

Observations on the climate, soil, and productions of British Guiana : and on the advantages of emigration to, and colonizing the interior of, that country ; together with incidental remarks on the diseases, their treatment and prevention : founded on a long experience within the tropics / by John Hancock.

Contributors

Hancock, John, M.D.
Harvey Cushing/John Hay Whitney Medical Library

Publication/Creation

London : Published for the author; C. Richards, printer, 1840.

Persistent URL

<https://wellcomecollection.org/works/yafpd4bc>

License and attribution

This material has been provided by This material has been provided by the Harvey Cushing/John Hay Whitney Medical Library at Yale University, through the Medical Heritage Library. The original may be consulted at the Harvey Cushing/John Hay Whitney Medical Library at Yale University. where the originals may be consulted.

This work has been identified as being free of known restrictions under copyright law, including all related and neighbouring rights and is being made available under the Creative Commons, Public Domain Mark.

You can copy, modify, distribute and perform the work, even for commercial purposes, without asking permission.

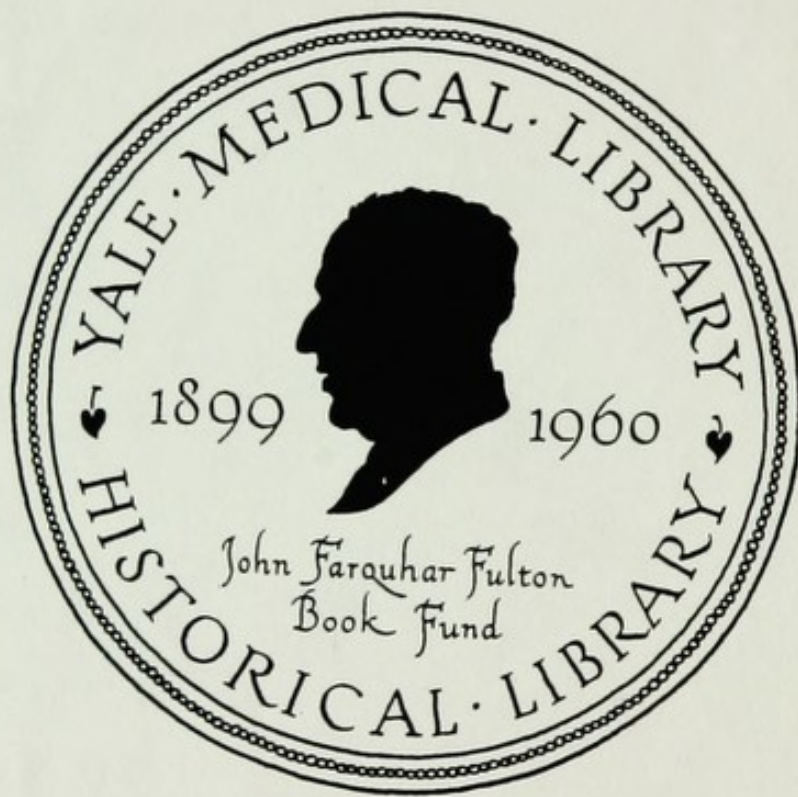
**wellcome
collection**

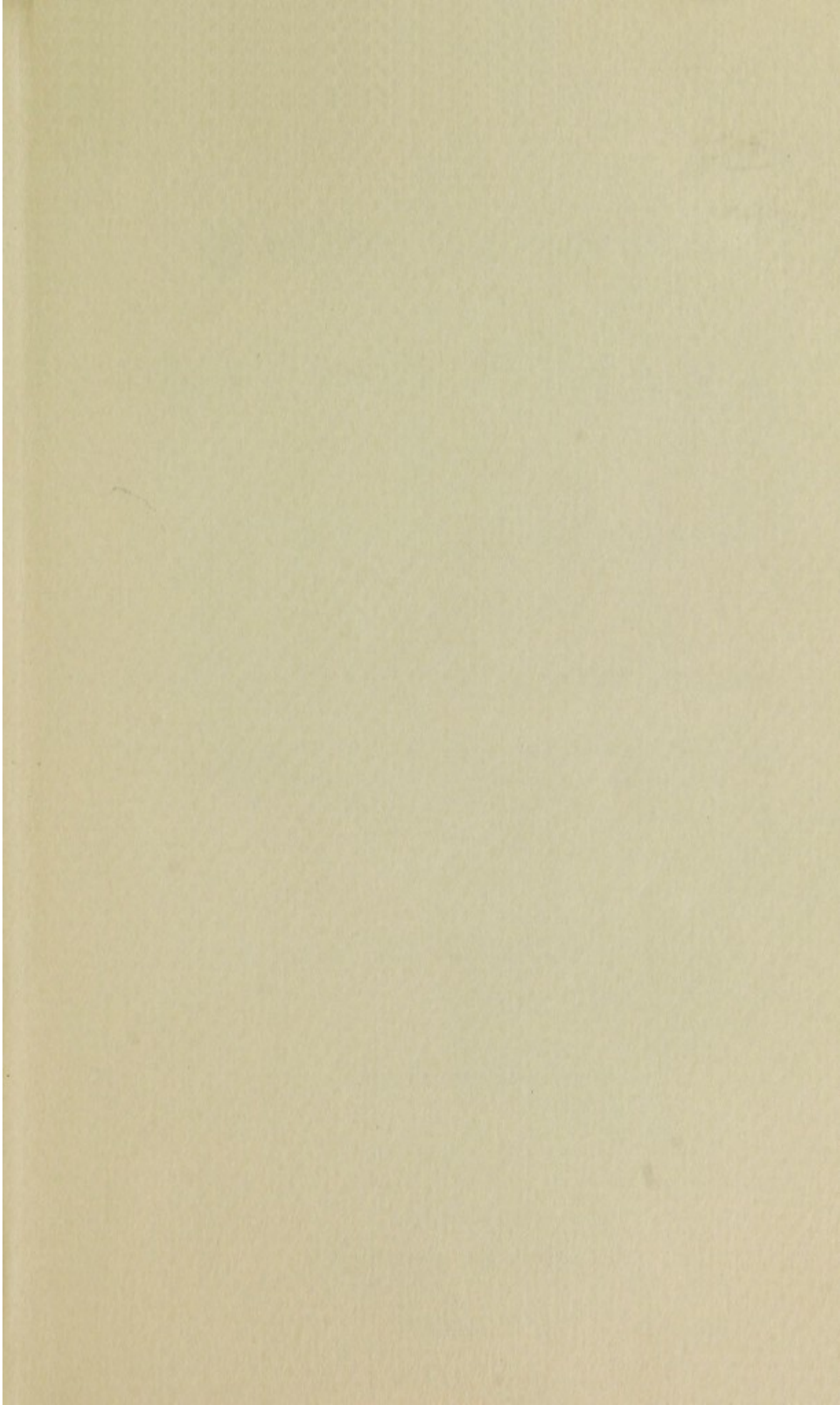
Wellcome Collection
183 Euston Road
London NW1 2BE UK
T +44 (0)20 7611 8722
E library@wellcomecollection.org
<https://wellcomecollection.org>

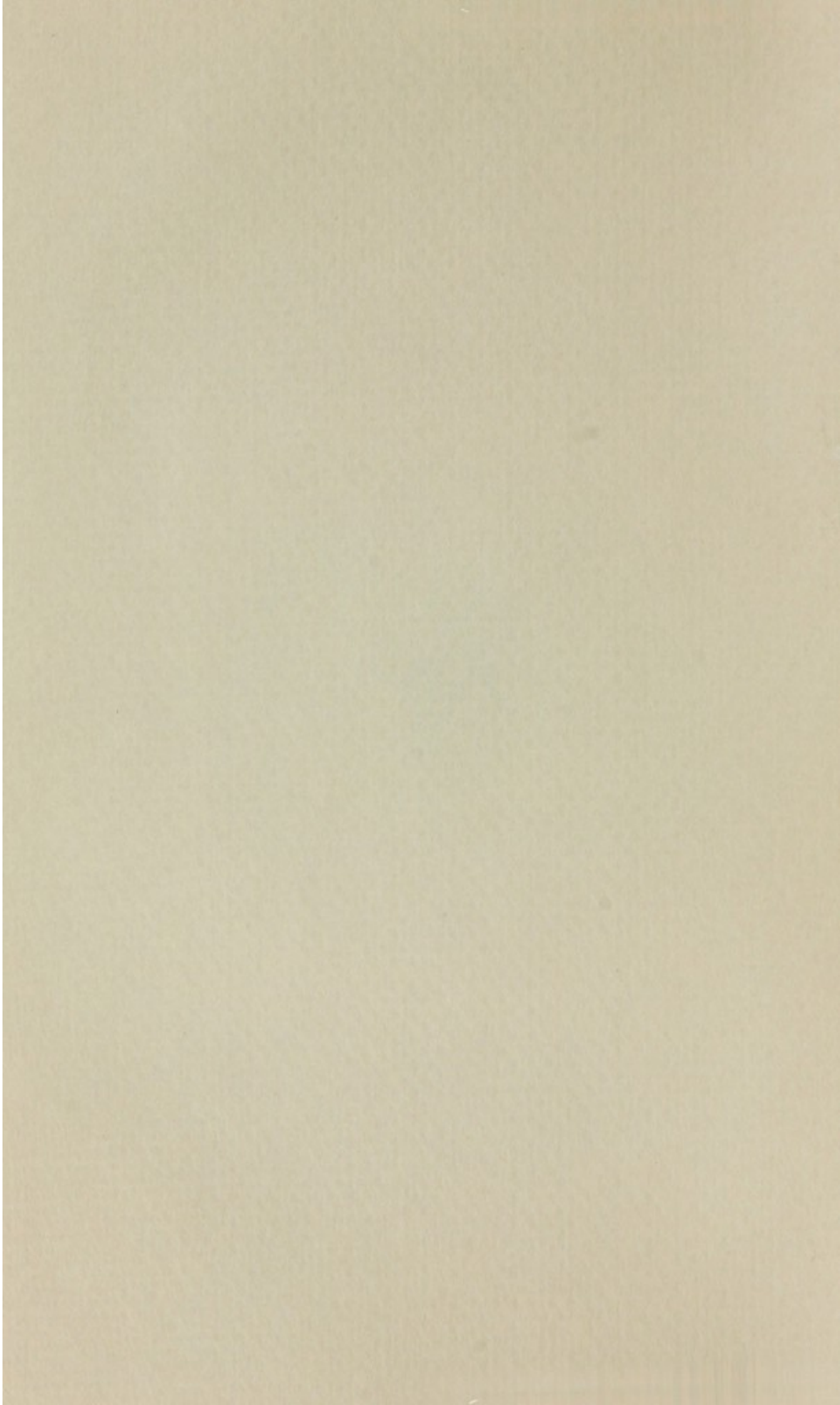
The image shows the front cover of a book. The cover is decorated with a traditional marbled paper pattern, featuring intricate, swirling designs in shades of brown, tan, and gold, with occasional flecks of red and green. A central white rectangular label is positioned in the upper-middle section of the cover. The label is framed by a thin black border and contains the title and publisher's name in a classic serif font. The text is centered and reads "BRITISH GULANA" on the top line, a horizontal separator line in the middle, and "HANCOCK" on the bottom line. The overall appearance is that of an antique or historical book cover.

BRITISH GULANA

—
HANCOCK







OBSERVATIONS
ON THE
CLIMATE, SOIL, AND PRODUCTIONS
OF
BRITISH GUIANA,
AND ON
THE ADVANTAGES OF EMIGRATION TO,
AND
COLONIZING THE INTERIOR OF, THAT COUNTRY:
TOGETHER WITH INCIDENTAL REMARKS ON THE DISEASES, THEIR TREAT-
MENT AND PREVENTION: FOUNDED ON A LONG EXPERIENCE
WITHIN THE TROPICS.

BY
JOHN HANCOCK, M.D.

Second Edition.

LONDON:

PUBLISHED FOR THE AUTHOR.

1840.

OBSERVATIONS

ON THE

CLIMATE, SOIL, AND PRODUCTIONS

BRITISH GUIANA.

AND ON

THE ADVANTAGES OF EMIGRATION TO

AND

COLONIZING THE INTERIOR OF THAT COUNTRY.

BY JOHN HAYDOCK, ESQ. MEMBER OF THE SOCIETY OF PHYSICIAN, LONDON. WITH AN APPENDIX, FORMED BY A LONG EXPERIENCE WITHIN THE TROPICS.

JOHN HAYDOCK, MD.



19th
Cent
RA 831
H36
1840

C. RICHARDS, PRINTER, ST. MARTIN'S LANE.

1840.

OBSERVATIONS, &c.

ADVERTISEMENT.

At the request of several influential gentleman connected with the colonies, Dr. Hancock begs leave to submit to public attention a revised edition of these remarks, originally published in 1833-35.

Having resided upwards of twenty-four years in Guiana, and travelled above two thousand miles amongst the rivers, forests, and savannahs, he ventures to hope, that the observations made during that lengthened period, will at the present moment prove both interesting and useful, since the subject of emigration almost exclusively occupies public attention.

OBSERVATIONS, &c.

INTRODUCTORY REMARKS.

THE very general distress prevailing in this country, and the number of people wanting employment, have suggested the project of forming an Association or Company for assisting destitute persons, and families especially, with the means of removing to British Guiana, as being probably the most eligible for Emigrants, and as affording to industrious persons, greater facilities for procuring the comforts of life than any other part of the world. The following remarks (in MS.) having been read by several gentlemen of extensive commercial knowledge, a suggestion has been thrown out to establish a Company on a similar plan to that of the Swan River, or the North American Emigration Company, which appears to be of the most liberal character. By the co-operation of gentlemen concerned in the Shipping trade, Merchants, and proprietors of Estates, such a project would doubtless be soon carried into effect; and the most beneficial results might be speedily realized.

The poor-rates in England are certainly enormous; yet the distress is such as no one would believe who has not examined into it. Many plans for relief have been devised

by benevolent individuals, and by none, perhaps, more judiciously than that by Earl Stanhope, in the allotment of waste lands; for the cultivation at home certainly appears to be of paramount and primary importance. Yet the views of this philanthropic nobleman have not been realized,—nor received the consideration they deserve. They may have met with opposition from deep-rooted prejudice, interest, or ignorance; and the Noble Earl certainly erred if he expected to find all landowners equally liberal-minded. In fact, it appears that, under prevailing impressions, emigration alone will avail, or meet the concurrence of all parties.

And this measure must be regarded as one of vital interest, considering the situation in which the Colonies are now placed, by the measures recently introduced, and by the great disparity in numbers between the black and the white population. It appears, indeed, that such emigration is essential to the preservation of the Colonies as integral parts of the British Empire, and alone can render them rich and productive, preserve order, and secure the property embarked by the present possessors.

It is fully evident that the Colonies are useful as an outlet for the surplus population, for the unfortunate, the labouring poor, and for the enterprising part of the community. According to some authentic statements, England is more densely peopled than any other district of equal extent, not even excepting China or Japan.

Nor will the advantages thus accruing to the mother-country be overlooked by practical statesmen, who see the necessity of emigration from populous countries; a principle recognised and acted on in all ages, the wisest legislators ever having borne testimony in its favour. In a flourishing country like Great Britain, most rich in resources, unrivalled in enterprise and industry, but teeming with an

overabundant population, emigration becomes, we may say, not only advantageous, but indispensable.

Nor has the importance and necessity of encouraging this sort of enterprise been overlooked by the wisdom of the British Government; and the urgency of the measure has impelled vast numbers to embark for distant colonies, where their industry may produce incalculable benefits to themselves and their posterity, whilst it serves to augment the British Empire, and extend its power and commerce in all quarters of the globe. It is true some narrow-minded politicians would maintain the doctrine that emigration tends to paralyse and weaken the parent state. But nothing can be more palpably false than this assertion; it is contradicted by facts, and the sophistry is too absurd to need refutation.

National wealth and power have ever been found to increase with the accession of colonies, and to decline in proportion as these fall off: this history abundantly testifies; and that of ancient Rome especially. In later times, the colonial possessions of Spain have, from bad management, nearly all been lost, and her foreign commerce, which formerly extended over the globe, is thereby almost annihilated. Napoleon Buonaparte, with his forty millions of subjects, became fully sensible that nothing but ships, colonies, and commerce, could enable him to cope with the power of Great Britain.

I may here quote a few words from a well-written pamphlet, entitled, *Practical Advice on Emigration*:—"From various causes, the fields of employment have become crowded, and the labouring classes are looking about for more room and better means of subsistence: emigration, under such an impulse, resembles a stream from an overflowing fountain, which may be guided, but cannot be stopped.

“I deny,” said William Penn, “the vulgar opinion that plantations [colonies] weaken England; they have manifestly enriched and strengthened her; the industry of those who go into a foreign plantation is worth more than if they stayed at home.” Again, England furnishes them with clothes, household stuff, tools, and the like necessaries, and in greater quantities than their condition at home could have needed, or they could have bought, and they often return with riches to England.

Prince Talleyrand, who lived to see France *lose* all her colonies in the East and West Indies, and *again establish them* on the coast of Africa, has remarked that, with the ancient Governments, the predominant policy appears to have been, that “Bodies politic ought to reserve to themselves the means of placing to advantage a superabundance of citizens, who may from time to time threaten their tranquillity. It belongs to our enlightened navigators, he says, to tell the Government what are the places where a new country, a salubrious climate, and a fruitful soil, invite our industry, and promise us richer advantages.”

The late Lord Chancellor of England long since expressed himself in similar terms: “The colonial trade is one always increasing, and capable of indefinite augmentation, while the other branches of traffic are of necessity on the wane; it is as beneficial as a home trade. Capital taken from the mother-country to her colonies, is not withdrawn from the empire; it continues to support the productive part of the community. It is a narrow-minded policy which would consider *colonies* as separate and subservient appendages of the State; they are *integral* parts of the empire which is *happy enough* to possess them, and they ought to be considered as such.”

Soil and Advantages of Cultivation in the Interior.

Guiana presents a great diversity of soil, but the following are the principal:—1st, the clayey or alluvial marshy land of the coast, which extends usually some six or eight miles aback from the sea; 2ndly, the hills of sand and gravel, with some intervening morasses, extending to the falls; and 3rdly, the deep soil of the interior. Below the falls, indeed, are many fertile spots; but these are of limited extent. Unfortunately, both the Dutch and English planters have heretofore confounded this intermediate district with the primitive soil of the interior, or mountainous regions, and they continue to judge of the latter from what they observe below the falls, notwithstanding the great geological disparity.

The coast lands being an alluvial deposit from the sea and great rivers, have indeed, when rendered mellow by labour (the sea being kept out), been found rich and productive, and they are still so on the Essequibo coast, one of the richest slips of land on the earth. Numerous plantations (hundreds probably) are abandoned in Demerara and Berbice for want of adequate labour to keep up the cultivation.

The mountainous country presents to view divers-coloured ochres, indurated clays, and volcanic products, which repose on the granite, with various mixtures of loamy earth and vegetable mould to a vast extent. Beyond this we meet with extensive savannahs or prairies, chiefly clay and gravel, affording pasture for cattle.

The seasons are divided into wet and dry, which, inland, are very regular, but less so on the coast; and there is a perpetual verdure throughout the year. In the intermediate levels between the ridges of the falls of the Essequibo, the river annually overflows its banks; when this occurs, it

never fails to leave a fertilizing deposit, such as gives a perennial verdure to the banks of the Nile, and like that of the *intervale* lands, so termed, or fertile meadows of the river Connecticut in its course, especially between New Hampshire and Vermont.

