PART III.

MEMORANDA BY MR. STERNDALE ON SOME OF THE SOUTH SEA ISLANDS.

Mr. STERNDALE to the Hon. J. VOGEL.

SIR,— Auckland, 28th March, 1874.

In obedience to your request, I have the honor to forward to you certain memoranda concerning the resources of the greater number of those Islands of the Pacific upon which I have at any time resided or with which I have been engaged in trade. The lands to which these papers relate are those only which are inhabited by the copper-coloured Polynesians or *Maoris*, as they all call themselves,—that is to say, tribes from the same original stock as the aborigines of New Zealand, and speaking dialects of the same language. Concerning the Melanesian Isles, or those inhabited by the Papuan race, which include New Caledonia, the New Hebrides, the Solomon Isles, and New Guinea, I have no information to offer, never having been to them, or having had anything to do with their people. This much, however, is well understood—that they are very rich in a variety of valuable products; and to obtain information concerning them, the most ready means with which I am acquainted would be to make inquiry among the labour-traders frequenting the port of Levuka, in Fiji, many of those men being of long experience in those localities, and sufficiently intelligent to relate truthfully what they have seen.

Concerning the Fijis I offer no remarks, as they are now so generally well known from the elaborate reports of Her Majesty's Commissioners, and from various other sources.

I have also avoided mentioning the Sandwich Islands, since, being under an enlightened Government of their own, and on the track of the mail steamers, information concerning them is very extensively diffused.

For similar reasons, I have omitted the islands of the Society group, they being a dependency of France; and as concerns those of them which prefer independence, as well as the Paumutos or Low Archipelago, I have thought it unnecessary to repeat what I have already published in the *Daily Southern Cross*.

In conclusion, I may remark that whatsoever I have recorded with respect to the condition of the islanders and the commercial resources of their lands, has been gathered in every instance from personal experience. Such facts as I may have incidentally mentioned, but have not myself seen, I have derived from the most reliable testimony.

I might have made this report much more voluminous, but the shortness of the time permitted me for its preparation prevented the possibility of my doing so.

Trusting that these memoranda may be found useful, as well as not void of a certain degree of interest, seeing that so much of them relates to localities concerning which very little circumstantial information has as yet been circulated in civilized States,

I have, &c.,

The Hon. Julius Vogel, &c., &c. H. B. STERNDALE.

IN dealing with the question of the trade of the Port of Auckland with the Islands of the Pacific, it is not necessary that I should enter into any description of the resources or prospects of the Fijis, for the reason that ample information with respect to them has been very generally diffused throughout the Australasian Colonies and Great Britain. Next to the Fijis, with which Auckland more than any other city of the Southern hemisphere ought to be regarded as geographically *en rapport*, the most profitable field of commercial adventure is obviously the great Archipelago of Tonga, or the "Friendly Isles," as they were denominated by Cook, though some now say unjustly, as there is a story extant, upon the authority of Mariner, that the chiefs of Tonga did intend to have treacherously attacked and massacred his company, but allowed the favourable opportunity for so doing to escape them, in consequence of disagreements among themselves as to the programme of operations. However true or otherwise that may be—and in any case it is not to be wondered at on the part of a barbarous and (as the Tongese notoriously were) piratical people, upon almost their first introduction to strangers possessing so many and to them so surprising articles of utility, the exhibition of which could not fail to operate upon their darkened minds as an extreme temptation to possess by whatsoever means—all

that is long past; and the Tongese at the present time have a just claim to be regarded as the most energetic, enlightened, and systematically desirous to avail themselves of the benefits of European civilization of any of the semi-barbarous peoples of the South Sea: if, perhaps, we except the Rarotongans, who, their numbers being comparatively small and their land of limited area, can never be expected to exercise so great an influence over the commercial progress of the Pacific as the Tongese, from whom they take a pride in declaring that their ancient progenitors were a wandering colony.

The archipelago of *Tonga* consists of about 100 islands, large and small, and includes, properly speaking, three groups—Tonga, Hapai, and Vavao. The total population has been variously estimated, but is probably not less than 25,000.

Tongatabu, upon which is the seat of the General Government, is in the form of an irregular crescent, enclosing a lagoon five miles by three in extent. The highest point is less than 100 feet above high water. The formation of the islands is volcanic, intermixed with coral atolls and reefs of considerable extent. The land generally consists of volcanic ashes, densely overgrown with palms and other trees.

The true wealth of the Tonga group consists in the luxuriance of these cocoa-nut groves, of which the annual yield is enormous. In former years, very great quantities of oil were manufactured by the Tongese, but they now chiefly turn their attention to the making of kobra, of which the Hamburg firm of Messrs. Johann Cæsar Godeffroy and Son have in a great measure monopolized the trade in these latitudes. They have established warehouses and maintain a staff of trading agents upon each of the principal islands of the Friendly Group, *i.e.* Tongatabu, Lefonga, and Vavao. Round all the intermediate isles they keep several small vessels cruising at all seasons of the year. These carry their cargoes to the depôts, from whence they are transhipped into large vessels, whose commanders receive their instructions from the agent of Messrs. Godeffroy, whose headquarters are at the settlement of Apia, in Samoa. Although there are Sydney traders (and occasionally some small vessels from Auckland) who visit the Friendly Isles, the amount of business which they are enabled to do there is very limited. The most successful of them have been Captain Robinson of the barque "Rotumah," and Captain Lyons of the brig "Ocean" (both of which vessels have been lately lost). They were accustomed to trade among the Friendly Isles before the advent of the Germans, and secured a continuance of trade in consequence of having given a considerable amount of credit both to native chiefs and to Europeans who had established themselves upon the islands. These liabilities they permitted, to a certain extent, to run on from year to year, and thereby they secured to themselves a continuance of custom, although necessarily on a very small scale in comparison with the gigantic operations of the Godeffroys. These last, in the year 1870, secured to themselves what almost amounted to a monopoly of the kobra trade of the Friendly Isles, by advancing to the King a large sum of money, of which he was greatly in need. At the same time, they succeeded in introducing into his dominions what is known in the Pacific as "iron money," *i.e.* Bolivian silver coin, which is regarded as base metal, and passes current nowhere in the South Sea with the exception of Samoa, where the Messrs. Godeffroy imported it in great quantities, and, in spite of the determined opposition of the English Consul and traders, established it as the regular currency of the place. They had a double object in so doing: in the first place, they obtain this coin (chiefly in half-dollar pieces) at a reduced value, and circulate them at 50 cents, or what else they are supposed to represent; furthermore, seeing that no other merchants will receive this money, or have anything to do with it, they secure to themselves the custom of whatsoever persons will take it from them, which all the inhabitants of the Samoan group, with the exception of some English traders of small business, for several years past have done without objection. After repeated failures (induced by the determined opposition of the Wesleyan missionaries), they succeeded in thrusting this depreciated currency upon the Tongese, at least to a great extent, the King having stipulated in the Commercial Treaty concluded by Herr Kegel, the representative of the Hamburg firm, that not more than one-half of the coin circulated by them in his dominions should be Bolivian—a proviso obviously void of all practical effect, insomuch as the Government of Tonga have no means of estimating what amount of specie is in circulation among its subjects during a year.

The annual poll-tax per adult is $6, generally paid in kind; a license is also levied upon all persons engaged in business; foreigners, likewise, must pay for permission to reside upon the Friendly Islands.

I have said that the missionaries objected to the introduction of the Bolivian money. This was not the case in Tonga only; they set their faces against it in Samoa and elsewhere. The reason of their opposition was a very natural one. They were in former years, before war weakened their influence, accustomed to derive a considerable revenue from the islands, which was paid in coin. It did not, of course, fall in with their views to accept for a dollar, a coin which they were unable elsewhere to negotiate at more than 75 cents.

When Mr. B. B. Nicholson, of Melbourne, owned the guano diggings at Maldon Island (now Grice and Sumner), he obtained his labour among the Christian natives of the Hervey group, and paid them in Bolivian coin for a time; but the Superintendent of the Mission in those seas sent a circular to all the chiefs under their influence, advising them not to permit any of their people to be hired as guano diggers unless their employers would bind themselves to pay wages in English or United States coin: for the reason that very much of the money, directly or indirectly, finding its way in the end into the coffers of the mission, the directors naturally enough resisted the idea of their disciples bringing to them contributions of this objectionable "iron money."

As an instance of the great quantity of specie with which the Friendly Islands have been inundated, as also as an evidence of the resources of the islands themselves, I may cite the fact that in the year 1870, the employés of Messrs Godeffroy obtained among them over 700 tons of kobra, and in the following year more than double that quantity; the greater part of which they paid for in the first place in silver coin, of which, however, a large percentage immediately returned to their hands in the shape of payment for European goods, upon which their profits are very great; insomuch as a strict regulation exists among them that to no person whatsoever (including the servants of the firm) are they permitted to sell any article of trade at less than 100 per cent. advance on the cost price, exclusive of freight or commission.

One remarkable circumstance in respect to the operations of this famous mercantile house, and to which their great success may be in some degree attributed, is that they pay, as a rule, very low wages but liberal commissions. Thus, masters of ships belonging to them, and ranging from 500 to 1,000 tons, receive no more than $25 per month on voyages which extend from one to three years out and home; but over and above this, they are allowed three per cent. on the net profits of the adventure.

In this connection, having introduced the subject of the Messrs. Godeffroy, I may as well describe (as far as is known to me) the origin and organization of their operations in this part of the Pacific. Previous to the year 1857, this famous firm, which is counted among the wealthiest of the merchants of Hamburg, maintained a fleet of vessels, of which a certain number traded about the Indian sea, under the directions of an agent established at Cochin; others made periodical voyages to the Spanish main, making their place of rendezvous at Valparaiso. At Cochin, they maintained a large cocoa-nut oil pressing establishment. At Valparaiso, their captains took their instructions from a general agent, whose subordinates resided at Coquimbo, Valdivia Talcuano, Guayaquil, San Jose de Guatemala, and elsewhere. They traded chiefly in saltpetre, copper, and cochineal.

At this time, it was customary for Tahitian traders to dispose of their produce in Valparaiso, and to return to the Society Islands with cargoes of flour, &c., for the supply of the French garrison. The attention of Mr. Anselm, the agent of Messrs. Godeffroy, was attracted to their operations. He visited the Society Isles, and perceiving the great profits which Messrs. Hort Brothers and John Brander were making by the traffic in cocoa-nut oil and pearl shell, he established an agency in the Paumotus. Messrs. Hort and Brander had separately branch establishments in the Navigator Isles, which they made an intermediate station between Tahiti and Sydney. Anselm, following their example, removed himself there, and, under instructions from principals in Hamburg, made it the head-quarters of their operations in the Pacific. He was lost at sea, but the establishment which he founded flourished and assumed gigantic proportions. By the exercise of great tact and a show of liberality in dealing with the natives, he and his successor (Mr. Theodore Weber) in a great measure swallowed up the trade of the Samoan group, and in a manner thrust both Hort and Brander off their own ground, as far as that portion of the Pacific was concerned.

At the present time (for although my personal experience of them does not extend beyond a date of about two years back, I am given to understand that no change has taken place in their *modus operandi*), their establishment at Apia, in the Navigator Isles, consists of a superintendent (who is also Consul for Germany), a cashier, eleven clerks, a harbourmaster, two engineers, ten carpenters, two coopers, four plantation managers, a surgeon, and a land surveyor. These constitute the permanent staff, and are all Europeans, chiefly Germans. In addition to these, they employ very many supernumeraries, having among them men of different nationalities, including half-breeds, Portuguese, and Chinamen; and as plantation labourers, usually about 400 Polynesians imported by them from elsewhere into Samoa, of whom a portion are natives of Savage Island, but the greater number of the Kingsmills and Marshall groups. Their property comprises a commodious harbour, a building yard for small vessels, an extensive settlement, three plantations containing an aggregate of 400 acres of cultivation, and somewhere about 25,000 acres of purchased land, of which the greater proportion is not to be surpassed in fertility in any region of the tropical world. It was bought at a low rate, not upon an average exceeding 75 cents per acre, and paid for chiefly in ammunition and arms, or such articles of barter as are most in vogue among semi-barbarous people. The titles are unexceptionable and perfectly secure. The lands themselves consist of alluvial valleys and elevated plateaux of deep rich volcanic soil, covered in many extensive tracts with valuable timber, intersected by large streams available for the floating of logs, and affording on every hand water-power for the driving of mills. In addition to the virgin soil, at least one-third of their whole property consists of ancient cultivations, abandoned in consequence of intertribal wars, in some cases quite lately, in others during former generations.

During the progress of the civil strife which has prevailed for several years back upon the Middle Island of Samoa, the Messrs. Godeffroy enjoyed exceptional advantages in dealing with the natives, from the fact of their possessing a manufactory of arms at Liege, in Belgium, whereby they were enabled to supply the belligerents at a very cheap rate with the material of war. As an instance of the ridiculously low price at which the most valuable lands were bartered away during these disturbances, I will mention that, in the month of May, 1870, Mr. Borne, of Sydney, purchased, in my presence, a block of land at Salafata (a secure harbour visited by whale ships), consisting of 320 acres of the richest soil covered with cocoa-nut and bread-fruit trees, having a stream of water so flowing into the sea that a ship of any size might be moored to the rock beside it, and fill all her water casks with a hose, for a Snider firelock and 100 rounds of Boxer cartridge, of which the value in Shanghai, where it had been purchased, was £2 10s.!

Some idea of the magnitude of their operations may be gathered from the fact that, during the year 1870 (at which time I was in their employment), no less than eight large vessels, to wit, the "Johann Cæsar," the "Peter Godeffroy," "La Rochelle," the "Wandram," the "Susanne," the "Iserbrook," and two other barques, of which I have forgotten the names (one, I believe, was called the "Victoria"), ranging from 200 to 1,000 tons, loaded in Samoa and the neighbouring isles, and sailed for Europe.

During the past few years, the agents of Messrs. Godeffroy abandoned the Paumotus and other islands claimed as dependencies of France, principally for the reason that at that time (about seven years since) mother-of-pearl commanded an exceptionally low price; but more in consequence of a determination to strike out a new line for themselves, in preference to following in the wake of Messrs. Moerenhout, Hort, Brander, and other old-established merchants, who had made Tahiti their head-quarters. With this view, they pushed their agencies southward into the Friendly archipelago, including Nieuè (Savage Island), Niuafou, Fotuna, and Wallis Island; northward throughout the whole range of the Kingsmills and the isles in their neighbourhood, that is to say, Tokerau, the Ellis, and Gilbert groups, and the Marshalls or Ralicks, through the Carolines; and to Yap, a great island at the entrance of the Luzon Sea, where they purchased 3,000 acres of land, formed a settlement, and established a large depôt intended as an intermediate station between their trading post at the Navi-

gator Islands and their old-established agencies in China and Cochin. An examination of the chart will show how vast was the scope of their operations, when we come to consider that, between the two points I have last mentioned—that is Samoa and Yap (which may be considered as one of the Palos, known to the English as Pelew Islands)—they have, or had lately, an agent in their employment upon every productive island inhabited by the copper-coloured race, upon which the natives are as yet sufficiently well disposed to permit a white man to reside. I append a list of these islands and of their products as far as they are known to me.

The manager for Messrs. Godeffroy, in the choice of his employés on the various isles of the Pacific, takes no account of nationality; most of his agents are naturally English or American, as most of the mariners who have run wild in these seas during past years, and so got a thorough knowledge of the native language and habits, are sure to be. He is a very shrewd man of the world, although young. I am speaking of Theodore Weber, who really made Godeffroy's business what it is, but has now retired. A Mr. Poppè supplies his place. He had but three questions usually to put to a man who sought employment of him:—"Can you speak the language?" "Can you live among the natives without quarrelling with them?" "Can you keep your mouth shut?"—*i.e.*, concerning your master's business when you meet with white men. To a man who can return satisfactory answers to these queries, Godeffroy never refuses employment. He gets the means of transport to those isles upon which he is to be at home; everything necessary to build a storehouse and stock of trade to put into it. They pay no salaries; they simply trust a man with so much goods, and expect of him, within a reasonable time, so much produce at a fixed rate. There is another stipulation upon which they lay great weight: "Have a woman of your own, no matter what island you take her from; for a trader without a wife is a man in eternal hot water." Lastly, they impose the condition, "Give no assistance to missionaries either by word or deed (beyond what is demanded of you by common humanity), but, wheresoever you may find them, use your best influence with the natives to obstruct and exclude them." It would occupy too much space for me to explain the reasons of this last condition: it is enough to say that it originated on very simple grounds. Throughout the Pacific, for the past twenty-five years, there has been a constant struggle for the mastery between missionaries and merchants, each being intensely jealous of the influence over native affairs obtained by the other. Merchants make the greatest profits out of savages, for the reason that savages are content to sell their produce for blue beads, tomahawks, and tobacco. When these savages are brought under the influence of the missionaries, they are instructed to demand payment in piece goods wherewith to clothe themselves, and in coin for the purpose of subscribing to the funds of the missionary societies. This reduces the profits of the merchants, who bitterly resent such interference. Moreover, the English missionaries were for years the grand opponents of the Messrs. Godeffroy in the matter of the circulation of Bolivian coin; and although the firm came off victors, they have never forgotten or forgiven their ancient antagonists.

Another peculiar feature of the Godeffroy system is, the sending of their vessels to sea from their head-quarters at Samoa with *sealed orders*, so that no one on board knows positively where they are bound to until, in a certain latitude, the master opens his instructions in the presence of the mate. Furthermore, they ship no man as mate who is not fully competent to fulfil the duties of the captain in case of need; and they do not insure their ships. It has been a matter of conjecture with many, what could have been the object of Messrs. Godeffroy in purchasing such a vast tract of land on Samoa. I have enjoyed peculiar facilities of knowing their exact intentions. Very much of their land is so elevated as to possess a mild temperature, well suited to the European constitution; it consists of fertile plateaux, anciently inhabited and cultivated. Their idea was to subdivide it among German immigrants, to whom they would lease it in small lots, with the option of purchase, Godeffroy providing means of transport and all necessaries to begin with. It was intended for them to cultivate corn, coffee, tobacco, cinchona, and other produce which had been scientifically and successfully experimented upon; while the low lands in the vicinity of the sea beach were to be devoted to the growth of cocoa palms, sugar-cane, rice, jute, &c. by the labour of Chinese, who were intended to be brought over in families and established as tenants on a small scale, so as to do away entirely with the idea of servitude. The Franco-German war prevented the realization of this scheme at the time intended. The results, there can be no doubt, would have been very great and very beneficial. It is to be hoped that the idea, which they have been compelled to abandon in consequence of the present Imperial German policy of discouragement to emigration in any form, may be acted upon by our own countrymen at no distant date.

