18
Mentone	49· 9	Bennet	60·80
Nice	49·88		59·48
Pau	43·55		56·18
Newcastle, Jamaica	64·63	Wern	70·

and rarely fell below 65° F. at night. The climate is very equable at present; during the winter months there is a greater daily range, falling to 46° or 48° at night, and rising to 70° or 72° at noon [mean 58° to 60°]. The temperature all the year round averages 70° F. I struck an average of several years lately." He added "that Newcastle was moist and damp during the winter months, but that there were many other elevations where the same temperature could be found with less moisture," as for instance the mountains of Manchester and Santa Cruz in the west of the island, where not unfrequently the winter months pass away without a single shower of rain.

A friend who was sent out from England for the first time in the winter of 1873–74, having been laid up the previous winter with typhoid fever and intercurrent pneumonia, followed during the summer with an attack of pulmonary hæmorrhage and symptoms of incipient phthisis, and who subsequently passed the winter of 1875–76 in a mountain residence, at the height of 2600 feet, in the neighbourhood of Newcastle, thus writes: "The thermometer in the daytime was never below 60°, nor above 80° F. The climate was very dry, so that my boots never mildewed; there were rarely any winds, and though there were occasional showers, I was able to go out every day, and to collect within a radius of two or three miles from

my house about 200 species of ferns and nearly 2000 specimens." As a result of his own observation he agreed with Dr. Wern that the lower ranges are best for the invalid in the winter, and the higher ranges of Newcastle and above it in the summer months. This gentleman derived great improvement during the first winter, his lung symptoms completely passing away without any medical treatment, and he was able to travel about the island, following strictly the rules laid down for him, without a single day's illness. His sister, who was with him, was also perfectly well. On his second visit he brought his young wife, he having some slight warnings that his lungs were again suffering. He again visited the mountains and other parts of the island without suffering any illness for a single day.

In the mountains of Santa Cruz I knew a gentleman who, with severe lung disease, into the particulars of which I do not feel at liberty to enter, but who had a serious attack of pneumonia in England, followed, after some time, by hæmoptysis and other serious symptoms, has been able to go out about his duties in the open air daily for the last six years, and though he still coughs, he has gained flesh, is strong, and is, I believe, cured as far as he can be.

On reference to the Reports for the years 1870, '71, and '72, we find that the mean degree of

humidity for these years amounted to 76·8, and for the four winter months to 78·7 higher than the plains, but not much higher than that of Nassau, as already shown, and within the limits assigned by Professor Parkes for certain bronchial affections,who says that "the most agreeable amount of humidity lies between seventy and eighty per cent. of saturation," and that "a very moist air is generally most agreeable, and allays cough."

The number of rainy days and amount of rainfall vary in all countries, and Newcastle is no exception to the rule. Thus we find that in 1870 there were 200 rainy days, with ninety-two inches of rainfall, whilst there were only 145 rainy days in 1872, with sixty-six inches of rainfall. There being sixty-three rainy days, with 51·18 inches, in the four winter months of 1870; and forty rainy days, with a rainfall of 12·70 inches, in the same period of 1872. The first year, however, was exceptional; rarely have we ever had it so rainy. That rainy weather is not necessarily injurious to all classes of sufferers is well known; indeed some do best in moist countries, and it used to be said, and I do not know that it has been disproved yet, that there is less consumption amongst the fens of Lincolnshire than on the warm banks of Devonshire. Dr. Bennet, in his work on "Winter and Spring on the Shores of the Mediterranean," p. 162, says, in reference to rain and rainfalls,

that: "However wet and damp it may be in England, or in the midst of the rain and mists of the west coasts of Scotland, as long as the summer temperature lasts, and the thermometer is at or above 60°, very few colds are met with. Indeed rainy weather, when the thermometer is not below 55° or above 65°, night or day, is not injurious to health." He thinks cool, rainy summers healthier than dry, warm, fine summers, and though suffering from phthisis himself during the summer of 1861, when it rained almost incessantly, and the rainfall was fifteen inches, nearly double the usual amount for the summer, he was able to spend his days fishing, often under an umbrella, in a boat on the lake, without catching the slightest cold. One of the most notable examples in my own experience is that of a gentleman who, after two attacks of hæmoptysis, for the last of which he was obliged to leave Scotland some eighteen years ago, and in whose family phthisis had found its victims, settled down in one of the most rainy, damp, and foggy districts in the island, took daily out-door exercise, not unfrequently crossed streams swollen by the rains, whilst he was himself drenched to the skin, without any advance in his disease, or return of his old symptoms. Lempriere in his "Observations on the Diseases of the Army in Jamaica," published in 1799, gives another fact which I have no doubt