Most planters have considered the labour of slaves to be indispensable to successful cultivation on the coast; and with reason perhaps, as heretofore conducted. It is certain, indeed, that the cultivation of the coast cannot be continued unless it be by the means suggested—by the introduction of emigrants, and the use of animal labour. In proof of this, we might instance the island of Hayti, where, notwithstanding the endeavours of despotic chiefs, the cultivation has so declined, that there is not now a sufficiency of sugar produced for the use of the inhabitants.

None but Hollanders could ever, on such a continent, have thought of robbing the sea, or fencing it out from a swampy coast with such immense labour, as is found continually necessary to keep up the cultivation. The original Dutch colonists, indeed, seem to have sought in this country, only another Holland, and, in a district boundlessly rich and uncultivated, at an early period, they set about gaining land from the sea; and accordingly planted themselves on the muddy lands of the sea-shore, where they had the comforting reflection, that they must necessarily be drowned by the sea on one side, or by the *bush-water* on the other, unless protected by dykes.

In some instances, however, the Dutch at first cultivated the lands up the rivers; but in addition to their aquatic propensities, their attention was directed to the coast,—1st, by the facility then existing of procuring slaves in abundance, and at a very trifling expense, from the coast of Africa; 2ndly, by the necessity of keeping a military force inland to overawe the Caribees; and thirdly, by the immediate contiguity to the shipping.

The first two motives no longer exist. And the third is unworthy of regard in a country watered, like Guiana, by numerous large rivers. But the planters, in the meantime, appear to be unaware of the advantages of the interior, and continue plodding on in the old system, not knowing how to avert that destruction which awaits them,—notwithstanding there lies within their immediate reach a soil rich in fertility, boundless in extent, and requiring only some improvements as to water-carriage and roads, to render it more accessible and speedily productive.

On the cultivation of the interior, my remarks are entirely founded upon personal observation in various parts of Interior Guiana, on the Essequibo and Parime, as well as on the Orinoko, where I had the opportunity for more than three years of calculating the avails of agriculture, and of seeing persons of no pecuniary funds becoming rich with very slight industry.

It was also exemplified amongst those tribes who, as Mr. Humboldt says, “inhabit the country so little known between the sources of the Orinoko, and those of the rivers Essequibo, Carony and Parime,” of which we may say, with the Abbé de Pradt, “Let us not dispute the fact, but candidly confess that, as yet, America is only discovered in name, and geographically. The treasures it contains are still buried riches, which its freedom alone can discover to the Old World.”

In further illustration of this, I may observe, that there is, or was not long since, existing a coffee-field up the Essequibo, (at Ooropocary, about 40 leagues inland,) which has been planted at a period unknown, supposed to be about the first settlement of the Dutch, and this is found to continue bearing in abundance,—nature alone, on this fertile soil, keeping up a reproduction of the trees! It is a fact, that these interior lands will produce far more sugar, coffee, cocoa, &c., than the sea-coast, and that with half the labour;

of which I have had the fullest demonstration up the Orinoko, where crops of cocoa and coffee are produced, equal in abundance and quality to those of Caraccas.

The planters are not aware of this ; and when, in regard to sugar in particular, I remarked to them the size of the canes, and that they often exceeded thirty feet in length, it was thought quite impossible. On the coast, they commonly grow upright, and to the height of six or eight feet ; but inland, their growth is so luxuriant, that they often fall and stretch to a great length on the ground. I may add too, that these enormous growths are found almost in a state of nature, or without any weeding, trenching, or labour of drainage, and contain a more pure saccharine juice, without that impregnation of sea-salt, which, in new lands on the coast, impedes the granulation of the sugar.

The inland tribes, moreover, are fond of agriculture, and there the plough might be used with vast advantages. The use of this was introduced with astonishing effect among the Cherokees, the Creek, and the Seminole Indians of North America, by the immortal Washington, whose military greatness was of a different stamp from that of tyrants and of great commanders in general ; and this act towards the Indians was viewed by philanthropic minds as one of the most glorious of his life.

The lands alluded to are not only best adapted for the staple articles of sugar, coffee, cocoa,* cotton, and indigo, but equally so for numerous others, which will not thrive on the coast. No soil can be more congenial for the produce of dates, figs, olives, and grapes of superior quality,

* It is strange, indeed, that this valuable production, requiring so little labour, should have been so neglected on a soil the most congenial to it, especially by those who are aware of the grateful and restorative properties of *cacao* or the chocolate nut, well named by the great Swedish naturalist, *Theobroma*—food of the gods.

as proved by the Friars of Carony ; as well as for the various aromatics and spiceries, such as the nutmeg, cloves, ginger, allspice, and cinnamon.* From the illiberal policy of the Spanish Government, and old Spain being the country of grapes and olives, the cultivation of these and various other products was prohibited in Spanish Guiana. This is the natural soil of the odoriferous vanilla, which has been taken to Martinique and sold at from fourteen to twenty dollars the pound. Dying woods, cochineal, wild honey, gum copal, &c., abound in the forests, besides a multitude of treasures unknown to Europeans.

Many of our most valuable and expensive medicines, moreover, could be cultivated here with facility ; as opium and ipecacuanha, which would give a quick return. The more humid parts would likewise produce the invaluable Sarsa de Rio Negro (*Smilax siphilitica*), which doubtless, with a little research, might be found growing wild.

It is not improbable that some of the more febrifuge species of cinchona (Peruvian bark tree) would be found on the mountain Mackerapan, or others of the elevated range of Parime. But, whether found indigenous or not, this would afford a proper soil for its cultivation, which would be desirable now that the cinchona forests on the declivity of the Andes are becoming exhausted.

The Rubiaceous plants are especially numerous in Guiana. There are several different species of coffee growing wild in the interior parts, as well as of the *Cephalus* genus, of which the true ipecacuanha is one ; and there can be no doubt that the cinchona will likewise be found, all these

* The writer has observed a wild kind of cinnamon on the mountains of Reponony and Parime. It is called by the Caribees *Wabaima*, and by the Portuguese, *Caska preciosa*. It grows to a very large tree, having a sweet aromatic bark. The natives represent its wood as being very durable.

being of the same natural family. Another tree (of a new genus perhaps) found in Pomeroon, and described by the writer, affords a tonic and febrifuge bark, not inferior to cinchona. See Med. and Phys. Journal for January, 1833.

Besides all this, no country in the world abounds more in valuable timber-trees for ship-building, cabinet-work, &c. It is here worthy of remark, that the forest trees do not impede those of humbler growth. The coffee, vanilla, and various others, even require the shade of other trees. In this respect the tropical regions differ from those of higher latitudes, although this fact has hitherto scarcely been known or appreciated, and we see the most valuable timber and fruit trees wantonly sacrificed in clearing the lands in equinoctial America.

Of these, and other native treasures, the medicinal plants, gums, barks, fruits, &c., some account will be given in a proposed work on Guiana. The attention of Europeans was long since excited by the fables of El Dorado, and of the Lake Parime, where the writer has travelled; but whether these contain mines of precious metals or not, their greatest riches, no doubt, consist in the vegetable products of the soil. These lands are but an extension of those visited by Humboldt, on the Rio Negro, which that celebrated traveller designates a *new world* of plants, and where he was confounded by the profusion of new vegetable forms.

The nutritive vegetables, too, are grown in great abundance in the interior; as yams, cassada, plantains, sweet potatoes, and Indian corn. Of the latter, there is one sort, called Maiz de dos Meses, which, as its name imports, yields in two months from the time it is committed to the ground. The return of Indian corn is often 2000 to 1 amongst the Macoosis.

The domestic animals of the interior also are kept with extraordinary facility; as horses, mules, hogs, goats, fowls,

&c.; and horned cattle multiply so much, as to run wild on the savannahs. Indeed, cattle were often killed for their hides and horns, and the flesh left to the vultures, for want of salt; and, notwithstanding milk was rich and abundant, no butter or cheese was made, whilst two or three shillings per pound were given for foreign butter: this marked the state of enterprise and industry amongst the Portuguese. Would British commerce and industry be thus effete in a country so unboundedly rich? On the Parime (beyond the western source of the Essequibo), the beef was one halfpenny per pound, whilst it cost in Demerara a guilder or eighteen pence the pound. Besides this, the interior abounds in wild animals, which afford the most delicate and wholesome nourishment; as bush hogs, deer, mypoories, lapas, the great river turtles and their delicious eggs, as also the manatee, with fish and fowls innumerable. We experienced no want of fish and game in going up the falls, although our party numbered upwards of thirty people.

The rocks afford in the dry season the means of drying and preserving fish, which are caught in vast abundance amongst the falls, especially the *paco*, one of the most delicious articles of food, of which the teeth are formed like those of a sheep, and which feeds entirely on grass and vegetables.* The *lau-lau* (*Silurus* sp.) also is amongst the finest as well as the largest of the fresh-water fishes, which abound in these rivers: it grows to about ten feet in length, weighing upwards of two hundred pounds. Here is also another extraordinary fish, of very large size, scarcely known to naturalists, called *arapaima*, or *warapaima*, with

* The morocoto, cartabac, and some others, are of similar structure, and feed on divers plants, fruits, and nuts, which they crush with their strong molar teeth. Of this group or family of phytivorous fishes, I have a monograph, which will, I trust, ere long be published; for their habits, teeth, and internal economy, sufficiently distinguish them from all the true fishes hitherto known.

scales as large as a half-crown piece, and beautifully striate with crimson.

It may further be considered, that the Indians, who abhor the idea of cultivating the coast lands, will labour most cheerfully on the genial soil of the interior; and that their hire is comparatively trifling.

On the natives of the interior I may here make one observation. The terms "Caribee" and "cannibal" are often confounded: this arose from wilful slander or misrepresentation in the 16th century, owing to the circumstance that the Caribees had too much good sense and spirit to submit, like the other tribes, to degradation and slavery under the control of the monks. It was the falsehoods propagated by wicked men, which produced the mandate of the Spanish king declaring them slaves. This was followed by an atrocious crusade, which depopulated the Caribbean countries bordering on the Orinoco.*

I well know the fidelity of the Indians of Guiana, towards the English and Dutch especially, and feel satisfied that they may be relied on with confidence, whilst treated as rational beings. The chief, Mahnarawa, and other captains of the Caribees and Macoosis, often expressed their desire to be instructed in certain European arts, as that of making axes, hoes, &c., as well as a wish that the Governor of Demerara would form a colony or settlement in their country. This I represented to the Governor, General Carmichael, who expressed an intention of doing something of the kind; but he died soon afterwards, and the project was dropped.

Throughout this rich and beautiful country, the great rivers Essequibo, Demerara, Courantine, &c., afford an easy transit to the higher lands, whence roads and canals

* See Petr. Mart., Herrera, Gomara, *Hist. de l'Ind.*—HUMBOLDT, vol. vi. p. 34.

may be opened to any other parts of the interior. If, then, the Government and people of this country desire to carry out effectually the great measure of emancipation,—to render the greatest possible aid to destitute families,—to introduce the benefits of civilization amongst the native tribes, and at the same time to assist the planters in forming colonies truly valuable,—they will not hesitate for one moment to render the necessary aids for effecting objects so desirable.

The author is well aware that a strong prejudice prevails against the South American Colonies, as being sickly and unfavourable to European constitutions. This idea, it should be known, arose entirely from the (formerly) unhealthy state of a small strip on the saline swamps of the coast, where the settlements were formed by the Dutch; even here, however, this reproach has been in a great measure removed, since the lands have been cleared and drained, and a more salubrious climate can scarcely be found than that of the interior parts now proposed for the settlements: nor should it be passed unnoticed, that one of the chief causes of the mortality which formerly prevailed amongst the troops and Europeans on this coast, arose from the excessive indulgence in spirituous liquors, sleeping in cold air, and stopping the perspiration under the debility so induced. Another cause was referable to the hot woollen clothing preposterously worn by Europeans, which marks the tyrannizing power of fashion.

The superiority in the advantages of emigration to the British West India Colonies over that to Canada or the United States, must be very apparent: those who go to the latter necessarily require considerable means of equipment, whilst in the former comparatively small means only are requisite to render their industry and exertions most promptly available. The length and severity of the winters in Canada render the necessary outfits too expensive

for many of the emigrants,—for those, indeed, who most require them,—whilst the heat of the summer is equally excessive: for two or three months it is felt even more oppressively than within the tropics; and this the writer knows, from personal experience, to be true. In the Canadas, indeed, the difficulties experienced by the emigrants are very great, especially for the first years, in providing provisions and clothing during the long winters.

As to the most suitable clothing for a hot climate, the example of the Portuguese of Parime should be followed, as infinitely the most comfortable and conducive to health. They here make their own clothing, which consists of white but coarse cotton stuff, which is spun in large threads, and wove in the hand-looms of the Indians. This stuff might be fabricated vastly to more advantage by proper looms. It absorbs the sweat, and preserves the body in a more gratefully cool and uniform temperature than any other species of clothing, and is of extraordinary strength and durability. It is made with the Indian or native cottons, which are of a staple much superior to the Bourbon cotton, or others known and cultivated in the colonies, in Georgia, &c.

The native products of Guiana are exceedingly multifarious, and present objects of industry and enterprise most diversified: many different vegetables afford cordage and substitutes for hemp and flax of the strongest and most durable kind; as the fibre of the carata, plantain, coquesa, and the bark of certain trees. The silk, cottons, and different materials of fine fibre, might also be found available to various useful purposes, and furnish new resources to British commerce and industry. Silk-worms might be cultivated most advantageously,* as also the expensive cochineal, this being the native soil of the nopals and cactuses.

* The mulberry, *Morus nigra*, for feeding the silk-worms, might be

But the multifarious objects of industry and enterprise presented in Guiana are beyond conception, and can be but imperfectly indicated here. In short, all the advantages of a fruitful and most healthy climate point out the interior parts of British Guiana as one of the most eligible countries in the world for emigration, and more especially so for destitute families; and the numbers unemployed who are totally unable to meet the expenses of emigration to Australia or to Canada, seem to point out Guiana not only as a most desirable situation, but as the only available one for the poorer and more destitute part of the community; the usual voyage here being not more than a month or six weeks, whilst to Van Diemen's Land or Australia the duration of the voyage is more than quadruple that to Guiana.

Vegetable Productions.

The timber on these lands would at least repay the trouble of clearing them. It would be advisable, perhaps, to allow many of the larger trees to remain, especially the more valuable fruit-trees; such, for instance, as the assepoca, borroway, touruneru, which belong to the *Sapotaceæ*, and of which natural family there are many others unknown to botanists: they bear delicious fruits, and furnish timber of great value: as also the saowary (*Pekea tuberculosa* of Aublet), which bears in vast abundance one of the richest and largest nuts in the world; it is much used by the inland tribes, and is justly esteemed by them as highly alimentary and restorative. The acqueru is a palm of moderate size, the fruit of which affords an abundance of a sweet bland oil, of a golden yellow colour, and of the finest quality. The large sweet and juicy fruit of the oubudi, (*Ana-*

cultivated; but other species of this tree are natural to Guiana, as the Fustic (*Morus tinctoria*,) which affords the yellow dye-wood of commerce.

cardium giganteum), affords a delicious wine, and its bark is of great use as an application to foul ulcers.* Although this country has been but little explored, it is rather extraordinary that this fruit, one of the finest of the American continent, should still remain totally unknown in Europe.

The daalie, or wild nutmeg, (a true species of the *Myristica*) abounds in the interior, and furnishes a vegetable tallow, which forms excellent candles, and, with an alkali, a soap of the finest balsamic quality. Here are numerous species of *cassia*; the caoutchouc, which gives the valuable elastic resin, and a multitude of gum resins. The Haiowa, or incense-tree, (*Amyris ambrosiaca* of Willdenow), perfumes the forest with its salutiferous balsam; and the great Siruba tree not only furnishes the finest timber in the world for ship-building, but also, by incision, a camphoraceous ethereal fluid, a product which, so far as we know, is without a parallel in nature. The Maatu, besides a pleasant fruit, yields a nutritive vegetable milk, of the same flavour and appearance as cow's milk, or the fluid from the *Palo de vaca*. This tree (Maatu) I found on the banks of Reponony.

The grapes grown in the interior are most delicious, and as much sweeter than those of Europe as the seasons are warmer. Wheat, potatoes, and all the European fruits, no doubt, would flourish on the mountains of Mackerapan, where a cool climate might be attained in a few hours from the banks of Essequibo.

This mountain, the Mackerapan, (about 5000 feet above the level of the sea, and 4000 feet above the plain on which it stands,) is steep and precipitous on the south, facing the savannah, but may be ascended with ease on the east from the river side. This situation would afford a most salu-

This tree, (described by the writer in the *Med. Bot. Trans.*) grows to more than 100 feet in height, and 14 in circumference: only one species has heretofore been known to botanists,—the common cashew.

tary spot for invalids or convalescents who have suffered from liver complaints, fluxes, and the miasmatic fevers of the coast. The natural advantages are inexhaustible, as food and clothing, materials for building, the finest ornamental woods, timber-trees, &c. ; with a vast arable and fertile tract on the north and east, and immense savannahs adapted to pasturage on the south.

By the Society for the Encouragement of Arts many important products have been introduced from the British colonies, and proved highly useful to the manufacturers. They have in vain offered their highest prize, or 100 guineas, for a substitute for a vegetable tar. No efficient one, however, has yet been obtained, nor will it be found, perhaps, except amongst the trees of Guiana. The *Brea*, so called, or gum resins of Rio Negro, the same as abound in the Essequibo, have been found superior, and far more durable than the best Swedish tar; *i. e.* rendering the ropes and rigging more lasting. These are chiefly the produce of certain species of *Icica* and *Moronobea* of Aublet, as I have elsewhere explained, affording a fragrant exhalation, which, in the interior, is considered the most beneficial balsam for the lungs of consumptive persons. Pliny observed, that the Roman forests, abounding with resinous effluvia, were of great advantage to the consumptive; and Bennet, near two centuries past, showed the value of artificial inhalations of this sort.

In fact, this new world of vegetables has never been explored or investigated: many of the plants, indeed, have been made known botanically; that is to say, so far as mere descriptive botany goes, or the notation of external forms; a matter regarded at the present day as a consummate science, although, properly considered, the mere alphabet or stepping-stone to phytology, or genuine botanical science. The intrinsic properties and uses of plants are regarded as

matter of little moment, or unworthy of notice, by those who contemplate the surface only; whilst the native tribes possess the only knowledge of real value on these subjects.

Notices of Animals, &c.

In the month of July, many of the rivers in the upland parts not only overflow their banks, but annually inundate a considerable extent of the neighbouring savannahs and forests, where we meet with the manati, porpoise, the fresh-water dolphins, and divers fishes swimming amongst the adjacent sedges and forests; so that the very words used by Horace to express the greatest contrariety to nature, are here, in part, found to be realized,—*delphinum appingit sylvis*, &c.,—“a dolphin painted in the woods.” These aquatics not unfrequently wander too far, and lose their way back to the bed of the river; and the water declining, they are left the prey of tigers or jaguars, and rapacious birds. There are several species of the tiger or panther kind: one grows to near the size of the royal Bengal tiger. They are rarely known to attack men.

Birds, which furnish wholesome and delicate food, are exceedingly numerous; as divers species of ducks, spur-winged geese, marodi or bush turkeys, anaquaw pheasants, partridges, powis, spoonbills, and other large birds, besides smaller ones in abundance. Two large white birds are found in these parts, called jabiru and tejuju, measuring about six feet between the toes and the beak. The latter is the *Mycteria Americanus*, or jabiru of ornithologists (*negro-cope*, or black-head of the colonists): the former appears to be a nondescript, whilst its native name has been transferred to the known species. The beak of the first is bent downwards, that of the other is recurved. On our journey inland, both supplied us with *beef-steaks*, as we termed them, having the same taste precisely; and, to our taste, a

more savoury one could scarcely have been served up by Mr. Ude himself at the Thatched House Tavern.