The suitability of the Samoan Isles (especially that of Upolu, which the Messrs. Godeffroy selected as the nucleus of their operations) for European colonization will be better understood, if I have the opportunity to describe their local conditions and resources, as far as they are known to me, as I purpose to do.

It is not too much to say that the Tongese from some very ancient time possessed a civilization peculiar to themselves. They have more moral stamina, energy, and self-reliance than any other existing race of the Pacific. Had they been acquainted, formerly, with the use of metals, they would have subdued all Polynesia. Their immense war canoes, rigged with a lateen yard 100 feet long, and crowded with a whole tribe of several hundreds of people, in which they made voyages to Fiji, Samoa, and even to much greater distances, were miracles of patient ingenuity as concerns their construction, and needed indomitable daring for their navigation.

It has been stated by some travellers that the Tongese are not well affected towards Europeans; but the eagerness which they have displayed to adopt our civilization, and the manner in which they have modeled their government and framed their laws wholly upon the advice and under the direction of English missionaries, is a proof to the contrary.

At the present time, their condition is most prosperous. Their lands are inexhaustibly fertile, industriously cultivated, and intersected by good roads. Wheresoever a traveller may turn in Tonga, he but wanders in gardens. There is no want, squalor, or beggary to be seen there. All are clothed in such manner as is suitable to their climate and condition; all can read and write, and are familiar with the Gospel. In their manners, they are courteous and dignified; in their dealings, they are honest and manly; in their domestic habits, they are cleanly even to fastidiousness. With the exception of

the Marquesans, who are their inferiors in mental good qualities, the Tongese are physically unquestionably the finest specimens of mankind to be found anywhere in the world south of the equator.

Dr. Berthold Seeman, who some ten years ago was sent to the Pacific by Her Majesty's Government on a mission of inspection, declares in his report, "All entitled to pronounce an opinion on the subject have agreed that there are few spots in the world where one sees so many handsome people together as in Tonga." He goes on to say, "The unqualified praise given to their good looks by all voyagers has made them rather conceited, and their success in war haughty and arrogant in the extreme." This is nothing but human nature: in any land, he that wins the day will claim the laurel. The Tongæ have fought very much, and almost always at a disadvantage—that is to say, on foreign soil, to which they had to transport themselves by sea—yet in most cases they have been the victors.

The history of Maafu, who is at present one of the most powerful of their chiefs, presents the strongest proof of their bravery and sagacity. He began active life in 1842, by hiring himself and small companies of his people to unprincipled trading captains for the purpose of making voyages to the New Hebrides, and there cutting sandalwood by force of arms. Having gained much experience in these affrays, he invaded Fiji in 1848, and for a series of years carried fire and sword into a great part of it. Indeed, it is well understood that he would have made himself absolute master of the whole of that great archipelago, had not the Governments of England and the United States instructed their representatives to arrest his operations. When at the height of his power, his force consisted of 3,000 of his own countrymen and a like number of Fijian allies. He still maintains a very strong body of followers, his magazines are well stored, and he has many pieces of cannon. As his expeditions have been chiefly conducted by sea, it will be easily understood that he must be a man of great daring and perseverance.

The government of Tonga is liberal, enlightened, and respectable. It is Protestant, but there is no oppression of other creeds permitted. The laws are just and strictly enforced; there is no respect of persons before the law: the King himself sets the example of obedience. The Statutes are printed, and distinctly understood by all the people. All the great islands are divided by broad roads, laid out by a European engineer; they are formed and kept in repair by the labour of such as have been convicted of crimes. There is an efficient police, and for the defence of the country all the able-bodied men are supplied with arms (*i.e.* a musket and bayonet) by their Government, and are required to attend a regular drill twice every week. The musketry instructors are Europeans of experience, having both served in wars, one under General Sherman, the other with Garibaldi. They receive a liberal salary and good quarters from the King, who also maintains a secretary, a land surveyor, a surgeon, and several skilled mechanics, all Europeans.

The laws of Tonga forbid the sale of land to foreigners; but it is permitted to be leased upon liberal conditions for so long a term as to be tantamount to actual sale.

All traders, planters, or permanent foreign residents not in the service of the Government are obliged to take out a license. Spirits and some other articles pay a heavy duty. All the people contribute to the support of the State. The tax upon an adult male is six dollars per annum.

The government is administered by the King personally, assisted by a Council. On each of the great islands there resides a Governor. They are men of superior intelligence: they speak English, dress well, and live in handsome houses built after the European fashion, of imported materials. A short time ago, I had occasion to visit the Governor of Vavao. His name is David (that of the King is George, and of Maafu, Charley. All high-caste Tongese take great pride in English names). David is a man of huge stature, and of so noble a presence that he looks not much the worse from having lost an eye in the wars. He wore a very handsome uniform, which had been made to his order in Sydney, and, together with his sword and other accessories, had cost him £200. His house would be regarded in the Australian Colonies as a fitting residence for any high official personage below the rank of a Viceroy. It is constructed of imported materials; all the interior paneled and polished, the furniture of every room being elegant and costly, and imported from New South Wales. In the centre of the building is a large dining-hall, with stained glass doors at each end. It is only used on state occasions. Here the table was laid with every requisite, fine linen, plate, and cut glass. The cook was a Chinaman, the pantler a negro. A better or more elegantly served dinner one would scarcely expect in Sydney; everything was in profusion, even to champagne and soda water. This David, like all his colleagues in the Government of Tonga, apes the manners of a British officer. One remark he made was very characteristic of the man. I perceived on a Sunday afternoon that he did not leave the house, although his people were all at church for the second time. I inquired the reason, and he replied, "I have been this morning; too much church is not good. I have been told that English gentlemen do not go to church more than once in the day. We got our religion and our laws from the English. Why, then, should we not imitate their customs in other respects?" This is but the expression of the general feeling of the ruling race of Tonga. They have been so long accustomed to act by English advice, that when a time of trouble overtakes them (and it is approaching surely and rapidly, and may arrive at any moment), it is upon England that they will seek to lean.

In the Tongese character there is a certain amount of craft, which may be wickedness or wisdom; but they possess one peculiarity of which Polynesians are generally altogether deficient—they can keep a secret; and in politics they will not show their hand either to friend or foe.

If one chances now to question any man of influence in Tonga as to the immediate future of his islands, his countenance falls, he seeks to change the subject, or becomes sombre, silent, and even suspicious. The reason is plain enough. There is a dark cloud hanging over the Friendly Isles, which must burst shortly and rain blood, unless some strong Power mercifully steps in to disperse the elements of mischief. There has been a war in Samoa (now said to be terminated). It has lasted for more than four years, and has in a great measure devastated the most fertile island of that group. It has been conducted upon a most sanguinary principle, and has left behind a legacy of misery from which it will take many years to recover. The same, if not prevented, is about to happen in Tonga, but with even more disastrous results, forasmuch as these political animosities have been intensified by

long anticipation. The Tonga men are better fighters than the Samoans; are better trained in the use of arms, and are more extensively supplied with them. Every Tongaman well knows when he goes to parade with his firelock and pouch, that all this marching and drilling, this paying of tax to buy muskets and cannon, is not meant for any mere purpose of display, but that it is the preparation for a long and cruel strife, in which powerful chiefs, well accustomed to the horrors of war, and well provided with the means of its prosecution, will enlist their partisans against each other, to decide by force of arms who shall be the successor to the present King, who, from his extreme age and infirmity, may be expected to die any day. Yet, though all understand what is about to occur, they are reticent as to their individual intentions; few men caring to declare, even to their friends, which of the candidates they purpose to support. The case stands thus:—King George was a polygamist and had many children. When converted to Christianity, for which he has displayed much zeal, he divorced all his wives but one (of course, the youngest), thereby bastardizing all his elder sons. These purpose to fight for the succession, each having followers and supporters. David, among the rest, declares his intention to strike a blow for the sovereignty; and, to introduce a still more formidable element of discord, Maafu, who claims the kingdom of Tonga on pretence of being the bravest man in it, will, as he says, throw his sword into the scale, and bring into the field not only all the old companions of his former wars, but a horde of merciless Fijian allies, who will repay with interest upon the unhappy inhabitants of Tonga the wrongs which their countrymen have inflicted upon Fiji.

From the geographical conditions, the transport of the combatants must be conducted by sea, and European merchants, who have experience of the trade of the group, and who consequently perfectly comprehend the situation, have been for years back anticipating the explosion, and making preparations to supply the material of war in this struggle, which they justly regard as inevitable. Those who are acquainted with the history of the sanguinary civil strife which followed the introduction of Christianity into the Friendly Islands, will readily understand what the nature of the conflict will be.

It is lamentable to think that a people possessed of qualities so amiable, and in many aspects so worthy of respect, should be delivered over to a reign of violence and bloodshed (in which none can hope to profit but merciless conquerors and unprincipled speculators), at the very time when, having recently emerged from barbarism, they have shown so great progress in the arts of peace and the knowledge of God. Surely, it seems the manifest duty of whatsoever great nation is now most interested in the prosperity of Polynesia, to take some steps to avert these calamities. One would think that if no other consideration would influence Her Majesty's Government to move in the matter, the question of the security of the lives and the property of British subjects located in the Friendly Isles (and the number and amount are very considerable), ought to sufficiently demonstrate the necessity of intervention, before it be too late, to arrest the progress of events which the whole civilized world cannot fail to deplore.

The firm of Godeffroy, in Tonga as elsewhere, confine their attention chiefly to the trade in dried cocoa-nut (or kobra, as it is called there, though it has other names in different groups, such as *popo* and *taka taka*). They will purchase oil if it comes in their way; but they prefer the dried nut, upon which the profits are greater, for the reason that they can buy it at a cheaper rate, and when transported to Europe (Hamburg and Bremen being the principal markets), where it is crushed in hydraulic presses of enormous power, they obtain from it a quality of oil altogether different from that which can be manufactured in the Pacific Islands by any primitive or inexpensive method, being clear, colourless, and free from any rancid taste or smell; in addition to which the residue of the substance of the nut, after crushing, is sold to great advantage as food for cattle, in a form similar to that of the linseed cake which has been for many years in so great demand.

Among the other products successfully cultivated in the Friendly Isles, the most notable are coffee —of which there are several extensive plantations—cotton, arrowroot, and tapioca. Among the indigenous products, one most worthy of attention is the *Tui-tui*, or candle-nut, which grows wild all over the group. It contains a great deal of a valuable oil, which is well appreciated in the English market. It is fine and clear, and burns with a bright flame. No use is made of it by the natives, except to polish woodwork or to burn in lamps. It is used also as candles, the kernels, which are about the size of those of a walnut, being strung upon a thin slip of wood and burned like a torch. The croton oil plant is also indigenous, but has not been utilized in any way, excepting for fences.

There are some deposits of pearl shell in the Friendly Isles, but the shells are commonly small. Pearls of fine quality but not of large size are often obtainable at a very cheap rate. Hawksbill turtle-shell, or "tortoise-shell," as the traders persist in calling it, is not so plentiful in Tonga as in Fiji. Green turtle is, however, very abundant. It is a mistake to suppose this shell of no value, as at the present time the manufacturers of Europe readily buy all manner of shell, no matter how thin or broken up it may be, for the reason that they have a process of melting it down into sheets, and afterwards cutting it into all sorts of articles of use and ornament by machinery.

Fungus of the kind called *Taringa kiore* is obtained in Tonga, and is usually purchased by traders at 10 cents per lb. for transport to China.

Beche-de-mer gathering is an old-established industry everywhere in this latitude. There are three kinds—the red, the black, and the gray; the last is of the best quality. They are well cured, but not usually sorted or separated by the natives, who sell them to the traders at a rate per barrel corresponding to five cents per lb. The market value of this article in China has lately fluctuated between £60 and £100 per ton. Sperm whales are common at certain seasons in the Friendly group; indeed, of late years, a pestilence has been caused several times by the natives feeding to excess upon their carcases.

Among the vegetable products of the Friendly Isles, a very remarkable one is the *Masi*, or Tappa tree, from the bark of which the native clothing is made. It is propagated by cuttings grown 2 feet or 3 feet apart in plantations. It is allowed to grow from 10 to 15 feet high, when it is about the thickness of a gun-barrel. It is very possible that it might be successfully cultivated for the manufacture of paper. It is probable that the bark of a species of banian very common in the islands, and of

which coarse cloth is made, would prove more profitable for this purpose, to which, however, the bleached leaves of the screw palm (*Pandanus*) seem better adapted than any material with which I am acquainted. In these islands are several valuable kinds of indigenous fibres. To say nothing of *Kaa*, or cocoa-nut sinnet, there is that of the *Yaka*, which is very strong, so much so that the best fishing nets are made of it; also *Mati*, or *Roaa* as it is called in some places, as likewise that of a species of *Hibiscus*, which grows wild in great quantity. It is called *Kalakalau*, and is used for the making of fringes for kilts and petticoats. The fibre is white, of a silvery lustre, and very strong. But one of the most beautiful of raw materials to be met with in the Pacific, and of which it is surprising that no advantageous use has as yet been made, is the long fibre obtained from the stalks of the *Puraka* plant, a gigantic species of *Arum*, of which the leaves are as much as 6 feet long by 4 feet in width, and the root sometimes as large as a five-gallon keg. From this fibre some beautiful fabrics are made: a sample of it was many years ago sent to London by a missionary of the Hervey group, and there it was made into a bonnet and presented to the Queen. An endeavour was made at one time to introduce it into the market, but it seems now to be neglected or forgotten.

In the Friendly Islands, as well as in the neighbouring groups, are found great quantities of the *Ti*, called by Europeans the Dragon tree. The root, when cooked, contains a most extraordinary quantity of saccharine matter—indeed, it seems as though it had been boiled in syrup. Rum is distilled from it in the Friendly Islands, as well as from sugar-cane, of which there is great abundance.

As to vegetable products, whatever can be said concerning the Friendly Isles applies to Fiji—with this difference, that those of Fiji are more varied, from the more extended area and greater altitude of the latter group creating a diversity of temperature. There are to be found, in great profusion, all those trees and plants of which I have made mention, as likewise many others equally valuable and marketable, wild and indigenous, such as many valuable dye-woods, with ginger, turmeric, and cinnamon. There is also a nutmeg, but not that of commerce, though the true nutmeg exists on Samoa. Likewise upon the Fijis are extensive forests of valuable timber trees, such as are not found in Tonga. Copper and other minerals are also spoken of as existing there, in the interior of Viti Levu, but of this I have no personal knowledge.

Among the industries of Tonga, one very notable is the breeding of sheep, which for some years past has been pursued with success, chiefly on the large and fertile island of Eooa, leased for that purpose from the Tongese King by certain gentlemen from New Zealand.

Nieuè, or Savage Island (so named by Captain Cook, from the extreme ferocity with which its natives attacked his company on their landing there), if it can be said to belong to any group whatever, ought to be tributary to the kingdom of Tonga, but it has never been so, although the piratical Tongese invaded it on more than one occasion, as they did all the lands in their neighbourhood, even to the Navigators, where the remains of immense trenches, and of causeways paved with stone, still bear witness to their bravery and perseverance.

Savage Island is about 36 miles in circumference and about 200 feet high at the highest point. It consists entirely of upheaved coral, and has no lagoon (as has been said). There is anchorage in several places (though it has been reported otherwise), and great pools of fresh water in caverns of the coast. There are about 3,000 inhabitants, who profess Christianity, but are of a very low type of intellect; nevertheless they are industrious, kindly disposed, and on the whole a good people, though exhibiting occasional outbreaks of barbarism. They are of a different race to the Tongese or Samoans, being allied to the Tokerau and Kingsmill natives. The land has a barren aspect from the sea. It consists entirely of broken coral, pierced with great crevasses, being only an uplifted reef; but there is good soil upon it, and the place is productive, yielding a great quantity of arrowroot, and good cotton. Fungus is plentiful. Cocoa-nuts have been introduced from Samoa. They raise great quantities of yams, and have very many hogs. They trade with Godeffroy, who maintains an agent among them. Two English missionaries with their families live on Savage Island in very comfortable style. They endeavour to prevent the people from visiting other lands, on the ground that they learn bad habits. Nevertheless, the Savage Islanders, or Nieuès as they are called, are very fond of hiring themselves out to work away from their home, and they are some of the most valuable labourers in the Pacific, being very strong, very tractable, very good-natured, and very quick to learn any simple labour or handicraft. The wages for which they engage are usually $5 per month and their food, and a great many of them are to be found on the plantations of Tahiti, Samoa, and Fiji.

Eastward of Nieuè some 500 miles, is Palmerston Island. This was the first discovered in the South Sea, being the San Pablo of Magalhaens. It has no harbour, but there is good anchorage in a bight on the lee side. The land is low, in the form of a coral ring, upon which are nine or ten islets, from one to three miles long, enclosing a lagoon about eight miles in diameter. There is a large pond of fresh water. Arrowroot, turmeric, and other plants grow wild. The cocoa-nut groves are very dense. The trees are uncultivated, as there are no permanent inhabitants. In their present state they are capable of yielding 100 tons of kobra in the year. With proper attention, this return would be enormously increased. Here is a great deal of *Tomano* timber of large size; it is valuable for ship-building, being like Spanish mahogany. There is also a great quantity of a wood which is called *Nangiia*, which is not generally known to Europeans, and has never been utilized by them. It is never found except on desert shores, on the brink of lagoons, where its roots are bathed by the tide. Its peculiarities are great weight, intense hardness, and close grain. It is used by savages as a substitute for iron, but is altogether different from the *Toa* (ironwood so called). They make fish-hooks of it, and various implements. For all the uses to which *lignum vitæ* is applied, it is still better adapted. I possess some samples of it which have been experimented upon by wood engravers, who pronounce it excellently well suited to the requirements of their art. For this purpose alone, it would, if extensively known, become valuable as an article of commerce; boxwood, which is at present the only material generally employed in wood engraving, being exceedingly expensive, fluctuating in price between 2d. and 1s. 6d. the square inch. Logs of *Nangiia* wood are obtainable on Palmerston's and other similar isles in great quantity, of a diameter of 18 inches.

A few turtle fishers and beche-de-mer curers have made a temporary sojourn on Palmerston's for many years past. Mr. John Brander, of Tahiti, professes to claim it, having registered it in the Consulate of that place in his name, in consequence of a captain in his employment having removed some beach-combers from it, and accepted their assurance that he might have the island for taking them away. But Mr. Brander has never attempted to make any systematic use of it. It might be rendered a most profitable settlement, very much more so than Caroline Island, which, it is reported, was a few months since sold to Messrs. Holder Brothers, of London, for a large sum of money.

