

power in nature coming into action, and shaking the solid globe, arises in the mind. The illusion of the whole of our earlier life is annihilated in an instant; we are undeceived as to the repose of nature; we feel ourselves transported to the realm, and made subject to the empire of destructive unknown powers."

THE CLIMATE, &c.

The islands, however, are occasionally swept by hurricanes. There was a mighty one in 1780, which destroyed many of the trees and houses; another on 20th July, 1813, when most of the shipping in St. George harbour was driven ashore, and a third in 1839. In this latter year, a much respected gentleman, now in Bermuda, attempted to walk from his house to his place of business—a short distance; but he had scarcely left his door, before the gusts of wind swept him off his legs, and he was rolled along the streets in a very undignified manner like—shall we say—a potatoe. Of the method and time of his return history is silent. The writer remembers one day in 1859, when the force of the wind was 30 lbs. to the square foot.

The temperature of Bermuda has been tolerably well ascertained in figures, by a series of meteorological observations taken for upwards of ten years by the Royal Engineers at their observatory at St. George, situated 122 64 feet above the level of the sea. We say figures, because we are thoroughly convinced by a five years' residence that the enervating nature of the climate in summer is far greater than in many places nearer the equator. There is a total absence of the land and sea breezes so common in the West India islands, and the south-west wind which is very prevalent in Bermuda, saturates the atmosphere to a most uncomfortable degree. Many of the summer nights are also nearly as hot as the day. We give here a few maxima, minima and mean readings for the month of August, 1857, which month fairly represents the summer temperature. They are deduced from an average of four daily observations taken at 9 30 A.M. and P.M., and 3 30 A.M. and P.M. The Barometer is corrected and reduced to a temperature of 32° Fahrenheit, and the dew point, elastic force of vapour, and the humidity of the atmosphere, are calculated from the readings of the dry and wet bulb thermometers. The other thermometers were self-registering.

Mean Barometer	29.956
Maximum do.	30.186
Minimum do.	29.853
Mean Thermometer (dry)	79.9
Do do (wet)	75.6
Do Dew point	73.5
Do Elastic force of vapour	812
Do Humidity	81.2
Maximum Thermometer (in air)	87.7
Minimum do. (in air)	73.5
Maximum do. (in sun's rays)	106.6
Minimum do. do. do.	82.0

CULTIVATION OF ARROW-ROOT.

Bermuda made a goodly show in the International Exhibition of 1862, the Palmetto baskets and jars, and we think, the arrow-root, obtaining prizes. There were several models of boats exhibited, specimens of the wood of every tree that grows in the islands, and a vast variety of shells, sea-weeds, sea-fans, sea-roids, brain stone, coral, &c. The far-famed arrow-root is still cultivated, but the annual produce is small—partly caused by the difficulty of, and attention required in, the cultivation, and not being so profitable as potatoes, which had a ready market in the United States. A resident of Bermuda has thus remarked upon the cultivation and manufacture of arrow-root:

"This plant, as tradition informs us, was brought here from Charleston, South Carolina, and from its name (Indian Arrow-root), must, I think, have been called so from the resemblance of the end of the root to the arrow used by the native tribes. The root or stick is seldom over an inch and a half in diameter at the biggest or lower end, and as many as 20 roots or sticks grow from one stem, which varies from two to four feet in height. There is much trouble in digging the plant, which process takes place from January to March. The root at each joint is covered with a skin, which is of a thick substance, and as the root ripens, resembles a bit of gauze, and when quite ripe, comes off almost as soon as exposed to the sun; consequently the buyer is benefited by purchasing the stick late in the season, for then he buys root instead of shoot or skin. The arrow-root is grated to powder by a rude crushing machine, and afterwards mixed with a quantity of water, and allowed to settle. The powder, or sediment, is then passed through sieves of various thickness of mesh, until all of it has been removed from the water. After being heavily pressed to free it as much as possible from the moisture, it is usually put upon the roof of a house and left to dry in the sun. In 1851 arrow-root to the value of about £5,000 was exported from Bermuda.

WATER SUPPLY.