During the dry season inland, we had occasional showers, which, in the mountainous regions, were usually announced by the piping tree-frogs, but especially by the bill-birds (Toucan), which, before rains, make a noise precisely like the barking of little dogs, so that several times we were deceived, believing ourselves near some Indian habitation. It has by some been supposed that the porpess of the interior rivers is identical with that of the ocean, and that they migrate annually, like the salmon in Europe, between the salt and fresh water. This idea appears to be erroneous; for the Portuguese on the Parime say they are seen *tumbling* in the Branco all the year round, and have never been observed passing the rapids of that river, lower down, between the Parime and Rio Negro. They, doubtless, belong exclusively to the fresh water; and supposing they annually descended to the ocean, it would be a journey, back and forth, of not less than three thousand miles. It is rather singular that this animal, so inoffensive to man,—rather his friend, according to ancient story—is the greatest enemy of the cayman, and the only master he knows in the watery element. So that we find here a contradiction to the little stories of juvenile books,—

“ The crocodile, with watery eyes,
O'er man and every creature cries.”

I have observed three species of crocodiles in Guiana: the kykooty of the coast, the most common, smaller, and found almost from Paraguay to Lake Huron: the acarú and pow-pow are said to grow to twenty or twenty-five feet in length, but I have not seen them above sixteen feet in Essequibo; in the Orinoko they grow larger. Two other kinds are mentioned by the natives, which I have never seen to my knowledge; the teri-teri, a large species, and a

small yellow one, less than the kykooty, only four or five feet in length, (name forgotten) inhabits the cooler upland parts. It is remarkable that the larger species of the saurian tribe are now confined almost to the tropics, although the fossil remains of gigantic species are dug up in the colder parts of the globe. Can this be accounted for from the precession of the equinox, or gradual shifting of the solstice?

Both land and freshwater tortoises are abundant; several species are large, and much esteemed as food; others, smaller, are finely painted. These belong to the division of *Emys*. Their colour, as in fishes, varies according to the localities, or colour of the pools they inhabit; a circumstance which has caused much confusion amongst naturalists, and hence divers names have been given to one and the same species.

There are two species of electrical eel in the rivers and lakes, that is, two *Gymnoti*, which possess the electric power. The nondescript species is black; it has a broad head, and grows very large. I saw one caught at the lake of Angostura, which measured eight feet in length. It is said to form a luscious and delicate viand, yet the natives mostly refuse it, probably from some superstitious motive. The electrical eel is thought to inhabit South America only, but it also exists in Africa, as I learnt from several intelligent negroes of the Ebo and Mandingo country, who were well acquainted with it, under the name of *Yaria*.

The organ which furnishes the mysterious electric or galvanic power in the electrical eel, lies under a muscular fascia along each side and posterior part of the body; it constitutes its only weapon or defence, for the teeth are very weak and small. This fish has rarely been brought alive to Europe, although many have attempted it: the motion of the vessel is said to drown them!

Geological Notice.

The chief component of the swamps or morass lands at the back of the settlements, consists of a black, carbonaceous, vegetable matter, called pegass, which, towards the Pome-roon and behind the estates, is not unfrequently found to have a depth of six or eight feet. This is altogether distinct, and forms a great contrast with the alluvial land of the coast, which is chiefly an argillaceous deposit, supposed to be brought down by the great rivers. The latter formation has been found by Major Staples to extend to a very great depth, by boring at George-town. In a letter he wrote me he states, that at twelve and at fifty feet depth, he had found fresh water, decayed and semicarbonized *timber*, apparently *Courida* (*Avicennia nitida*). The Major very naturally concluded that this had been, in remote time, the bed of the Demerara river, and I of course supposed, that whether the bed of the river or that of the sea, it had gradually been filled in by the alluvial deposit of earthy materials brought down by the rivers, together with the courida and drift-woods, precisely the same operation as we see constantly going on upon the Demerara coast; and I certainly had not the smallest conception of the ingenious and very novel mode adopted by my friend Mr. Hillhouse, of accounting for such phenomena by raising the surface of the Atlantic fifty feet above its former level.* If in physics we find it necessary at times to assume very vague and improbable hypotheses, it is not so in matters which we see fully explained and demonstrated by Nature herself under our daily observation. The natural interpretation was, that these ligneous matters had sunk in this situation when the sea occupied it; that the deposit of mud had, in the course

* See "Journal of the Royal Geographical Society," vol. iv. p. 36.

of ages, thrown back the sea, instead of the ocean having risen above its former level: yet, possibly, the other conclusion may be right.

I had reason to know something of Major Staples' labours for the purpose of procuring fresh water at George-town, as the instrument with which he operated cost me between 50*l.* and 60*l.* sterling, as the books of M'Inroy, Parker and Co. would testify. The instrument was Ryan's patent borer: I obtained it from London; it was the first, and, for aught I know, the only one ever brought to the colony; but owing to other pursuits, I had only made some slight attempts at boring in George-town. Major Staples has the merit, after vast labour and perseverance, of effecting the important purpose of procuring fresh water on the saline coast and at the capital of these colonies.

Such, in fact, is the mutability of the coast, from alluvial deposits brought down by the rivers, that the mud-banks are continually shifting from one part to another; so that, up to our time, old Arowaks have been heard to discuss their tradition respecting the anterior non-existence of the whole peninsula of the Pomeroon.

The tides on this coast, in respect to height, times, and directions, are greatly influenced by the tropical currents, and the varied quantities of water brought down by the great rivers. I have observed, indeed, a series of changes on the Guiana coast, resulting from the tides; and necessarily so, having furnished the astronomical matter for the Demerara Almanack for a series of years, since 1805; the lowness of the land requiring an accurate anticipation of the highest tides. In short, so different are the banks and soundings of this coast, that our hydrographical charts indicate most inaccurately its present state.

Climate and Diseases of the Country, with hints respecting their Prevention and Treatment.

Guiana is the most favourably situated of any part of America, or the world perhaps, with respect to the winds and sea-breezes. It lies in the main track of the equinoctial currents; whilst hurricanes, so terrific and destructive amongst the West India Islands, are unknown here; the gentle equinoctial gales being very steady and uniform. And at Angostura, nearly three hundred miles inland, they commence scarcely an hour later than on the sea-coast.

An opinion is very prevalent, that the heat of climate renders Europeans unable to labour, or encounter much fatigue in these countries. This is a great mistake: for, on the contrary, it is a fact that those who take most exercise enjoy the best health, provided they live temperately. It is the excessive use of strong liquors that proves destructive to Europeans in hot climates, and which, together with the heat, renders them incompetent to sustain much fatigue, until they become accustomed to it. It is alleged, most erroneously, that strong liquors are necessary to counteract the debility arising from the heat. Except in great moderation, they have the contrary effect, and have ever been the chief cause of the mortality which formerly prevailed, and must ever prove dangerous to the habitual debauchee. The writer, although not the most temperate, can aver, that during an experience of twenty-five years in the warmer parts of South America, he ever enjoyed the best health when he used most exercise. In every part of the world, exercise and temperance are the greatest safeguards of health; but indolence is even more pernicious in hot climates than elsewhere.

The sackooru and casseri form the most wholesome, nutritive, and delicious drinks (made chiefly from mixtures of

cassada, maize, and sweet potatoes, slightly fermented). This kind of beverage might be substituted for malt and spirituous liquors with incalculable advantage. Those who use this sort of drink, owing to its substantial and restorative properties, as we ourselves experienced, lose the desire for strong liquors. This fact, which we had previously heard reported, was confirmed amongst the Macoosies, who make constant use of such beverage: they as constantly showed a disgust for spirituous liquors, whilst the Arowaks, Warrows, and those of the coast, had an insatiable desire for them.

It is well known that many families in this country are affected with scrofula, and a strong predisposition to pulmonary consumption. To such families or individuals the climate of Guiana would be the most eligible of any in the world, as affording an exemption from such complaints. Tubercular consumption is unknown on the coast, and extremely rare in the mountain regions, though not unfrequent on the llanos. The writer can say, that he has never met with an instance of genuine tubercular phthisis on the coast of Guiana, nor a single case of calculus, or stone in the bladder, generated there; which is not the case amongst the West India Islands; perhaps for this reason, that however favourable may be the sea-breeze in the day, there is every night a cool land-wind blowing from the central parts of the islands, towards the sea. The yellow fever appears less frequently, and the coast becomes more healthy as the woods are cleared off, and the soil drained.

Physicians often recommend to their consumptive patients a voyage to Montpellier, Naples, Rome, Madeira, &c.: had they a knowledge of the advantages offered by a Guiana climate, they would assuredly never think of sending patients to those places, all of which are far from being exempt from this disorder. I consider it indeed, a matter of

immense importance to those so afflicted,—to families predisposed to consumption, or affected with scrofula, the secret agent and origin of the most insidious and fatal diseases of this country.*

The climate, I may say, is not only prophylactic, but curative of this disorder (pulmonary consumption), of which I have known various instances: and one of the most remarkable and desperate cases occurred so long ago as 1806, in the harbour of Demerara, in the person of a Swede, who arrived in a vessel from Portsmouth. This case I have detailed in a more appropriate place.

In the interior parts of Guiana the purity of the air is such, that in the dry season the stars appear like brilliants in the deep azure sky at night, and we not unfrequently perceive planets in the day-time. I have often observed the planets Jupiter and Venus when the sun was 20 or 30 degrees above the horizon; in which case Venus appears through a telescope precisely like the moon in her first quarter.† At the same time, the splendour of the moon and the zodiacal light contribute to make the nights most pleasing, and to throw a charm over every object.

The testimony of the wood-cutters constantly assures us that wooded parts and inland forests are not found to be unhealthy either to Europeans or to others. These are facts which I can vouch for; and to show they are not contrary to reason, let it be considered that it is not the absolute degree of temperature which determines the salubrity of any climate, but the great and sudden changes from heat to cold, and from cold to heat, which chiefly

* That these are not hasty conclusions of the writer, may be seen by referring to the *Lancet* of May 8th, 1830.

† This must ever be some distance on either side of the planet's superior conjunction with the sun, the reason of which will appear evident to astronomers.

render any country unhealthy. Now, there is probably no country on the globe where the temperature is more uniform than in Guiana.

Instability of climate contributes more, perhaps, than any other cause to the production of epidemic diseases. The fatal Asiatic cholera, for instance, which has pervaded almost every part of the habitable globe, excepting Guiana, arose in that part of Asia which is subject to great changes of temperature,—at one time to the hot winds from sandy deserts,—at another, to the chilling blasts from the *Ghauts*, or from the Himalaya mountains, the highest in the world, and covered with eternal snows. In further illustration of the subject, let us contrast the steady climate of Guiana with that of Canada, where enormous changes are often experienced, and consider that the population of Quebec was (in 1834) decimated by spasmodic cholera.

The coast of Guiana, as before observed, has latterly been seldom visited by the yellow-fever.* In 1804 it prevailed with great mortality, chiefly amongst the sailors, who, in a state of intoxication, not unfrequently slept on the ground or on deck: they were mostly on the following day attacked with depression, dry skin, and the symptoms termed yellow fever, and in those days we actually knew of no means of averting the consequences.

It may not be irrelevant to add here a few directions to emigrants or others destined to tropical climates. Adynamical and malignant fevers may be easily arrested at the onset;—a fact, which, strange to say, is little known, and only practised imperfectly by some few Creoles and native inhabitants: it consists in procuring a perspiration, with as little delay as possible after the fever is found to be ap-

* This form of fever prevailed amongst the troops last year, (1839) and might perhaps be attributed to the same cause with that of deficiency in the crops, or want of labour to keep up the drainage.

proaching, by the use of vapour-baths, fomentations, enemas, and warm sudorific drinks,* (formed with haiowa-balli root, haimarada, &c.), not waiting for depletion or purgatives, but employing them secondarily as required.

The common or European practice is to administer calomel and purgatives, antimony, &c.; occasionally to bleed, and apply blisters; but such measures are seldom or never known to arrest the disease. The method by sweating appears, indeed, by far the most rational, when we consider that these disorders are brought on chiefly by colds and suppressed perspiration, after heats, atmospheric vicissitudes, and intoxication: the pores of the skin becoming closed, the blood is driven inwardly upon the viscera, and becomes partially stagnant. The natural method, then, is most obviously as promptly as possible to open the obstructed pores, to drive the blood to the surface, and to promote the secretions by which the vital fluid is depurated, and on which all the functions of life most immediately depend. This should be speedily attended to before fatal lesions or inflammations become fixed on the vitals. When these indications are acted on at the commencement, they prove as efficacious as they are simple and obvious.

It is melancholy to observe, however, that the few precious moments are suffered to elapse, very often waiting for the medical adviser, the medicaments to be prepared, or some useless affair to be attended to, whilst the principal and essential point is not thought of. By the Spaniards, too, a trifling preliminary course of antiphlogistics are employed, (*para refrescarse.*) This course, however, I consi-

* I have known old sailors use a method of their own with great success, that of taking very plentiful draughts of hot punch, a very powerful sudorific; and thus preserve themselves and their comrades, on the invasion of yellow-fever.

der as less hurtful than that of giving strong purgatives at the beginning ; for by the latter, the natural effort or elimination by the skin is counteracted,—as purgatives tend to impede the secretions by the skin, and thus to retain any irritative acrimony : hence we may see good reasons (though not now recognized) why Hippocrates and the wisest of the ancients forbade the use of cathartics at the beginning of fevers or inflammations,—which are one and identical, differing only in degree and the nature of the parts primarily affected. It should be observed, too, that a dry skin is a constant symptom attendant on the commencement of all the pernicious fevers and dysenteries in the tropics, and doubtless in every climate ; whilst these malignant fevers, like cholera, are not unfrequently ushered in with spontaneous purging : this should afford a hint to the followers of the cathartic plan. The same means in effect are resorted to with equal success against the dangerous fevers, dysenteries, &c. by the aborigines of North America ; that of *vapour-baths*, along with the copious use of alexipharmic tisans, or infusions of sudorific herbs ; and this is the proper way of arresting typhus and all malignant fevers and dysenteries.* This supposes that we take the fever at the onset, as ever should be done if possible : and the same, followed up at later periods, together with bleeding and evacuations, and the use of stimulant frictions, as the case may require.

The transpiration is copious in hot countries ; indeed, it forms the best index to the state of health ; and those who know this, are enabled to guard against the more common

* To this end nature offers us a multitude of plants in every country : amongst the most valuable here are sage, balm, hyssop, menthæ, agrimony : and they are most efficient when combined or infused together, and drunk warm in bed. Rheumatism, as well as dysentery, typhus &c., are thus readily conquered.

cause of disease in hot countries, suppressed perspiration.* Unfortunately, however, very few are aware of this fact, and are fearful of using exercise, in the heat of the day especially; they allow the mainspring of health to flag, and the secretions to be suppressed; they become pale and debilitated, and obnoxious to fever. They resort to purgatives,—salts, jalap, and calomel. The latter is found the more useful, (and that in repeated small doses,) because it tends to restore the secretions, but is feeble and insufficient, unless assisted in its action by sudorific baths and diluting drinks. The true remedial means are generally disregarded,—the cathartic system being mostly mistaken for it.

By the Dutch physicians in the colonies, diseases were mostly ascribed to the bile and *slime*. In Europe we have the more elegant and euphonius designation, *affections of the gastric and chylo-poietic organs*; both, however, implying the same aperitive indications, directed against the supposed offending humours, scybali, &c., in the alimentary canal.

The necessity of preserving the perspiration is more evident in warm climates than in cold; for, in the latter, the insensible perspiration is usually sufficient for the preser-

* Many mariners have learnt this by long experience: I have just conversed with one who is very intelligent and worthy of confidence, (Mr. R. Featherstone of Wiveliscombe,) who has made sixteen voyages to the West Indies and Demerara, twelve in the capacity of carpenter, and four as chief mate. He drinks with moderation, uses much exercise, and perspires very freely in the warm climates: although of a full habit, he has never been attacked with fever within the tropics, but enjoys the best health, and observes that he usually grows stouter whilst there, and especially at Demerara. This I have noticed, because it tends to exemplify and confirm my own views and experience. Mr. Featherstone is now about to sail for America, and on his return will be ready to answer any further interrogatories. But many old and experienced masters of vessels will be found to bear similar testimony.

vation of health : but even here it has not escaped the notice of the wisest physicians, that the cutaneous discharge is the most immediately essential to life, and to the due regulation of the healthy functions : in short, we are taught by daily observation in every country, that by far the greater number of all our ailments arise from colds and suppressed perspiration ; and it appears to me very surprising that a matter of such vital importance should be so lightly regarded.*

I have long been of opinion that the exemption from *phthisis* on the coast of Guiana is partly owing to the gaseous emanations from the soil ; but I have reason to believe that one chief cause is referable to the free perspiration experienced here, together with the almost total absence of those chilling blasts which are common in other tropical regions. And the means which are found most efficient in the cure of this distemper confirm me in this opinion ; that is, by the use of diaphoretic, alterative remedies, such especially as the composition of sarsa, bark of guaiacum, waik-root, &c., together with small doses of mercury, antimony, opium, and the use of vapour-baths,—means which most steadily promote transpiration, urine, and all the secretions, which eliminate the causes of dis-

* The vapour-bath affords one of the most effectual means of opening the pores of the skin and readily averting the evils which most commonly assail us. Many ingenious contrivances for this purpose have been offered to the public, and no family ought to be without one of them ; but to persons on ship-board, or those going out to hot, to cold, or any other climate, they are truly the most essential and invaluable safeguards. I have examined many of them, and do not hesitate to say that the most portable and convenient for the application of vapour, hot air, and for any fumigation, is one recently invented, and sold with familiar directions in Wardour-street. This simple apparatus I have found so exceedingly advantageous and beneficial in my own family, that nothing could induce me to dispense with its use.

ease from the habit and purify the blood. Divers instances of the cure of syphilis, cachexies (foul disorders), and even confirmed consumption, at Angostura and the missions, seem to me fully to justify this conclusion (see *Med. Bot. Trans.*; and the *Lancet*, 1829, and 30-32; *Medical and Surg. Journal*, vol. iii. and v.)

On this point I may further remark, that numberless disorders may be, at their commencement especially, most speedily removed by the means here indicated; and the *rationale*, or reasons for which, will appear sufficiently evident to those who are aware that most of our ailments, in every climate, arise from colds and suppressed perspiration, together, or coincident with, a morbid state of the fluids.

When matter, from extensive ulceration and abscess (as in the lungs) has not a free discharge, it becomes absorbed into the mass of circulating fluids, and produces an irritative fever, termed hectic. By repose, and warmth of the bed at night, the patient sweats, by which the fever abates. The sweating is an effort of nature to relieve the system of the offending humour; which is evident from this, that if we collect the clammy transudation, we find it to possess most of the properties of pus. This view of the subject, however, is disregarded; and so perverse is our pathology, that, instead of assisting, practitioners seek to suppress the salutary discharge, whilst in general, they appear to entertain no idea of the means of altering the habit, healing the ulcers, and supporting the strength and vital powers. The means above noticed have been found most efficient in healing ulcers in all parts of the body, internal and external.

Views like the foregoing, however, which are chiefly built on the experience of ages, have long since been exploded as antiquated; and with the explosion, common-sense has been driven from the field: no pathology is now recognised besides the unmeaning and senseless mummery, about *irri-*

tation, sympathy, brain affection, thoracic affection, abdominal affection, increased action, disposition to inflame, &c., as though the different parts of the body were endowed with volition, and, without assignable cause, with the power of taking on any mischievous action at will.

Proposals for Colonization, with Notices of the Indians, and an Allusion to some Errors of the Baron Humboldt.