Between Vavao and the Samoan group are several islands, of which the most remarkable is Niuafou. It has no harbour, and is volcanic, being the lip of a great crater, which smokes very much, and deposits large quantities of sulphur. The fertility of the land is astonishing. Cocoa-nuts are in immense quantity and of an extraordinary size, each shell being upon an average equal in capacity to a gallon measure. There are several villages of about 800 inhabitants. This is one of the best kobra trading stations in the South Pacific.

Whether the unusual size of the cocoa-nuts of Niuafou is owing to any peculiar local conditions, such as the heat of the soil from the vicinity of the volcano, I am unable to say, but I am of opinion that they are a distinct species. The same are found upon Fotuna and Alofa, two very fertile and populous islands, a short distance to the westward. The people of Niuafou are Protestant; those of Fotuna and Alofa, Roman Catholic. They are industrious and hospitable; although, a few years ago, they were such determined cannibals, that it was common for them to steal their neighbours' children for food, and this not from want, as they lived in the midst of abundance of hogs, vegetables, and fish.

In this neighbourhood, north-west of these last, is Wallis Island (Uvea). It is lofty and fertile, and in the centre of a great lagoon, with several entrances, which constitute a magnificent harbour. There is a large population, all Roman Catholic; among them resides the French Bishop of Oceana, and a community of priests, friars, and nuns. There is a very handsome cathedral of cut stone. One cannot help being struck with astonishment to find such works in a place so remote from civilization. The trade of Wallis Island is in kobra and beche-de-mer.

The Samoan or Navigator Group extends over 4° of longitude. The three largest islands are visible one from the other. They are lofty and volcanic, being a chain of extinct craters. Of their beauty and fertility, no adequate conception can be formed by those who have not seen them.

Savaii is the largest of them, being somewhere about 250 miles round, with a height approaching 4,000 feet. It is of a conical form, and rises from the sea like a vast dome of green vegetation.

There is only one harbour for large ships on Savaii, but a great trade is conducted around its coast by small schooners owned by the merchants of Apia, in the neighbouring island. There are a number of Europeans on Savaii, probably not less than 100; they are chiefly English, employed in the purchase of kobra from the natives, although some are engaged in cotton planting.

Of the population of the whole Samoan group, which amounts to about 40,000, more than one-third reside upon Savaii. Nevertheless, only along the coast line and for a few miles inland is it inhabited, the interior being a mere wilderness of the most gorgeous tropical vegetation; groves, dense even to darkness, of palms and plantains, citrons and mangos, bread-fruit everywhere, and wild yams trailing themselves into a matted jungle. On the flanks of the great mountain are tracts of forest, in which a man might wander for weeks without finding his way out, of the most valuable timber trees, of gigantic size, *Asi*, *Mamala*, *Maridi*, *To*, *Tainu*, *Tomano*, *Vii*. These forests are traversed by ravines, with innumerable waterfalls for the turning of saw-mills, and streams for the floatage of logs. In these woodland wastes, seldom penetrated by the natives except for the purpose of boar-hunting or pigeon-catching, are to be found growing in abundance many indigenous products as yet unregarded by traders, such as—Ginger; the true nutmeg of commerce (not alone that bastard kind so well known in Fiji); a sort of wild fibre which, in its manner of growing out of a pod, resembles cotton, but in lustre is equal to silk, and which has never yet been utilized in any way, though it grows in patches of sometimes hundreds of acres in extent; and various species of cane of the trailing kind, among them the true *Bate*, or rattan of the East Indies, which is used for so great a variety of purposes, and in many parts of the world constitutes an important article of commerce.

The distance between Savaii and Upolu is only eight miles from reef to reef. Upolu, although the second in altitude and area, is the finest island of the Samoan group, from its superior fertility, and from its possessing large and secure harbours.

Savaii is immensely productive, but Upolu, in comparison, is as a garden to a wilderness.

The Island of Upolu, like Savaii, is only inhabited upon the sea coast. This was not the case formerly, as the whole interior exhibits evidence of ancient prosperous settlement. It consists of sloping ridges and wide elevated plateaux, rising one behind the other up to the crown of the central range, very much of which displays vast areas of rich table-land covered with luxuriant forests, in whose silent depths are to be seen the ruins of ancient villages and buildings of strange form, composed of massive stone work. One easily recognizes the fact that all the available land in those localities has been at one time industriously cultivated, from the remains of boundary walls, causeways, reservoirs and ditches for purposes of irrigation, and similar works, affording proof that in some early unknown time the population was much more dense as well as more energetic and industrious than at present.

The soil of these mountain table-lands is of the most productive nature, deep, loose, and porous, of a chocolate colour, and capable of being cultivated with but little labour, as we see that in former times it has been. The lighter portions of the forest, from the looseness of the soil, are very easy to eradicate.

The heavy timber, by reason of its valuable character and the facilities of transport to the sea coast, or the abundance of water power for the purpose of having it sawn up on the spot, would more than repay the cost of its removal. There cannot be a more glorious prospect than, when sailing along some parts of the coast of Upolu, to view the great expanse of cocoa-nut groves extending far inland, spreading over the surface of gentle slopes, intersected by bridle-paths, along which one may ride frequently a dozen miles and meet with scarcely any vegetation beyond the same apparently-interminable forest of palm, bread-fruit, and bananas.

There are upon the island many horses of a very good breed, imported from Sydney. Cattle in

like manner do remarkably well, and are increasing rapidly. Neither in their case nor in that of the horse has the stock deteriorated from change of climate. As concerns the rearing of sheep, it does not appear that the experiment has been tried; but goats do well. Swine are in great plenty; they are likewise wild in the forests, where they grow to a large size, and are exceedingly fierce.

Dr. Seeman, in his valuable work upon Fiji, speaks of fever as "the curse of the Samoan group." He was quite mistaken, as one need not wonder at it, seeing that he had not been to Samoa, where they speak of fever and dysentery being the curse of Fiji. There are few diseases indigenous to Samoa, which is, without exception, one of the healthiest climates in the world. The European ladies, of whom there are seldom less than a dozen residing in the settlement of Apia, enjoy excellent health. Their children are robust, rosy, and vigorous. The only strictly indigenous disease with which I am acquainted is elephantiasis, which, although unsightly and troublesome, is not supposed to shorten a man's days, neither is it likely to do so, judging from the number of very aged persons who are to be seen suffering from it. It is accompanied by intermittent fever on Samoa, as elsewhere. Its causes are unknown, but it is well understood to be aggravated by drinking *kawa*, to the use of which Europeans of long residence on Samoa are generally addicted. The truth is, that in the Navigator Islands, as in Fiji, disease of any kind (if we except elephantiasis and its incipient febrile symptoms) is to be attributed, not to the effects of climate, but to those of intoxicating drink. When one considers the astonishing quantity of alcoholic drink, chiefly "square gin," consumed during any one month in either Apia or Levuka by so disproportionate a number of white settlers, one need not be surprised at hearing an outcry about disease.

As concerns the mental capacity and disposition of the Samoans, little more need be said than I have already said with respect to the Tongese. They are, on the whole, possibly of a less energetic and more lazy disposition. Both tribes are originally from one stock, though long separated, and now differing from each other in many social customs and habits of thought. Thus a system of religion, settled Government, or unity of action, which has for many generations characterized the Tongese, are unknown in Samoa. Frequent wars have taken place between them in past generations. The Tongese invaded Samoa from time to time, and settled considerable tracts of Upolu and Savaii. They left behind them evidences of their presence in huge fortifications and highways paved with stone. Whether they were finally expelled by force of arms or left of their own accord, is doubtful. The Samoans still greatly fear the Tongese.

From the earliest times, the Samoans appear not to have advanced in any degree. They are well affected towards strangers, especially English, but do not exhibit any great anxiety to abandon their ancient usages. They are naturally of a simple mind, hospitable, peaceable, and generous. Though they have been for some time past at war among themselves, they do not love civil strife for its own sake, neither was the quarrel of their own seeking; it was thrust upon them by the intrigues of foreigners, who fomented mischief among them to serve their own purposes. It is in connection with these unhappy disturbances that they have shown almost the only signs of advancement which have become apparent in their condition since their first acquaintance with civilized man nearly half a century ago, inasmuch as they have invested largely in muskets and other weapons, and have devoted much attention to rendering themselves familiar with their use.

As regards their mental disposition, they are the best of all the people of the Pacific, if we except, perhaps, the islanders of the Hervey and Austral Isles, or those of the Union group, who are, of course, quite exceptional, inasmuch as until visited by white men they were altogether destitute of weapons of offence.

The Samoans respect the proprieties, and enforce a code of morals which, though not perhaps including every enactment desirable, has nevertheless operated to preserve their self-respect, and to render them immeasurably superior in the matter of good behaviour to the Marquesans, Hawaiians, or natives of the Society Isles. They are not by disposition cruel, or prone to the shedding of blood; on the contrary, they had from old time many merciful and excellent laws, such as the providing of sanctuaries or places of refuge, where a man should be secure from the vengeance of those whom he might have offended, and an institution of public reconciliation, whereby the life of a man could be saved even when regarded as justly forfeited in consequence of some evil deed. Moreover, in all their wars they respected the lives of non-combatants, such as infirm persons, children, and women. They were never cannibals, sacrificers, or idolators in any shape. Treachery is no part of their nature, nor is ingratitude: they treat their women with great respect, and their children with extravagant affection. In the matter of a bargain, their word is entirely to be depended upon; they will never go back from a promise of which they have been truly made to comprehend the conditions. Thus, in all their land sale transactions—and they have sold very large areas, not in blocks but in small portions, a section of 100 acres frequently comprising twenty or more separate lots, the property of different members of a family—no disputes subsequent to the original transfer have ever been known to take place in cases where the conditions of the bargain had been truly interpreted to the vendors. They have been of late years very much addicted to thieving from plantations, and they have been known even to take hogs, Indian corn, and other produce, by force of arms; but they would protest, and with much show of reason, that they were compelled of necessity to support themselves in time of war, by taking what they might find to their hand. On the whole, throughout all their troubles, they showed great respect for the property of Europeans, and a very praiseworthy desire to bring to justice any of their own people who maliciously injured or annoyed them. War, which so demoralizes even the most enlightened of Christian peoples, could not fail to bring out in high relief many dark traits in the character of these Samoan barbarians; but when free from its evil influences, they have no sympathy with violence or dishonesty, and I believe that all British officers who in the discharge of duty have been brought into contact with them, have described them as courteous, right-minded, and open to conviction.

The centre of commercial operations upon the Samoan group is situated at Apia, on the north coast of Upolu. Here is a large harbour, presenting accommodation for a very great number of ships. It is regarded as perfectly secure unless it might be in December, January, and February, when the north wind at times drives in the sea, though it has seldom happened that when proper care

has been exercised any casualties have resulted to shipping. The settlement, which has the appearance of a long straggling village, extends along the water's edge, and consists of about 200 houses, the property of Europeans, including the large establishment of the Messrs. Godeffroy, the German, English, and American Consulates, a fraternity of French Roman Catholic priests, a school conducted by the Sisters of Mercy, an English mission, half a dozen large stores and some retail shops, six or seven public-houses, a billiard saloon, a bakery, two smithies, and two steam cotton gins.

The trade of the port is very considerable. It has not been unusual for several years past to see as many as six or seven large vessels loading in the harbour at one time. Their freights are, however, not the product of Upolu alone, but are collected in small vessels and brought there, as to a central depôt, from the other islands of the Navigator group, from some more distant as Nieuè, Manihiki, Tokerau, the Ellis group, Uvea Fortuna, and elsewhere. The bulk of these cargoes consists of dried cocoa-nut, and the trade is chiefly in the hands of Messrs. Godeffroy; but another German firm, Messrs. Hedemann, Ruge, and Co., have lately established themselves at Apia in the same line. There are also other articles of export—cotton, fungus, ginger, arrowroot, pearl shell, and beche-de-mer. Some of these products are indigenous, others are obtained elsewhere by small vessels belonging to the port of Apia. Besides the permanent residents, there is a large floating population of mariners and traders continually on the move between Apia and the neighbouring groups of islands, especially the vast archipelago which extends between the Navigators and the Rallicks, and which is commonly spoken of under the general denomination of "Kingsmills." Many guano ships also visit Apia on their way to or from Maldon Island, or the stations of the American Guano Company which are still nearer to Samoa, to wit Baker's, Enderbury's, McKean's, Howland's, and others known as the Phœnix Group. This American Guano Company have professed, according to statements published some years back, to own fourteen islands in that vicinity; but to some of those they pretend to claim, they have no right whatever; they are not acquainted with the precise locality of some; and others have no actual existence, although laid down upon the charts.

I may here remark that if the guano trade be really a profitable one, which I imagine it to be from the amount of capital invested in it, here is a wide field for its prosecution, inasmuch as between the equator and the tenth parallel of latitude, and in a line between Tokerau and Nukuhiva, are several islands apparently covered with this valuable deposit, and not only unclaimed by men of any nation, but either not mentioned at all upon the charts or laid down at long distances from their true position. Such are the islands of Roggewein, Peregrino, and Dudosa, all of which do actually exist, though nowhere near the positions ascribed to them on the charts; and they would long before now have become known as dangerous obstructions to navigation, were it not for the fact that vessels have seldom had occasion to traverse that part of the ocean in which they are.

The population of the whole Samoan group is commonly estimated at about 40,000, of which one-half reside upon Upolu, which includes Manono, a small island attached to it by a coral reef at its S.W. extremity. This Manono is only about five miles in circumference—an isle rocky and conical, rising in a sort of terrace, covered in every available spot with villages and cultivations. Notwithstanding its limited area, the chiefs of Manono have been regarded from old time as entitled to the greatest amount of consideration accorded to any in the Samoan group; not, perhaps, from their greater bravery (as they boast), but from the peculiar conformation of their island and that of Apolima, which they also possess, which form a sort of impregnable natural fortress wherein during former ages they resisted successfully the piratical incursions of the Tongese and others.

The natural resources of the island of Upolu are very great. The temperature of the Navigator Isles is so mild, that although within 15° of the equator, Europeans are enabled to perform, at all seasons of the year, all manner of outdoor work without inconvenience or detriment to their constitutions. The great age to which the ancient beachcombers (that is to say, Europeans who half a century ago deserted from ships at these islands, or, having escaped from durance vile in the penal settlements of Australia, made themselves a home upon them) have usually arrived, is a proof of the adaptability of the climate to the European constitution. There is evidence enough of this in the fact that smiths, carpenters, timber cutters, and men engaged in various outdoor hard labour, pursue their occupations without inconvenience. Thus wood-sawyers (Englishmen) toil in their sawpits at all times of the year alike, from dawn till dark, without shade of any kind to their sawpits. They cut the same number of feet as they have been wont to do in Australia during a day's work; they enjoy robust health, and do not complain of the climate or its temperature.

It appears as though all the valuable vegetable products of the tropics would flourish upon Upolu. Cotton succeeds well, and has run wild in all the sea-coast lands—unfortunately, it would seem; for, being of the *kidney* species, it prevents the Sea Island from being propagated to advantage, as the bees and other insects carrying the pollen of the wild cotton flowers, inoculate the Sea Island and cause it to become coarse.

Large tracts of sugar-cane and maize are cultivated by the Germans; they have also planted coffee with great success, and rice of a kind enormously prolific, which is grown upon elevated plateaux without irrigation, it being of a species not requiring to be flooded at any time with water. Whence they obtained the seed I have not heard, but I imagine from South America.

Legumes and cereals of the temperate zone have been planted successfully by the Germans, and notably by the French priests, some of whom have been now resident on Upolu for nearly thirty years, and have acclimatised many useful plants and trees. Cabbages, cauliflowers, peas, all kinds of beans, carrots, and asparagus, cucumbers, and melons of every kind, with the pot-herbs of Europe, are to be seen in their gardens, and of the most luxuriant growth. Potatoes, however, turn to komotès in the second season in the low lands, and onions do not exceed a grape shot in magnitude, though there is reason to believe that both these vegetables would grow very well upon the level summits of the high mountain lands. Barley and the various kinds of millet produce abundant crops, and English grass mixed with clover takes ready hold of the ground and spreads rapidly.

Among the products more especially suited to the climate and local conditions of Samoa, as proved from experiment, may be enumerated cotton, coffee, sugar, tamarinds, tobacco, indigo, Vanilla rice, cinnamon (a tree analogous to which is found indigenous), true nutmegs, ginger, arrowroot, and the

various oil-producing trees. Among those which could unquestionably be introduced with success may be more particularly mentioned cinchona and tea. For the cultivation of the latter, no climate or country presents more favourable conditions. I speak with confidence, having a thoroughly practical knowledge of the subject. There is no reason why Englishmen, having once conquered the popular prejudice that tea cannot be successfully cultivated or manufactured by Europeans, or outside of certain localities, should not enter upon this industry in the great islands of the Pacific; especially as the amount of labour required is so small in comparison with that necessary for the cultivation and preparation of coffee, sugar, cotton, or tobacco. Tea adapts itself to various temperatures in a manner impossible to coffee, is extremely hardy, and bears a crop which defies rains or hurricanes; it luxuriates on high and sloping lands, especially those of ancient forest, where the giant trees are allowed at intervals to remain, affording a shade in which it delights. It is of all products one of the most suited to the high woodlands of Samoa. The seed would be easily procurable from China, and if gathered at the fitting season, and packed in damp sand or sugar, would arrive in good germinating condition. The tea shrub yields its first payable crop in the third year from the planting of the seed. For the plantation labour, the services of Polynesians are suitable and easily procurable. The skilled workmen required for the manipulation of the leaf are to be met with in Hawaii, or can be obtained from China at a low rate of remuneration.

I have said that the Messrs. Godeffroy have purchased from the natives of Samoa about 25,000 acres of valuable land. The greater proportion of this property is situated upon Upolu, and consists of a triangular block, extending nearly five miles along the sea coast, and inland to the crown of the dividing sierra. All of this is easily accessible from the shore by bridle tracks, which can in most cases be made practicable for wheeled conveyances at a trifling expense. They employ wagons in their plantation work. The area of their cultivations at present (or up to within the last two years) comprises about 500 acres. They employ usually about 400 (reported at present to be 1,200) imported labourers, chiefly from the Kingsmill Isles, besides a number of Samoans, Rarontongans, and Nieuès. The wages of the Kingsmill, or Line islanders, as they are called, are two dollars per month and their food; the term of their service three years, at the expiration of which they are returned to their homes or re-engaged, at their own option. The original engagements of these people on their own land were at the rate of one dollar per month, which was increased to two by their employers after a few months of training to the plantation work, in which they showed themselves industrious and tractable.