will be found interesting. In proof of the salubrity of Maroon Town, in Trelawney, situated on one of the lofty mountains in the interior of Jamaica, where he says the thermometer was seldom higher than 70° in the day, and frequently as low as 50° or 55° at night, he thus writes: "The troops, consisting of the 83rd Regiment, with detachments of the 13th, 17th, 18th, and 20th Light Dragoons, and of the 10th, 16th, and 62nd Light Infantry, were marched into these mountains to put down an insurrection of the Maroons. During the whole of the seven months' campaign they were remarkably healthy, though they were constantly harasssed by the most fatiguing marches, over stupendous mountains, and almost inaccessible places, exposed to perpetual rain, and frequently obliged to sleep in the open and in wet clothes." After the expedition terminated four companies of the 83rd remained at Maroon Town, and enjoyed a better state of health "than they would probably have experienced in Europe; and for a period of two months the hospital was closed, the detachment not furnishing a man whose indisposition was such as to require confinement."

One great advantage in Jamaica is that we know when the rains are coming. Like the rain cloud seen by Gehazi ours can be seen far away, setting over certain hills at a certain hour and following a

regular course every day ; so that we can tell to half an hour when it is likely to reach us, and when it does come it falls in torrents, rapidly runs down the sides of the hills, and the earth rapidly dries, enabling one to go out again for exercise, amusement, and labour. Notwithstanding the regularity of rainfall, however, it is as well for the traveller always to take his umbrella and mackintosh with him in such seasons on going out for a long ride, as he can never be certain but that he may be detained in some way, and thus be exposed to drenchings which had better be avoided.

The amount of cloud for the year at Newcastle has been already given. The winds are generally from the north and north-east during the winter months, and, though considered cold by the residents, are much tempered by their passage across the Gulf of Mexico. Lower down and in other parts of the island they are less frequent and much milder, and to the European and those who require a bracing atmosphere they are decidedly healthy and invigorating, as is proved by the healthy ruddy appearance of the European children, who thrive as well in these mountains in all seasons as in the healthiest parts of England. Anthony Trollope, who ridicules the government and people of Jamaica in his book of travels, which necessarily had to be made spicy that it might be the more readable, thus writes of the mountains :—

"'Tis here that bishops and generals love to dwell, that their daughters may have rosy cheeks and their sons stalwart limbs. And they are right; children that are brought up in these mountains, though they live but twelve or eighteen miles from Kingston, cannot be taken as belonging to the same race. I can imagine no more healthy climate in the world than that of the mountains around Newcastle. One could almost enlist as a full private in one of her Majesty's regiments of the line if one were sure of being quartered for ever at Newcastle—at Newcastle in Jamaica, I mean. This place is accessible only on foot or horseback, and is therefore singularly situated for a barrack. But yet it consists now of a pretty village, in which live colonels and majors, chaplains, purveyors, and surgeons, all in a state of bliss—as it were in a second Eden. It is a military paradise, in which war is spoken of and dinners and dancing abound. If good air and fine scenery are dear to the heart of the British soldier he ought to be happy at Newcastle."

In these mountains, and indeed all through Jamaica, Europeans live to a green old age, as is shown in the tables of the Jamaica Mutual Life Insurance Society, from which it appears that their lives after a certain age are even longer than the lives of insured natives. Rarely do Europeans suffer from disease of any kind in the mountains,

and frequently do those from the lowlands resort to them to regain the strength, elasticity, and tone which a long sojourn in the *unvariable*, rather than the *excessive*, heat of the plains, and the malaria which exists in some places have deprived them.

TUBERCULAR DISEASE.

Its rarity amongst the European population and troops—The effects of mountain air on it, and the influence of air space in preventing, and of confined air in developing it.

"A HYPOTHETICAL Consumptive Atlantis," says Richardson, "should be near the sea-coast, and sheltered from northerly winds; the soil should be dry, the drinking-water pure; the mean temperature about 60°, with an average of not more than about 10° or 15° on either side." Such a climate, I believe, will be found to exist to its minutest description in the Santa Cruz mountains of Jamaica, on fuller investigation than I have as yet been able to bestow, and may also be found with some slight differences in the lower ranges of the Blue Mountains near Kingston.

Parkes considers that the influence of mountain air is destined to be of great importance in therapeutics; the Engadine has become a favourite resort for phthisical invalids in the summer and

autumn ; and Jourdannet extols the mountains of Mexico as the district above all others in which phthisis is rare, and where it is alleviated and cured.

It is the phthisical, after all, who principally require change of climate ; it is they who are principally benefited by it, and who of necessity resort to it from the failure in most cases of all but climatic influences to prevent, relieve, and cure their malady.