Guiana, I may observe, is watered by innumerable rivers; but the great highways to the interior, from the British settlements, are mainly by the Essequibo, Demerara, and Berbice. These afford the greatest facilities for navigation with large schooners or steam-boats, to the distance of from fifty to eighty miles inland; that is, to the first ridge of land (at the falls or rapids of these rivers), which forms, as it were, a wall or parapet to the more elevated lands, extending to the Cordillera of the Parime and Macoosy mountains. At these falls the primitive soil commences, although there are fertile lands below this ridge.* The banks between the series of the rapids are very high, consisting of pure clay, as white as snow. A fruitful soil is the grand object for colonization. It would be but a waste of words to speak of mines, in a country which has never been explored, although the *naked hills* of the savannah country,

* All this part abounds with excellent timber for houses and ship-building, especially the bania, or iron-wood, so called, green-heart (*Chloroxylon*) and sirubally (*Laurineæ*), the yaki-pot (*Lecythis ollaria*), and hitchia, which is identified in the *Malpighia altissima* of Aublet, according to Mr. Bach, a gentleman well known in the colonies as a most ingenious and intelligent botanist. Here, too, are multitudes of woods suitable for dyeing, for cabinet-work, and various uses in the arts, as well as gums, resins, barks, roots, and divers medicinal substances of the greatest value, and totally unknown to Europe. For a notice of timber-trees, see Appendix.

with red ferruginous earths and quartzose pebbles, are similar to those of the gold and diamond districts of Brazil.

The Essequibo rises in the south-west part of Guiana, and after traversing a salubrious portion of this extended country, falls into the sea in lat. 7 degrees north. The fertile banks of this river and its tributary streams are covered with the richest vegetation, with the finest timber for ship-building and cabinet work, with a multitude of plants bearing delicious fruits and alimentary substances; yet, for the most part, this country is destitute of inhabitants: in fact, the choicest tracks of this secluded territory remain in a state of nature, untrodden by man, either savage or civilized; and what is stated here of British Guiana is mostly applicable to other parts of this extensive country.

The course of the lower Essequibo lies nearly in the direction of the longitude; but, on passing the mountain Taquarie (so called, from a huge pile of rocks in form of a water-jar, latitude $4^{\circ} 50'$), we find its course, upwards, bending a long way to the eastward, and that just at the part where, on the more recent maps, it is carried far in the contrary direction, westward. From this error, the confluence of the Essequibo and Reponony is laid down far to the westward of its true position.

In going up the Essequibo, we have to encounter three series of rapids, occasioned by rocky dykes. It is these ledges alone which can offer any plausible objection to the inland settlements. The highest falls, however, which I saw in the course of this river, did not exceed twelve or fifteen feet. It must be observed, too, that these falls or cataracts exist, as such, only in the dry season, when the river is low; for, in the wet season, the river rises so high that the falls are totally obliterated, or lost in the flood. We passed up in the former season and returned in the latter, and keeping the main channel, ran down the falls

without having occasion to stop for a moment.* This period of the year would of course afford every facility for shipping produce, even without any improvement of the navigation of the river, or regard to what I have now to add. Even in the dry season we were always able to avoid the falls, by taking some of the numerous lateral channels, called Ittabas; and nothing is more certain than that the numerous gentle streams of black and deep water,† which fall into the main river, would greatly facilitate the intermediate communication.

As to the craft to be employed, the coreals and canoes afford at present the most convenient and rapid conveyance, as passage-boats; and they are managed by the natives and coloured people of Essequibo with great dexterity. The natural passes, however, which I have alluded to, might be rendered safe and easy, especially for flat-bottomed boats, such as are used on the Mississippi and other rivers of the northern continent. The falls, then, cannot be regarded as

* In 1810, by an appointment of the Colonial Government, I accompanied an expedition amongst the interior tribes and to the Portugese territory. We went up in November, and returned in July following. On our return, I laid before Government a rough sketch of the river and the country which we traversed, with a brief description of the same, which has, I observe, been employed by some late writers, without any reference to authorities; but this is of no importance.

† These black waters traverse a deep and fertile mould, and evidently owe their colour to carbonaceous or decayed vegetable matter. The water of the western branch of the Essequibo (Reponony), which runs through a savannah country, is of a light colour; that of the southern branch, or Essequibo proper, appears almost black, which shows that it traverses a rich soil of decayed vegetable mould. This distinction I have found to obtain universally, and to furnish the most certain indication of the nature of the soil in Guiana. The Caroonny, which rises amongst the Parime mountains, flowing northward to the Orinoko, appears of a jet black; yet in a glass tumbler it is as clear as crystal. The Spaniards say it runs through beds of sarsaparilla; and it is, therefore, regarded by some as highly medicinal.

material impediments to objects so important ; both because they are actually obliterated in the wet season, and because they may at all times be avoided, by means of the lateral channels. The Indians and coloured people go a long way up this river every year, in the dry season, for turtle and fish, which they dry upon the great rocks at the magnificent amphitheatre of cataracts, or falls of Quasinky and Warapoota. They also cut timber, which is floated down when the river is high, and this accounts for their dexterity amongst the rapids.

Were the natural avenues of Guiana, however, far less than they are, we could in such a country, have nothing to fear, especially since the vast developement of modern science in the construction of canals, roads, and rail-ways ; and when we recollect that, in North America, even the Alleghany mountains are not regarded as obstacles to genius and labour in such constructions, we cannot despair of British genius in the South.

The traveller in this temperate region has no cold or excesssve heat to dread : his house for the night is built by the Indians in a few minutes ; that is to say, a shed, covered with a few leaves of the trooly or other palm, which is sufficient in a mild climate never invaded by hurricanes.

Doubtless, many of the enlightened planters and merchants are sensible of the importance of the cultivation of the interior, and would come forward to furnish the means of internal communication, by roads and canals, and open the navigation of the rivers Essequibo, Demerara, Berbice, and Courantine, for the use of flat-bottomed boats and steam-vessels.

For the commencement, it might be eligible to form a settlement at or near the first falls of the Essequibo or Demerara, sixty or seventy miles up the river, where an excellent soil will be found for raising Indian corn, rice,

millet, plantains, yams, sweet potatoes, cassada, eddoes, and various culinary plants, of which an abundant supply would soon be obtained. In the mean time, the planting of tobacco, coffee, cocoa, cotton, and sugar, may be commenced, as also grapes, figs, dates, &c. as desired.

A position established here would afford the best facilities for cutting a road past the falls, or for rendering these navigable for boats and steam-vessels. In the mean time, surveys should be made for eligible spots for cultivation, and for extending the settlement further inland.

An object of the utmost importance at all times, but imperative and indispensable in the present state of things, is the introduction of agricultural machinery and cattle labour: it is strange, indeed, that this should have been so little thought of in the colonies of Guiana. It must be observed, however, in justice to one ingenious and philanthropic individual, (Mr. Josiah Booker,*), that the facility of employing that noble instrument, the plough—that source of wealth and national prosperity—has been most successfully demonstrated on the east coast of Demerara: and it must no doubt be equally so in every part of the colonies.

If anything can keep up the coast cultivation in Guiana, it will be the use of the plough. The writer was not aware of the above fact or of the complete success of the experiment by the gentleman just named, till lately; and he confesses it modifies very much the opinion he had entertained on the practicability of continuing the cultivation on the Guiana coast, especially on the west coast, for the east is partly worn out by a long succession of crops. The same means of culture, however, (by employment of oxen,) would also tend to revive the fertility of an exhausted soil. The plough, indeed, would afford immense advantages on the

* Firm of George Booker and Co., Liverpool.

coast or in the interior ; although perhaps less essential in the latter, because of the mellowness of the soil.

The emigrants might be composed of the surplus population of this, or any other country, desirous of availing themselves of this new and inviting asylum, offering, as it does, by its productiveness and natural capabilities, more scope for industry than any other part of the American continent. It would withal afford a full and profitable employment to ship and house carpenters, coopers, painters, glaziers, cabinetmakers, blacksmiths, brickmakers, and bricklayers. Most of the bricks used there are brought from England, whilst the country abounds with the finest clay in the world, and which, from its whiteness and purity in the upper rivers, is mistaken for chalk. It would doubtless form, with the white sands or quartz crystals, the finest species of porcelain.

It is true that wages, or the price of labour, may not be so high in Guiana as in Canada or Van Dieman's Land ; but this is more than compensated by the cheapness of provisions and all the necessaries of life : it should be considered, that these ever regulate the price of labour in all countries, and it is often asserted that the low price of labour indicates an abundance of provisions.

Many of the emigrants would doubtless prefer taking up their residence on the sugar estates of the coast ; and those of sober habits might here render themselves highly useful, not only by their own labour, but more especially as affording examples of industry to the black people, who, for want of such examples, entertain an idea that field labour is degrading and inconsistent with freedom. This point I should consider as worthy of special attention, if it be intended to keep up or prolong the present cultivation of the colonies.*

* This is a matter, I presume, now very generally understood and acknowledged ; especially so, I am told, by Messrs. Rose, Croal, Bean.

As to any protecting force, the same which now exists might, with a small addition, be thought advisable. But the great secret of defence for such a colony is, to maintain a good understanding with the natives, and to treat them as *men*. They are, in general, docile, tractable, and easily governed; and Europeans, indeed, have but too often taken undue advantage of their good-nature. They would render every requisite assistance to the new settlers in clearing the lands, fishing, and hunting.*

Why, moreover, should these people, because they disregard money, be considered unworthy of wholesome instruction, or of the lights of Revelation, which has never been offered to them except by the pious Catholic missionaries? It would be worthy the liberal policy of this great nation, to shed the lustre of the Gospel and of civilization upon those benighted people, who in a country ranked by nature among the richest on earth, are rendered absolutely miserable by the grossest delusions, and by idolatry the most abominable; believing themselves ever under the dominion of the devil, or haunted by the Kanaima,—demons, poisoners, or night murderers, whose malignant power they invoke or seek to evade by incantations and exorcisms, through the pretended acts of impostors,—priest physicians, called Peiis or Piaches. Such is the case, more especially, with the Ackawai and Macoosy tribes; but it is common to all those of the interior, unless we except the Caribees.†

Rainy, Booker, Bell, and many of the more enlightened and liberal-minded planters, merchants, and others, connected with the colonies.

* See Hilhouse's "Indian Notices" for much correct information on these subjects.

† To express the Great Spirit, or God, they use the term Mackanaima, that is to say, the ruler or Master of Kanaima. The Caribees, Arowaks, and the Indians in general, acknowledge indeed a Supreme Being, but they say he never troubles himself with the affairs of men.

The southern aborigines of America have not shown those savage traits of ferocity which have marked the more northern. They partake more of the dispositions of the Hindoos or the Chinese, whom they greatly resemble. We hear nothing of human sacrifices, like those of the ancient heathens, and as still practised amongst the South Sea Islanders and certain savage hordes of Africa.

It must, indeed, as before remarked, be an object gratifying to every liberal mind, to see the natives instructed in useful pursuits, and brought into moral and industrious habits. Heretofore it has received no adequate attention from Government; but strange to say, their natural disposition for strong liquors has been encouraged, and multitudes have been destroyed by the deleterious *new rum* so liberally placed at the disposal of the post-holders and *protectors of Indians* so termed. Through a system totally different, the most happy results are realized amongst the Portuguese Indians, as we long ago observed on the Branco;* and by the Spanish Indians, as may be seen in those refugees who fled from the revolutionary troubles in the Orinoko, sought protection under the British Government, and settled in Pomeroon and Moruca. These people we find to be intelligent, peaceable, industrious, contented, and happy, and in their moral conduct not excelled by any other caste. It is rare, indeed, that any acts of aggression are committed by them.

The primitive Indians of this part mostly subsist on fish and crabs, in the capture of which they are as dextrous, perhaps, as were ever the Ichthyophagi of the ancient continent; and the influence which habit or mode of life has upon physical conformation, is exemplified in the broad, spreading foot of the Warrow, which enables him to walk on the muddy shores, where he finds his accustomed

* Expedition to Interior Guiana in 1810-11.

aliment. They have also the zurumo, or sago bread, made from the pith and fruit of the Eta palm, which grows in the swamps of the coast. Their language is as simple as their mode of living, and contains but a very small number of words.

The assistance of these Indians (Guaraunos of the Spaniards) would likewise be important. They inhabit the coast between the Rio Moroka, or Pomeroun, and the Orinoko. They are great fishermen, and they fabricate most of the canoes and coreals used in Guiana. The famous Spanish launches are made by them. The Warrows were employed with great advantage in the military works of Post Moroka, upwards of twenty years ago, when the writer had the medical charge of the troops stationed at this fort.*

The Macoosies are a numerous tribe, and more inclined to industry than most others; they would contribute vastly to the aid of the colonists.

Extracts from various Authors in confirmation of the preceding Views.

I may now take a few extracts from some of the more authentic travels in Guiana respecting the natural productions and eligibility for colonization, and which I have the greatest satisfaction in referring to as confirming my views in the preceding pages.

M. Humboldt, who visited the western part of Guiana by

* This part, called the wild coast, or *Caribæana*, is intersected by numberless creeks and rivulets, forming a singular archipelago, or labyrinth of small islands. I have heard the old Dutch planters say, that these lands below Moroka, belonged to the crown of Sweden, but on what treaty or authority I never learnt.

the Orinoko, observes: "I saw vessels arrive on the coasts of Terra Firma laden with the fruit of the *Caryocar tomentosum*, *Pekea tuberculosa* of Aublet. These trees reach 100 feet in height, and display, by the beauty of their corolla and the multitude of their stamens, a magnificent appearance. I should tire the reader by continuing the enumeration of the vegetable wonders which these vast forests contain."

Of the cacao, or chocolate nut, he says: "The landing-place of Pimichin is surrounded by a vast plantation of cacao trees, which are very vigorous, and loaded with flowers and fruit at all seasons of the year. The light lands of the Taumni and Pimichin are extremely productive. When we reflect that the cacao tree is a native of these forests of the Parime, south of six degrees of north latitude, and that the humid climate of the upper Orinoko far better suits this valuable tree than the air of the provinces of Caraccas and Barcelona, which becomes every year drier, we saw with regret this fine part of the globe in the hands of monks, who encourage no kind of cultivation. The mission of the Observantins alone could furnish annually for exportation fifty thousand *fanegas* of cacao, the value of which, in Europe, would amount to more than six millions of francs." (Personal Narrative, vol. v. p. 282.) He also exclaims, (vol. iv. p. 567,) "Strange policy that, which teaches mother-countries to leave those regions uncultivated where Nature has deposited all the germs of fertility."

The Jesuit missionary M. Grillet, who long ago travelled and resided in the interior parts of Guiana, makes the following remarks: "Guiana is a great country, and extends in latitude, from the equinoctial line to the tenth (ninth) degree on the side of the Arctic pole; from the river of the Amazons to the Orinoko; which contains nearly 400 leagues on the seacoasts, with an immense stretch into the

countries that border upon Brazil on the south, and New Andalusia on the west. This part of the continent is watered with abundance of rivers, some of which will carry great vessels up a considerable way beyond their mouths. The Indians bring up all sorts of tame fowl as well as wild, and other game, which is there in great plenty, as also abundance of both sea and freshwater fish. They load ships with a certain fish they catch in the rivers with a sort of harpoon: these are carried to the islands; and one may say, this and the sea-tortoise are the cod-fish of the continent and the Antigo Islands.

“ Their *rocou* is a red dye, and valuable when it is natural, such as the Indians sell us before it has been falsified by foreigners, who carry it into Europe. There are likewise to be had amongst them divers species of gums, woods, and roots, proper for physic, which are good commodities in France; as well as several sorts of wood for dyeing, and for the making of cabinets and inlaid works, amongst which is the letter-wood called by the French, *bois de la Chine*, and which grows in no other place in the world but on this part of the continent. The natives cut and sell it in great burthens to the ships, so that a hundred-weight of it comes to but a crown; whereas that quantity was a long time sold for 100 crowns, and for never less than 150 livres. I omit a great many other things which this country produces; and one may say, this large compass of ground has moreover this advantage over the islands of America, that there is no fear of tiring it. The island of St. Christopher, where the land is become almost barren by being overburdened with successive crops, yet does not hinder them from raising every year a prodigious quantity of sugar, besides ginger, indigo, cassia, and other commodities, that are cultivated here.

“ This country of Guiana is diversified with hills, plains,

and meadows. The land is everywhere so fertile, that one man may easily get, with his own hands, a livelihood for twenty people, the cultivation of it is so very easy. The fruits of it are excellent and very plentiful; various sorts of corn grow there all the year round, without distinction of seasons, and that in a very little time; and there being no winter, the trees are alternately covered with blossoms and fruit, and always with leaves. The air is very good, and the climate very temperate, though it be between the tropics, for the heat is continually mitigated by a fresh east wind, which blows all the year, except in the night, when the breezes come from the land. The waters are excellent, and keep good throughout the longest voyages, as has been often experienced in Europe."

The Jesuit missionary Christopher D'Acugna, in his *Discovery of the River of Amazons*, concludes:—"Thus, in short, I have given a relation of an ample discovery of this great river, which, though it possesses so great treasures, yet excludes no nation in the world from them; but, on the contrary, invites all sorts of people to reap the profits of the riches with which it so abounds. It offers to the poor a plentiful maintenance; to the labourer, the liberal recompense of his toil; to the merchant, a profitable trade; to the rich, an improvement of their wealth; to gentlemen, honourable employments," &c.

It is evident that M. Buffon had acquired a very correct idea of the Guiana climate, on which he makes the following just remark in his *Natural History*:—"In the new continent, the temperature of the different climates is more uniform than in the old. For this there are several causes: the torrid zone in America is by no means so hot as in Africa. The east wind, which blows constantly between the tropics, does not reach Brazil, the land of the Amazons, or Guiana, without traversing a vast sea, by

which it acquires a degree of coolness. It is for this reason, together with the rivers and forests, that these parts of South America are so remarkably temperate."

Malte Brun, in his *Geography* (on Guiana), vol. v. p. 555, says:—"The cacao tree grows spontaneously on the east of the Oyapok;* coffee, pepper, indigo, and vanilla, are indigenous to the soil; manioc and cassada are considered the best alimentary plants; the potatoe, the igname, two kinds of millet, and the tayove, are also very nutritive.

"Guiana is famed for its medicinal plants. It supplies Europe with quassia, or the wood of Surinam. The *Dolichos pruriens*, the *Palma Christi*, a species of ipecacuanha, gentian, the *Arabicus costus*, the *copaifera balsam*, and many others, are mentioned in the memoirs of Bajon and Aublet. Leblond, a celebrated traveller and botanist, tells

* I know that by the English, Dutch, and all the European colonists, this tree is said to grow wild in divers parts of Guiana; and the same is asserted by Aublet, by Humboldt, Richard, and others. I cannot deny the fact, but doubt somewhat, having never met with it in the distant forests; and I know that it is often confounded with the *Cana-heri* (*Pacheri aquatica* of Aublet, *Carolinea princeps* of Willd.), which is called *wild chocolate* by the colonists. The fruit of this superb vegetable resembles that of cacao very accurately, and it has been employed in the same manner: in its large and beautiful flowers, however, it differs exceedingly from *Theobroma cacao*. What tends to increase my doubts as to the indigenous growth of this tree in Guiana is, that all the natives, so far as I know, call it by the Spanish name, *cacao*, derived from the Mexican (?), and they appear to have no name of their own for it. But, whether natural or not, the soil of the mountain regions is so congenial, it suffices to set the plants in the ground, when they will maintain themselves and reproduce abundantly, as I have witnessed in the missions of Carony.

The flora of Demerara has been but slightly investigated, with the exception of Meyer's contributions, and those of that philosophical botanist Dr. Hooker,—aided by the laudable zeal and intelligence of his worthy pupil Mr. Charles Parker, of Liverpool.

us that the cinchona does not grow in Guiana : as this plant has generally been observed in mountainous districts, the low plains on the confines may be unfavourable to its growth."