Messrs. Godeffroy and Son, deservedly rank among the most enlightened merchants of Europe; and in no respect is this more apparent than in the wise regulations framed by them for the conduct of their plantations on Samoa.

The Kingsmill islanders, on arrival upon their estates, present an example of the lowest type of Pacific savages—naked, brutal, and wolfish in aspect; having lived absolutely without laws; having subsisted only upon cocoa-nuts, fish, and the fruit of the screw palm; seamed with the scars of incessant affrays, the result of the state of chronic intoxication in which their brains have been steeped from childhood from the use of the fermented toddy of the cocoa-nut tree; a large proportion being afflicted with cutaneous diseases and various forms of syphilis, introduced among them by the crews of whaling ships. They are comfortably lodged, decently clothed, well fed, and trained to honesty and peaceful industry. They arrive filthy, lazy, and ferocious. After six months of plantation life, they do not resemble the same beings, and, at the expiration of their agreements, they are so far improved as to be as unfit for communion with their brutal brethren in their native isles as they were previously for contact with civilized humanity.

The regulations of Messrs. Godeffroy with respect to their imported labourers, provide that these people shall in no case be engaged by their agents without their own consent, backed by that of their chiefs and relatives. The overseers appointed to accompany them in the field are either their own countrymen or foreigners who have been many years domesticated among them. Their dwellings are of sawn timber—large, airy, and clean. Their food consists of pork, fish, taro, yams, plantains, bread-fruit, and a daily ration of wholesome bread (baked for them in brick ovens) of maize meal, of which they are very fond. Besides this regular allowance, they have green corn, cocoa-nuts, melons, and other vegetable food *ad libitum*. They have nine hours of labour, from 6 to 11 and from 12 to 4 o'clock. They are in no case permitted to be beaten by their overseers. If punishment is found necessary, as in aggravated cases of bodily violence or crime, such as among savages must sometimes be expected, punishment varying from one to four dozen stripes with a cat, such as is used in ships of war, is administered in the presence of the Consul. They are under the supervision of a properly-qualified European surgeon, and are supplied with all needful medicines and comforts for the sick, for which no charge whatever is made to them. Missionaries of both the Protestant and Catholic denomination are allowed every facility to visit or instruct them, but, being of a low order of intellect, they have not been known as yet to benefit by such teachings. On the Sunday, they are not required to do any manner of work. Their matrimonial arrangements are not interfered with. They are permitted to form such connections as they please, provided that peace be preserved.

It would be well for planters throughout the tropics, if the system pursued by the Messrs. Godeffroy were more generally known and adopted. All the other establishments on Samoa where imported labour is employed are conducted on the same humane and just principles.

The scheme propounded by the Messrs. Godeffroy for the settlement of their property on the island of Upolu, if carried out according to their intentions, could not have failed to have been productive of important results, not only as concerns the advancement of the Samoan group, but in the furtherance of civilization and commercial enterprise throughout all Central Polynesia. The Government of the North German Confederation regarded the project with paternal interest. Several personal interviews and a voluminous correspondence upon the subject took place between Cæsar Godeffroy, sen. and Herr von Bismarck. They had been personal friends from their youth, and the astute Chancellor did not hesitate to lend his influence to the advancement of a plan of colonization which, while it promised advantageous employment for the energies of a number of the better class of German adventurers, would secure to the rising navy of the Confederation the possession of one of

the most central and best-supplied harbours of rendezvous in the Pacific. The matter had not been long under discussion when the approbation of the Government assumed a practical shape. Elaborate plans prepared upon the ground by a surveyor of the locality intended for settlement were laid before the authorities in Berlin; a programme of the system of colonization to be initiated was drawn up; extraordinary powers were delegated to the Consul of Samoa; grants of arms of precision from the Government arsenals were made for the protection of the settlement; and the "Hertha" (the first, it was said, of the Continental ironclads which passed through the Suez Canal) received orders to proceed from China to the Navigator Isles, to settle all outstanding disputes between the Germans and the chiefs of those islands, and by a judicious display of power to prepare the way for the first detachment of military settlers, who were to take their departure from Hamburg so soon as her commander should have submitted his report.

At the same time, arrangements had been made by the Messrs. Godeffroy with their agent in Valparaiso, to ship from thence to Samoa a number of mules and their Chilian drivers, for the purpose of opening a regular communication between the north and south coasts of Upolu over the great central dividing range. Orders were likewise given to the manager of their establishment in Cochin to despatch from thence several Chinese families, who had been for some years at that place in the employment of the firm, in order to commence systematically upon suitable lands in Samoa the cultivation of rice and other oriental products.

But the "Hertha" was countermanded in the Indian Sea, upon the declaration of war between France and Germany. The long hostilities which followed, and the ruinous blockade of Hamburg, succeeded by the anti-emigration policy inaugurated by the German Imperial Government, involved the house of Godeffroy in commercial difficulties, upset their wisely-arranged plans, and caused a scheme so pregnant with hopeful promise to be abandoned and forgotten.

It seems truly unfortunate that ideas so grand and so certain to be productive of good, should be permitted to fall to the ground, and it is not too much to hope that sooner or later other equally enterprising capitalists, supported by the influence of an enlightened Government, may take advantage of these suggestions, and carry out to a successful conclusion some similar project to that initiated by those liberal-minded merchants of Hamburg. Godeffroy, sen. (as well as his son) is spoken of as having all his life exhibited a strong attachment to England. One of his vessels is named after Her Majesty, another in honor of the Duke of Edinburgh. He has employed many English, and transacts very much business in their language; notably all the title deeds and transfers of his lands in Samoa are drawn up in English. One if not more of his sons he caused to reside in England for some years, in order to complete his education. The same also was the case with Mr. Branker, their present plantation manager. These sentiments of goodwill, so creditable to a Continental merchant, most of whom entertain feelings of jealousy of the commercial advantages our countrymen so generally secure to themselves in foreign lands, may probably operate powerfully to lay the foundation of a good understanding between these enlightened Germans and whatsoever English capitalists may find it to their advantage to carry out upon the Navigator Isles that scheme of settlement which Messrs. Godeffroy were compelled to abandon by reason of commercial reverses, and the veto upon able-bodied emigration pronounced by their new Imperial Government.

As concerns minerals upon the Samoan Isles, there have been floating rumours from time to time of gold and other metals being there existent; but I do not believe the islands have ever been examined by any men competent to form a correct opinion. The only man of science of whom I have any knowledge who had visited any portion of the interior of the Samoan group was Dr. E. Graeffè, a very able and learned man, but not a miner or mineralogist; his labours were confined to the collection of zoological and botanical specimens. His opinion, however, was the same as my own, that upon those islands there is no mineral deposit of any account, except very much magnetic iron, which, in the absence of coal, could be of very little value. Nevertheless, we might have been both wrong.

Towards the end of 1873, two residents of Samoa, named Johnson and Bruce, brought to Her Majesty's Consul, who was just then leaving for New Zealand, several specimens of auriferous quartz. In these fragments the gold was very plainly visible. The men professed to have found them in the immediate neighbourhood of Apia. The Consul had no time to investigate the matter before leaving, but gave the information to the Auckland public through the medium of the newspapers for what it was worth. He had some conversation with me on the subject, in the course of which he expressed grave doubts as to the *bonâ fide* character of the discovery. I have had some experience of gold mines, and am better acquainted with the interior of the island of Upolu than most Europeans who have at any time been resident there. I was instructed by the agent of Messrs. Godeffroy to make careful search for any indications of gold or other valuable minerals there. So far from finding any sign of it, I could not even meet with a fragment of quartz larger than microscopic crystals in metamorphic rock and in sand. There are in several places cliffs 100 feet or more in height, composed of micaceous clay, and in other localities there are beds of conglomerate similar to those which overlie gold deposits in Arizona and elsewhere. I am not competent to pronounce a decided opinion; but I believe there is no gold there. Garnets (some of considerable size) are found in the beds of streams, among a highly-magnetic black sand, and a stone resembling an opal exists in the crevices of sandstone rock.

It has been stated, upon the authority of Sir Edward Belcher, that upon Rose Island, the most eastern of the Navigator Group, there is a quartz dyke. I have never landed upon Rose Island. It is uninhabited, and produces nothing but beche-de-mer, in no great quantity, according to the account of fishers who have resorted there from Upolu. Sir Edward reports the dyke to be composed of micaceous shale, though from the sea it appears to be of coral formation; and in coral itself quartz veins cannot by any possibility be found. All coral islands are undoubtedly formed upon a foundation of other rock, but that a quartz dyke should crop out through the coral at this end of a great chain of isles like Samoa, and not be found at all throughout the remainder, would seem mysterious. I have found at various times large pieces of quartz, of the same kind as that in which gold is contained, upon coral islands, particularly upon Manuwae in the Hervey group, and on Suwarrow, neither of which are more than 20 feet above the level of high water; but I accounted for their presence by supposing

that they had formed part of the ballast of ships which had been wrecked at those places, and I still entertain that opinion.

The harbour of Apia is not the only one on Upolu, neither is it regarded as the best. The reason of its having been made the site of the principal settlement was, that there the first Christian mission was established. The Consuls took up their quarters at the same place, and so the other harbours were neglected. Surrounding them are tracts of rich land available for settlement, as extensive as those in the neighbourhood of Apia, and which the natives are equally willing to dispose of. They possess the additional advantage of not having been lately devastated by war to the same extent. As concerns local conditions and resources, what applies to the island of Upolu equally applies to Tutuila, which is distant from it, to the eastward, forty miles from reef to reef; but the area of the latter is more limited, being not more than ninety miles in circuit, with a population of probably 4,000. It possesses two good harbours, of which that of Pango-Pango is perfectly landlocked, and apparently one of the most secure for shipping to be found in the world. It is now much better known than formerly, by reason of its having been examined and reported upon as a coaling station of the late steam service between New Zealand and San Francisco.

There are a number of detached islands in this latitude and in the direction of the Marquesas which are very little known, but which are nevertheless replete with commercial interest. One of the most remarkable lies about 500 miles eastward of the Navigators, and is known as Suwarrow. It is a coral atoll of a triangular form, fifty miles in circumference, the reef having an average width of half a mile, enclosing a landlocked lagoon twelve miles by eight in diameter. It has a wide entrance, half a mile across in the narrowest place, although divided by two rocks, 200 yards apart, into three channels, the depth being five fathoms at the lowest tides during the year, with a level bottom, and no concealed dangers. Inside is secure anchorage of all depths, from three to thirty fathoms. There is accommodation for all the ships of the Pacific to ride in safety in all weathers, with room to beat out, and a fair wind half-way round the compass in or out. It is uninhabited, and is not claimed by any nation. It is out of the track of hurricanes, which have never been known to extend in this direction in the Pacific so far to the eastward. There are nine islets upon the reef; two of them are about a mile and a half in length, and are covered with tall timber. Upon the one next to the entrance into the lagoon, are a great many cocoa-nut trees, and about forty acres of very rich soil, not encumbered by forest. There is no fresh water visible upon the surface, though there can be little doubt that it is procurable by digging. This place would support a population of at any rate 100 Polynesians, and they would prove an excellent investment to whoever might put them there, as, if supplied with boats and other requisites, and the seed of vegetables, they could prepare a large annual cargo of beche-de-mer, which is here in very great quantity and of good quality. The shoal water of the lagoon also abounds in pearl shell of the largest size and the finest lustre. In addition, the splendid harbour of this solitary isle could be utilized as a depôt for the collection of various cargoes which are obtainable from the surrounding islands, and it would thus become a very valuable property to merchants who might choose to take possession of it.

Near to the 10th parallel, but rather north of the latitude of the Navigators, are situated a number of coral atolls, which, though little known or regarded, could not fail to become extremely profitable possessions if their resources were systematically turned to account. Of these, the nearest to the Samoan group is the San Bernardo of Mendana, or "Danger Island" of Commodore Byron; so called by him from its unsafe aspect, although, to voyagers acquainted with it, it presents no dangers whatever; forasmuch as it lies out of the track of the hurricanes, which have never been known to extend to this locality, and a vessel may stand off and on, making fast to the reef with a kedge during the day, if necessary, for nine months out of the year, in a horseshoe bight on the lee side of the land. The island consists of a great triangular reef about thirty-five miles in circuit, enclosing a lagoon mostly shallow, but in places having a depth of 50 fathoms. There are three large *cays* upon the reef, of which the most considerable is about five miles in circumference. Some years ago they were thickly populated: the number of inhabitants is now less than 300, in consequence of slaving ships from the coast of Peru having carried off the greater number.

These people are of a light copper hue and pleasing countenance; they never practised tattooing or any kind of disfigurement. They have not, and never did have, any weapons of war. Crimes of violence seem to have never been known among them. They are a people simple, contented, honest, and perfectly amiable; very ingenious in the manufacture of their clothing and implements, and very ready and anxious to learn from strangers whatever is useful. The most extraordinary characteristic of these islanders is that they speak a language more nearly identical with that of the North Islanders of New Zealand than any others in the whole Pacific. They profess Christianity, and have a teacher residing among them, a native of the Hervey Isles. They work willingly, and deal honestly. The products of their island are cocoa-nuts and beche-de-mer. Their cocoa-nut groves are very luxuriant, and produce about 100 tons annually, most of which is eaten by them—that is, in a great measure wasted—as they drink no water, but use only the young nuts; so that each individual among them, young and old, consumes on an average not much less than twenty nuts per day. They have no object in saving them, being seldom visited by ships, their island being so little known, and out of the track of ordinary navigation. With a little labour and cultivation of the trees, as well as planting out fresh groves in the waste spots, this island could be made to produce in seven years' time, at least 500 tons of dried cocoa-nut. There being three islets, and a population not sufficient for the one upon which they all reside, they would willingly sell the other two at a cheap rate, and hire themselves to work for the purchasers. It is to be hoped that eventually some of our countrymen may take advantage of so good an opportunity of securing a large profit at a comparatively small outlay, and at the same time of benefiting the remnant of a people so amiable and naturally industrious, who are now wasting their lives in ignorance and sloth.

Their lagoon abounds with beche-de-mer of good quality. Very large and fine pearl oysters exist in it, but as yet they have not been found in payable quantity. They are procured by the natives, with extreme labour, from great depths, only for their own domestic uses—that is, for dishes, the making of spoons, scrapers, and fish hooks, and for the spools on which they weave their fishing nets. The natives

say that this oyster lies in great quantity on the outer edge of their reef, under the surf. Whether its production could be artificially encouraged within the lagoon, I am unable to say. Scattered among the cocoa-nut groves upon these islets are many Tomano trees of enormous size; they run from 6 feet to 12 feet in diameter, though I have measured one of more than 20 feet, and about 200 feet high. The wood is like Spanish mahogany, very valuable for shipbuilding, as also for ornamental work. It has long been an article of trade in the Pacific, being chiefly purchased by the merchants of California. From the seeds (which are of the size of a billiard ball) is extracted a very fine green oil, known in the Indian seas as *woondel*. It is used for many purposes, but is principally famous for its medicinal properties, and is said to have realized in Europe prices approaching to £100 per ton. From the stem exudes an odorous gum, used by the Polynesians as a perfume. On the islands where they manufacture the oil, they commonly barter it for articles of trade, to the value of one dollar per gallon.

Upon these coral *cays*, as upon most others of similar formation, are extensive thickets of Pandanus, or the screw palm tree, which supplies to the Natives not only an important article of food, but material for their clothing, and will no doubt before long become extensively utilized in the manufacture of paper and other industries, to which its leaves and beautiful tenacious fibres are adapted. I have been inclined for some years past to regard the investigation of this question as destined to exercise, sooner or later, a very important influence upon the trade of the Pacific Isles.

Beside the Tomano wood which I have mentioned, there are other kinds of valuable timber upon this and the neighbouring islands. They include *Milo* and *Tainu* woods, of fine grain and great durability, especially adapted for the timbers of boats and small vessels; also a species called *To*, which attains great size, and is highly prized by such European carpenters as are acquainted with it, for the making of cabinet work and ornamental furniture; and the *Nangiia*, which I have elsewhere described as being of such intense hardness, and as having been successfully experimented upon by Colonial engravers.

To the south-east of this island (about forty miles distant) is another about three miles in length. It has deep water all round, and has no lagoon, but a secure landing on the lee side, and no outlying dangers. It is marked on charts as Nassau, but is known to the natives of the neighbouring isles as Motungongau. It is uninhabited, and covered with valuable timber. It has wells of fresh water, and some cocoa-nut trees planted by visitors within the last ten years. Turtle resort to it in extraordinary numbers. In the year 1870, a small colony of Manihiki and Samoa natives was established here by the agents of Messrs. Godeffroy; but the Franco-German war having curtailed their operations, and compelled them to lay up or dispose of their vessels on the Samoan station, they neglected to visit these people, who, becoming weary of their lonely life after about two years, took the opportunity of a passing vessel to quit their solitary abode. They had planted cotton, which has now run wild all over the place. The soil being very rich, this island might be made a valuable property. The area of good land is probably about 2,000 acres. It is entirely deserted, and may be taken up by any one who chooses to occupy it.

Eastward of San Bernardo about 400 miles, are the two atolls of Manihiki, or Humphrey's Island (about thirty miles in circumference), and Kakahanga, or the Grand Duke Alexander (about twenty miles in circuit); they are thirty miles apart: the latter is the Gente Hermosa of Quiros. These are lagoon islands, and are very valuable from the great extent of their cocoa-nut groves, the like of which, for density and productiveness, are scarcely to be seen in the world (meaning, of course, trees which do not owe their luxuriance to cultivation). The interior lagoon of Manihiki is about six miles in diameter, and contains a vast deposit of pearl shell of the best quality; pearls, also, are very plentiful in them, and of considerable size. This lagoon has never been systematically fished for more than fourteen years. Upon that occasion (the first and last), Messrs. Hort Brothers, of Tahiti, established an agent upon the island, with two boats' crews of Paumotu divers, and by their means obtained from it over 100 tons of shell in less than eighteen months. These strangers established themselves upon the fishery by force of arms, and after their departure it was no more prosecuted, for the same reason which had necessitated their employment—that is to say, the incapacity of the Manihikians to perform the work. This is so, because they subsist in a great measure upon the *Paahua*, or *Tridachna*, a sort of clam, which is obtained by diving in shallow water. According to their custom, it is the duty of the women to procure these shell-fish, the occupation of the men being the gathering of cocoa-nuts, and fishing with lines and nets in the deep sea, outside the coral reefs. The lagoon, therefore, is the domain of the women, who alone are skilled in diving. When the pearl-shell traffic had been introduced to their notice by the intrusion of the Paumotans, the Manihikians would have continued it by the labour of their women, but they, finding it as much to their profit and more to their comfort to manufacture cocoa-nut oil, rejected the task. Their numbers, too, were very speedily reduced, by the extensive traffic in women, which sprang up. These people, the females especially, are remarkably good-looking, being of a light complexion, fine figure, and handsome countenance. It was from this cause that they were named by the Spaniards, more than 200 years ago, "*Gente Hermosa*." So it followed that Tahitians, Peruvians, and other strolling mariners who chanced to visit them, bought, enticed, or kidnapped them, until they became scarce upon their own land. For the last fifteen years, Manihika women have been in great request among the Europeans in all the chief trading ports of the Pacific Isles, not only for their good looks, but for the remarkable ability they display in acquiring European customs and domestic habits. Thus they are greedily sought after as house servants and concubines. Very high prices (passage money so called) have been usually paid to obtain them, and still the demand continues.