Jourdannet states in his "La Mexique et l'Amérique Tropicale," that phthisis is rare at an altitude of 7256 feet on the plateau of Anahuac, in Mexico ; and in the cities of New Granada, Ecuador, Peru, and Bolivia, at an altitude of 6500 feet ; that though the temperature is mild the winds occasionally give trouble, and that though the cold at night is in some seasons severe, yet it is not perceived by the inhabitants who are in bed at the time." He admits that there are people even in these favoured places who suffer from tubercular diseases, amongst the poorer classes, who sleep on the ground floors of their huts, and are imperfectly nourished. In no place can it be said that there is absolutely no tubercular disease amongst the poorer classes, except in Labrador ; not even in the far-famed Riviera or in the mountains of Switzerland ; and it is my belief that it is as rare in Jamaica as it is anywhere.

"The inhabitants of Nice," says Jourdannet, himself a Frenchman, "are not free from pulmonary tubercle; phthisis is not rare on the shores of the Mediterranean. The men who are born in these countries, habituated to the beneficent operations of these localities on the health of the lung, living in that equilibrium that a prolonged residence establishes between exterior actions and their physiological reactions, find nothing exceptional in them to guard them against accidental causes of disease. These organs will yield all the more easily to these causes in that the uniformity of a mild temperature will not have given the habit of a powerful resistance. Let an individual, on the contrary, come on these favoured spots from a rigorous climate, endured for a long time; all his functions will find themselves at ease in the midst of a milder temperature." Thus it is, we think, that the climate of the heights will act on the tuberculous coming from the sea level. A phthisical person from the lower regions will find himself on the heights in a more favourable position than the natives of the mountains, as those from more northern climates find themselves in a more favourable position than the natives of the milder climates are in their own."

It is said that of late years tubercular diseases have increased amongst the negroes and other natives of Jamaica, and there being no record of

births and deaths it is impossible for me to say that it has not; but if so, then there could not have been very much in past years. The returns of the army tend to show that they have increased amongst the black troops, but these are not all natives of Jamaica, many being Africans, though not in such large numbers as they were before the emancipation of the slaves in the West Indies, and many natives of other islands less mountainous than Jamaica. It is to be found principally amongst the young black and coloured females, usually the sempstresses and household servants in the towns, but I am persuaded that in these cases where it has not been induced by a debilitated state of constitution to which young females in all countries are prone, and which might be remedied if medical advice were obtained in time, it is principally due to poverty, close confinement to work, and insufficient sleeping accommodation. Amongst the mountain people phthisis is rare, and were it not so there would be no cause for surprise when it is borne in mind that their food consists of a small piece of salted fish, and though with an abundance of yams, peas, beans and other vegetables, with no milk whatever and a great deficiency of fats and oils; and that their huts are generally simply thatched, their floors composed of stamped earth on a level with the surrounding soil, and that their walls are made

of wickerwork daubed with mud. Many of the negroes are making better houses for themselves now, but there are still numbers who live in the manner above described, and all make very small windows, and that no fresh air may enter at night stuff all the chinks and crannies with dirty clothes.

That bad ventilation and want of fresh air in closely confined sleeping rooms is one of the great causes of tubercular disease is amply proved by the invaluable army reports to which I have so often referred, and Professor Parkes in commenting on them says that the only condition common to all the military stations which has undergone change and which has diminished phthisis by one-half in the British army, not only in Great Britain, but in Malta, Gibraltar, and in the East and West Indies, has been *better ventilation and more cubic space in the sleeping rooms.* He says that "the fall of mortality has been so marked of late years as to lead us to hope that in a few more years the Indian service, like the West Indian, will be almost as healthy as the home stations"—meaning of course mortality from all disesases, for "formerly there was a large percentage of phthisis in Jamaica—*it is now uncommon.*" It must, however, be borne in mind that during the last thirty years the greater part of the

white troops have been living in the mountains. From 1817 to 1836 lung diseases, almost entirely phthisis, caused 7·5 deaths per 1000 men or more than in England." They were then removed to the mountains to avoid fevers. "From 1837 to 1866 the ratio was only 1·42 per 1000 men, and in 1861 out of 636 men there was not a single death, though four men were sent home with consumption. In 1865 no death though eight men were sent home." All the men are not even now resident in the mountains; invaliding takes place less in Jamaica from obvious causes than on the home stations, as will be hereafter seen, and there is every probability that the men would have recovered in the mountains had they been allowed to remain, or being in the lowlands had they been sent up to them. That the mountain air has something to do with the lessened mortality may be gathered from the fact that Gibraltar shared with all the other stations in the improved hygiene of the army inaugurated by Lord Herbert of Lea at the instance of the Chiefs of the Medical Department, and carried out by a most efficient medical staff, trained in the Crimean war and esteemed by the Government for their ability and the value of their services then clearly demonstrated.

The station on the rock of Gibraltar is only

fifty feet above the sea level. The mean temperature of the year is 64·1°, with August as the hottest month at 76·6°, and January and February as the coldest at 53·77°. The relative humidity in August is 70·9°, and in January and February 69·1°.