The entire absence of springs in the rocky group causes a peculiarity in house building—the poorest house having a tank built under or close to it, to catch the water from the roof. The better class of residences have two tanks; this allows one to be occasionally cleaned out without placing the family on a limited allowance of water. Large tanks have within the last few years been built at St. George and Ireland to ensure the Army and Navy a plentiful supply at all seasons. There is a spot off the north shore of Hamilton—the Naval Wells—from which many tons, even in times of great drought, can be obtained, but the water there is merely the drainings from the adjacent uplands, and though fresh rises and falls with the flow and ebb of the sea. The salt water doubtless penetrates the compressed sand or porous bed of underlying strata, and the fresh water being lighter than the salt, swims on its surface instead of commingling with it. The writer was told by a naval gentleman long resident in Bermuda, that after a few hours' pumping the fresh water in the wells would become exhausted, and that you would find the salt water flowing below it. At Kneeling Island, in the Indian ocean, there are also wells of fresh water that rise and fall with the ocean tide.

MISCELLANEOUS.

The population of the islands is about eleven thousand; half of this number being coloured people. Slavery in an extremely mild form existed in Bermuda until 1834, the slaves being most kindly treated, and well

taken care of. In the present day many of the coloured people idle about the streets; they are great thieves—a propensity which is, however, tolerably well held in check by the magistrates, as by the law of Bermuda they can, we believe, flog such offenders for the offence. At all events "Sambo" is kept in tolerable order in Bermuda, and has a wholesome dread of the "cat," which contributes in a considerable degree to keep the gaols empty, and to lighten the rates. One of the resident gentlemen some time ago proposed that when Mr. "Sambo" was convicted of an offence for which he could be flogged, he should be sentenced to come and be flogged in a month's time, but in the meanwhile be set free. If he did not appear at the expiration of the month, he was to be looked for, and if discovered in Bermuda he was to receive two floggings—one being his former sentence, the other for not having surrendered.

The practical effect of this rule, which was unfortunately not adopted, would doubtless have been that the bad negroes would have quitted Bermuda, and sought their fortune in the Far West, while only the respectable ones would have remained.

A friend of the writer's, who discovered his choice melons were fast disappearing at night, adopted another plan, which for some time secured immunity for the contents of his gardens. He saturated a choice melon with some "nasty doctor's stuff." We will allow our readers to imagine the rest, as the melon was stolen on the following night.

Printing did not come into fashion until 1784, but now several newspapers appear, among which the most noted are the *Royal Gazette*, the *Bermudian*, and the *Hamilton Mirror*—a ladies' paper. St. George has also a newspaper for itself.

For a number of years there was a convict establishment at Bay Island, and the convicts were employed upon several public works. Bermuda, however, ought not to be regarded as a penal settlement, as convicts were not let loose there. When the time for discharging them drew near, they were shipped to England. The establishment was broken up in 1863, a fortunate circumstance for the pockets of that very excellent gentleman known by the sobriquet of John Bull, or to borrow the language of a friend of the writer's—"poor John."

The Government is administered by a Governor—generally an officer of the Royal Engineers—a council of ten members—all gentlemen of the island—the officer who commands the troops is also a member, and in the absence of the Governor takes his place. There is also a House of Assembly consisting of thirty-six members. Each member is paid two dollars a day during the session, and as the House generally sits nearly half a year, the members draw a nice little income from the revenue. There are about nine hundred electors, qualified as such by the possession of a freehold of not less than £99 value. In short, the form of government in Bermuda appears to be much the same as that which has worked so ill in Jamaica.

Bermuda is included in the diocese of Newfoundland, whose worthy bishop periodically visits the islands. The Church of England, we need hardly perhaps remark, is the Church of Bermuda. There are nine parish churches, and several churches and chapels belonging to other denominations.

Boating is a favourite amusement. The most pleasant sort of boat for harbour work is one about twelve or thirteen feet long, because by a little management and fastening the principal ropes aft, the owner can manage it himself, and dispense with the services of a "nigger," who is an expensive luxury, and an unpleasant passenger, unless his owner be disposed to supply him with "ottar of roses."