So the pearl fishery of Manihiki became neglected and almost forgotten—so much so that of the traders who have visited the island, the greater number have never been aware that shell existed there in payable quantity. I myself would probably not have been acquainted with the fact, had it not been from the circumstance that I was compelled on one occasion to live among them for a year and a half, having no opportunity to get away from thence during that time. The number of inhabitants is about 500. They are a people well disposed, intelligent to a degree greatly superior to most Polynesian tribes, and wonderfully ingenious and skilful in the mechanical arts. Their dwellings are all of stone, substantially built and neatly furnished. They have excellent whale boats of their own

construction, and are skilful in the management of them. They dress like Europeans, in cotton fabrics, which they have received from ships in exchange for cocoa-nut oil, or as wages at guano diggings, or other works away from their homes to which they make a practice of hiring themselves. They have carpenters' tools, and most necessaries. They profess Christianity, and can all read and write, having been taught by natives of the Hervey group, who have been landed among them from Mission ships.

Although by nature industrious, these people are lapsing into indolence, from want of all incentive to systematic exertion. Their numbers also decrease annually by reason of so many of them going to other lands and returning no more, as they have a passion for rambling in order to see the world, and they soon forget their own native island, and do not care to go back to it.

The valuable product of their immense cocoa-nut groves goes chiefly to waste. Beche-de-mer, of which they have abundance, they never gather now. Pearl shell they never fish for, except that now and then some old woman gets up a few baskets of it, in order to exchange for a pound of tobacco, when some chance vessel comes along. They say, "We are not in want, why should we work?" The young men generally go away in labour ships to Honolulu, Tahiti, or the Guano Islands, where they earn wages to spend abroad. The young women have but one ambition, to run away in any ships whatever, in hope to be carried to foreign places to become the mistresses of Europeans, for whom they have an unconquerable liking. On their own island few remain permanently but the aged and infants. It is easy to prognosticate the immediate future of such islands as these. They must ere long become the property of commercial adventurers, who will inaugurate a more healthy state of things, and utilize their valuable products. There are upon this isle of Manihiki cocoa-nut groves of an area sufficient, if the produce were economized, to yield annually 300 tons of kobra (value £3,000); in two years, by a little labour and care, this return would be greatly augmented, and in seven years increased at least fourfold.

The island of the Grand Duke Alexander, or Rakahanga, resembles Manihiki, except that it is not quite so large, and contains no pearl shell in its lagoon. The density of its cocoa-nut groves has excited the astonishment of all mariners who have visited it. This place is, however, very little known, much less so than even Manihiki, for the reason that its villages being built out of sight, and its anchorage difficult to find, it has more frequently been passed by under the supposition of being uninhabited. There are, however, about 400 people upon it, who are even superior to the Manihikians in hospitality, ingenuity, and the possession of everything necessary to their comfort and happiness. The village which they inhabit is built entirely of stone. The houses are large and substantial, plastered with snow-white coral lime; they have panneled doors and Venetian shutters; the floors are laid with fine mats of variegated pattern, in the manufacture of which they are more skilful than any other people of the Pacific. These mats they barter to traders when they have opportunity, at the rate of one fathom of mat for the same dimension of unbleached calico, of which the men make their clothing. The mats themselves are of so fine a description, that in civilized lands, when obtainable, they are highly prized for covering the floors of even the best houses. Those of one kind are even used as table-covers. The natives have good furniture, made by themselves, of their own island wood. Their hats, which they readily barter to traders, sell in the Pacific ports at one dollar each. They are similar to those of Panama. Their boats, of the fashion of a whaleboat, are handsome and seaworthy. They profess Christianity, and can read and write. They have a church in the middle of the village, handsomely decorated within, the woodwork inlaid with mother-of-pearl. The vessels which they use in their religious ceremonies are of solid silver, and were purchased from traders who had procured them from a wreck. Their laws are just and well administered; they have no superstitious customs. They have no Europeans living among them, and never have had, except, for a few months at a time, some strolling or shipwrecked mariners to whom they have extended the kindest hospitality. They have a teacher (or priest, as he might be called), one of their own countrymen, who derived his instruction from a Polynesian missionary, a native of the Hervey Isles, who came to them and died among them. All seafaring men who have visited their island, have been beyond measure surprised to find in so solitary a place a people so amiable, intelligent, and ingenious.

Very much of their advancement in civilization and the useful arts is due to the friendy interest taken in their affairs by Captain English, a merchant mariner of Honolulu. Some ten or twelve years ago, he instituted a cocoa-nut oil manufactory on a large scale at Fanning Island, which lies about 4° north of the equator. Looking for labour, he found these people, and for several years made a practice of employing them. He supplied them with all useful articles and taught them handicrafts, which they displayed extraordinary aptitude in acquiring. He supplied them with the seeds and cuttings of valuable plants and trees adapted to their soil—notably tobacco and figs, which last have grown among them to great perfection, overshadowing their dwellings, and bearing abundance of fruit at all seasons of the year. Commercial misfortunes overtook him and brought his connection with these people to an end; but as long as any of them remain, his name will be remembered as that of their great benefactor.

Fanning Island is now (or was very lately) in possession of Messrs. Bicknell and Greig, of Honolulu, who make cocoa-nut oil there, but their operations are not extensive, they being men of limited means. It has never been formally claimed by, or placed under the protection of, any civilized State. It has no permanent or indigenous inhabitants. It possesses a fine and commodious harbour, and cocoa-nut groves of considerable extent. The pearl oyster does not exist in its lagoon, but there is to be found there, in great quantity, a shell-fish which, I am of opinion, will before long be regarded with equal if not greater interest by commercial adventurers.

I have spoken of the *Paahua* or *Tridachna*, a species of large clam, which on many coral isles constitutes a great part of the subsistence of the inhabitants. There are two kinds: one grows chiefly upon the solid coral, and does not attain so great a size as the other, which is found not only on the hard reef but bound to loose rocks or lodged upon the sandy bottom. This attains extraordinary proportions. It is in some cases, especially near the equator, so large as to weigh several hundredweights. This is the kind of shell sometimes used in gardens as the basins of fountains. Some years ago, there was a trade in this kind of shell, and it was collected for shipment in the Navigators and elsewhere; for what purpose I do not know, but I supposed for the making of what is called in

India *cowrie chunam*, a mixture of pulverized shells and cement, which in that country is used for the coating of columns in the interior of houses, giving them an appearance as though made of ivory. The trade died out, and may perhaps never be revived; but it is not the possible uses of the shells to which I would draw attention, but the fact of their containing *pearls*, which are exceedingly valuable, though as yet, I believe, almost, if not altogether, unknown to the commercial world. The first occasion upon which I remember to have noticed one of these gems as being of any possible value, was upon seeing one of them in the possession of a Rakahangan, who had brought it from Fanning Island. I was commissioned to buy it by a passenger of a vessel for which I was employed to trade. I purchased it for a plug of cavendish tobacco. The passenger subsequently sold it to the surgeon of the ship for £10. The surgeon gave it (as he afterwards told me) to his wife in Australia, after having refused the offer of £25 made to him for it by a jeweller of Sydney. Its appearance was very extraordinary and beautiful. Its size was about that of a pea; it was round upon one side, on the other slightly flattened. Its lustre was crystalline; in the centre appeared a luminous point, from which radiated innumerable bright rays distinctly defined.

On another occasion, a pearl of this kind was shown to me by a trader, who asked my opinion concerning its value. He had bought it from a savage of the Kingsmills for four fathoms of cotton print. I told him that, to the best of my belief, it could not be worth less than 1,000 dollars, which I would have been very willing to have given him for it. It was not globular, but somewhat of the shape of a very convex magnifying lens, perfectly symmetrical and without a fault; its diameter was considerably more than half an inch, and its thickness about two-thirds of its diameter. It showed the same kind of luminous point in the centre as the one I have already described, with the same radiations. I do not know what became of it. In the larger *Paahua*, these pearls are found in the body of the fish (as the true pearls are in the muscle of the oyster); they are very common, so much so that in some places, as in the coral lagoons near the equator, a man may collect 100 or more out of a day's fishing, but they are generally of irregular shapes, and perfectly opaque, like bone. Such as are well formed and of sufficient lustre to be called a gem, are rare, but are nevertheless to be met with occasionally, of so great size as to induce the belief that, if the search for them were systematically pursued, the fishers would stand a very good chance to make a fortune. I have never known any one to fish for these shells for the sake of their pearls, but from those *Paahuas* which we were in the habit of eating, I have seen some extracted of good shape (but opaque and of the appearance of bone), as large as an Enfield bullet. I have seen others, again, milky or semi-transparent, like a dirty white opal, without any play of colours, but sometimes a little brilliancy at one end.

There is another kind of shell in this latitude which produces pearls of fine quality, but generally not of great size. The largest I have seen are about the size of a pea; they are perfectly round, and of a golden colour, very lustrous. This is a shell similar to an oyster. The underside is always firmly amalgamated with the rock, so as to form part of it, and cannot be broken off; the upper valve is like a lid, with a very strong hinge. These shells are not found in congeries, but detached, which causes them to be somewhat scarce.

Since the preparation of dried cocoa-nut superseded the manufacture of cocoa-nut oil, these two remote communities, of Manihiki and Rakahanga, have, for the following reasons, in a great measure refused to trade with the few vessels that have visited them:—While the American whalers frequented their neighbourhood, they were in the habit of buying from these islanders great quantities of cocoa-nuts for sea stock. The price was always one dollar per 100 (*i.e.* its equivalent in trade); it takes 50 of them—that is, the common wild cocoa-nut of the Pacific—to make one gallon of oil; consequently, for a gallon they usually asked and obtained half a dollar, represented by two yards of cotton print. One hundred cocoa-nuts, when dried, weigh only 50 lbs. for which traders usually refuse to pay, upon the spots where the nuts are grown, more than 1½ cent per lb. equal to 75 cents per 100 nuts, instead of one dollar per 100, which these islanders have been accustomed to regard as a fair price. As much more as they can get, but no less, has been their rule. They do not allow for the fact that drying cocoa-nuts involves less labour than making them into oil. Time and a little work they regard as of no consequence. Without it, they would be idle; so it is for the cocoa-nuts they seek to be paid. The little toil connected with the affair is to them mere pastime. Thus they sell to one man as readily and for the same price the oil of 100 nuts, after all the labour of pealing, breaking, scraping, and pressing, as they do to another the 100 nuts just as they have been shaken from the tree. They are just as well satisfied whether they sell the nut in its husk, without taking any more trouble with it than to pick it up and throw it into the ship's boats, or extract the oil and sell that, so long as 100 nuts returns them two yards of print or a pound of tobacco. Neither do they understand the principle that all men of business allow their customers a reduction on taking a large quantity. A man who will purchase from them 100 tons of cocoa-nuts will receive from them no more favourable terms than he who would buy of them only 100 nuts.

Thus these two islands have come to be regarded by the few traders who did formerly resort to them as places where nothing is to be got. The natives, they say, "have become indolent, and won't work now like they used to." This is a mistake. These two islands, poor as they may be at present from the traders' point of view, would constitute a veritable mine of wealth to any merchant of enterprise who would establish a settlement upon either of them. Thus, a European acquainted with the language and habits of the natives, buys from them one of their detached islets; the trees upon it may produce, perhaps, 20 or 30 tons of kobra in the year. Whatever the quantity may be, he sells it *ostensibly* to the ship which is sent to visit him, at the price it is desired the natives shall adopt as their standard. They say, "It pays the white man, and so we should be satisfied; let us do the same as the white man." I have seen this plan tried elsewhere repeatedly, and never knew it to fail in the remote coral islands. A European domesticated among the natives, and exhibiting before them persistently an example which they perceive to be in any degree to their advantage, never fails to bring them round to his way of acting; and by such means, combined with the judicious exercise of a little liberality, the 800 or 900 inhabitants of Manihiki and Rakahanga could within a year be rendered, in fact, if not in appearance, the willing workmen of the merchants who purchased their produce, who in reality would exercise as much power as though they, and not the aborigines, were the veritable lords of

the soil. This is what, in the nature of things, must inevitably come to pass upon all the productive islands of the coral seas, seeing that the utilization of their products is to the profit of Europeans. It follows, as an inevitable sequence, that, either by the decay of the indigènes, or by conquest or cajolery, these islands must sooner or later pass into the possession of Europeans.

Into the consideration of this question there enters one very significant element. The islanders I am describing, together with the whole branch of the great copper-coloured Polynesian family, to which they belong, closely resemble, in every respect but ferocity and cannibalism, what the natives of New Zealand were. Their language is so far identical, that they readily understand one another without the intervention of an interpreter. Their social customs are analogous, their traditions and habits of thinking are the same. They have but one ancient name whereby they distinguish themselves from the rest of humanity—Maori. Does it not, therefore, seem as though Providence had intended such at least of the islands of the Pacific as are inhabited by this race, to be ultimately colonized by the British occupants of New Zealand, who enjoy in their adopted country such great facilities of familiarizing themselves with the habits and characteristics of this Maori race? Certainly, it is a race the members of which, in spite of all the evil with which heathen ignorance and many ages of separation from the rest of mankind have clouded their nature, possess many qualities amiable and worthy of preservation, and many of the elements of true usefulness.

There are yet other reasons which ought to operate as an inducement to our countrymen to take the initiative in systematically extending their commercial civilization, and what must accompany it as an indispensable necessity, the protection of their flag, to a very great number of the islands of the South Sea. Throughout such of them as are inhabited by the copper-coloured races, the name of Englishman (or *Beretani*, as they call it) is generally associated with friendship, enlightenment, and protection. It has happened, without doubt, that in many places and in various manners, Englishmen, far removed from the restraint of law, and not having the fear of God before their eyes, have set these islanders an evil example or inflicted upon them shameful injuries; but these instances have been very rare indeed when compared with the innumerable benefits which the Natives have received at the hands of British merchants, missionaries, and naval officers. Consequently, a feeling of gratitude and good-will towards us has become so general among them, that the occasional evil deeds of a few lawless and unprincipled ruffians have not operated to diminish it. The name of Englishman (which, of course, includes Americans) is associated in their minds with a feeling of familiarity and friendship; that of Frenchman (*Tangata Napoleon*) is to most of them a word of fear; and that of Spaniard is a word of intense hatred. This is so, partly on account of the dangerous temper and disregard for human life displayed by seamen of Spanish race or extraction, of which the Islanders have had repeated evidence, but it is more so on account of the treachery and violence of Peruvian shipmasters engaged in the labour traffic, the story of whose misdeeds has been carried from island to island; so that over the whole face of the Pacific, wherever the natives are sufficiently enlightened to distinguish by name one nationality of white men from another, the word *Paniora* (Spaniard) conveys a meaning which might be interpreted *fiend*, while Callao might be interpreted *hell*.

Equally true it is that when threatened with injury to their persons or property at the hands of civilized man, among at least nine tribes out of ten of the copper-coloured peoples of the South Pacific, the drift of their thought is that the Queen of England will in some way help or avenge them.

There are some solitary islands in this vicinity not upon the charts or otherwise wrongly placed, as Peregrino, about eighty miles south-east of Manihiki. It is in the form of a horse-shoe, presenting safe anchorage to the west. It is about nine miles in circuit, and has no inhabitants, but is covered with valuable timber.

Roggewein Island, still further to the east, is small, appearing not more than four miles in circumference, but it may be very valuable, forasmuch as it seems to be covered with guano. It has the aspect of a great mound of sand, inhabited by immense flocks of sea birds.

North-east of Manihiki 400 miles, is Fararauga, or Penrhyn Island. It is about thirty-five miles in circuit, and contains a lagoon twelve miles long by eight miles broad. There are but few inhabitants now, the place having been almost entirely depopulated by Peruvian slavers, who carried away not less than 1,000 persons (probably more); the present inhabitants number about 150. It is one of the most famous pearl islands of the Pacific. There have been taken from it annually, for the last twelve years, certainly not less than 200 tons of pearl shell. It belongs to no one but the remnant of its aborigines, who must soon be extinct. Beche-de-mer is in vast abundance. There are very few cocoa-nut trees upon this island, the natives having cut them down during wars in past years. If planted out again, the place could be made a valuable possession. The harbour is a splendid one for ships of any draught, being a lagoon with two entrances.

Eastward of Penrhyn Island about 400 miles, lies an atoll, known as Caroline Island, very low, and about fifteen miles long by five miles broad. It has never, to all appearance, been permanently inhabited. It has been lately reported as containing a great deposit of guano, and it has been sold by one Captain Brothers, of Tahiti, to Messrs. Holder Brothers, of London, for a large sum. In this neighbourhood is Vostock Island, which, though spoken of as doubtful, does exist, and, from its appearance, should be in a great measure covered with guano.

The archipelago of the Marquesas, which have been commonly spoken of as a sort of Paradise by navigators who have visited them, do not, in my opinion, deserve comparison with any of the Society or Samoan Isles, inasmuch as their general formation is exceedingly precipitous, and the area of valuable agricultural land which they present for colonization is less in comparison to that which consists of merely sharp ridges and rocky eminences. Nevertheless, weighing well what is to be said for and against them, they present many advantages for settlement. Notably, they possess a most delightful climate, well suited to the European constitution, as is proved by the robust health enjoyed by many aged men (English and American) who are still resident there, having been long domesticated upon them, and who are wonderfully vigorous in spite of the debauchery and kava drinking to which they are notoriously addicted. Elephantiasis exists here as in Samoa, and appears to be the only truly indigenous disease. In fact, what applies to the Navigator Isles applies equally to the Marquesas; with this difference, that the latter are of a more limited area, and present a much less

proportion of land capable of being utilized for agricultural purposes. They have been since 1842 regarded as belonging to France; but I believe that since 1859 that nation has abandoned all claim to them, beyond the right of protecting the Catholic missions there established, and has withdrawn the small garrison which for a time it maintained.