The climate is cooler and drier than Newcastle, Jamaica, and the barrack accommodation and allotted cubic space the same as for the other stations, presumably according to the Army Regulations; and yet though there has been a change for the better, it cannot be said that it has equalled the improvement that has taken place in Jamaica.

In the ten years from 1837 to 1846, tubercular diseases amounted to 11 per 1000 of the strength; in the eight from 1859 to 1866, they had diminished to 7·63, or what it was in Jamaica prior to 1837.

From 1863 to 1866, the deaths and invaliding from phthisis were only 3·72 per 1000.

In the home army deaths from phthisis and hæmoptysis in the eight years ending in 1866, averaged 3·1 per 1000 of strength, the highest being 3·86, and the lowest 1·95; and from 1867 to 1871, it was 2·648, beside invaliding. Formerly the deaths from phthisis at the home stations amounted to 9·86, the deaths in the male

civil population of the same age being about the same of late years—namely, in London, 4·5 ; in the worst districts of England, excluding hospitals, 5·0 ; and the best, 1·96. Phthisis is therefore more common in the army than amongst the male civil population," there being always *some invaliding* which throws an extra amount of mortality on the civilian's death rate. It is also more common amongst the troops in Jamaica, both white and black, than amongst the civil male population of the same classes, for I do not remember having ever seen more than one white male native die from it, and but few male blacks, when compared with the numbers returned in the reports. During the period of slavery, when all burials were confined to particular grounds, Lemprière gleaned from the sexton's returns the following information, which he published in his "Observations" already mentioned. He states that in Spanish Town, the former seat of government and for many years a military station, situated in the lowlands about seven miles from the sea, and where the temperature is that of one of the hottest, and the barracks was considered one of the unhealthiest stations in the island, with a population of 3000 in 1793, inclusive of the white troops and the white, coloured, and black population, both slave and free, there were regis-

tered fourteen deaths from consumption, being an average of 4·66 per 1000.

In 1794	there were	12	deaths, or	4	per 1000
In 1795	„	7	„	2·33	„
In 1796	„	8	„	2·73	„

smaller even than at present exists among the male civil population of Great Britain. Lemprière further states that these deaths principally occurred amongst the coloured and black population. A residence in that town of seventeen years enables me to state that during all that time I never saw or heard of more than four deaths from, nor of more than six cases of, that disease amongst a white native population of nearly 1000 people in the district in which it is situated, and that the proportion of deaths among the black and coloured population of Spanish Town, then amounting to about 5000, was certainly but little, if at all, greater than in Lemprière's time. I have also resided in Kingston during the last five years, where there is a foreign and native white population of 4393 individuals, and though I have known of three or four cases of phthisis amongst those of them who are natives, I do not remember of more than one case where death has occurred from it in my own practice, nor have I heard of more than two in the practice

of other medical men, although of course they may have occurred, This is the more remarkable, from the fact that a large number of the white population, over 1000, are Jews, many of whose families have resided there for several generations, most of whom I attend, and nearly all of whom I know, and who may be considered bonâ fide natives, and therefore, according to Jourdannet, outside of the advantages that alienation confers. Throughout the island there are many families descended from those who were originally sent out from Europe on account of a predisposition to, and not unfrequently on account of, incipient and even active pulmonary tubercular disease. Many of these individuals I know, and know too that their families have grown up with no trace of the disease, and can give an instance of one family as a case in point, to show the influence of our mountain air in entirely eradicating the disease.

Both the father and mother are English, and came out to Jamaica about forty years ago, and built a house in the mountains, not more than twelve or fourteen hundred feet above the level of the sea, where they have ever since lived, making occasional trips to England. They have brought up a family of seven sons and daughters, but one of whom showed any symptoms of pulmonary disease, and those when at school in England, of

which she completely recovered on her return home. This daughter has since married, and had several children, and in all the family has increased by fifteen grandchildren, who are well and healthy, one only having died in infancy. There has never been a death in that mountain home, though two have died away from it of diseases unconnected with consumption. The mother of this family was herself in delicate health when she went out, and her mother, two sisters, and four other near relatives died of consumption in England, some before and some after she left. Numbers too have come to Jamaica with active disease who have been benefited by the change. Amongst this class was a young lady who went out with a cavity in her right lung. The climate agreed so well with her that she sang, danced for hours, rode for miles, bathed in the open river, and though she had one attack of hæmorrhage, got over it without much difficulty, and went away after four years' residence no worse, but rather better than when she went out. Imprudences such as these must be condemned, and she doubtless would have been cured had she paid more attention to herself, but she felt so well that she would not believe that her case was as bad as it really was.