Bermuda boats beat admirably, as they sail very close to the wind. The mast is close to the bow, and "rakes" considerably aft, and the boat lies deep in the sea, which gives it a good hold in the water. A large mainsail, which goes nearly to the top of the mast, and a jib, are all the sails absolutely necessary.

In very fine weather a gaff topsail and flying jib may be carried, and in "running" a huge square sail, but heavy squalls come on so suddenly, and are so dangerous, that carrying these sails is attended with some risk. Some idea may be formed of the quantity of canvas carried by the boats when we tell that our own little yacht of twelve feet long, with a beam and depth of three feet, had a mast about twenty-one feet long, and her mainsail went to within a foot of the top, and by the aid of a boom extended two feet behind the rudder. Larger boats carried canvas in proportion, and all carry an immense quantity of ballast.

EPIDEMICS.

So far as we can now ascertain, the earliest epidemic of yellow fever visited the colony in 1699. The islands then enjoyed immunity for nearly one hundred years, and in 1780 yellow jack (the slang term for yellow fever) again broke out. A third epidemic occurred in 1796, and a fourth in 1812. Then came the terrible fever of 1818-19, which was succeeded by eighteen healthy years. The Bermudians fondly hoped they had seen the last of this fearful scourge, but their wishes were not fulfilled, for there was another outbreak in 1843. Next followed the fatal fever of 1853, and we find it recorded in the report of Surgeon Barrow that, exclusive of the civil population, 15 officers, 297 soldiers, 29 women, and 39 children died. This was followed by the appalling fever of 1864, which carried off 14 officers, 173 soldiers, 5 women, and 4 children. The civil population also suffered terribly. Dr. Barrow's first impression of Bermuda, we will venture to say, will never be effaced. He tells the world that "on account of the rapid and sudden influx of sick, I found the general hospital to be exceedingly overcrowded; there were 70 men in the building, which could not properly accommodate 35. The sick were not only lying around the wards, but may be said to have covered the entire floor. This required remedying without delay. I do not know any sight more appalling than the wards of an hospital crowded with yellow fever patients; it is as ghastly a spectacle as a field hospital after a sanguinary engagement. The totally altered expression of countenance is remarkable in many cases; anxious in some, bloated in others; the suffused eyes, yellowness of the skin, the oozing of their black blood from the gums, or from the nostrils or ears; or in conjunction, give a peculiarly hideous appearance to the sufferers. Here, a strong man is seen in violent convulsions, rapidly followed by black vomit and death; there, may be seen one lying in a state of calm and utter indifference to everything around him; a sudden turn of the head, followed by a forcible ejection of the inked vomit, too surely indicate

• Statistical, Sanitary, and Medical Reports for 1863. Published in 1866 by Harrison & Sons, and presented to both Houses of Parliament.

his approaching end. Delirious mutterings are heard on all sides."

Our readers will agree that this is a fearful picture, a thrilling description, and all the more horrible because it is true. It fairly surpasses any sensational novel. July, August, and September are the deadly months, fatal cases do not often occur later than October. This has given rise to a quaint Bermuda saying, "September, remember," "October, recover," "November, all over."

In 1866 and 1867, lines of telegraph were laid, running the whole length of the islands, and Bermuda will probably before long be connected by telegraph with either Halifax or New York.

The 19th September, 1871, was the occasion of an important public ceremonial—the far famed cau-way, bridging the channels that separate the two principal islands, was opened—and thus the old and new capitals, St. George and Hamilton, are linked together; as His Excellency the Governor happily observed in his reply to the Mayor and Corporation, "In the golden link of brotherhood, stronger than ancient jealousy and physical obstacles, and thenceforth pledged to no other rivalry than that of civil improvement and commercial enterprise."

TREES.