This may be a just remark ; but the mountainous regions of Guiana have never been explored, nor even ascended by any one except the writer, so far as he knows ; and it would so appear from the statement at page 552, that " the highest mountains are not more than 1800 feet above the level of the sea ;" whereas the mountain Mackerapan, on the Essequibo, has nearly thrice this elevation.

The Hon. P. H. de Groot, one of the oldest and most respectable inhabitants of Essequibo, and formerly president of the colonial legislature, who has been many times up the river (into the region proposed for colonizing) has uniformly declared it to be one of the most interesting and fertile countries on the globe, and the most desirable for occupation.

I may remark, too, that an enlightened friend,* who has travelled so far as the Parime, many years since mentioned to me the intermediate or mountainous region in the very pleasing and classical terms for which he so much excels.

Piso, speaking of Guiana, observes :—" *Multæ insuper plantæ, resinæ, et ligna, tam mercatura quam medicina dicata, luxuriant, quorum præcipua, enumerasse sufficiet. Denique fluviatiles pisces tam multi et tam præstantes apparent (licet à nostratibus multum diversi) ut vix ulla, regio in terris magis illis abundare possit.*"—p. 170.

We have, indeed, similar reports from all the more intelligent persons who have travelled in Guiana, respecting the soil and productions of the interior ; and more recently, Mr. Hilhouse, after having twice or thrice visited the region

* Charles Waterton, Esq., author of " Wanderings in Guiana."

of the falls, adduces, amongst others, the following very strong arguments in favour of the inland cultivation.

“ The climate of the region inhabited by the Indians is much more salubrious than that of the coast: though approaching nearer to the Line, its superior elevation causes a decrease of temperature; and the surface of the earth is always kept cool, from the thick shade of the forest with which it is universally covered.

“ It is a common observation, that the air of the rivers is unhealthy; but this only applies to that part of them which runs through the swamp land and level of the sea-coast: here the exhalations and vapours accumulate, and the sea-breeze is not sufficiently constant or powerful to dissipate them. Throughout the whole extent of the salt or brackish water, fever and ague predominate; but, beyond the influx of the tide,* the banks of the rivers are so proverbially healthy, that, were the population ten times more numerous than it is, there would be little employment for a physician. As we approach the high sand-hills of the interior, the natural drainage is so perfect, and the torrent of fresh water supplied by the creeks forms so strong a current, that all impurities are quickly drained from the valleys, and the surplus water is instantly absorbed by the sands. Behind the pegass lands (near the coast) come *high ridges* of sand, interspersed with valleys, in which is a slight admixture of clay. These *sand-reefs* present many fertile spots.

“ To the south of this belt the rocky region commences, consisting of elevated ridges and detached conical hills, resting on bases of sand, stone, granite, and siliceous crystals, containing a great variety of ochres, iron ores, mica, crystals, indications of the precious metals, &c. The rocky region is possessed by the Ackaways and Carabisce, interspersed with small settlements of Macusi and Paramuna.

* This extends to the falls.

“From this topographical review, it is plain that the coast lands are as much the province of slave labour as the hills of the interior for colonization by free colonists.

“The only land that can be devoted to this purpose is occupied by the Arowaks and Ackaways, who occupy the country between the rapids and high mountains of the interior. This cannot be taken possession of, according to the old Dutch plan, without exterminating the Indians. But as we are bound to suppose that the British Government would not knowingly commit such an act of cruelty and injustice, it follows that the benefits of civilization should be extended to the Indians in return for the occupation of their lands.

“By the evidence of the old Dutch proprietors, the upper rivers were the regions in most general cultivation; and it is a fact that the first settlements and old Dutch estates were established and principally worked by the labour of the Indians. The exportable produce of that period certainly bears no proportion to the amount now shipped; but it was infinitely superior when compared with the small extent of capital employed. In fact, the old settlers had no capital. They sat down in the centre of the Indian population, attracted by the airy site of the hills, the abundance of fish and pure water, and the quantities of game. Their cultivation was carried on, either by free Indians or Indian slaves.”

At p. 71 of his *Indian Notices*, Mr. Hilhouse further alludes to the probable advantages resulting from the colonization and cultivation of the interior, and adds, that “the increased supply of animal food would add to the comforts of the whole population, whilst it diminished the expenses of the garrison; and Demerara would become the great cattle-market for all the West India Islands.

“Upon the whole,” concludes Mr. H., “there is no

doubt that, if the hand of cultivation reached to the hills of the interior, and a few artificial improvements were added to the advantages of local situation, the climate of the Indians would be the most healthy and agreeable of any within the tropics ; with fish, flesh, fowl, and vegetables in abundance, pure water, no fevers, and no mosquitoes." (See the *Indian Notices*—Demerara, 1825.*)

These observations of Mr. Hilhouse are generally correct ; and had his *Indian Notices* been at hand, I should have quoted him in a former hasty essay on this subject ; but the book which he so kindly presented me in Demerara was lent out, and in fact lost till lately ; and this must be my apology for having apparently slighted the valuable testimony of his experience.

I must not omit, however, to notice one small mistake of my friend, in placing the head of the river Masserony in the geographical position of the Portuguese fort of St. Joaquim on the Rio Branco ; and I may remind him that the Worariquera and Branco run here fifty or sixty leagues in the opposite course, upon the southern slopes, towards the Rio Negro and the Amazon ; but this was out of the limits of his tour, and we must occasionally allow a *degree of latitude*, or even degrees, for errors in reckoning. He will, of course, take this in good part, as it is intended ; for to conceal or defend glaring errors in our friends, is to prove ourselves false friends, and enemies to truth. I am not unaware that Mr. Hilhouse, "with all his might," opposed my proposition for colonizing Guiana ; but I persuade myself, after noticing the above extracts, that he could not have been in earnest : and although he were, no harm was done or intended, I presume ; on the contrary, I am dis-

* See also the "History of the British Colonies, by R. Montgomery Martin, Esq.," vol. ii., in which will be found the fullest and most authentic details respecting Guiana and the West India Islands.

posed to regard it as an honour to have obtained some attention from men of talent.

I may here subjoin a few words from a report presented to the Governor on my return from the Interior in 1811, some part of which was read before the Royal Geographical Society, by the learned and able secretary, Capt. Machonochie : it will serve to show that my present views have not been hastily adopted.

On proceeding up the Essequibo, we meet with three great chains of cataracts or rapids : the first chain commences at Aretaka (20 leagues from the mouth of the river). The bed of the river, in the dry season, discovers vast quantities of vitrified, stony, and various mineral substances, and appears to have been the seat of volcanic fires at remote periods of time. These volcanic products are chiefly met with among the falls, incumbent on beds of granite, where the soil and lighter materials have been washed away. The principal component parts of the interior mountains are granite and its various modifications, which show them to be of primitive formation, whilst the extensive ranges towards the coast are of a less elevation, and are chiefly composed of indurated clays with sand and gravel, and may hence be regarded as belonging to the secondary order.

The soil of the interior and mountainous parts of Guiana consists of a strong and fertile loam, being a due mixture of clay, sand, and vegetable mould, with little calcareous earth ; it contains much ferruginous matter, which gives it a yellow or reddish tinge, and, contrary to what has been asserted of countries within the torrid zone, there are evidently vast quantities of iron ore amongst the mountains of Guiana.

The Indians (besides some cotton and sugar-canes, which thrive without care) cultivate cassada, maize, plantains, yams, eddoes, sweet potatoes, &c. Notwithstanding the

diversity of the animal kind, with which their rivers and forests abound, they subsist mostly on the produce of their fields, which are small indeed, and require but little labour; but they yield abundant returns. The cotton is spun by the women, and forms one of the principal articles of traffic amongst the inland tribes. The mountain regions, indeed, are most congenial to vegetation in general, and extremely well adapted to the produce of sugar, coffee, cotton, cocoa, &c.

The following will serve to give some idea of the lands further to the westward, in the region of the Macoosy mountains, west side of Reponony:—Passed over a barren salt savannah to the mountains; ascended a peak which is nearly isolated (of the range of Parime); it was very steep and rugged, and difficult to climb: found here, on the summit, five large houses, and about twenty men, besides women and children; all Macoosies, stout lusty people. They saluted us in their manner, by snapping their fingers in our faces, and made us welcome with abundance of cassada, yams, plantains, &c., and a sweet drink made of maize, red yams, and juice of the sugar-cane fermented, called Awasecooro,—a very agreeable and nourishing beverage. The top of the mountain appea sterile, covered with large rocks. The cassada, corn, yams, plantains, &c., are produced on the sides of the mountain, and thrive astonishingly, notwithstanding the sterile appearance of the soil, which is composed chiefly of reddish indurated clay and gravel, with very little appearance of mould or decayed vegetable matter. This mountain is called Etaka, in latitude about 3. 40' N. and in longitude $58\frac{1}{2}^{\circ}$ W. It seems traordinary that *plantains*, which on the coast region will produce only on a *pegass* soil, should thrive so well here. From this spot we could see far along the Cordillera of Parime, Mackerapan, as also the groups of Conoko to the southward, which we afterwards ascended: and, at the same

time, the two great systems of rivers which drain the northern and southern slopes by the Essequibo and the Branco: the source of the Perara, the Maou, the lake of Amuku, &c were visible here. We found on the plain near Yamoory's some very singular plants, and especially an arboreous cactus, (nopal or prickly pear); one of the largest I have ever seen of these succulent vegetables, the trunk of which measured upwards of four feet in circumference. Pineapples, the most delicious, are so plentiful in this neighbourhood, as to give name to a mountain, and the Macoosy village of *Annai*, or *An-ni-eh*.

On the 20th we descended the mountain on the opposite (western) side to Capt. Sacooro's. This side has an easy slope, and is covered with trees and an abundant vegetation. Near the plain we passed along a deep ravine, and a stream of water, cool and crystalline, overshadowed with trees and bush ropes (large vines). Passed some trees loaded with fine fruit, called *erong*; several fields of cassada, maize, &c., of luxuriant growth; and we remarked here a few sugar-canes, and cotton-trees, the largest we had ever seen, loaded with pure white and blown cotton.

Thus we shall see, that not only in respect to numberless products useful in medicine and the arts, but likewise numerous fruits and nutritive vegetables, Europe has yet to become acquainted with these fruitful regions of South America.

In conclusion, I may quote a few words on Emancipation, from the pamphlet I published prior to the great enactment, and make a brief remark thereon. "I have ever, therefore, considered it a fundamental truth that all men are naturally entitled to the enjoyment of equal rights; and this truth is even most generously acknowledged by one of the noblest of British laws, that the slave who touches the soil of England is free. And therefore, although such

principles are opposed to my own pecuniary interest, I truly wish to see all vestiges of slavery swept from the earth; and I know that there are very many amongst my fellow-colonists, more deeply interested than myself, who would be heartily glad to see this safely effected.

“ That the most unmerited calumnies have been heaped upon the planters, is true : but where undue power is delegated, men are but too prone to abuse it, and the brutal passions will, at times, predominate over better feelings. Witness, for example, the military punishments, which exhibit instances of cruelty unprecedented and altogether unknown in the colonies. But enormities practised at home cannot justify similar ones abroad. Government ought long ago indeed, to have abolished the *cart-whip* in the colonies, and the *cat-o'-nine-tails* in the army. Flogging never improved the habits or morals either of the negro or of the white soldier : its effects are constantly the reverse. Of this I am convinced from my own observation, as well as from the uniform testimony of the most sensible and judicious persons.

“ I would here express an ardent hope that the Ministers of Great Britain, whilst they nobly exert their power in forwarding the great cause of humanity in the British Colonies, will not rest contented till they have banished slavery, or the slave trade at least, from the grasp of other less generous nations, who continue this trade on the coast of Africa. Let us consider that throughout the vast extent of the Brazils, of the foreign islands, Surinam, Cayenne, &c., this traffic in human flesh is still carried on.

“ This is the proper time for negotiating with other powers, the European and American states, as one which offers both precept and example for obtaining a general emancipation. And why allow the naval power of Britain to slumber,—her ships mouldering in the docks, and her

officers on half-pay, though these brave men, as I have heard them declare, would vastly prefer active employment in suppressing this infamous traffic, even if it were on half-pay only? The concurrence of other powers, there is no reason to doubt, might be obtained through the influence of the British Government. If this be not effected, and should the colonies be abandoned to their fate, without some alternative, (as that I have pointed out, or one more efficient), the consequence, it is plain to the meanest capacity, must be, that the British possessions will be annihilated or rendered useless, and colonial commerce will pass into the hands of rival nations, who will thus be excited by additional gains to pursue an execrable trade with more energy than ever."

That such will be the result, and in fact that this is already the matter of complaint among short-sighted and misguided philanthropists, is now (1835) too obvious to be dissembled. Mr. Buxton entirely reiterated his complaint, that, although eight hundred thousand slaves have been liberated by the recent Act of Parliament, there still remained five millions in the most abject slavery. And by accounts just received, the demand for slaves is increasing in the foreign colonies, showing a greater activity or avidity in the traffic.

When Mr. Buxton brought forward in Parliament his proposed motion on the subject of the slave-trade, he referred to the papers laid before Parliament, to show how actively that nefarious traffic had been carried on by other powers, and how, in the short period of a year and a half, 150,000 slaves have been imported into different foreign colonies, and 264 ships engaged in the business. The return from Sierra Leone proved that an extensive destruction of human life took place in the captured vessels. The Hon. Member recommended that slave-vessels when taken

should be broken up, and that prize-money be allowed to the captors on a more liberal scale. No good, however, could be done till the slave-trade was declared piracy, and the right of search conceded by other nations. A general treaty should be negotiated for these purposes, and he could not doubt but France and Spain would join in such treaty. After an address of great length, the Hon. Member concluded by recommending an Address to His Majesty, recommending the negotiation of a treaty for the extinction of slavery.

Thus the blind and impetuous zeal of a party in this country has defeated its own purposes; and, so far from alleviating, has entailed far greater calamities on the African race, as is proved by a notice from Brazil, stating that “vessels are reported in Monte Video almost weekly as arriving from the coast of Africa in ballast! having landed their cargoes of slaves on the coast of that province or of the Brazils.” In fact, it is notorious that this iniquitous trade is daily increasing.

Should the views set forth in this pamphlet, or any similar ones, be adopted, it is probable that the want of slaves will be fully compensated by free labour, even on the coast of Guiana, but most richly so in the interior, where less labour and expense will produce greater returns. Such considerations ought to be sufficient; but if the superior salubrity of the air over that of the coast be added to the immense advantages of the inland cultivation, we should think that all parties would concur in these views—planters, merchants, and every friend to the colonies, to this nation, and to reason, common-sense, and humanity. This, indeed, is the region of health, whilst pernicious fevers still occasionally prevail upon the low mephitic lands of the coast.

Here, in reality, are the means of reconciling every

British interest on this subject. Let Government but bestow a comparatively trifling expense upon the land and water-carriage of Guiana, and the interests of the colonists and of all others may be at once reconciled, and one of the noblest colonies rendered available to the nation.

No wild or impracticable proposal is here made. Little pecuniary sacrifice is required,—little, compared with that which has been uselessly bestowed upon untenable and most pestilential spots on the coast of Africa.

The surplus population of this country* would there find the happiest relief from the miseries to which they are unfortunately reduced,—for their labour would prove a source of wealth to themselves as well as to the mother-country. Besides, it is only under such circumstances that the condition of the black population can be rendered comfortable and compatible with rational freedom and civil order.

Were these views once realized, Guiana and the other West India Colonies would, in a short time, send forth a greater quantity of valuable produce than any other portion of the American continent; and a Company like that here proposed, would undoubtedly compete with every undertaking of a similar kind: it would shortly realize a profitable return for the capital employed, and contribute immensely to the extension of commerce and British manufactures.

* The free-coloured people of North America, the Hill Coolie, the native African, the Maltese, the Germans, Swedes;—one and all, in fact.

APPENDIX.

A few words from Mr. Montgomery Martin's *History of the British Colonies*, may not here be misplaced,—an author whose accuracy, intelligence, and deep statistical knowledge, are too well known to the world to need any commendation from me. He says:—

“Some idea may be formed of the labour required in drainage, and the capital required to establish it, when it is stated that thirty miles of *private* canals, twelve feet wide by five deep, and two hundred miles of drains, are required for the drainage and transportation to the mills of an estate producing seven hundred hogsheads of sugar.”—Vol. ii. p. 135.

It is worth while to contrast this with the inland cultivation, where the produce would be much greater, and with little or no labour of drainage.

In regard to some very material articles of supply, the labours of the Parliamentary Committee prove, that “*a strict monopoly is still maintained in favour of the mother-country, or of her North American possessions.*” This is represented by the Committee as exceedingly prejudicial to the Colonies: and Mr. Martin observes, that “The direct effect of these commercial restrictions has been computed by the West India merchants at the annual charge of no less than £1,392,353 sterling; thus abstracting from the pocket of the planter, in the article of sugar alone, 5s. on every cwt. of sugar he makes.” Page 449.

So heavy, in fact, are the Government imposts, that very frequently, to my own knowledge, the planter, so far from profiting, is a considerable loser on shipping his produce : and such facts justify a remark in my essay, prior to the Emancipation Act, that, “the people of Great Britain are, generally speaking, sensible that it is the mother-country which has hitherto benefited by African slavery, however impolitically ; and that most of the profits on colonial produce have been derived by Government, leaving the planter but too frequently insolvent. Is it not monstrous, then, to suppose that the planters, who have only acted under the regulations of Government, are to be singled out as victims for utter ruin ? If this were suffered to occur, we might then truly deem it the act of a faction, and its professed humanity a farce.”

One of the most useful of all modern improvements is that of the manufacture of sugar *in vacuo*, which would enable the planters to afford this necessary article, raw sugar, at a price within the means of the multitude ; but it appears that both the sugar-growers and the whole nation are to be debarred from profiting by this notable invention, because it would militate against the interests of a few avaricious and wealthy monopolists (sugar-refiners) ; who therefore petitioned Parliament, and, by the aid of specious representations, obtained such a duty to be placed on this manufacture, as must operate as a total prohibition. Such erroneous policy is utterly inconsistent with the commercial intelligence of this country ; and even the Pacha of Egypt has shown more wisdom and liberality of mind, having recently sent to England for an engineer to construct an apparatus for preparing sugar *in vacuo* !*

* By this method, the raw sugar, at a single operation, is obtained in great purity, on the principle latterly introduced of preparing vegetable extracts *in vacuo* ; a method which, with the improvements of Messrs.

It is to be hoped that Government will, in its wisdom, reconsider this matter, and see the impolicy and injustice of those enormous taxations and restrictions on colonial commerce, and allow the colonists to obtain relief from their embarrassments, by the privilege of a free and direct trade with any foreign countries.

No man has ever given a more lucid and impartial view of the wants of the Colonies than the author before-quoted, Mr. Martin: he observes (page 456), that "with the curse of slavery, the blighting effects of hurricanes, and the far more destructive influence of commercial jealousy, the wonder is, how the West India colonies have maintained themselves during the last thirty years; nothing but the unconquerable energy of Britons could have surmounted the ruinous prospects and destruction of property, which have been annually going on, and which will progress in an accelerated ratio, unless the islands be permitted to renew their commercial intercourse with Europe and America, totally unfettered by any legal restrictions from the mother-country. Give, I repeat, the British West Indies that unlimited mercantile freedom, for which their geographical position, fertile soil, and fine harbours so eminently qualify them, and neither the mother-country nor the colonies have anything to fear for the future." And he adds, "To deny them this much longer, in their paralysed state of existence, must be attended with absolute misery and ruin."