Phthisical patients should remain for several years in the mountains, or should visit the island

regularly during the winter months, or settle down to some outdoor occupation, such as I have already mentioned, in order to reap the full advantage of the change, though of course some derive that advantage almost immediately. Advanced cases had better remain at home, and all would do well to bring some relative or friend with them, with whom they may beguile the long and dreary hours that must arrive even surrounded by the most beautiful scenery, the balmiest airs and the kindest of strangers, and on whom they may rely in those times of suffering and pain, and even death, which are the lot of all. I have seen most painful instances, in which death has occurred within a few days, or even weeks, after an arrival in the town, the sufferers not having even strength enough to move out of it.

One of the following two Tables will show the number of cases admitted into the various army hospitals of the different stations, and the deaths in them from tubercular disease in 1873, and the other the admissions and deaths from tubercular disease in the army hospitals in Jamaica from 1859 to 1873 :—

Statistics of various Stations for the year 1873.

Stations.	Of admissions per 2000.	Of deaths per 1000.
Home Stations	12·8	2·1
Mediterranean	7·1	1·15
Dominion of Canada	3·5	1·18
Bermuda	6.5	1·5
Windward and Leeward Commands—		
„ „ white troops	6·	0·85
„ „ black troops	29·4	4·90
Jamaica, white troops	0·	0·
„ black troops*	60·	1·04
Cape of Good Hope and St. Helena	9·	·82
Bengal	10·6	1·48
Madras	12·4	1·65
Bombay	9·2	1·40
Ceylon	4·1	1·03
Mauritius	4·1	1·03
Hong Kong, white	8·2	0·
„ native	0·	0·
Straits Settlements	6·6	3·32
British Navy (from returns 1873)	3·6	·10

Jamaica here appears lowest on the list in point of admission and mortality from tubercular disease amongst the white troops, the natives seeming to do better in Hong Kong than the whites, none of whom however died there.

The return for the British Navy for the year

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* The large number of admissions and small death-rate amongst the black troops was doubtless caused by a strict examination and detention under this head of all unsound men considered unfit to continue with the regiment when ordered off to the Ashantee war.

shows a very small percentage of admissions and deaths, which go to prove the benefits of sea air in the prevention of tubercular disease amongst sailors, which Jourdannet, from the statistics of the French Navy, seems to doubt.

Number of Admissions into Hospitals, and Deaths from Tubercular Diseases amongst the White Troops in Jamaica, principally stationed at Newcastle (including Deaths from Hæmoptysis).

Year.	Strength.	Admissions.	Deaths.	Invalided.
1859 ...	624 ...	0 ...	0 ...	0
1860 ...	594 ...	4 ...	2 ...	0
1861 ...	676 ...	3 ...	0 ...	0
1862 ...	702 ...	7 ...	1 ...	1
1863* ...	650 ...	7 ...	1 ...	0
1864 ...	677 ...	5 ...	1 ...	0
1865 ...	793 ...	3 ...	2 ...	0
1866 ...	768 ...	5 ...	0 ...	0
1867 ...	788 ...	5 ...	1 ...	0
1868 ...	778 ...	9 ...	1 ...	1
1869 ...	825 ...	2 ...	1 ...	1
1870 ...	663 ...	4 ...	1 ...	3
1871 ...	296 ...	2 ...	1 ...	1
1872 ...	354 ...	1 ...	1 ...	0
1873 ...	431 ...	0 ...	0 ...	0

* In 1863 it is stated that there were 393 men at Newcastle, of whom two were admitted into hospital and none died, whilst of 194 stationed at Port Royal, four men were admitted and one died. In 1863 also the same men seem to have been on the sick list as in the year before, less one dead and one invalided.

THE DISEASES OF JAMAICA.

INVALIDS and others who seek Jamaica in order to escape the ills of winter, or to seek for health or fortune, are often doubtful as to whether, in attempting to escape Scylla, they may not fall into Charybdis; whether, in point of fact, the diseases indigenous to the climate may not prove more fatal than those which they desire to avoid, alleviate, or cure. The real invalid runs but little risk in coming to Jamaica. Precautions are necessary in every climate, and if those which are taken elsewhere are taken in Jamaica by those whose vital powers are below par, there is no fear that they will get those fevers which have been so fatal in past times, and which still exist, though no longer in the severe epidemic form which characterized them, and which they still exhibit in other countries.