Enough of yellow fever, telegraphs, &c., let us pass to a more genial topic, and pay a passing tribute to the excellence of the delicious Bermuda oranges—alas, now so much diminished, for some years ago a blight came upon the fair orange and lemon trees, and many died. Others, especially in Mr. Perot's garden, near Hamilton, have survived, their stem and branches having been scrubbed every morning while the blight lasted with soap and water, so that in a few more years we may hope for a better supply of "Mudian" oranges. A variety of tropical fruits grow on the Somer's Isles—though not in great abundance. There is the Shaddock, a large juicy fruit, three or four times the size of an orange, a few cocoa nut trees, and the delicious Avocado pear (*Persea gratissima*) better known by its West Indian sobriquet of "sub-altern's butter," a sub being too poor to purchase the genuine article, and using the pear instead. Then we had the peaches, not so large or so well flavoured as those from our English hot-houses, but very sweet and grateful for all that. The pomegranate occasionally appeared on the table at dessert, the sugar cane grows in gardens, and the banana (*Musa sapientum*) abounds. The inhabitants generally eat it in its native condition, first removing the outside rind, but English people prefer it stewed. The purple fig (*Ficus Virens*) the plantain, (*Musa paradisiatica*) the round leaved sea side grape, (*Coccolabia unifera*) and the papaw (*Carica papaya*) are found in great perfection. The mango is also there—from young trees rescued from the French frigate "Hermione," wrecked off Bermuda many years since. Trees, however, of all sizes and varieties flourish in Bermuda. The cedar (*Juniperus Bermudiana*) is the tree, but it is seldom permitted to reach old age, the crooked trees being eagerly bought up by the shipwrights to form the ribs of the ships and boats, and the straight trees being purchased by the Government and by private individuals for the wood-work necessary in house building.

The wood when burnt emits a pleasant perfume, but a cedar cabinet 50 years old, the property of a friend of the writer, continually exudes a resinous juice which stains indelibly books or papers left there any length of time. The scenery would indeed be poor if it were not for the dark green cedar trees which cover the rocky hillocks and girt the rough shore, flourishing apparently as well in a poor as in a rich soil. The Pride of India (*Melia azedarack*) is at once an ornamental and shady, and a cool looking tree; we find it in many of the gardens, where are also clumps of bamboo. (*Arundo bambou.*) Palmetto trees are plentiful; from their leaves plait for hats and bonnets is worked, and some elegant baskets of the same material were sent to the London National Exhibition of 1862.

FLOWERS.

In conclusion we ask our readers, if not yet weary, to listen to a passing notice of the flowers. The hedges, instead of being decked in summer like our English ones with their mantle of green, are a brilliant rose colour, being chiefly formed of the Oleander (*Nerium oleander*) better known as the South Sea rose. Wild scarlet geraniums thickly bestrew the grave yards, and we find the prickly pear (*Cactus oprenta*)—perhaps more a fruit than a flower—on the tops of walls and fences—a substitute for nails, broken glass, &c.; and, indeed, an excellent guard against the uninvited visits of mischievous bipeds. The road sides are bordered with the scarlet flowered sage, (*Sabrina cocanea*) the common sage bush abounds, forming the natural underwood of the islands. Sage bushes are supposed to attract the sun's heat, and the only instance we know of a black man receiving a sun stroke, occurred when he was working among sage bushes. The elegant azure convolvulus adorns most gardens, also that glorious white bell-shaped flower Spanish bayonet, (*Yacca gloriosa*) and the sweet scented Jessamine. Had we space we could descant upon many others, and say a few words about the sea-weeds and shells, but our paper has extended to its utmost limits, and if the reader is pleased, the writer is well content.

A PREDICTION.—A correspondent writes as follows to the San Francisco *Scientific Press*:—Allow me to call your attention to a fact—a little out of the way in mining—but one in which many have been deeply interested on both sides. It is a prediction in relation to the late "unpleasantness" between France and Prussia, made years ago by Sir Walter Scott.

"In his 'Marmion,' introduction to Canto Third, 3rd verse, he speaks of the old hero, the star of Brandenburg, 'Brunswick,' and of his untimely fall; of Prussia overthrown at Jena; of the wrongs and woes of Germany in consequence of defeat; and concludes by saying:

"And when revolves, in time's sure change,
The hour of Germany's Revenge;
When, breathing fury for her sake,
Some new Arminius shall awake;
Her champion, ere he strike, shall come
To whet his sword on Brunswick's tomb."

As this prophecy has not made its appearance in any of the periodicals of the day, allow me to call your attention to it.