These are truths which merit serious attention; but Mr. Martin seems not to be aware of certain internal abuses, as

Oaks and Dodson, has been found most successful in Demerara. The depurated cane-juice is thus crystallized, at a great saving of labour and fuel, and at a low temperature, uninjured by heat, or the quantities of lime and bullock's blood, which, both in the old way and in the refining process, are largely employed. It should be considered, that lime, by much boiling, unites chemically with sugar, and forms an unwholesome compound of less sweetening power.

the oppressive taxation by the Colonial Governments, and the waste of public money in divers useless expenditures.

He adds, (p. 449), that “the emigration of Europeans, or whites, to the West Indies, should be encouraged by every possible means; the millions of acres of fertile territory in Crown lands, now lying waste, should be granted at a nominal quit-rent to any person of industry and character for the purpose of colonization.” Upon which subject the present talented Editor of the *Liverpool Mail* observes:—“In Jamaica, the owners of the soil are apprehensive that the blacks will not work, and they want from this country whites who will, in order to make their freeholds valuable. Let us, then, suppose the industry of fifty or one hundred thousand persons transferred from England, (in which their utmost exertions, early and late, can scarcely furnish the mere necessaries of life), to one where two-thirds the toil will bring threefold the returns.

“How will this additional return be spent? It will reach England, every fraction of it: all their wants are English; and an additional impetus will be given to English manufactures and to British shipping. Let us suppose that emigrants, or emigrants’ children, make a fortune, where will it be spent? In England, to be sure. Very exaggerated views are entertained in this country relative to the difficulty and danger of agricultural labour in tropical climates, &c.

“The wages which estates would pay to labourers of this description, may be stated generally at the rate of 8*l.* per man, 6*l.* per woman, 4*l.* per boy above ten years of age, annually, with a house and provision-grounds rent free, as well as a day per week, exclusive of Sunday, for cultivating their grounds. This would enable them to raise sufficient food for their support, and somewhat to sell besides. A labouring family, consisting of father, mother, and three

children (two above ten years of age), might earn as wages 22*l.* sterling per annum, have their house and provision-grounds rent free, live on the produce of the latter, and sell the surplus provisions, which, if they were industrious, would yield them 20*l.* sterling in addition."

In reference to what has been said of the nutritive vegetables of Guiana, it may be observed, that sago might also be prepared there as well as in the East, from several species of palm, as the eta, manicole, mountain cabbage, &c. ; and the tapioca, so highly prized in this country as an article of diet for children and invalids especially, is nothing but the *farina de manioc*, divested of the woody fibre by sifting, and might be procured in abundance, and at a very low rate, from the British colonies. I was told by one of the most sagacious of scientific economists, Sir John Sinclair, that tapioca has been proved, by comparative trials, to be one of the most beneficial and wholesome of nutritive substances. Strange to say, this invaluable preparation is as little known in the Colonies as it is here,—that is, with respect to the process for its preparation, although not less simple than that for obtaining cassada bread. When travelling with the *Mamelukes*, so called, (Portuguese soldiers of the coloured race), on the Tacotu and Parime, I found we could subsist very comfortably on a daily allowance of a half-pint measure of this substance. It is erroneously supposed to be the mere starch of cassada, instead of the entire farina.

The settlements in British Guiana consist of plantations of one single depth only, along the sea-coast, and extending a short way up the rivers. Yet the commerce of this colony is estimated by Mr. Martin at about one million imports, and three million exports, employing upwards of 132,000 tons of British shipping, about 1200 ships, and serving as a nursery for 11,000 British seamen.

Many of the creeks of this coast have long since disappeared, and are only to be seen on the old Dutch charts; and this accounts satisfactorily for the increasing salubrity of the coast; but, besides which, the indulgence in luxury and indolence, and the use of strong liquors, is by no means so prevalent as formerly.

A singular substance (alluvion) is constantly floating about this coast abundantly, called *drift-mud*: it appears to consist mainly of clay in minute division, blended with slimy animal and vegetable matter, similar to the deposit brought every spring upon the Coos meadows of New Hampshire, alluded to at page 6. It would doubtless form an excellent fertilizing compost for poor lands.

Formerly we had no fresh water on the coast of Guiana, excepting that caught from the clouds on the tops of houses: but the water which Major Staples has obtained by boring is esteemed to be of the purest quality. It is worthy of notice, that water procured from great depths has very uniformly been found to be superior in purity and salubrity to that whose source is more superficial: and another great advantage in deep springs is, they are constant and inexhaustible at all seasons.

It is surprising that to this day the greatest city in the world remains content with the filthiest water that ever man drank; and rather singular too, that in this important matter it should have allowed the infantine colony of Demerara to *go a-head* of it.

It is also worthy of consideration, that emigrants might go out to the West Indies at all seasons of the year, almost indifferently; although the summer months are perhaps to be preferred, as the transition or change of temperature will then be less sensibly felt.

A sudden or unwonted increase of heat evidently rarefies or augments the volume of blood and excitation of the body,

as we experience here in the spring season; and for this reason, persons on entering warm climates ought to observe moderation in their diet and regimen, especially till they become habituated to the climate. Much animal food and strong liquors increase this tendency to inflammation.

Captain Ross, I observe, in his recent work, speaks of the effects of *oils* and *fat* meats as generating heat, and says, they are found necessary by the natives, for the preservation of life in the frozen regions of the North. This is a curious fact, and, I think, correct; but animal food in general, whether fat or lean, together with the use of fermented liquors, are ever powerful in resisting the effects of cold, or generating animal heat; and the observance of temperance and moderation is far more effectual in guarding against plethora and disease than bleeding, as advised by many writers, and which, in fact, is the way to increase the plethora, and a practice by no means advisable as a common rule. Symptoms of indisposition should alone indicate venesection.

Those who, on entering a warm climate, may feel indisposed, with headache or febrile symptoms, will (in plethoric habits especially) do right to lose blood and take some laxative medicine, and wear flannel or thick cotton next the skin, to maintain a moderate perspiration. This requires particular attention; bleeding in such cases serves to give freedom to the circulation and the secretions. The state of the perspiration, it should be remembered, is ever the surest index to the state of health.

Dysentery, as well as fevers and most other disorders, are to be guarded against by due attention to the perspiration. A striking correspondence between the bowels and the skin is universally acknowledged; but this is mystified by the name of *sympathy*, *affection*, &c., and hence the obvious and rational practice is mostly overlooked or ne-

glected : on the attacks of disease, purgatives are too much relied on, instead of the direct means, by the use of baths, frictions, and diaphoretic remedies, and by assisting nature, when necessary, to relieve constipation, by laxatives, not drastic purgatives, which cause exhaustion, debility, and nervous disorders.

Not only are cutaneous diseases, fevers, and exanthems, most successfully treated by the sudorific method, but those also termed nervous and spasmodic, which are aggravated by the cathartic practice, or often excited by it : even tetanus, which resists all other methods, yields to this, as many judicious persons in Essequibo can testify, and amongst these, an enlightened physician, Dr. Thomas Bell, of long and tried experience, now, I believe, at Cheltenham.

Of the divers remedies used as antispasmodic sudorifics, are the leaves of the cashew and wild guava, and especially a small bitter, aromatic, and camphoraceous plant, called *haiowabally*, of the *Composite* order : it grows on sandy soils, about a foot high. An infusion of it, taken warm, is very powerful in fevers, rheumatism, &c., producing tranquillity and an abundant perspiration. These, and many others, are employed in vapour, warm-water baths, and fomentations, the powers of which are thus very much enhanced. The medicinal plants of Guiana are exceedingly numerous, and I propose to submit to the public some account of the principal ones in a separate work.

It is not unfrequently found difficult in fevers to induce a perspiration, or to maintain it when begun ; this is especially observable in the more ardent fevers. In such cases a bucket or two of cold water should be thrown over the patient. This, occasionally alternated with the warm or vapour-bath, constitutes the most essential part in the treatment of fevers, which, together with bleeding, when requisite, are thus most effectually arrested ; the collapsed

capillaries or cutaneous vessels being thus excited, a perspiration is produced, and on this the fever is presently brought to a termination; an event which no other known agent under heaven could affect: to this, with God's mercy, I owe my own preservation and escape from many attacks of the most perilous ardent fevers of tropical countries.

Consumption is now declared incurable, measles exceedingly fatal; and by the public prints of the day, we find most respectable and honest practitioners declare that upwards of half the number of their patients die who are attacked with small-pox. Are diseases in general more virulent or less tractable now than formerly? or, does the ill success arise from mistaken views of the nature of disease, the consequent misapplication of remedies, and imbecility of the healing art (the fault of the schools, not of individuals)? and, is it not that a diligent study of disease and of remedies has given place to an infinity of vain speculations (termed *scientific*) on anatomy, physiology, chemistry,—to metaphysical hallucinations, and unprofitable puzzles on the functions of the brain and nervous system,—which, like the *ignis fatuus*, only bewilder and recede from the pursuer.

These remarks are taken partly from a MS. work of the author, and may be deemed out of place here; but a medical friend has suggested, that works expressly on medicine are not read unless by very few, and those who, for the most part, are jealous of innovations, who hold in reverence all that is consecrated by time and high *authorities*.

Some better regulations should be substituted in the Colonies with respect to religious instruction; for although many of the missionaries undertake their office with the most correct motives, it is not so with all; there are those who seem bent on sowing dissensions amongst the black population, which I know to be true, whatever may be said to the contrary.

Notice of Timber and Fruit-trees in British Guiana.

Considering the enormous expenditures incurred by Government for supplying the British navy with timber for ship-building, as now obtained from North America and the Baltic, it might be an object highly worthy of attention to establish a naval arsenal or depot in the Colonies, where abundant materials might be obtained at comparatively trifling expense: and no part of the world, perhaps, offers so great advantages to this end as the united colonies of Essequibo, Demerara, and Berbice.

It is well known that vessels built in Brazil are of a very superior description in respect to strength and durability. Guiana furnishes, for the most part, the same woods, and many others unknown to Europe. I shall here briefly enumerate a few of the more valuable timber-trees which are best known in the Colonies, and employed either in ship-building, for colony craft, or in the construction of houses. Besides these, are other finer species of woods, which might be sent to Europe as most valuable for cabinet-work, turnery, and household furniture.

Of woods mostly employed, I shall first give the result of Reports drawn up by practical shipwrights of long experience in the construction of schooners and colony vessels; the first nine, following, being from their Reports, nearly *verbatim*, adding only a reference to the genus or botanical affinities, so far as known.

“1st. *Seperi*, or *Green-heart*. This is a remarkably fine-grained and hard wood, well adapted for vessels' planking. Can be had from twenty-four feet to fifty, squaring from twelve to twenty inches, well calculated for all water-works.

“2nd. *Mora* (*Mimosa* sp.) This wood is the same as the celebrated teak of the East Indies, and equal, if not

superior, to oak, (not subject to dry rot, in the tropics at least.) It can be obtained in lengths from thirty to fifty feet, and squaring from fourteen to twenty-four inches. The crooked timbers of this tree and the planks would be of the greatest utility for keels, knees, and planking of the upper works of the largest vessels in the navy.

“ 3rd. *Sawary* (*Pekea tuberculosa*, Aubl.). This is of nearly the same nature and properties as the above, except that it cannot be obtained in such lengths, but in many other respects equally eligible, and usually squares something larger.

“ 4th. *Bully-tree* (*Achras balata*). This tree is of a dark purple hue, hard, and well calculated for beams, posts, or uprights, &c.; it can be obtained of various lengths, and will square from twelve to twenty-two inches.

“ 5th. *Sirwabali* (Fam. *Laurineæ* or *Ocotææ*), three or four different species.* This is a lighter wood than those above described, and is remarkable for a peculiar aromatic bitterness which it contains, and acts as a preventative of the attack of worms. This is the wood of all others preferred in the colonies for planking of craft, and on that account is well adapted for the construction of long boats, gigs, &c., or any other works subject to be attacked by worms. This wood floats.

“ 6th. *Crabwood* (*Carapa Guianensis*, Aubl.) This is a light and red wood, generally used in the colonies for floors and partitions. This wood *also floats*.

“ 7th. *Purple Heart* is one of the finest and most valuable woods to be found in nature; its dimensions are large, and its qualities are superior to any other wood in sustaining the shocks occasioned by the discharge of artillery. At the siege of Fort Bourbon in Martinique, this wood stood the test, while all others failed, as mortar beds.

* One of these (the yellow Sirubally) is the rose-wood, *bois de rose*, which exhales a fragrant odour.

“ 8th. *Tonkin Bean* (*Diptera odorata*, Willd.) This is a very hard wood, fit for the cogs of wheels, or anything that requires great pressure.

“ 9th. *Cabacally* is similar to Bully-tree in most respects, and little inferior to it, being very hard and durable.”*

Carana, Cedar of the woodcutters (*Icica altissima* of Aublet.†) A very large tree, the wood of which abounds with resin. It is light, and much like deal, but far more durable, and of a reddish colour. It would probably be a most excellent material for the masts of vessels, being sixty or seventy feet in length, and four or five feet diameter. Bark red, very astringent, and excellent for tanning. Abundant through interior Guiana.

Wallaba. A most durable reddish-brown wood, full of an oily resin. It splits smooth and freely, and is universally employed in the colony for covering houses, for water-vats, &c. : it is the *Eperua* of Aublet; Willdenow calls it *Panzeri*. It attains about sixty feet in height, and three or four in diameter; bears a large sabre-shaped legume.

Nacoca, *Iron-wood*, called Palo Santo by the Portuguese; a large leguminous tree (*Robinea panacoco*, Aubl.) The bark of this tree, as Aublet observes, is employed in sudorific tisans; it is rough, thick, and gives out a red balsamic liquor. The wood is reddish brown, becoming black by age: it is hard and compact; in great esteem at Cayenne in the construction of vessels. It is regarded as incorruptible, according to Aublet, who says he had seen pieces of this

* The leaves of this tree are remarkably fine or small; and a singular coincidence is generally observable between the texture of the wood and size of the leaves amongst the tropical vegetables, in the trees especially, so that, on seeing a leaf, we can form a very probable idea respecting the degree of hardness or solidity of the wood. I have no idea of the classification or botanical analogies of this tree, the Cabacally.

† From this tree it is that the balsamic odorous resin, called *carana*, is procured, the source of which has heretofore been a matter of conjecture.

wood which remained sound after having lain partly buried in the ground for more than sixty years.

Pucheri and *Waibyma*, large trees of the laurel kind; excellent timber: abound on the mountains of Reponony. Specimens of the bark of *Waibyma*, brought by the writer in 1811, are still strongly aromatic: used by the natives as a remedy in fevers and dysentery.

The *Yari-yari*, a small tree, grows slender and straight, (*Anoniaceæ*). This is the lance-wood, already known here to coach-makers as the best material for the shafts of carriages, and which, they say, from its toughness or elasticity is not subject to be broken.

Yarury, a large tree, the roller- or paddle-wood. This, probably, might furnish the best material for floats or paddle-wheels of steam-vessels, as being, although light, exceedingly strong and elastic; and not being subject to splinter, it might also prove superior for gun-carriages, and for the bulwarks of ships of war. The lower part of the trunk grows into singular fluted or flat tabular projections, forming cavities or compartments, capable of holding several persons. Other trees of the tropics occasionally assume a similar structure, as the *Mora*, and some large fig-trees, which occasionally serve the natives as ready-made planks for floors, tables, or benches. The *Yarury* appears to be a nondescript both in genus and species. It pertains to the fifth class and first order of Linné's system. Its curious fruit and capsules may be seen at the Med. Bot. Society's Rooms, Sackville-street, noted in my botanical memoranda under the title of *Yaruri tabularia*. The bark of this tree is very bitter, and has been employed as a substitute for the cinchona with great success by Dr. Burton.

Simiri of the Arowaks (*Hymenæa courbaril*). A very hard and compact wood, used for mill-rollers. On the higher lands it yields great quantities of copal, or a resin

scarcely distinguishable from it. It is singular that the guttiferous trees seldom give out their exudations on the coast, which they do abundantly inland.

The *Bicy*, or *Besie*, of which the Indian corials and canoes are chiefly made, is of great durability, and is, like the *Siruba*, proof against the worm. This tree, or a variety of it, yields a singular green resin, which might be applied to valuable purposes as a varnish.

A species of wild Orange, called by the natives *Warana-na*, a timber-tree, grows large in Pomeroon, Supinam, &c.

Oubudi. The wood of this tree is white, soft, and only fit for heading for sugar-hogsheads, boards for wainscoting, &c. : unless cut down about the time of the new moon, when the sap is said to be down,* it is subject to be perforated by the borer (*Teredo*) and other small worms. (See p. 15.)

The *Macorypong* (?), the tree which bears the Ackawai nutmeg, so termed (of the mountain regions) is said to be durable timber, but is chiefly prized for its large aromatic and astringent fruit, which is considered to be one of the most efficacious remedies in diarrhœa and dysentery, colic, and spasmodic pains. Its botanical history is entirely unknown; but Dr. Lindley, who has inspected the fruit, regards it as pertaining to the natural order *Laurineæ*.

Bannia, a dark-brown and very hard wood, similar to ebony.—*Ducalibali*, and *Letter-wood*, one of the most precious and beautiful of ornamental woods; as also *Hobobali*, and numerous other fine woods, adapted for cabinet-work and turnery, for divers ornamental purposes.

The common fruits of the tropics are so abundant in

* This remark applies more or less to all timber. It is founded on the experience of the wood-cutters; and, in fact, common observation proves that the lunar influence is far more sensible in equinoctial countries than in high latitudes, on the weather, vegetation, &c.

Guiana, that the wild or native ones are not attended to, and remain mostly unknown: the *Pacory*, a species of *Garcinea*, or Mangosteen, gives out a grateful perfume. It grows to a large tree on the Pomeroon, Tapacoma, and divers parts of the colonies. Its wood is employed for planks and framing, and its large apple is eaten by the natives; yet to this time it remains unknown, perhaps, as to its botanical affinities, or its alliance to the prince of East India fruits. The tree is replete with a yellow gum, much like gamboge: but the true *Stalagmitis cambogioides* (or a near species) is also found near the coast, a small dioecious tree, observed aback of the Richmond and Lima estates.

I subjoin a list of several other trees. I give the native names, for the best of reasons, because, with few exceptions, we have no others, their botanical history being little known; and although it were, yet the vernacular names are alone useful for readily identifying, or finding, through the natives, any tree or other production wanted. It may be observed, however, that the natural families of *Sapotaceæ*, *Laurineæ*, and *Malphigiæ*, furnish a very large proportion of the more valuable timber and fruit-trees.

Bartabali.	Kakarawa.	Kula.
Touraneru.	Akaraku.	Kamakusa.
Assepoca.	Quaku.	Juribali.
Hymarakusi.	Kurudani.	Kautaballi.
Kumara-mara.	Urehi.	Etikeburiballi.
Arawiwa.	Waremia.	Sibbadani.
Hakkia.	Kofassa.	Tataba.
Armiosi	Waiki.	Diterma.
Duka.	Maparakuni.	Hyaribali.
Hya-hya.	Sirada.	Kurahara.

The first fifteen are trees which bear edible fruits, some very delicious, and would yield very excellent wines, cor-

dials, and spirituous liquors, and most of them are valuable timber. The *Sibbadani* is, perhaps, the bitterest of all woods; even the *Quassia amara* has not half the power or intensity; and from its antiseptic and salutary properties, it might be found a valuable addition to malt liquors. From the berries of the *Urehi* the natives prepare a most pleasant nutritive drink, similar to chocolate,—as they do likewise another from the fruit of a species of Palm, called *Parapi*. This tribe of plants too, the palms, are so numerous in Guiana, and in their uses so exceedingly diversified, that a volume would scarcely suffice to give a tolerable idea of them; about fourteen different species have been observed growing in the vicinity of Palm Grove Tapacoma.