In nine cases out of ten in which it now occurs, yellow fever, which is the plague of the West Indies, has been brought on by the individuals themselves, who have most probably exposed

themselves to several, and generally to the whole, of the following conditions—viz., exposure to the midday heat, wet clothes, wet feet, fatigue, and particularly exposure to the malaria which arises in certain districts at night. The system is most liable to it when the wet clothes or shoes have been kept on for hours, or when those who have been labouring at some handicraft during the day, or who have been engaged in fatiguing public duties in hot and stuffy Courts crowded with people, ride off at night through the condensed vapours of the evening and through the lower mountain passes to their homes; or who have driven for miles at the coldest time of night, after hours spent in dancing at hot and crowded balls, or in attendance on meetings of other descriptions. I have known the fever come on in cases where these were undoubtedly the causes, and I have known many Europeans who have lived in the lowlands for years, and who after a time have been able to do all these imprudent acts, but who, from an avoidance of them at the outset, have never suffered from this fever, and of others who have been in constant attendance on those who have suffered from it who have never taken it. In fact, there is very great doubt in the minds of the medical profession in the West Indies as to whether it is infectious at all in the ordinary sense of the word, and where cases have occurred

which encourage the idea of contagion the sources of fallacy have been far greater on the side of the contagionists than on the other. It is certain that the disease arises spontaneously in certain localities amongst unacclimatized Europeans, and it is quite possible that a disease originally sporadic and non-infectious may assume intensity and gain the power of self-propagation or infection in the midst of crowded houses and hospitals, and of large immigrant populations crowded together in lodging-houses, wynds, lanes, courts, and alleys, as in Buenos Ayres, Peru, New Orleans, and other States and cities of America now, as in Gibraltar in former days, or amongst the Spanish soldiers in Cuba now, and ours in the West Indies at the beginning of this century. Dr. Lawson, late Inspector-General of the Army, has done good service, both by his personal attendance on the sick and by the publication of his observations most carefully taken during several epidemics, on the side of the non-contagionists, and I am bound to admit that his facts prove his theories, or rather that his theories are founded on facts which, if they do not demolish, must shake considerably the confidence of the opposite side in the value of the facts and theories which have been advanced in favour of contagion.

In Jamaica, unlike the towns and countries

already referred to, there are no large cities, and but few lodging-houses and courts in which Europeans live. Years often pass with not half a dozen cases of death amongst the better class of Europeans, and then, as I have before said, it has generally been due to their own imprudence. Females rarely take the disease, nor do men who have attained to middle age, and this, not because age or sex exempts them, but because they adopt precautions which young men, soldiers, and sailors will not. Of a large number of navvies who went out to labour, some thirty years ago, on the rail-road, and who were all teetotallers, not one died, though they had to work in the heat of the day in a malarious district. Had they worked at night, after the dews had begun to fall in those places—that is, when the vapours from the swamps were condensed by the cooler atmosphere of the night, and held in solution, as it were, around their bodies, and no longer destroyed by the solar heat, or driven off into the higher atmospheres by rarefaction and the sea breezes—most would certainly have fallen victims to yellow fever, in spite of their total abstinence.

Total abstinence is good, and total abstainers stand a better chance than others, and a far, very far, better chance than those who drink freely, but I have known a few very abstemious men who

have suffered and died from this disease, having neglected the precautions I have mentioned, trusting to their good health and temperance.

On the other hand, I have known a large number of travellers who have been through the length and breadth of the island, who by a simple obedience to the advice of their *medical* friends and an attention to those hygienic rules which they have followed in their own countries, have not only been free from illness of any kind, but have returned to their homes strengthened and improved in health by their travels, in spite of all the inconveniences that have to be borne in a country where travellers are few, the population scanty, scattered and poor, and travelling accommodation in consequence destitute of those conveniences and luxuries which travellers consider necessary in these days.

In the mountains yellow fever is rarely seen even at altitudes of a thousand feet, except when individuals having taken the disease in the lowlands, have gone into the higher districts, in which case it shows itself in a day or two. Even when there were a large number of white troops in the island, when army medical hygiene was but little attended to, and drinking habits were the rule and not the exception amongst Englishmen of all classes and in all countries, the mountain stations were invariably free from disease, so that all the army surgeons urged the Government to localize them in

one or two such places. After many years these recommendations were acknowledged by the military authorities, and the station at Newcastle was established about thirty years ago.

For nearly twenty years it was free from yellow fever, one case only having occurred in 1860, the day after the man's removal from the Kingston Penitentiary, where he had perhaps taken it, although it may have been brought on by a march in the noonday heat, fatigue, and night chills on his way up from the lowlands. In 1867, however, a regular epidemic made its appearance there, and twenty-nine deaths occurred. Some of the medical officers considered that the disease was taken up from the lowlands and spread by infection, but others have given strong reasons for believing that it was generated by certain insanitary conditions which often arise even in the very best localities, and particularly in military stations which have for a long time been occupied by large bodies of troops. That some such conditions were then present was generally suspected by non-military practitioners, and that these conditions were there at a later date has been indicated by the appearance of a bilious remittent fever of a typhoid form in 1873.

That typhoid fever may be generated in the highest mountain residences is beyond a doubt, and that it is generated even in finest palaces and

noblest mansions in the world, England too well knows ; and rare though yellow fever is at altitudes above a thousand or fifteen hundred feet, it does occasionally occur in such places as Puebla and the city of Mexico, which have an altitude of 2276 feet ; and at Newcastle, as we have seen, at an altitude of 3800 feet.