French colonization in Oceanica, whether in the Marquesas or elsewhere, does not appear to have produced any useful result. They seem to confine themselves to the building of a barracks, an arsenal, a prison for the lodgment of military or political offenders, a landing quay and some fortifications by the labour of those unfortunates, a custom-house for the levying of exorbitant duties upon necessary importations, a Jesuit mission, and a congeries of low grog-shanties. The whole may be summed up in a few words:—"Casernes, conciergerie, bureau maritime, mission, café, salon de billiards, voila tout." The result is indolence, demoralization, stagnation; complaints of oppression on the part of the indigènes, eternal squabbles and intrigues among the officials; expensive public works, in a few years abandoned to irreparable decay; wharfs washed away by the sea, gridirons (for shipping) and machinery rusted and disabled, cannon slides and shot piles undermined by the land crabs until they almost disappear under the surface of the soil; churches half erected, then forsaken and overgrown with jungle; and a community of idle, dejected, discontented, absinthe-drinking roués, whose only object in life seems to be to kill the time until the arrival of that year of jubilee which shall bring the welcome transport that shall restore them to La Belle France.

The population of the Marquesas is supposed to be not more than 12,000, of whom about one-half are upon Dominica (or *Hivaoa*). This island is the most fertile of the group, if there be any difference in that respect, for the soil of the whole of them is most productive. As Sir Edward Belcher says, "Every inch upon which vegetation can find a hold is covered with it."

Dominica is twenty miles long by about seven miles broad. There are many harbours, but the best is on the N.W. called by whalers Haunamanu. Here is a large settlement, as there are considerable ones in every harbour, the island being populous. These people are very handsome, of great stature and fine features, with a very light complexion, but very much tattooed. They are very loose in their morals, and given to drink. They make toddy from the cocoa palm, and live in a chronic state of muddle. They have muskets, but are civil to strangers, and might be made a good people if they could be kept sober.

There are European beachcombers on the island, who, as a rule, drink very much, and have large families of half-bred children—splendid creatures to look at, but of degraded habits. There are also some Jesuit missionaries, who have not succeeded in converting any one, but have done very well in planting cotton. The whole island is like a great garden gone to waste.

The principal mission in the group is on *Roapoa*, a very beautiful and productive island, not much frequented, but having more than 1,000 inhabitants, living chiefly on the west side, which is not so precipitous as the other, and has much fine sloping land, as well as secure harbours.

Nukuhiva is the main island, and by its name the whole group is known to the other Polynesians. It is about twenty miles long by ten miles broad. Like the others it is inexhaustibly fertile. It was formerly very populous, but the people have been almost exterminated by drunkenness and war among themselves since the introduction of firearms. There are said to be not more than 2,000 inhabitants remaining. Here in a bay, called Port Anna Maria, was the French military establishment; but the buildings are now in ruins, the wharfs washed away, and the garrison removed, all but some three or four gensdarmes and a pilot, and I believe they only remain because they have native wives, and do not want to leave them.

Hakaui, to the west of Port Anna Maria, is a great land-locked harbour, with a narrow entrance, only 200 yards wide, but very deep. It is one of the most beautiful sites for settlement in the whole world; a man who has seen it once can never forget it. But there is nothing here except all manner of tropical vegetables and fruits growing wild, a village of grass huts, and a couple of hundred debauched and drunken savages.

The *Austral Isles*, which lie southward of the Society Group, are especially adapted to European settlement, inasmuch as, from their latitude, they possess a temperature in which European products are readily acclimatised, together with tropical vegetables. They extend from the neighbourhood of the tropic of Capricorn to 27° south. They consist of five islands—Rapa, Raivavai, Tubuai, Rurutu, and Rimatara. They average from fifteen to twenty-five miles in circuit each, Rapa being the largest, and they contain altogether about 3,000 inhabitants, who seem as though dying out since the introduction of European habits of clothing and living, which have evidently exercised a pernicious influence upon their constitutions. Forty years ago, these islands were very populous; in a few years, they must be uninhabited, unless people be introduced from elsewhere.

The climate of these isles is most delightful, as, though bordering on the tropic, the thermometer does not show more than from 75° to 80° during the greatest heat of the whole year. For nine months of the year, the wind blows from the S.E. and from the westward for the remainder. They are all volcanic, consisting chiefly of ashes, decomposed tufas, and vegetable mould; consequently they are wonderfully fertile. Rapa (which is the most barren) is a very productive island; and Tubuai, which is called the best, is spoken of even in Tahiti as "the garden of the South Sea." I do not know whether the French profess to include any of the Austral Isles under their protectorate excepting Rapa, which was taken possession of by the vessel of war "Latouche Treville," in 1867, in consequence of the Panama Mail Company having selected it as a coaling station, for which purpose its very fine harbour was used until that service was discontinued.

All the natives of the Austral Group profess the Protestant religion. They are inoffensive, hospitable, and intelligent; they can all, I believe, read and write, and display an extravagant affection for the English, all their teachers having been trained in English mission schools. They were proselytes of the famous John Williams. They dislike the French beyond measure—a prejudice no doubt due to their sectarian training. But their islands could be purchased (as far as the will of the islanders is concerned) by English capitalists for a comparatively trifling amount, and it is possible that the French might not desire to interfere with any such arrangement, as they do not derive any revenue from the Austral Isles, neither have they much connection with them, excepting that a few

small schooners from Tahiti trade there occasionally for hogs and goats, which are there in great plenty. These islands, if systematically cultivated, would produce great quantities of cotton, coffee, sugar, indigo, &c. and would constitute for Englishmen one of the most profitable investments in the Pacific.

Hervey or *Cook's Group* consists of seven islands, all but one (Hervey Island, or Manuai) inhabited by a well-disposed and highly intelligent people, now greatly reduced in numbers by mortality, apparently caused by the adoption of European habits of clothing and living. They can all read and write and are Protestants; and they practise many useful industries, as the cultivation of coffee, cotton, arrowroot, and other products. The largest islands are Mangaia and Rarotonga, each of them being about thirty miles in circumference. The former is about 700 feet at its highest point, and is of volcanic origin. There are over 1,000 inhabitants (reduced from 4,000 in 1848). They are industrious, hospitable, and respectable in every way. They make a considerable quantity of cocoa-nut oil, arrowroot, tobacco, &c. They have an English missionary residing among them.

Aitatuki resembles Mangaia, but is not more than half the size, although it supports somewhere about a like number of inhabitants. It is very fertile, but the people are indolent in comparison to their neighbours, and do not produce much of anything, although their island yields abundance. Nevertheless, they manage to contribute largely to the funds of the London Missionary Society—it is reported, usually £200 per annum. Most of their time appears to be spent in attending school, so they can all read and write, and it is said that some of them are so well acquainted with the Bible as to have it nearly by heart. On the whole, they compare unfavourably with the rest of the Hervey Islanders, which may in some degree be attributed to the monotony of their existence, their laws not permitting any of them to leave their own land without special permission, which is seldom accorded. An English missionary lives among them, and exercises supreme power.

Rarotonga is a magnificent island, resembling in aspect Ropoa in the Marquesas. It is about 3,000 feet high, and is clothed to the very tops of the mountains with splendid vegetation. It has abundant streams, considerable tracts of sloping land, and rich alluvial valleys. There are two small harbours, not secure at all times, but sufficiently so for the most part of the year. A steam vessel might make use of them at any time. The population of this island is about 3,000; they are governed by a Queen. They are in an advanced state of civilization; one sees nothing like it in the South Pacific, not even in Tonga; and as far as concerns sobriety, decency, and quiet behaviour, they are superior to the Sandwich Islanders. Their villages are all laid out in streets; their houses are of stone and lime; they have good furniture; they dress nicely in European fabrics; they are all well-fed, happy, and prosperous. Their laws are just, and well administered; they fear God and deal hospitably and honestly by all who visit them. There is no superstition, no barbarism, no want or discontent among them. If they have a weakness, it is a fondness for intoxicating drink; but their dissipation is of a mild form, and seldom goes further than the imbibing of several pints of beer, which they manufacture from the juice of oranges and squashed up China bananas. They are industrious, and cultivate the ground assiduously when assured of a market for their produce. They also practise all manner of handicrafts: among them are good carpenters, smiths, sailmakers, stonemasons, &c. They plant cotton and coffee, and export great quantities of oranges. Besides the agent of the London Missionary Society, there are several Europeans resident upon Rarotonga, who are married to native wives; also half-castes (as they are called) from Auckland, domesticated in the same manner. They have stores, plantations, cotton-gins, and several small vessels trading round the Hervey group, and running to Tahiti and Auckland with their produce.

All the sympathies of the Rarotongans are English. They have had frequent communication with New Zealand. Paora Tuhaere, the loyal and intelligent chief of Hauraki, visited them a few years ago, with his family, in a vessel which he chartered for the purpose. Some of his near relatives who accompanied him took to themselves Rarotongan wives. The islanders of Rarotonga regard Auckland as the centre of civilization, and its people, represented by Captain Daldy and Paora Tuhaere, as their protectors and best friends. About the year 1864, they made a formal application to Her Majesty's Government, in the shape of a letter addressed to the then Governor of New Zealand, signed by the King and his chiefs of Awarua, Ngatangia, and Arorangi, which represent the whole people of Rarotonga, praying to be taken under the protection of Her Majesty or to be made subjects of Great Britain. The same feeling continues. Of course, we know that this very sensible and rational desire to become a part of the British Empire has arisen mainly from English missionary teaching; but it has been partly the result of the experience of very many of the islanders, who, having shipped as seamen on board Colonial vessels, have visited Auckland, Sydney, and even the Australian gold mines; and partly of fear of France, in consequence of the terrible (and, to speak justly, exaggerated) tales which have been circulated among the islands of the oppressions of their military system and cruel treatment of their labourers, or slaves, as it has become usual to call them, upon the plantations of "*La Terre Eugenie.*" Unfortunately, no notice was taken of the petition of the Rarotongans, but the same desire animates them now; and no doubt can exist in the minds of all true friends of these islanders but that their annexation by some British colony would be to them the commencement of a new era of prosperity.

The other islands of the Hervey group, Atiu Maukè and Mitiaro, are from ten to twenty miles in circumference; they are of upheaved coral, with fertile soil. There are altogether about 1,000 inhabitants of a like disposition to those of Rarotonga. The islands are not much visited. Their products are cotton, coffee, cocoa-nut oil, fungus, Tomano wood, tobacco, and dried bananas. These islands, especially Maukè, bear great quantities of splendid ironwood; it is obtainable in long lengths, from twenty to forty feet, and even more, and from a foot to three feet in diameter. The value of this timber I believe to be very great at this time, when heavy and hard wood is so much in request for the timbers of armour-plated ships, for slides of heavy ordnance, and similar purposes. Some of this wood is so extremely heavy, that the interior portions weigh within a fraction of two ounces to the cubic inch.

Hervey Island is without permanent inhabitants; an aged American beachcomber resides upon it with his half-bred children. It is a large atoll, densely covered with cocoa-nut trees, and consists of two *cays* divided by a lagoon; it is very productive. I have seen 400 nuts on one cocoa-nut tree at this place. It is much frequented by turtle, and yields a great deal of beche-de-mer. The King of Aitutaki

(so called, though there is really no king there but the English missionary) professes to claim it, but he has no right to it whatever. It used to be inhabited in Cook's days, and since, but about forty years ago the last of the inhabitants disappeared; they had fought among themselves till all were killed but a remnant, and they died of disease introduced by Europeans.

Upon most of the isles of the Hervey Group, especially Mangaia and Rarotonga, many of the vegetables of Europe are found, from the mildness of the climate, growing side by side with those of the tropics. They have been introduced by the missionaries and by friendly traders. Potatoes grow well on the high lands; barley, maize, millet, and American beans grow to perfection. The thermometer ranges about 80° in the warmest season. Europeans enjoy robust health; there is no indigenous disease.

Of all the lands of the Pacific suitable for British colonization, none present more favourable conditions than those of the Hervey and Austral Isles. In presence of the increasing interest of commercial men which is now being directed to the South Pacific, and the rapid decay of the aborigines, the period at which they shall pass into the possession of Europeans has simply become a question of time.

All the islands of the Gilbert (or Kingsmill) Group are of the same distinctive character: low atolls, having generally interior lagoons, with or without entrances for shipping. There are fifteen islands in all. Tapetuia, or Drummond's Island, which lies almost on the equator, is a fair example of the rest. The interior lagoon is seventy miles in length, and has two entrances for ships. A few years ago, this island was immensely populous, but the number of inhabitants has been greatly reduced by their incessant intoxication from fermented cocoa-nut toddy, contagious disease introduced by whale-fishers, and by the visits of labour ships from Tahiti, Fiji, and Samoa. They now number about 3,000. As concerns this labour system, the rights or wrongs of which have lately provoked so much bitter discussion, I can say for the natives of the Kingsmills, and of Tapetuia in particular, knowing them intimately as I do, that the greatest benefit, under existing circumstances, which their fellow-men can bestow upon them, is to take them to the cotton and sugar planting lands, even supposing them never again to be returned to their native island. I am not alluding to a labour traffic such as that conducted by the "Carl," which was a series of atrocious piracies, directed by a madman and carried out by villains who did evil for the very love of it, but to a system of engagement for short terms, under just and humane regulations, like those of the Germans in Samoa, of which the results are most beneficial to the Kingsmill islanders, and will be to their posterity, if they do not disappear off the face of the earth before they come to maturity, as they are very likely to do if left to themselves. Chronic intoxication, venereal disease, and a habit of carrying deadly weapons and using them on slight occasion, will bring them to an end in a very few years, unless some determined and judicious Europeans, backed by the authority of a civilized State, interfere to save them from themselves. It must be remembered that these Kingsmill islanders, barbarous as they were before they made the acquaintance of Europeans, lived in a condition of respectability as compared with the state in which we now find them. Though savage, they were at least sober, and they had a sort of law, or customs having the force of law; now, except among some of the cannibal tribes of the Louisiade, it would be difficult to conceive a more perfect pandemonium than most of the Kingsmill Isles present. The inhabitants are incessantly drunk and perpetually fighting, and their combats are no child's play. I have counted upon one man's body the scars of more than a hundred wounds. The condition of the women is most miserable, and the aged and infirm are allowed to perish without care; and yet naturally these people are of a good disposition, affectionate to one another, grateful to those who are kind to them, tractable, ingenious, and industrious. They are the lowest type of the copper-coloured Polynesian, and are incapable of any great degree of intellectual improvement. Consequently, the labours of missionaries (who in some cases have been among them for a dozen years or more) have been as yet barren of all result; but they are a people who can be made immensely useful, and whom it is easy to make happy. Their wants are few, and their minds simple and easily satisfied; so that if brought under the influence of good example and wholesome restraint, they could in a very few years be rendered in a high degree subservient to the interests of that civilization which it is the manifest destiny of the Anglo-Saxon colonists of Australasia to extend to the uttermost isles of the sea. No people have suffered more from the worst examples than these unfortunate islanders. Drunkenness, licentiousness, piracy, murder, have been the lessons inculcated among them, during the past thirty years, by deserters from ships or escaped convicts from Australia, to whom they extended the most generous hospitality. I have questioned old white men, who had spent the best years of their lives among the Kingsmills, as to how they could have reconciled themselves to dwell among a people so debased. They have replied, "Ah, Sir, you do not know these natives. When we came among them they were different altogether to what they are now; and even now there is a deal of good in them, more than strangers can understand."

As a proof that the Kingsmill islanders are not desitute of that kind of intelligence which leads men to inaugurate a settled government, and to abide by its requirements, I will briefly describe what I have witnessed on Apemama (Simpson Island), one of the largest of the group. The principal village is built upon the shore of the lagoon, three miles from its entrance to the sea. There is a secure harbour, with a wide and safe channel. The population is about 5,000. They are ruled over by a King called Tem Baiteke. He is also King of Kuria (Woodle Island), having a population of about 1,500, and of Aranuka (Henderville Island), where there are 1,000. His power is absolute; he allows no man of his own people to stand in his immediate presence or to look him in the face. His guards are armed with muskets, cartouche boxes, and swords. His dwelling consists of very large house and several smaller ones, with storehouses for cocoa-nut oil and other produce. He has European furniture, and articles of utility and luxury of various kinds. He has a number of wives. His quarters are surrounded by a stone wall, with twelve pieces of cannon of various calibre. He has a schooner of sixty tons; she has four guns on her deck. He has good whaleboats, besides war canoes. He dresses in the European fashion—usually black trousers, linen shirt, and alpaca coat. He does not allow his people to get drunk. His laws are severe; death is the penalty of even trifling offences. Near his house are to be seen human heads stuck upon spikes as a caution to disobedient subjects.

He is about forty years of age; of a hard but intelligent aspect. He has for many years back kept his people employed in making cocoa-nut oil and curing beche-de-mer, which he chiefly disposes of to Sydney traders. It was from them he received most of the valuables he possesses, including the guns and the schooner. He allows no European to reside upon his island, or even to land on any inhabited part of it, with the sole exception of the captain or trading master of the ship with which he may be dealing, and then only while the ship remains. (This was his rule up to the extent of my experience—that is, the year 1871. I have since heard that Messrs. Godeffroy, of Samoa, have prevailed on him to allow an agent of theirs to reside with him, but I do not know if it be true.) When a vessel is seen entering his harbour, she is boarded, three miles from the town, by the pilot, who is the King's brother, and can speak a little English, having sailed in a whale-ship. The pilot inquires all about her business, sees her anchor put down, and returns with his report to the King. If it be his pleasure, she is then brought up to an anchorage near the village, and a small uninhabited islet is shown to the strangers as a place where they can, if they choose, land and display their goods to the natives, who will meet them there; otherwise they may do their business on board their vessel. A number of women are allowed to go on board, and remain with the strangers till their departure. The captain or trader goes on shore, and eats and drinks with the King, and is allowed perfect liberty. The King claims all the produce of his people's labour, and receives all the pay, a portion of which, however, always consists of casks of tobacco, which he distributes justly among his subjects; knives, axes, &c. he serves out to them. If the vessel be not filled at Apemama, he takes passage in her to his other possessions of Kuria and Aranuka, his schooner keeping company. She is navigated by his own people, he refusing European sailors, as he does white men of whatever character. When offered a quantity of Oregon timber, and the services of an English carpenter to build himself a handsome house, he replied, "No! if I never have a house to live in, I will never have a white man to live with me while he builds it." But it was not always so on Apemama. A dozen years ago, white men were more than welcome to live there. How it came to be otherwise would occupy too much time to explain: it is enough to say there is a horrible story at the bottom of it. White men made trouble and were butchered by order of the King, who then determined they should never disturb his peace again.