I am gratified to find that the observations I published long ago, on the soil and natural advantages offered in British Guiana, have been recently corroborated by other more able and intelligent travellers: by Mr. Schomburgk, (who, I am told, will shortly publish on Guiana), and by Mr. Scobel. The latter gentleman has remarked, in his lectures on Guiana: “It is one of the most splendid appendages of the British crown; there is ample room for forty millions of people; it has a soil of inexhaustible fertility.”

The same is fully borne out by Mr. Nicholson, a gentleman of well known probity and sound judgment; whose opinions are formed, not on hasty travels, but on thirty years' practical experience in Guiana. He has not confined his views to the coast; he possesses a farm some thirty or forty miles inland. The advice this gentleman could furnish, would be of great importance to settlers.

In the tracts I published in 1833-35, I stated it as my full conviction, that when the desired event of Emancipation should be accomplished, the cultivation of the coast lands would inevitably fail, unless it could be supported by the introduction of labourers and industrious persons from

other parts, as well as by the aid of the plough and animal labour.

The anticipated results have been too fully verified. The average sugar crops have fallen off *one-half*, and coffee still more, as appears by the official documents. This state of things is truly disastrous, and unless relief be promptly applied, must lead to the absolute ruin of the planters, and the loss of one of the finest colonies that ever belonged to the crown of Great Britain; possessing as it does the greatest national advantages for the extension of agriculture and commerce.

As before remarked, in consequence of the heavy imposts, and the interest paid to mortgagees in this country, the planters have heretofore saved but a small portion of the avails of their produce; and now, not only is this small profit lost, but they themselves are, many of them, brought still more deeply in debt.

In this appalling condition, they naturally look to the mother-country for relief and redress. But what do they hear? that the demand upon their pockets in the shape of a civil list is to be *increased*, and that in proportion as their means are diminished. Nor is this all; they are prohibited by the Government from introducing free labourers—the only resource that can save them from ruin.

Here, in Guiana, is a fertile country, containing more than 100,000 square miles, and scarcely more than one individual human being to the mile!

In the present case, every encouragement ought to be given to emigration, from this country and other parts of Europe, from Belgium, Holland, Sweden, &c. The more northern people, so far as my experience goes, appear to resist the effects of a hot climate better than those from the British Isles. But none, who will observe temperance, and guard for some months against excessive fatigue and

sudden chills, need fear the climate; and the endemial fevers, when found to be approaching, will be arrested by a speedy resort to the appropriate remedy, a free perspiration, obtained by means which promote all the secretions.*

Whilst emigration is restricted and the colonists are burthened with taxation, the prices of colonial produce will be increased; in effect, a premium is thus held out for the encouragement of slave traffic in the neighbouring colonies. Such an impulse, indeed, has been given to this diabolical trade, through mismanagement in Colonial affairs, that the miseries of the Africans have been increased perhaps four-fold; and that, after the sacrifice of twenty millions, drawn from the people of this country! But the restrictions and disabilities imposed on the Colonies, are, in all respects, highly impolitic and unjust, as tending to the diminution of trade and the national resources, and placing the tropical productions beyond the reach of the great mass of the British public.

I should ever, as heretofore, advocate perfect equality and freedom, in respect to civil, political, and religious rights, amongst all classes,—Europeans, Africans, and aborigines. Policy, indeed, independently of all motives of liberality or magnanimity, would dictate this principle; for, in a country consisting of different castes, ruled by a minority of so great disparity, no government could for a

* As a common drink, to cool and attemper the blood, a light alterative ale or fermented infusion of sarsa, waikori, bark of guaiacum, and treacle, will be found an extremely salutary and agreeable beverage; at once detersive, refreshing, tonic, and restorative; removing the seeds of disease (*semina morborum*) or the primary causes of fevers, dysentery, rheums, and the greater number of disorders, acute and chronic, which are engendered by corrupt humours, or perversion of the blood.

It should be borne in mind, that, when disease is found to be approaching, a warm sudorific cordial, with external warmth and exercise, or frictions, will seldom fail to prevent its formation.

single day be considered secure from perils and outbreaks. I should say, let there be, at least, equal freedom with that which constitutes the boast of Englishmen,—however small, in reality, some may consider this to be.

There are already, indeed, many posts of honour and profit very creditably filled by persons of colour in British Guiana, especially Berbice;—in the Civil and Military Departments, in the Governor's suite, and as members of the College of Keizers and Financial Representatives, as Local Magistrates, and Managers of Estates. In private and public parties, too, they mix indiscriminately. In fact, distinctions, so far as they depend on colour, are totally abolished.

Much has been said of the Hill Coolies, so called, who were introduced about two years ago into Guiana. As might be expected, some difficulties arose from inexperience; it was scarcely recognized that these people, as well as Europeans, require tranquillity and ease during their *seasoning*, or assimilation to the climate; and from the mutual misunderstanding, some of them, it is said, received ill-usage. But this, by an early interference of the authorities, was promptly corrected; and doubtless, abuses of this sort will be carefully watched in future. In all communities will be found some delinquents; and I would recommend, when parties are guilty of oppression or cruelty, that instead of being defended, as is too often the case, they should be held up to public execration, as the greatest enemies of the colony. The Coolies now perform their work, I am told, with cheerfulness and alacrity; both parties, the employers and the employed, are mutually satisfied; and many of the latter have declared, that, when their indentures shall have expired, they will go to Calcutta, and return with their families. These facts are attested by authentic documents and by gentlemen of the highest respectability; and per-

sonal reference will be given to those who may desire further information on the subject.

The natural advantages of Guiana have ever been strangely disregarded by the British Government: so little being known of it, that in parliament the learned members are often heard to speak of the islands of Demerara, Essequibo, &c. The evils of such defective knowledge have become apparent since the treaty of Vienna. The fine country of Guiana was parcelled out amongst three or four different powers, whose diplomatists understood better the value of these Colonies. Surinam was ceded to Holland, Cayenne to France, and the province of Rio Negro was surrendered to the Portuguese. Then the Spaniards had a claim to an undefined tract on the north. At the said treaty, the whole country might have been secured to the British empire, and therewith the command of two of the noblest rivers in the world, the Orinoko and the Amazon, which bound this vast tract on the north and south.

It would be difficult indeed to conceive why this sacrifice was made by Great Britain, after the expenditure of so much blood and treasure in a gratuitous warfare.

These mistakes cannot now be rectified; it behoves the government, according to the old adage, to make the best of a bad bargain. For the present age, British Guiana will, and for ages to come, afford abundant tracts for the purposes of colonization and the extension of tropical agriculture.

I have been induced to bring the present pamphlet again before the public, at the suggestion and with the kind aid of a worthy and enlightened friend, the Rev. Stephen Isaacson, A.M., one of the most zealous and able advocates for the rights and prosperity of the British Colonies.

APPENDIX II.

ON the subject of religious instruction and general education, it is here advisable to observe that every encouragement is given, and most ample provision made, to embrace all classes of the labouring population of British Guiana; in proof of which we have the testimony of Mr. Latrobe, a government commissioner, in his Report on Negro Education for 1838, as appears by Parliamentary Paper, No. 35, printed 18th February, 1839. He says at page 1:—

“MY LORD—I have the honour to forward to your Lordship the accompanying papers referring to the present state of Negro Education in the colonies of British Guiana and Trinidad.

“With regard to the former large and flourishing colony, a glance at the details collected for your Lordship’s information, cannot fail to convey the impression that, however recently the subject of Negro education may have begun to engage the public attention, it has been taken up with a spirit of earnestness and of liberality highly creditable to the inhabitants.

“In no other British colony in this part of the world, has the legislature so fully and so unhesitatingly met the views and wishes of her Majesty’s government, both by readily voting the application of public funds to the purposes of Negro education, and by taking instant measures for their proper and speedy appropriation.

“In addition to the sums voted in 1836 and 1837, in aid of the support and the increase of the means of education in the rural parishes of the colony, a sum little short of 34,000 has been placed upon the estimate for 1838, to be applied to purposes connected with the dissemination of religious instruction in one form or another throughout the country.

“In the distribution of the various sums that have been voted, more especially for the education of the labouring classes, the legislature has adopted the plan of proportioning the amount of the assistance given to the several English or Scotch parishes according to the Negro population of each; confiding the precise manner in which the money should be applied to the respective vestries and resident ministers of the two established churches.”

And the estimates are given at length at page 80—1, at the conclusion of which Mr. Latrobe adds the following candid remark, which is worthy peculiar attention:—

“It is considered that the amount of private contributions in the colony is greatly underrated, and that, when all subscriptions are paid in, it will not fall much short of 22,400*l.* Upon this supposition, a sum total but little short of 75,000*l.* appears to have become available to the purpose of spreading religious instruction, and of promoting education throughout the colony, in connexion with the Church of England alone.”*

The sums, indeed, appropriated by the colonial legislature for the above purposes, have been on a most munificent scale since 1824, long previous to the period to which Mr. Latrobe refers; and in 1839 the funds appropriated were

* The friends of Education and Religious instruction, indeed, are referred to the entire report, as containing much valuable and important information in reference to British Guiana and Trinidad.

fully equal to that of 1838. Whether the grants for 1840 will be on so large a scale, is a matter of doubt, if the means are to be raised by taxes levied on the exports of the colony, the staple of which is sugar ; and last year the colony exported only 30,000hds., while in former years the average was 63,000hds. This falling off in the productions is attributed to want of labourers ; and unless a supply of labourers is furnished, the colony will soon be deprived of the means of supporting the large school and church establishments.

From my own personal observation, and from the testimony of many able and disinterested gentlemen, who have visited British Guiana since my departure from the colony, I am quite satisfied that labourers alone are required to make it one of the most productive and flourishing colonies belonging to Great Britain. Sir Andrew Halliday, who visited Guiana, in a work published in 1837, says,

“ During the late revolutionary war, and when the French had converted Holland into a province of their mighty empire, Great Britain took possession of the Dutch West India Colonies. But at the peace of Paris, in 1815, they were all restored to the King of the Netherlands, with the exception of the three which now constitute the province of “ British Guiana.” These were retained by Britain, and a price actually paid for them, notwithstanding that they had been conquered during the war. The coast-line of this rich and important colony, may, as I have stated, extend to a little more than 200 miles ; but its depth, or length inland, has not (so far as I am aware) been as yet determined. One or two travellers do say, that they had penetrated so far to the south, that from the summit of the Cordilleras they could discern the South Atlantic Ocean ; and that from the said heights the waters parted north and south. Hence, some have conjectured

that this is the southern boundary of British Guiana ; though its true latitude has neither been ascertained, nor is it at all stated in any work that I am aware of. My own opinion is, that our territory extends to the banks of the Amazon, some degrees south of the equator. I may, however, safely affirm, that this country embraces many more acres of land than are contained in Great Britain and Ireland combined ; and is a far more valuable possession than either Mexico or Peru, with their gold and silver mines, or even the Brazils, with all its diamonds to boot. Here we have a very different soil from that of Barbados—a rich alluvial compost, 147 feet in depth ; and quite inexhaustible, both as regards quantity and quality ; and which, as to cultivation and colonization, has limits that I might say are boundless.

“ As yet a few patches only along the sea-coast, and on the banks of its three great rivers, have been subjected to cultivation ; and such are their productiveness, that the exports of this colony are already nearly on a par with those of the large island of Jamaica, with its labouring population of more than 300,000. If cultivation and population proceed and advance in any thing like the ratio they have lately done, it would be a matter of little import (in as far as sugar, rum, molasses, and coffee, and even cotton, are concerned), a few years hence, though all the islands in the Caribbean sea were returned to the bottom of that great deep. British Guiana could furnish a supply of these articles for the whole world, and for 10,000 years, and still have fresh soil to bring into cultivation.

“ It is of the utmost importance to Great Britain that the attention of government, and of the whole community, and more especially of our merchant-kings and adventurers, should be drawn to and affixed upon this rich and invaluable colony ; for, were its resources truly known, its

advantages duly appreciated, and its capabilities fully examined and explained, it would indeed soon become a wealthy state; and George-town, already a crowded and flourishing sea-port, would rival, if not surpass, New York. Great capital is not even necessary,—it only requires labourers to till the ground; and I am happy to have to state that since the galling fetters of slavery have been removed, and the negro is allowed to bring his free services to the best market, many are flocking to this land of promise.”

And with respect to the climate:—“As cultivation advanced, and draining improved, the sources of the pestilence were, at last, in a great measure dried up; and now that regularity, good order, and sobriety, are strictly attended to, I hesitate not to affirm that British Guiana is the healthiest colony in the West Indies; and, after an European has formed a little acquaintance with the mosquitos and sand-flies, it will be found also by far the most pleasant to live in.

“There is not, I believe, upon the face of this earth, any spot where a man, by industry and economy, and the advantage of a small capital, can acquire in so short a time a moderate independence, and thereby be enabled to return to his native land with a constitution very little impaired.”

And this independent and unimpeachable testimony is fully supported by Sir J. C. Smith, in a minute addressed to the Court of Policy, as Lieutenant Governor, in 1836.

Copy of a Minute addressed to the Members of the Court of Policy by his Excellency the Lieutenant-Governor, upon the 26th February, 1836.

“Gentlemen,—I am desirous of recording my sentiments with respect to the proposed importation of liberated Africans from the island of Cuba into British Guiana; and the

period when an ordinance is before this court for regulating certain details connected with the measure, appears to afford me the most eligible opportunity.

“ 2.—You are aware from the Lord Glenelg’s despatch, that the introduction of the liberated Africans into this province is an arrangement which I had the honour to propose to his lordship. In drawing his lordship’s attention to the subject, I were well aware of the additional trouble, labour, and responsibility, I necessarily would have to incur, if the proposition were acceded to. A person of a less anxious disposition (without laying himself open to the charge of indolence) might easily have avoided exposing himself to be called upon to undertake additional occupation of an unpleasant and harassing nature. A sense of duty—a desire to promote, by every means in my power, the welfare of an important province entrusted to my government—and above all, a wish to contribute towards the sum total of human happiness, and, in so much, to diminish the amount of human misery—have governed my conduct upon the present occasion. *This magnificent country will, for ages to come, amply repay the capitalists, and be able to employ any number of labourers.* The liberated Africans are undervalued, ill-treated, and neglected in the island of Cuba. So many have been sent there, by our men of war, that the Spanish government are alarmed and uneasy as to the possible effects that the introduction of such a number of free negroes may have upon their slave population. Here, on the contrary, the services of the liberated African will be valued, and he will be treated accordingly. Slavery being at an end, he cannot conspire with slaves. He will be subject to moderate restraint, and be considered in tutelage for three years; and as, during that period, he will be taught the value of labour, and be encouraged in industrious habits by being paid in proportion to his work, and as, moreover,

he will receive religious and moral instruction, I am sanguine in my expectations that the liberated African will eventually become a respectable and a useful member of society. These, gentlemen, are the motives by which I have been influenced. The importation of liberated Africans is a measure fraught, as I most sincerely believe, with incalculable benefit to this rising colony, as well as with important advantages to the individuals themselves. Under this impression I have proposed it—and under that impression I shall most carefully watch over its progress.

(Signed)

J. CARMICHAEL SMYTH.

A true copy,

H. E. Young, Gov. Secretary.

February 26, 1839.

Nor must we omit the remarks of Governor Light, and Mr. Scoble, of the Anti-Slavery Society; the former of whom, speaking of the emigration of the Hill Coolies to Guiana, says:—

“I am convinced that under proper regulations, as to sexes and location, the natives of India might safely be introduced here, *to the great amelioration of their own condition*, and the undoubted benefit of the province, which only requires labourers to make it a SECOND INDIA.”

And the latter gives a description of the capabilities of the soil, which must for ever remove any doubt in the minds of unprejudiced individuals as to the peculiar adaptation of the country for the purposes advocated.

“British Guiana is a colony on the coast of South America, and which will ere long rival, in its wealth and population, the state of New York. It is capable of sustaining a population of FORTY MILLIONS, though the actual number of the inhabitants is now only about a hundred thousand. It possesses an inexhaustible soil, of amazing fertility and depth: it has been ascertained, by actual admeasurement,

that in some places the rich alluvial compost extends to the depth of one hundred and forty feet. There are there fields of cane which have been kept up by a process called 'ruttooning' from forty, fifty, sixty, or seventy years. It is only necessary to thrust the top of the cane into the soil, when it springs up, and spontaneously yields the richest produce. This is the province called Demerara."

The great want of labourers is further evidenced by Mr. Schomburgk in his diary when travelling in Guiana. Almost his first observation is—

"Nov. 25, 1836.—Quitted New Amsterdam with the flowing tide, and paddled rapidly up the first or sea reach of the river Berbice, in a south direction, for about three miles, when the river turns abruptly in a W.S.W. direction; its average width about half a mile. As the sun rose on the following morning and dissipated the fog, the river's banks presented a continued line of cultivation; thousands of mocking birds (*Oriolus Perisis*) rose from a wide-branching and aged orinok-tree (*Erythrina* Spec.), where they had roosted for the night, and gradually dispersed in all directions. As we proceeded, cultivation continued on the eastern bank; but on the opposite, Nature had reclaimed her own. What a contrast do these shores now present, when compared with their aspect towards the close of the last century! Then plantation followed plantation as far as the Savonette, the last estate of the Dutch West India Company, about sixty miles from the sea: of the greater number of these scarcely a vestige now remains, yet free labour and capital alone are wanting to restore the former scene of beauty arising from high cultivation, uncontaminated by the baneful influence of human slavery."

From all these united authorities it is clear that natives of Africa and the East, as well as Europeans, might settle

with immense advantage in this magnificent and most fertile region. And if England is to be rendered independent of foreign slave states for supplies of sugar, molasses, rum, coffee, and even cotton, no time should be lost by the British public in forcing the subject on the attention of Parliament, that laws may be passed without delay for the encouragement of the free emigration of a suitable number of labourers, on a scale commensurate with the pressing wants of the colony; otherwise Great Britain will soon be dependent on the Brazils, Cuba, and Porto Rico, for their *slave-grown* sugar and coffee, as she now is on the United States for *slave-grown* cotton.

But this is a state of things never contemplated for a moment by the Government and country, in the great and glorious measure of Emancipation; and I am happy to find, from an article in the *Bristol Journal*, that the attention of good and wise men, of all parties, is now directed to the supply of the labour so much required for the very existence of *English* colonies, through the legitimate channel of *immigration*. By this, the barbarous natives of tropical climates would exchange a state of real slavery at home, for one of remunerating industry, upon the free and reciprocal contract. The "slavery" of which we speak, is thus described in a valuable work, *Forbes' Oriental Memoirs*, written with no reference either way to the West India question—

"The poorer Malabars live on rice, salt-fish and jagree; those who cannot afford rice, content themselves with natchee, a grain of inferior quality. The despotism of the government frequently occasions an artificial famine, and the inhabitants fly the country. Should the ground be only annually inundated, the ear droops, and yields but half a crop. On such occasions the poor wretches are driven to Anjengo and other sea-ports, where you see a

youth selling himself for sustenance—a mother offering her infant son for a bag of rice—and a desponding father parting with his wife and child for forty or fifty rupees !”