The following statistics will show the rates of mortality in the earlier and those of the later years of the present century, and what has been done by the army medical authorities in the cause of sanitary science by hygienic measures. These if fully carried out by them and followed up by the civil authorities, the true causes being discovered and recognised as removable, will result in time to come in their complete extinction, and in the regeneration of the fairest spots in the world.

In the twenty years from 1817 to 1836, the year of the removal of the white troops to the hills, the mean mortality of the army in Jamaica amounted—

Per 1000 of strength, to	121·3
In the four healthiest years to	67·0
In the four unhealthiest to	259·0

In the same period the mortality from fevers caused 101·9 deaths per 1000.

From 1837 to 1855 the mean mortality of the white troops amounted to 60·8, and of the black to 38—less than half of the first period.

In 1864 the mortality was below the home standard (from all causes); but in 1867 it ran up again to the mortality of the second period.

In 1861 to 1870 the total mortality was . .	20·36
In 1871 it was	13·51

It was highest in 1867, as will be hereafter seen, and lowest in 1864.

Admissions into the Hospitals in Jamaica, and Deaths from Yellow and Remittent Fevers, from 1859 *to* 1873.

Year.	Strength of force.	Admissions.	Deaths.
1859	624	1	1
1860	594	2	2
1861	630	1	1
1862	702	4	2
1863	654	0	0
1864	677	0	0
1865	793	0	0
1866	798	0	0
1867	788	90	31
1868	778	0	0
1869	825	14	11
1870	633	1	1
1871	296	not stated	4
1872	354	4	1
1873	431	0	12

In 1859 the death occurred in the lowlands. In 1860 one occurred at Port Royal, and one at Newcastle, the latter two days after the removal of the man from the Penitentiary in Kingston. In 1861 a corporal died at Savanna la Mer, an un-

healthy sea port. In 1862 the cases were of remittent fever, and occurred in the lowlands. Yellow fever first made its appearance in an epidemic form at Newcastle in 1867, when twenty-nine deaths occurred, and although there were some cases in the lowlands, they were fewer in number and the deaths less in proportion. In 1869 all were cases of yellow fever, and occurred in Kingston. In 1870, one in Kingston. In 1871, yellow fever occurred amongst the prisoners in the Penitentiary. In 1872, one case of remittent fever. In 1873, all were cases of remittent fever at Newcastle.

Intermittent fevers are common in the lowlands immediately after the rainy seasons in October, when the north wind comes over the mountains, but they are seldom fatal, and generally yield to treatment. Remittent fevers are more serious, and generally occur during the summer months. Liver complaints are rare in their severe forms, and bronchitis and pneumonia are seldom fatal. For twelve years, when in Spanish Town, I never had a case of pneumonia, unless as an intercurrent in typhoid fever, and during the last five years of my residence in Kingston, though there have been some ten or fifteen cases in my practice, the greater number recovered, the deaths occurring amongst the aged with liver and heart complications, and brought on by exposure to the lower temperature at night, which would have been un-

felt by those accustomed to lower temperatures, and more carefully clad in consequence.

Contrary to generally received opinions, roundly stated in some recent works on climate, I can positively state that epidemics are not common amongst us. Cholera was never known in Jamaica until brought there from Colon in the winter of 1850, followed by another epidemic in 1854. Small-pox has made but three visitations during the last twenty-four years, being kept down by what the army authorities in their report on the health of the soldiers in the Ashantee war, call the wonderfully excellent vaccination performed by the civil practitioners in the West Indies. Measles have been epidemic twice, whooping-cough twice, and there has been no epidemic of scarlet fever for the last thirty years. Measles and whooping-cough are far from being the fatal diseases that they are in colder climates, and children with the latter disease are able to move about in the open air without fear of danger, if they are otherwise strong and healthy.

On the whole, children are tolerably free from the dangers of infantile life so seriously affecting them in other countries, and though those brought up in the towns want colour and firmness in early life, and are thin and delicate as they approach the age of puberty, many can bear comparison with the children in many northern cities, and

those who are brought up in the mountains are as healthy, rosy cheeked, strong and agile as they would be in the farmyards of England or America.

Visitors would do well to remember that the temperature is not so different from that of their own countries in summer as to permit them to adopt an entire change of clothing. Colds can be taken when the pores are open and perspiration is suddenly checked—indeed, a man may as well have a wet cloth tied round him as to sit in a draught without woollen clothes on when perspiring. The temperature of the human body is much the same whether the external atmosphere is cold or hot, and people complain just as much of the heat who wear nothing but linen drill, as those do who wear tweeds or woollen underclothing.

In conclusion, I cannot do better than quote the following extract from the treatise of Sir James Clark on the Sanative Influence of Climate, with which Dr. Bennet concludes his "Winter and Spring on the Shores of the Mediterranean."