About 1868, the missionary vessel "Morning Star" came to this place. She was boarded by the pilot in the usual way, and directed to put her anchor down three miles from the village. Some of the missionaries wished to go on shore in the pilot boat or their own; the pilot had great trouble to keep them back, telling them that it was as much as his own life was worth to allow them to land until the King's permission could be obtained. On his return, the King asked of him, "What sort of ship is it?" Answer—"Missionary ship." "Have they anything to sell?" "No." "Not even tobacco?" "No." "Have they anything to give away?" "Yes, books." "Ah, we have no need of them." These barbarians, though they cannot read, know what books are, for King Tem Baiteke had a number of picture books, printed in gaudy colours, about his house. The "Morning Star" was not allowed to approach any nearer or the missionaries to come on shore, but a message was returned to them by the King, to the following effect:—"I know nothing of missionaries, and I do not wish to know. If you are in need of anything my land produces, say what it is, and you shall be supplied; but go, and return no more." He said afterwards that he had lied in saying he knew nothing of missionaries:—"I have been told," said he, "very much about them by the captains with whom I trade; they have said to me, 'Be advised. If you let those missionaries come on shore upon your islands, in less than a year you will not be master over your own people. They will bewitch both you and them, so that you will not be able to do anything, only just what they tell you;' they shall never come here while I live."

I have related this much of what I know of Tem Baiteke, for I think that there is always good hope for the civilization of a people who can produce a ruler so energetic and shrewd as this barbarian King of Apemama.

North of the Kingsmills lie the Mulgrave Group, or what are called the Rallick and Radak chains. There are about thirty islands almost equally divided between the two ranges, from 60 to 100 miles apart. They are all of one description, low atolls, some of them of great extent. The largest are Mille and Aur, upon which last the King of the whole group resides. These islands are fertile, for which reason they were named by Alonzo de Saavedra, who first discovered them, Los Buenos Jardines. They are covered with herbage and great trees. Besides cocoa palms and pandanus in abundance, they have several kinds of bread-fruit, as also jack-fruit, mammy-apples, melons, bananas, figs; as also taro, and the larger species of arum, which is excellent and wholesome food, and supplies that valuable fibre of which I have made previous mention. Fish they have in great abundance. They have fresh water in wells. The people are good-looking and strong, remarkably courageous and of kind disposition. There have been many stories told to the contrary, and not without reason, as many white men have been killed among them, and several vessels taken and burned of late years; but as far as I know of these matters, and I know the history of most of these affrays, the first fault was in most cases on the side of the Europeans.

The southern isles of the group, lying in the direct line between Mexico and Manilla, were frequently visited by Spaniards from the Main, who, as is customary with them, committed all sorts of violence, and many of them choosing to live among the natives, taught them everything that was bad. That the natural bias of the Marshall islanders is towards hospitality and peace is proved by the accounts of all earlier voyagers who had communication with them, and of M. Von Kotzebue, or Tobu, as they call him, who experienced from them the greatest kindness, and remained on some of their islands for many weeks. Similar testimony is afforded by their conduct to the American missionaries, who have now been resident for several years on Ebon, Namurek, Jaluit, and Mille: they supply them with food, assist them willingly in any necessary work, and treat them with affection and respect, though I believe they do not pay much heed to their teaching, being incapable of understanding the Christian religion. They are very much more intelligent than their neighbours of the Kingsmills, and are highly ingenious. The workmanship of their canoes is very superior; they carry usually about forty men, and sail very fast and close to the wind.

The Ralik men are good navigators, and have no fear of the sea. They have been accustomed to make voyages to islands at a great distance, such as the Coquilles and Ualan, returning at all seasons, and making a correct landfall. Sometimes they leave their homes for a year or two, and cruise from one

isle to another for trade in such articles as they make, and often for mere pastime. They wear fine clothing, both men and women, from across the chest to below the knee; it is of their own making from the leaf of the pandanus, blanched white, and beautifully variegated, the material being dyed of various colours before being plaited. Some of these garments are many fathoms in length, and are pleasant to wear upon the skin, being soft, like coarse duck. This fine pandanus mat is no doubt the fabric so frequently alluded to by the Spanish voyagers of former times, which they believed to have been wrought in a loom, as did Lopez de Ligaspi and Juan Fernandez. Indeed, the latter speaks of islanders clad in "woven cloth."

The products of these islands are kobra, of which the natives now prepare great quantities, cocoa-nut oil, beche-de-mer, and tortoise-shell. There is no pearl oyster upon any of them.

The number of inhabitants is supposed not to exceed 12,000 or 14,000. Upon five of the islands—*i.e.*, Mille, Aur, Jaluit, Ebon, and Namurek—there are European traders, chiefly in the employment of Messrs. Godeffroy. There is also one Capella, who has lately commenced to do business for himself on a large scale, and has some stations here and in the Carolines. Some merchants of Sydney, as Captains Smith, Randall, Urie, and McDonald, have been used to resort here, as have others of no nationality, such as Captains Pease and Hayes. All have done or are doing well, but all alike keep their proceedings as secret as possible, from commercial jealousy.

About half the number of isles in this group are populous; the rest are thinly or only occasionally inhabited. Some of the smaller ones have no cocoa-nut groves, but are covered with jungles of pandanus; all, however, if in the possession of Europeans, could be rendered valuable. A trade systematically prosecuted, under the protection of a civilized State, would so develop the natural good qualities of the Marshall Islanders as to secure to them a prosperous future.

Eastward of the Marshall Group extends the great archipelago of the Carolines, covering the sea from the Radack chain to the Palaos, a distance of over 2,000 miles, and containing more than 500 islands, most of which are very little known. Some of them, especially towards the westward, are uninhabited, having been depopulated by the Spaniards for the settlement of the Ladrones. Others are immensely populous, and, with the exception of that particular group known as the Seniavinès, at the eastern end of the archipelago, and Yap, at the opposite extremity, have enjoyed very little acquaintance with civilized man.

Of the eastern isles of the Carolines, the most important is Ualan, otherwise called Kusaie or Strong Island. It is lofty, basaltic, about eighty miles in circumference, and it has two secure harbours for the largest class of vessels. It is governed by a King named Keru. There are about 1,800 inhabitants, of a light copper complexion; intelligent, in so far that they readily acquire the mechanical arts, and naturally industrious and well disposed, although to some extent demoralized by contact with the crews of whaling ships and beche-de-mer fishers, of whom this has been a great place of resort. They reject missionary teaching, and abide by their ancient usage, which is a mild form of heathenism apparently; but they keep their ceremonies very secret, and do not permit strangers to penetrate into their sacred enclosures. An agent of the American Board of Missions, named Snow, has resided among them for somewhere about thirteen years, but I believe has made no progress whatever. Much of his ill success has no doubt been due to the antagonism of Europeans domesticated among the natives, who, disliking the prospect of any change in the normal condition of things, have done their best to influence the islanders against missionary innovations. This feeling upon the part of cosmopolitan white sinners, throughout the whole Pacific, has done more to obstruct the progress of conversion than either native savagery or heathen superstition.

There are, nevertheless, some peculiarities in the character of the Strong islanders, which render them capable of civilization in a higher degree than most Polynesians. They are a people who have degenerated from what must have been in some respects a much more prosperous and enlightened state than that in which we now find them. A great part of their land is covered with ruins of the most massive description, built upon a general plan such as could only have been conceived by men of power and intelligence, acquainted with mechanical appliances for raising enormous weights and transporting huge blocks of stone considerable distances both by land and water. These works, which strike even civilized men with astonishment, could only have been effected by the labour of thousands of men working in concert and under command, and they prove, from their aspect and the evident intention of some of them, that their builders must have had, at the time of their erection, some form of settled government and system of religion. Many of their customs seem derived from some ancient civilization, as the institution of kings, high chiefs, and common people; the peculiar laws which regulate the intercourse of these castes; and the fact that the nobles are considered a sort of sacred persons, and hold meetings by night in caverns or vaults, artificially constructed in the interior of some of the great ruinous buildings. These nobles associate by means of signs and speech not known to the people. When a distinguished person dies, they make a mummy of the body, and swathe it in coloured bandages. It is watched for a whole year, a fire being kept beside it, which is never allowed to go out. They keep records by means of wooden beads and knotted cords, which they carefully preserve, and refer to when they want to tell what happened in former years. In plan and construction, their dwellings are far superior to that of other Polynesians, the timber being neatly squared. They have possessed from remote times the arts of pottery and weaving with the loom; and traditions they repeat of their ancestors point to the conclusion that they must have been a people exceedingly numerous and powerful.

The descendants of such a race cannot fail to retain within themselves the elements of progress, however obscured by ages of barbarism and by several generations of evil example of reprobate Europeans; for these islands, so remote and unvisited by English navigators as to be spoken of as almost new discoveries, were a rendezvous of the Spaniards on their way between Manilla and the Main long before the days of Commodore Anson. Both upon Strong Island and Ascension, which is the next in extent at this end of the Carolines, are to be found, in the vaults and ditches of the great stone structures, cannon of an old pattern, and shot rusted out of shape. It was the fact of these relics, combined with the aspect of the immensely thick walls, which caused the officers of His Majesty's ship "Larne," following the opinion of M. Dumont D'Urville, to describe

the works which they found at Ascension Island as the remains of a stronghold of Spanish buccaneers. I quote the words of D'Urville, as nearly as I remember them:—"That the town which once stood upon this spot was not built by savages cannot be doubted, the style of the ruins giving strong proofs of civilization. Some of the stones measure eight or ten feet in length, are squared upon six sides, and have evidently been brought hither from some other country, there being no stone on the island similar to them. The whole place seems to have been a succession of fortified houses. It seems probable that at one time it was the stronghold of pirates, and it has been conjectured that it was built by the Spanish buccaneers two or three centuries ago." This is very erroneous. The stones are in many cases much larger than here described, in fact, as large again. They are basaltic prisms quarried on the land itself in the interior, as I have seen. It would have taken all the labour of the Spanish pirates from the days of Balboa till now, to build all the monstrous works of Strong Island, to say nothing of those that exist on Ascension and elsewhere in the neighbourhood.

Strong Island is very productive. Besides all the tropical vegetables of Polynesia and various kinds of palms, it is covered with valuable timber trees from the shore to the summits of the mountains. Some of this wood, of a species as yet little known to Europeans, is of the best quality for shipbuilding purposes, being perfectly straight and of the most convenient size, as well as being of great lengths; added to this, its durability is remarkable, and it cannot be attacked by the salt-water worm. For these reasons, the contractors for the building of a dry-dock and wharves in Shanghai and other ports of China have obtained hence, and from the neighbouring island of Ascension, cargoes of piles which have given great satisfaction to the engineers engaged on those works. Strong island is immensely valuable for its timber alone; but the land lies idle, for the natives do nothing more than is necessary to provide food, which, as it grows in a great measure spontaneously, is not a source of anxiety to them. They would, in fact, scarcely perform any work whatever, were it not from a desire to possess cotton print, ornaments, hardware, and tobacco. To obtain these articles they cure some beche-de-mer, gather fungus and tortoise-shell, occasionally go to sea in whaling and other ships for short cruises, and now make dried cocoa-nut in considerable quantity. They are tolerably well supplied with axes and the like implements. As concerns their weapons, they have long discarded the bow and spear, and most of the men possess muskets purchased from traders and whalemen.

The Island of *Ascension* (or *Pouape*) is similar in all its conditions to Strong Island, excepting that it is much larger, and contains very considerable tracts of comparatively level or sloping lands, irrespective of the low valleys and flats along the sea coast. It is clothed from the beach to the mountain tops with every kind of the most glorious tropical vegetation, as likewise forests of magnificent timber trees. There are many great streams in all directions, with cascades for the turning of mills, and in the valleys below of sufficient volume for the floatage of rafts and navigation by large boats. The interior is altogether uninhabited, although covered with the ruins of a former civilization. The population of Ascension is somewhere about 7,000. The people do not go much to sea. They are kindly disposed and peaceable, though they have often been decimated and driven to desperation by hordes of lawless ruffians, who have established themselves upon the island from time to time, and produced much mischief. These have been generally beachcombers from Manilla, Guam, or the Sandwich Isles. Sometimes (as twenty years ago) there have been as many as a hundred on Ascension at one time; and it shows plainly enough that these Ascension islanders must have in themselves the germ of very much better things, when we find them, as they are, hospitable, generous, and industrious, after so many years of intimate contact with such irredeemable scoundrels as the majority of their European visitors undoubtedly were. There are three good harbours at Ascension—Metallanien, Rouan Kiti, and Jokoits; so there is good shelter at all times, according to the prevailing wind, each of these harbours being within a coral reef, which provides double security.

There are five chiefs who rule over the respective districts into which the island is divided. There are nine white men domesticated on the land: four Englishmen, two Americans (exclusive of a missionary), two Portuguese, one Manillaman. There are also several Lascars. All have large families of half-breed children, most of them very handsome and intelligent. The islanders, like those of Strong's, have long discarded their barbarian weapons, and are well supplied with muskets, purchased from traders for tortoise-shell and beche-de-mer. It is probable there are not less than 2,000 of them on the island; but the principal use to which they are devoted is the shooting of pigeons, which are in extraordinary numbers throughout the woods.

An American missionary (Mr. Doane) has been here for some thirteen years. The people are kind to him, and readily supply his limited wants, but they, like the Strong islanders, do not seem to comprehend the religion of the white men, or to care about making themselves acquainted with it. They unhappily have seen too much villany practised by Europeans, and have suffered too much at their hands, to readily accept them as teachers of good morals or duties toward God. With civilization and the protection of law, their prejudices would disappear.

There is no possibility of any one who has not seen the island of Ascension forming any adequate idea of its beauty and richness. The interior is altogether uninhabited; the natives have a superstitious dread of it, and cannot be readily persuaded to go any distance inland. As on Strong Island, so on Ascension, there are many ruins, the work of the same ancient people, only very much larger and more extensive. Hundreds of acres, in some localities, are covered by the remains of walls, canals, and earthworks, of the most stupendous character. One can easily imagine, from their appearance, what a dense population must once have inhabited this place.

The trade of Ascension has been in former years principally with whale ships, but since the raid of the "Shenandoah," their visits have been less frequent. Many small vessels resort here from the Sandwich Islands and Samoa. The island yields in abundance almost every valuable tropical product, but the principal articles of trade are pearl shell (which is of very fine quality, and of great size), tortoise-shell, beche-de-mer, dried cocoa-nuts, oil, and fungus. Some Europeans are now beginning to plant cotton; and large quantities of valuable timber have been exported to China. The resources of Ascension are enormous; as a European possession, it would be impossible to estimate its value.

Westward of Ascension is the great atoll of *Hogoleu*.* This consists of a vast lagoon, somewhere about 300 miles in circuit. There are three main channels of entrance, safe at all times for the largest

ships. Within the lagoon are four great islands, each from twenty to thirty-five miles in circumference, and more than twenty smaller uninhabited *cays*, covered with cocoa-nut and other trees. There is still water and good anchorage everywhere inside the outer reef. The inhabitants are tall and strong, of light complexion, with long black hair. They have a bad name for treachery and ferocity; but whether this be their fault or that of the traders with whom they have been in the habit of dealing, it is not easy to say.

In judging of the character of the Caroline islanders, one must remember that there are always two sides to a question; and in connection with this matter I may refer to a fact which I regard as very significant. All Englishmen are familiar with the story of the wreck of the "Antelope," at the Palaos or Pelew Islands, in 1793, and of the Prince Lee Boo who accompanied Captain Wilson to England. Those same Pelew islanders who at that time treated the shipwrecked Englishmen with such generous hospitality for a period of four months, seeking no return for the same, are now regarded as piratical miscreants of the most atrocious type; and not without reason, for they have got into a bad habit of going out to sea in their fast-sailing proas, and attacking, off the coasts of their islands, such vessels as may be becalmed or entangled among the shoals, in which nefarious practice they have on several occasions so far succeeded as to have plundered the vessels and massacred their crews. This change of behaviour is easily to be accounted for. In some cases it has arisen from ill-treatment which they have experienced at the hands of strangers; but in most cases, it has been the result of evil example by a set of scoundrels who disgrace humanity, and are to be found strolling about these seas, making themselves at home among the simple-minded barbarians, and instructing them in every vice and villany.

No one knows with any approach to certainty how many inhabitants are on Hogoleu; some say 15,000, some 20,000; but they are very many. They are armed with good swords with hilts of brass, daggers, spears pointed with iron, bows of great strength, arrows headed with iron, and slings out of which they fling round stones with great certainty and with the force of a shot. The iron weapons they have purchased from traders of Manilla and elsewhere. They have had many combats with crews of ships, and display great courage. No white men have ever lived among them to any one's knowledge, though I have heard there is one there now, established by one Captain Hayes. Many men have been on shore, and they have been treated with hospitality. From what I have seen of them, they are a people I would have no fear of; but they have an ugly habit of attacking ships upon small grounds of offence. In 1870, they tried to board the "Vesta," belonging to Messrs. Godeffroy; but the German, although he lost his anchor and chain by having to slip it, was more than a match for them. He fired upon them with scrap iron, and killed a great many. Of course he was not to blame, but these unfortunate misunderstandings tend very much to perpetuate ill-feeling. As concerns the productions of this island, the great lagoon contains an immense deposit of pearl oyster of the largest and most valuable kind, and beche-de-mer in apparently inexhaustible quantity. The central islands are lofty, volcanic, and completely clothed with the most glorious vegetation. Besides many kinds of splendid timber trees, the cocoa-nut, sago, and other palms, there are wild oranges, citrons, mangoes, sassafras, nutmegs, massoy, and sandal wood. Of this last, there are to be seen in the hands of the natives paddles and weapons, which would lead to the inference that it is very plentiful.

That the first Europeans who can succeed in establishing a permanent agency upon Hogoleu will make their fortunes in a very short period, is an unquestionable fact. This island presents to the commercial adventurer such an opportunity as is scarcely to be found elsewhere in the world, not alone from the valuable products of the land itself, but from the possession of so magnificent a harbour for shipping, whence could be extended the ramifications of a trade on a large scale throughout the whole great Caroline Archipelago. That there is any risk in the attempt, I do not for a moment believe. All that is required is for one determined man, acquainted with the Caroline tongue, to secure by acceptable presents the protection of a chief; to marry into his family, as he would be required to do; and after a few months' diplomacy he might have it all his own way, so far as driving a trade for his owners was concerned. This island is called by the Spaniards San Estevan, and has long been a rendezvous of beche-de-mer and pearl fishers. The pearl shell lies so thick throughout this great lagoon, that it is visible wheresoever the bottom can be seen.