“ Malabar children are generally a cheap commodity at Anjengo. At the end of the rainy season, when there was no particular scarcity in the interior country, I purchased a boy and girl, about eight or nine years of age, as a present to a lady at Bombay, for less money than a couple of pigs in England. I bought the young couple, laid in two months provisions of rice and salt fish for their voyage, and gave each of them four changes of cotton garments, all for the sum of twenty rupees or fifty shillings. English humanity must not pass censure on that transaction : it was a happy purchase for the children—they were relieved from hunger and nakedness ! A circumstance of this kind happened to myself. Sitting one morning in my veranda, a young fish-woman brought a basket of mullets for sale : while the servant was disposing of them, she asked me to purchase a fine boy, two years of age, then in her arms : on my upbraiding her for want of natural affection, she replied with a smile, that she expected another in a few weeks, and she could not manage two : she made me the first offer of the boy, *whom she would part with for a rupee !”*

The following report of a medical gentleman of high reputation in Guiana, proves that the climate is altogether favorable to this class of emigrants, and must have a beneficial effect in disabusing the public mind upon this important point, as those, who are hostile to the West Indies, have made the introduction of the Coolies a subject of bitter complaint ; and gone so far as not only to question the adaptation of the climate, but also to cast reflections on the conduct and ulterior views of the planters and the government :—

“EXTRACT FROM A REPORT TO GOVERNOR LIGHT, BY DR. SMITH, OF THE COLONIAL HOSPITAL, IN DEMERARA, IN REFERENCE TO THE COOLIES PLACED UNDER HIS CARE FROM PLANTATION BELLEVUE.

(From the Demerara Gazette of the 15th August.)

19 cases have been cured, of whom 17 have returned to the estate, and 2 remain in hospital for a few days;
 2 have died;
 6 remain under treatment.

27

“I beg leave to say that I entertain a more favourable opinion of the constitution of the Coolies, in reference to their adaptation to this climate, than of any other class of immigrants whom I have seen in this colony.

“Of the thirty coolies (including the interpreter and two cooks) placed under my charge, none have been attacked since the 7th June with intermittent fever, the epidemic of British Guiana, nor do any seem to have suffered prior to that period from this cause.

“I am unable to arrive at any positive conclusion as to the greater or lesser liability of the Coolies to ulcers, when compared with other labourers in the colony, in consequence of those only who were affected with ulceration being placed under my care. I am, nevertheless, of opinion, that those whom I treated were not constitutionally predisposed to that affection, but that they suffered in consequence of chigoes, and of their own ignorance of the proper mode of ridding themselves of these very troublesome insects; this opinion is strengthened by the fact that, in twenty-five of the twenty-seven cases, ulceration was confined to the toes originally, and extended thence to the foot.”

The annexed copy of a memorial recently transmitted to Her Majesty's Government, by the inhabitants of British

Guiana, exhibits the great want of labourers, and the unlimited number that would find profitable employment in that colony.

“That your Petitioners are Inhabitants of your Majesty’s Colony of British Guiana—many of them Natives thereof—others who have adopted it as their Home—and all interested in the prosperity of what they believe they are justified in calling one of the most valuable appendages of the British Crown.

That the importance of British Guiana, as a Colony, and as a mart for British manufactures, is to be estimated less by reference to what it is, and has been, than to what it is capable of becoming.

That in order to illustrate this position, your Petitioners would represent that there are, in this Colony, immense tracts of land, allowed by all not to be surpassed in fertility by any other in the world; while the population of this extensive Province does not, at this moment, amount to more than one individual in the square mile.

That your Petitioners would also advert to the great superiority, that a Colony forming an integral portion of the Empire, and, as such, subject to the authority of the Imperial Parliament, possesses, as a mart for British manufactures, over any foreign state—the mutual intercourse, between the parent state and its dependency, not being liable to be disturbed by capricious changes in a system of commercial policy.

That your Petitioners would humbly represent to your Majesty, that the operation of the Act for the Abolition of Slavery, and the Act for Total Emancipation, has so diminished the number of Agricultural Labourers, that not only are vast tracts of fertile soil lying in this Colony unproductive, (tracts which, if cultivated, would give support to many thousands of your Majesty’s subjects, and add large sums to your Majesty’s Revenue), but that, of the estates in cultivation, some are already deeply injured, by the abstraction of labour from the production of the staple exportable commodities, while other estates must inevitably be abandoned, unless the supply of labour to British Guiana be speedily and largely increased beyond its present extent.

That your Petitioners would therefore state, that so far as this Colony is concerned, the disability under which it labours, and which impairs its strength, and contracts the means of production, is a deficiency of labour and industry.

That this state of things is not only pregnant with ruin to the landed interest of this Colony, but prejudicial to the moral condition of the labourers themselves, as idleness tends to increase, and is almost universally the originator and companion of crime.

That the remedy for all these evils is simple, and is, in the opinion of your Petitioners, attainable without any sacrifice of those principles of humanity and policy, which ought to influence a question of this nature and magnitude, but is, on the contrary, characterised and recommended by its forwarding the ends of these great principles of right : that the adoption of the means to accomplish this remedy, will prevent the destruction of the capital of many of your Majesty's subjects, and will prevent the demoralization of others : that it will open a field for the employment of a large additional amount of capital, and will afford an opportunity to many thousands, of transferring their services and industry from countries where they are very inadequately rewarded, to one where the fertility of the soil, and demand for their labour, will ensure them comfortable and even abundant subsistence.

That your Petitioners most respectfully assure your Majesty, that British Guiana has substantial advantages to offer to a portion of the vast population of India, as well as to Emigrants from other quarters ; and that their condition would be greatly advanced, physically and morally, by Emigration to this Colony.

That your Petitioners have learned, with the deepest regret, that an Ordinance, framed by His Excellency the Governor and the Honourable Court of Policy, for the encouragement of Emigration, has failed to receive your Majesty's assent, and humbly trust that your Majesty will be graciously pleased to give your royal assent to another Ordinance, to be passed by his Excellency the Governor and Court of Policy, embracing such principles of humanity, and justice, as to your Majesty may seem meet.

That your Petitioners entertain a hope that your Majesty will

be pleased to sanction a plan for raising, through his Excellency the Governor and the Honorable Court of Policy, combined with the Financial Representatives of the Inhabitants of the Colony, a sum not exceeding £400,000, on loan, for the purpose of carrying an extensive project of Immigration into effect.

That your Petitioners consider a loan desirable, because they feel convinced that the Colony is not at present able to raise so large a sum of money within itself; but they are, at the same time, confident that a plan of emigration, on an extensive scale, being adopted and acted upon, will very soon enable the Colony not only to bear the interest of the loan, but ultimately to pay off the principal.

That your Petitioners, having every desire to support the administration of law and justice, and to extend the system of religious and moral instruction at present existing here, consider that Emigration, on an extensive scale, is more than anything else calculated to enable the Colony to do justice to these claims, and to pursue a liberal and enlightened course of policy.

That it is the firm conviction of your Petitioners, that a very large Emigration would not decrease the rate of wages below what it is at present; and that it is universally allowed, by all unprejudiced parties, that the labourers of this Colony, however numerically increased, could with ease earn more than sufficient to maintain themselves and their families in comfort and abundance.

That your Petitioners found their conclusion that wages will not be reduced upon the natural capabilities of the Colony, which will insure the demand for labour increasing in a much greater ratio than the supply; and, further, your Petitioners found their hopes of benefitting by Emigration, upon the certainty that, if the Colony increase in wealth and population, all classes of the community cannot fail to prosper.

That your Petitioners deeply deplore the manner in which many unfounded representations, seriously affecting the character and credit of this Colony and its inhabitants, are industriously circulated in the Mother Country, the effects of which are alike prejudicial to its prospects of improvement and commercial prosperity;

that while they strongly deprecate the erroneous impressions and views thus disseminated to their disadvantage among their fellow-subjects in Great Britain, they have no hesitation in expressing their earnest desire to court the strictest inquiry into the real situation of this Province, both as to its physical capabilities and moral condition.

Your Petitioners, therefore, approach your Majesty's Throne, and supplicate your Majesty's gracious assistance.—The importance, and even the existence, of British Guiana, as a productive Colony, depend on your Majesty. Without the speedy supply of labour, which can only be produced by means of such funds as they now propose to raise, the capital sunk in buildings, machinery, &c., will be thrown away; and the labouring population, for whose moral advancement such sacrifices have been made by Great Britain and this Colony, will speedily degenerate into a state of barbarism.

Your Petitioners therefore humbly pray—

That your most excellent Majesty may be graciously pleased to entertain with favour these your Petitioners' views in regard to the necessity of an extensive scheme of Emigration into this Colony, and, in furtherance thereof, to withdraw the restrictions at present in force against the emigration of Labourers into this Colony, from the East Indies and elsewhere, and to sanction any Ordinance to be passed by his Excellency the Governor and the Honourable the Court of Policy for the regulation of Emigration; and, further that your most excellent Majesty may be graciously pleased to allow the necessary funds to be raised by means of a loan, on the security of the Colony.

(Here follows a long list of Signatures.)

It may be as well to observe, that the following is the rate of wages and allowances given to agricultural labourers in British Guiana,—viz. one guilder, or the third of a dollar, for a task of work, which is easily performed by industrious men and women, in from four to five hours: in addition to which, they have houses, provision-grounds, medicine, medical attendance, and religious instruction, gratis; and

to encourage them to work regularly and continuously, every one who performs six tasks of work in the week, receives a small allowance of plantains or rice, some fish, sugar or molasses, and a little rum.

In confirmation of the above, I may here quote an extract of a letter (taken from the *Liverpool Mail*), from the Rev. Mr. Scott, of Demerara, a Missionary, which shows the very high rate of wages that can be earned by industrious people, and is a valuable testimony at the present moment, coming from the quarter it does.

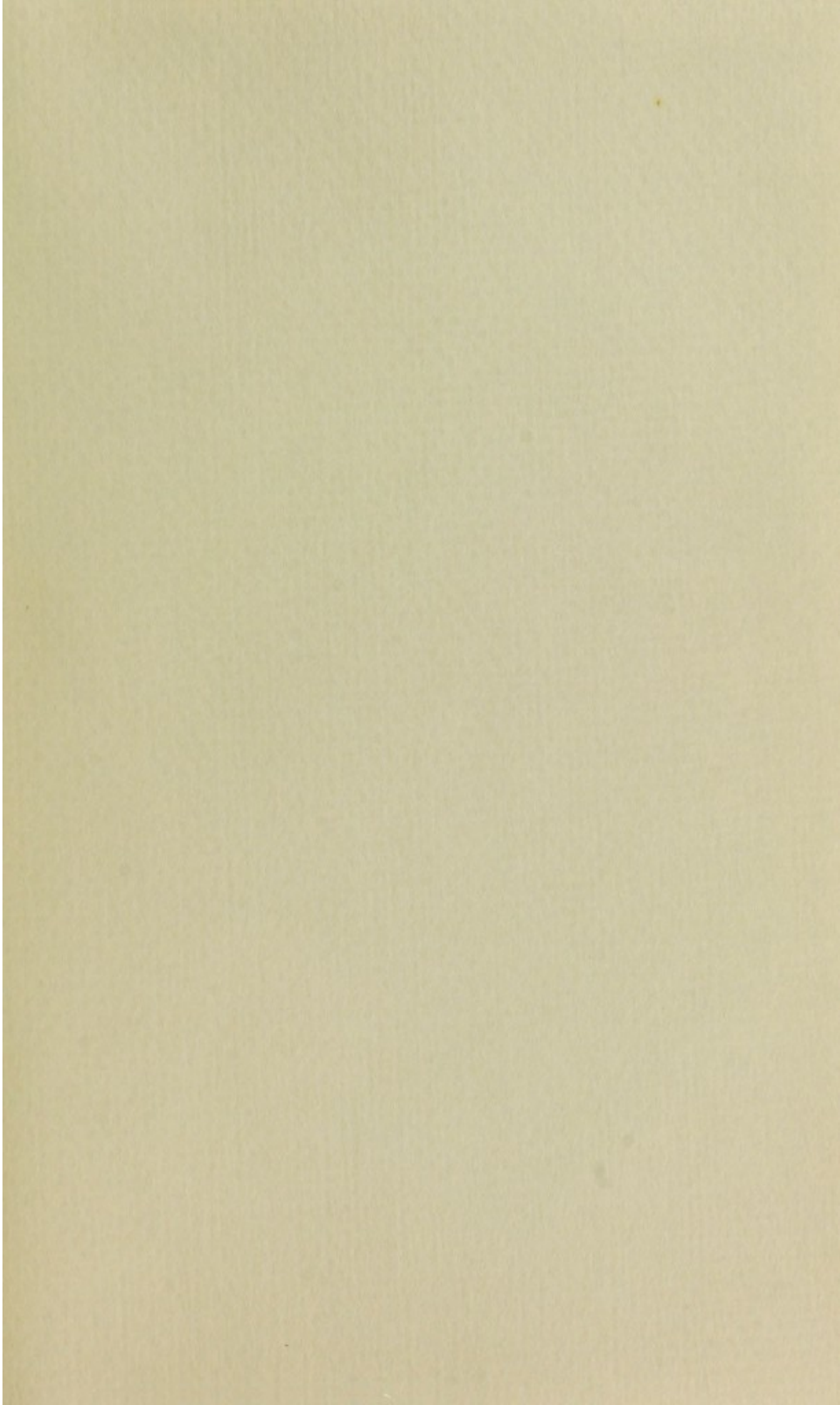
“BLACK POPULATION OF DEMERARA.

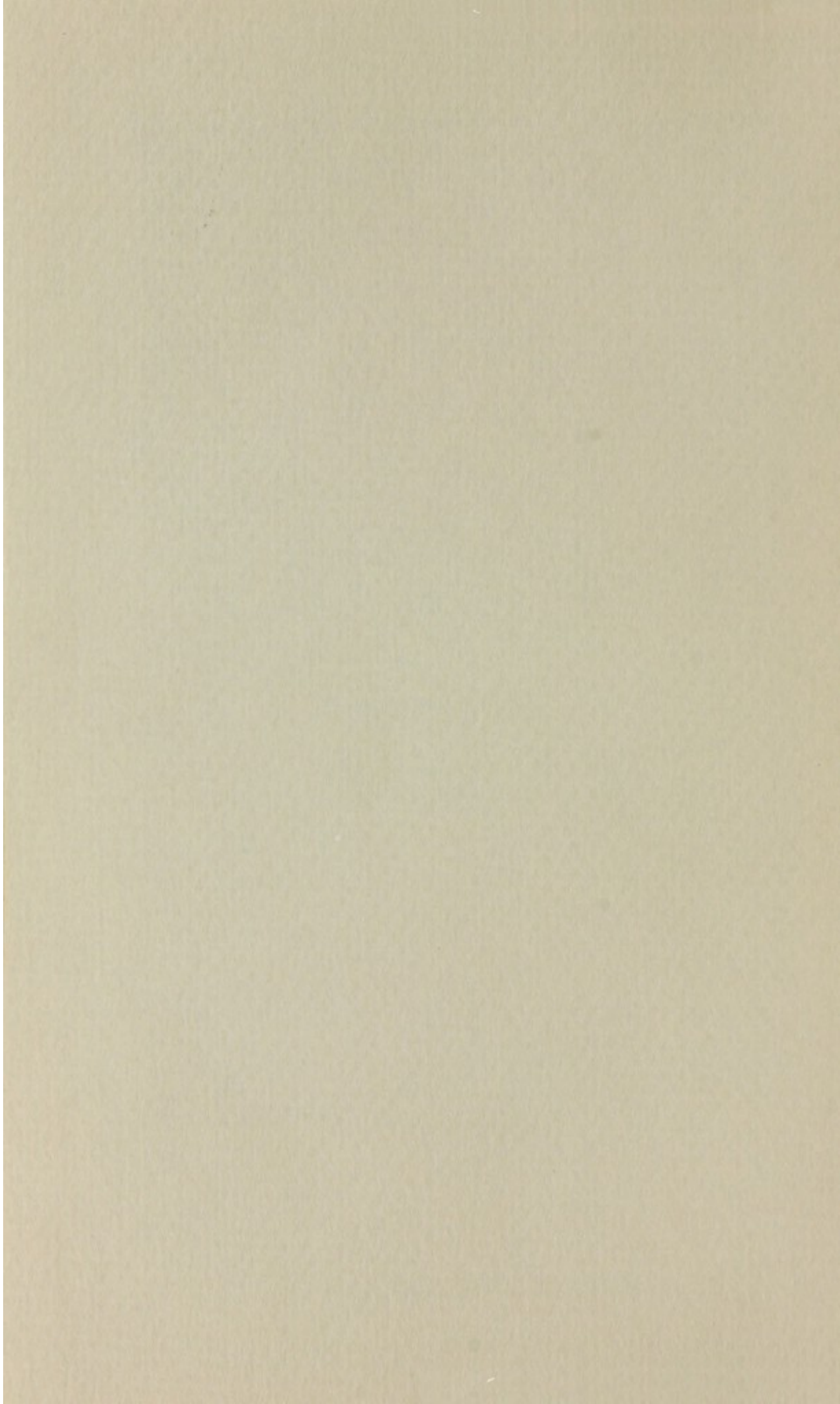
“From the *Patriot*—a London Journal, understood to be the organ of the Baptist denomination, we quote the following extract from a letter from the Rev. J. Scott, dated Ebenezer Chapel, West Coast, Demerara, 16th February 1840. When we consider the quarter from which it emanates, it contains some rather important admissions, and should go far to open the eyes of the sober-minded and dispassionate portion of the so-called anti-slavery party, to the gross, and we might also add, wilful misrepresentations of Mr. Scoble, and other agitators, who gain a livelihood by traducing the reputation of their fellow-countrymen in our occidental colonies:—

“ ‘The blacks are now well off, indeed. The wages of a common field labourer, for a task he can accomplish with ease in less than four hours, is one guilder, or about 1s. 6d. sterling. Many of the able-bodied young men, finish two or two and a half tasks, as they are called, and therefore get two or three guilders *per diem*; besides this, they have their houses and provision grounds, and medical advice. I speak advisedly, when I say that the earning of many of the young stout people is worth, everything considered, five or six shillings *per diem*. No class of persons on earth can have better prospects than the blacks of Demerara. They cannot fail soon to possess a large share of the property of the country—at least if they are wise. The circumstance that my people collected nearly eight hundred pounds for the cause of God, last year, is a proof they possess money, and a heart to give it. If wise men were in the management of the estates, I have no doubt

that the capitalists would still find here a better return than in any other part of the world: whites and blacks may do well if they are wise. There is a falling off in the exports last year. I knew there would; I said hundreds of times there must. Mr. Scoble, I see by the *Patriot*, accounted for this, at Manchester, by alleging the decrease of the population. This may have something to do with it, but at most it is little. Labour is paid better here than in the islands, and the poor slaves were harder driven. The transition to the state of freedom was, therefore, more sensibly felt; besides the wages are higher than in any of the other West India colonies. In no colony has there, from these causes, been so many people withdrawn from field labour. So far then as the falling off may arise from the education of young persons, and the retirement of wives and mothers to their own proper department—the management of the house—we cannot regret, and none will, except those who regard the black man only in the light of a machine to manufacture sugar. But there is no cause to fear; everything will soon find its level, and the machine will soon move without friction.’

“In relation to the above, we may remark, that at a meeting held in Liverpool, a few days ago, Mr. Scoble stated that the negroes of Demerara were only paid a guilder for a full day’s work, and persisted in his statement, although flatly contradicted by a gentleman connected with the colony, who happened to be present, and who stated the facts to be pretty much to the same effect as set forth in the above extract. Being the corroborative testimony of one of his own party, we suspect Mr. Scoble will now begin to think that he has ‘overshot his bird bolt.’ We have no doubt that truth will ultimately prevail; but to keep up a systematic warfare against the character of our West India colonists, can only tend to increase the horrors of the slave trade, and perpetuate slavery in other quarters of the world, by cramping the energies of the British government in their efforts to bring to a successful consummation the great experiment of negro emancipation.”







Accession no. 31955

Author Hancock, John

Observations on
the Climate... 2nd ed.

Call no. RA P31
19th H36
cent 1840