"Too much generally is expected from climate. It often happens that from the moment the invalid has decided on making his change, his hopes are fixed solely upon it; while other circumstances not less essential to his recovery are considered of

secondary importance, and sometimes totally neglected.

"In the first place, I would strongly advise every person who goes abroad for the recovery of his health, whatever may be his disease, or to whatever climate soever he may go, to consider the change as placing him merely in a more favourable situation for the removal of his disease; in fact, to bear constantly in mind that the beneficial influence of travelling, of sailing, and of climate, requires to be aided by such a dietetic regimen and general mode of living, and by such remedial measures as would have been requisite in his case had he remained in his own country. All the circumstances requiring attention from the invalid at home should be equally attended to abroad. If in some things greater latitude may be permitted, others will demand even a more rigid attention. It is in truth only by a due regard to all these circumstances that the powers of the constitution can be enabled to throw off or even materially mitigate, in the best climate, a disease of long-standing.

"The more common and more injurious deviations from that system of living which an invalid ought to adopt consist in errors of diet, exposure to cold, over-fatigue and excitement in what is called 'sightseeing;' frequenting crowded and over-

heated rooms; keeping late hours, &c. Many cases fell under my observation in which climate promised the greatest advantages, but where its beneficial influence was counteracted by the injurious operation of these causes."

THE MINERAL SPRINGS OF JAMAICA.

NEXT in number to the tubercular are those suffering from gout and rheumatism, who require change of climate, with the addition of mineral waters. These sufferers also will obtain relief in Jamaica. Rheumatism is certainly not uncommon amongst our labouring classes, whose clothing is of the simplest character, and who are frequently exposed to heavy rains, and are chilled by remaining in their wet clothing; and our better classes are not wholly exempt from it. Gout, too, is to be seen, not only amongst the better classes of European descent, but amongst pure negroes, especially amongst those who eat meat and drink malt and punch. Wine is by no means the *sine quâ non* of that disease amongst us, nor even beer, the favourite, and indeed sole beverage of most of our gouty planters being rum, either plain, with water, or mixed with sugar and lime juice, in the form of punch.

These unfortunates, however, always possess the

inestimable advantages of being able to obtain fresh and pure air, a warm temperature, sunshine and bright skies. To those suffering from these diseases a confinement in the house for the winter months, shivering even by the fireside, must be almost unendurable. The diseases must be bad enough in themselves; the confinement must be worse. But we not only offer a warm climate to such invalids, Nature has given us mineral springs in the lowlands which have the most marked curative effects.

One is situated about thirty-six miles west of Kingston, at Milk River, from which its name is derived. Twenty-four miles may be travelled by rail, and twelve by driving road, or it may be reached by sea; the other is situated at the village of Bath, at about the same distance to the east of Kingston. Both of these springs were favourite resorts in the time of Lemprière for those who suffered from gout and rheumatism.

They are both warm saline springs, and are maintained by the Government, such accommodation as they afford being given to the public on very moderate terms. They have been visited of late years by invalids and travellers from Cuba, Hayti, Demerara, and other parts of the West Indies, who have expressed their surprise and delight at the immediate relief that they have obtained. I have known people placed in car-

riages and driven down to Milk River Bath from Kingston and Spanish Town, after weeks and months of suffering, and carried down in an invalid chair to the water, enabled to walk about after two or three baths, to get in and out of the bath by themselves, and to go out to dine with friends in the neighbourhood, before a week had elapsed. Unfortunately, the arrangements are very imperfect, and great care must be exercised to avoid taking cold after getting out of the water, for it is very warm and the little room is very close. There is a chalybeate spring near Kingston and another in the mountains beyond Newcastle, but they are seldom used now, though they were much esteemed in former days. The saline waters of Bath in St. Thomas are not only warm, but are said to contain a small amount of sulphur, which is perceptible to the taste and blackens the silver of the unwary traveller. Some think that the sulphur is merely accidental to the surface, but it is probable that it comes with the heated water from a deeper source. Should this be the case, it might be found as useful in some cases of phthisis as the Eaux Bonnes in France. Analyses have been taken of these springs, as well as of one lately found in St. Ann's, at the request of Dr. Bowerbank, one of the oldest, most respected, and ablest of our physicians, by Messrs. Savory and Moore; but I am unable to introduce them here, having

mislaid them, but at all events they can be produced if required. The spring last discovered contains a large amount of calcium in solution, and is said to be especially useful in cases of struma and scrofula.

And now I must conclude; and if these few pages aid in inducing a fuller investigation into and an improvement in the hygienic treatment of disease, and to a wider belief and confidence in the virtues of fresh mountain air and an outdoor life, not only in Jamaica but in other countries the climates of which are as yet unknown, I shall feel that my holiday has been usefully employed.

THE END.

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