South-east of Hogoleu are the islands of *Nuguor* (or *Mortlock*) and *Lugunor* (or *Monteverde*). They are both very large coral atolls, containing lagoons very productive in pearl oysters and beche-de-mer. The lands are covered with cocoa-nut groves. The people are very numerous, of a simple disposition, and seemingly well disposed. Spaniards are said to have lived on Monteverde. The natives readily trade in pearl shell and tortoise-shell, of which they collect great quantities. Some missionaries who visited them about two years ago were refused permission to land. The natives said they were afraid of strange gods, and wished to have nothing to do with them. They have lately suffered very severely at the hands of the crew of the "Carl" and other piratical ruffians, who shot a number of them without any provocation. At both these islands, there is a great opening for trade.

The remaining islands of the Caroline Group are of the same distinctive character as those I have described; some, however, are uninhabited. At the western extremity of the archipelago is the Island of Yap. This land has a mountain in the centre, which slopes on every side towards the sea. There are dense groves of bread-fruit, cocoa-nut, and betel-nut. The people live in the midst of every kind of comfort and abundance. Their towns are very handsome; the roads and landing-places are paved with stone. They have good laws, and are peaceable. They have an oriental look; they chew betel and smoke cigarettes incessantly. It is here that the agents of Messrs. Godeffroy have a very considerable establishment, a cotton plantation, and a slip for repairing their vessels. There are about a dozen Europeans residing here; among them a Polish doctor, engaged in scientific research at the expense of the Messrs. Godeffroy. The origin of this settlement is somewhat singular. Several years ago, a sailor of Hamburg was wrecked in this neighbourhood. He found his way to Yap, and was well treated by the people; they took him to Palao, to which place they trade by sea; from thence he reached the Moluccas, and managed to return to Europe. He related his experience to Cæsar Godeffroy, who gave him charge of a vessel, and supplied him with means to purchase a tract of land from the chiefs of Yap,

and to form a settlement there. This he did accordingly, and for two years traded between the Carolines and China, chiefly in beche-de-mer. At the end of that time, an accident happened to him, by the unintentional discharge of a needle-gun. He went to Europe for medical advice, and returned to the islands no more. This man made no return of profits to his employers; but he came destitute into the service of Messrs. Godeffroy, from whom (with the exception of his percentage) he received small pay, and from the time of his return to Europe until the present (or very lately) he has been living at an expensive rate at Baden Baden and other German spas.

Memo. of all the Islands to the North of the Samoan (Navigator) Group upon which the Messrs. Godeffroy maintain Trading Agents.

Quiros Island, said to have no existence, and now generally expunged from the charts. This island is the property of one Eli Jennings, who lives upon it with his family and some Samoan labourers. It is very fertile and well cultivated.

The Union Group (or Tokerau), properly so called, which consists of three islands, Takaofo, Nukunono, and Oatafu.

The Ellice Group, Nukufetau, which is the property of Messrs. Godeffroy, they having purchased it from the natives. It has an excellent harbour, and is the only island of the Archipelago extending between the Navigators and the Carolines which contains any deposit of pearl oyster; but the quality is very inferior, the shell being small, and the pearls of little value.

Oaitapu and St. Augustine.

The Tarawau or Gilbert Group, commonly spoken of as the Kingsmills, Arorai, Tamana, Peru, Onotoa, Nukunau, Tapetuia Nonoiti, Maiana, Tarawa, Apiang, Marakei, Makin, and Putaritari. This includes all the Kingsmills, with the exception of Apemama, Kuria, and Aranuka, which belong to the King Tem Baiteke, who, as far as I know, has not for some years back allowed any Europeans to live on his islands. I have heard since that Messrs. Godeffroy had established an agent there, but I do not know whether it is so.

In the Marshall Group, Ebon, Jaluit, Namerick, Mille, and Aur.

In the Carolines, Strong Island, Ascension, Yap, and the Palaos. These last are generally spoken of as unsafe to approach; but although it is true that the people are ill-disposed to white men generally, there are living upon them two agents of Messrs. Godeffroy, one Frenchman, and two Spaniards of Manilla.

ADDITIONAL MEMORANDA.

Re French Occupation of the Marquesas.

It has been my impression, as stated in my previous paper, that the French Government had abandoned these islands as unprofitable, as they undoubtedly were to them, from the fact that, in 1859, to my own knowledge, all their establishment had been removed thence, except a pilot and two gensdarmes, who had remained on their own application. I have lately been informed that France continues to lay claim to the Marquesas, and that they have some officials located there. This was brought under my notice within the past three weeks, in consequence of shares in a cotton plantation at Nukuhiva (in Marquesa), or rather portions of the cultivated land on freehold purchase, having been invested in by some men of business in Auckland, of whom one told me that he had bought ten acres of cotton as his share in the concern. I could get no further information, as they seemed desirous to keep the matter private. A branch of the Terre Eugenie concern has been for at least eight or nine years established at Nukuhiva, on plantation grounds originally commenced by the Jesuit mission. I have no doubt this is the land in question, especially so as my informant told me that it was their intention to transport the Chinese labourers from the Tahitian plantation to Nukuhiva. The Tahitian plantation was a gigantic affair. I have seen a good deal of it. At one time they had as many as 1,500 Chinese employed upon it, besides a very great number of Polynesians. It was originally intended to have been worked by Chinese labour only; and such would have been done, but for the fact that the Chinamen imported during the first two years, being dissatisfied with their treatment, wrote letters, which were published by the authorities in the seaports of China, warning the people not to engage themselves to the agents of the Tahitian plantation. Many statements were published in American and Australian papers some six years ago, as to great ill-usage of labourers on this plantation. These stories were not altogether true. It is certain, however, that under just and humane regulations, an abundant supply of excellent labour could have been obtained and kept up by the managers from the China and Indian Seas. Between 1860 and 1865, as well as at a former period, I was employed officially in the engagement of Coolie labourers in that part of the world, so that I speak from experience.

The Navigator Group.

Concerning the Navigators, a paragraph, copied from a San Francisco paper, appeared recently in the *Southern Cross*. It stated that a company had been formed in San Francisco, for the purpose of occupying some part of this group. I did not regard the matter much at the time, as the capital mentioned did not seem very large; but in looking over some of my letters of last year, I found one which seemed to bear upon the question of a desire on the part of the United States to form some kind of establishment at the Navigators. It was written to me by a resident of Apia, who is generally regarded as being better acquainted with the native mind, and as having more influence among the natives, than any other European in the group. He wrote, "There is a special Commissioner from the U.S. Government here, sent by the President in consequence of a petition to him from the chiefs of Samoa for a Protectorate. The chiefs have all agreed to it, so it only awaits the sanction of Congress to establish a Protectorate. Colonel Steinberger, U.S.A. the Commissioner, is now on a visit to Savaii. We expect him to return here to-morrow, and he will sail from here in his yacht for San Francisco."

PRESENT TRADE AND TRADING ARRANGEMENTS.

By Mr. Sterndale.

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The enormous impetus which is now being given to commercial enterprise on the western coast of North America by the completion of the railway across that continent, and which may possibly before long be followed by a canal through the Isthmus of Darien, will render San Francisco and Panama (or whatsoever city will be founded in its neighbourhood) two of the greatest commercial centres of the globe. Their stupendous traffic will extend its ramifications to Japan, China, the Indian Archipelago, and the whole face of the Pacific will become overrun with ocean steamers, and every description of trading craft. The inevitable consequence will be that every available oasis of its surface will be turned to account, and ultimately become the property of Europeans or their descendants. Where harbours exist, coaling stations and warehouses will be established; fertile lands will be cut up, brought to the hammer, and converted into plantations, while the low coral isles will fall into the possession of traders in cocoa-nut, whale oil, pearl shell, and other products.

The reign of prosperity that will in time be inaugurated is now inconceivable; many islands now unprofitable, and almost unknown, will acquire a value greater than that of some of the West Indies, forasmuch as they are suited to the cultivation of every valuable tropical product, with an advantage which the Indies do not possess, and which is not to be found in any other tropical region of the world. That advantage is that of a climate beyond every other conducive to health and longevity, a perpetual summer of so delightful a temperature that working-men of Europe or the Australias may there devote themselves to a life of pleasant and profitable labour without inconvenience or detriment to their constitutions. In proof of this the traveller may see at any time, in the Navigators and other islands, within a few degrees of the equator, Englishmen from Australia and New Zealand felling timber in forests and stripping it into planks in saw-pits without sheds or roofs to protect them from the sunshine. They do not complain of the heat, and they seldom suffer from sickness, not being more liable to it there than elsewhere. Had the islands of the Caribbean Sea possessed these conditions, they would have formed, at least a hundred years ago, a congeries of prosperous States, peopled by communities of happy, independent, hard-working Europeans, instead of being regarded, from their insufferable sultriness, and the deadly miasma carried from the neighbouring continent, as the "graves of white men." The yearly increasing difficulty of obtaining coloured labour in most of the suitable localities of the torrid zone, and the consequent great expense, preclude the possibility in those regions of forming profitable plantations on a small scale, and so act as an insuperable barrier to the speculator of limited capital.

In the Pacific Islands this hindrance to individual enterprise does not exist. There a family or small company of determined practical working white men can perform all their labours with their own hands, and by the introduction of animals; and should their extended operations necessitate the engagement of hired help, they can readily obtain the assistance of Polynesian natives at a rate of wages which, while just and sufficient to the barbarian, leaves a fair margin of profit to those who employ them.

Settlements of this kind will soon be distributed over hundreds of islands which will become even more productive than at present, and will supply yearly cargoes to a very great number of vessels. The demand for goods of European or Colonial manufacture will increase immensely; and it will be a fatal mistake if Auckland should longer hesitate to be first in the field, and secure to itself the largest share of this profitable trade, to which, from its geographical position, it has the greatest natural right.

Already the Australians have "pegged out" their claim in Fiji. The once cannibal realm of Cakobau resounds with the stroke of the woodman's axe, the puffing of steam-engines, the sound of mills. The smoke of the brick-kiln rises quietly in the same atmosphere but lately defiled by the oven of the man-eater. The shipwright plies his mallet in the midst of the grove where his brethren have fallen under the maul of the ogre. Such appears to be the appointed course of human events; and those who would profit by the changes which Anglo-Saxon civilization is working in Polynesia should seek to participate quickly in the commercial advantages which this transition state presents. They who take part in the first rush to a new diggings are always admitted to possess a double chance of success as compared with those who follow in their footsteps; and on this depends in a great measure the position which Auckland must take in relation to the approaching future of Polynesian commerce.

No. I.

Twenty years ago the multitudinous islands of the Pacific were almost as little known to the people of Europe as those of the West Indies were to the geographers of the sixteenth century. The greater part of the information then obtainable concerning them was derived from narratives of missionary enterprise, or from the journals of commanders of vessels of war—in either case written by men destitute of commercial or industrial experience. Even up to the present time the most erroneous opinions have continued to prevail with respect to the character and customs of the barbarians of Polynesia, and the climate and resources of the lands which they inhabit. These remarks will, however, scarcely apply to the Society Islands, which have long been a French military colony; to Hawaii, which in fact, if not in name, may be deemed an American possession; or the Fijis, which, from the learned labours of Dr. Seemann and Colonel Smythe, and the recent enterprise of Australian commercial adventurers, have become in a measure well known to us all. Around the first of these, to wit, the great Island of Tahiti, and its tributaries, history has thrown a halo of romance. With what intense delight have most of us, in our young days, pored over the quaint accounts of Captains Wallis and Cook of what they witnessed among those then unknown barbarians. These accounts were so truthful, as far as the evidence of their own eyesight was concerned, but so erroneous in other respects, as written by men lacking all practical experience of savage usage or habits of thought. It was by reason of this ignorance that the great navigator bestowed the name of the "Friendly" Islanders upon those who had determined his death, which, though he then escaped it by an accident, ultimately overtook him at the hands of the Hawaiians through his own fatal obstinacy, the result of overmuch good nature and want

of conception of the motives and disposition of the people with whom he had to deal. Great Captain Cook! Do any of us, as colonists of New Zealand, ever truly recognize how immense were the researches of this man, and how stupendous their results? And to have been cut off, as he was, in the very bloom of his glory, sharing the same strange fatality which seems to have followed almost all the fathers of navigation in the Pacific! Thus Balboa, who first discovered its existence (and having dragged, with incredible labour, the timbers of his vessel across the mountains of Darien, was the first to sail upon its waters), fell under the headsman's axe. He was executed at Acla, on a charge of treason against the King of Spain. Perhaps it was a punishment upon him in consequence of his having, without any ceremony, upon first reaching the Pacific shore, taken possession of the entire South Sea on behalf of His Holiness the Pope. A picture of this ceremony is still to be seen in the church of St. Francis, in the town of Nombre de Dios upon Darien, wherein Vasco Nunez is represented in complete armour, standing up to his waist in the salt water, with a sword in one hand and in the other a flag bearing the keys of St. Peter and other religious insignia. Magellan, who, having passed through the Straits which bear his name, was the first to reach the Indies by a western route, was slain by the sword in the quarrels of a Carbasian King. Alonzo de Saavedra, who first attempted the passage of the North Pacific from Manilla to Mexico, died on the equator. This man (who was of the family of the great Cervantes) proposed to the King of Spain to cut a canal through the Isthmus of Panama, a project which has been revived in these days, and will, beyond all doubt, be effected before the end of this century. In his memoir on the subject he describes very circumstantially the route between the San Miguel and the Atrato (the one now proposed by the American engineers), and represents to His Majesty that the amount of excavation was but small in comparison to that effected in the great canal of Nabuchodonosor, as related by Herodotus; and recommends that the Indian tribes of the Isthmus should be forcibly compelled to work at its construction, seeing that "Providence had evidently placed them there in order that they, by their labours, might assist in the extension of the commerce of Christendom." This Saavedra was likewise the first discoverer of New Guinea (which he named Tierra del Oro), of which the credit has been given to Luiz Vaz Torrez, for he landed about that part which is now known as Dory Harbour, where deserted from him one Brito Patalin and four others, who, finding their way two years afterwards back to the Phillippines, were there hanged for so doing. Of a like mind and destiny was Alvaro de Mendana, who inaugurated a scheme for the colonization of the Solomon Islands (to which he gave that name, as says Hakluyt, "to the intent that the Spaniards, believing that it was from thence that Solomon had obtained the gold wherewith he beautified the Temple of Jerusalem, might be the more readily disposed to go and inhabit the same"), where he died, and was buried in a settlement which was called Santa Ysabel de la Estrella, where are to this day ruins of great forts and magazines. Although these are grown up with forest, they are known to beachcombers and strolling mariners—a fact which makes it seem the more strange that in these days men of science take no trouble to investigate such interesting remains. After them came our countryman, William Dampier, the discoverer of New Britain, and the most entertaining and veracious of all early voyagers who wrote of their experience of the great South Seas. Let any one who has read his book go and sit, as I have done, on the stone parapet of the battery (of six pieces) which fronts the river of Guam, and he may well see in his mind's eye the trick which William played on the Governor of the Ladrones. (There are places in this world upon which three centuries have made no change, and Guam is one of them.) Dampier's fate was more melancholy than all. Of the great captains whom the world remembers, in whatsoever seas, some were slain in brawls (like Fernando Magellan), some lost in storms (like Sir Humphrey Gilbert), some died in their own lands crowned with honours and old age, but Dampier disappeared out of men's memory, and the last that is known of him was that he was seen in a low lodging in Southwark, dwelling in great poverty. Such likewise was the end of Fernando Quiros, who from a common sailor became an admiral, and commanded an expedition wherein he discovered many islands in the Pacific, and on which occasion the famous Torres was his lieutenant, and Torquemada his historian. The last that is known of him is what is written by the Cardinal Valenza:—"I have seen in a wine-shop of Seville one Fernando Quiros, who had been an adventurer in the Indies and beyond, and who told me he had seen there people who did eat their wives and other relatives in place of consigning them to tombs, which did not so much surprise me, seeing that the same thing has been related by the ancients." Thus we see that it is an infinitely more melancholy destiny to be lost at home than to be lost at sea; for in the case of these men no one seemed to have mourned for them, or to have marvelled what became of them, but the whole civilized world was interested in the fate of M. de la Perouse, and would now give much greater rewards to the man who could find out what ultimately became of him than were given to Dillon, who was lucky enough to find his anchors and chains. Roggewein also reaped no reward of his labour; for after having found the Samoan Isles, and from thence made his way to Batavia, there his journals and charts were impounded, and himself cast into prison, from whence, being discharged, he shortly afterwards died in great misery. To wind up this category of calamities, we cannot cite a more striking instance than that of Dumont D'Urville, who, after having rendered himself famous as a navigator of the Pacific, was burned to death in a railway carriage between Paris and Versailles.

But to return to the discoveries of Cook, he and Sir Joseph Banks, and Dr. Solander, and other scientific "swells," following the tracks of Wallis and Carteret, went out to Tahiti. (It may be said by way of parenthesis here, that none of these was really its original discoverer, as there can be no question of its being the La Sagittaria of Fernando Quiros; that island, so long and lofty, where "Francisco Ponce, having bound a rope about his waist, swam through the breakers and landed on the coral shore, where a vast assemblage of Indians, painted and armed, received him with great hospitality, and afterwards took him back in safety to his ship." Also, it is more than probable that this was the land reported of by the pilot, Juan Fernandez, "where were many large streams, and people of a light complexion, dressed in woven cloth.") At Tahiti, Cook and his companions planted a tamarind tree, erected an observatary, and took notes of the transit of Venus (for which purpose they had been specially sent out upon this voyage). That tamarind tree has now become huge and umbrageous, and I have beneath its shadow witnessed upon divers occasions a transit of Venus much more worthy of observation than any which came beneath their notice; for I have there emptied many bottles of

Chateau Larose in the company of indigenous damsels, whose eyes and curls (to borrow an expression of Artemus Ward) "were enough to make a man jump into a mill-pond without bidding his relations good-bye."

A history of this Island of Tahiti, written by some man possessing the requisite local knowledge, could not fail to be intensely interesting, and, if truthfully recorded, would prove unquestionably valuable in the future. To begin with their own account of themselves. Barbarian tradition is not worth much, but if supported by any collateral testimony, possesses a certain amount of value to the scientific inquirer. We will set aside the question of who were the three Maauii who fished up the earth from the bottom of the ocean? or the whereabouts of the mysterious Hawaii (Hawaiki); the legend of the Are Ura (Whare Kura), which reminds one strangely of some part of the "Niebelungen Lied" (it is to be regretted that some of the scholars of Europe do not get hold of these stories and investigate them), the voyages of Rongomatane, or the sorceries of Hine nui te Po. These may be mere myths, but are, for all that, strongly suggestive of some ancient connection between these Maoris (as Maoris they call themselves, all the copper-coloured races of the Pacific) and some of the peoples of the old world. But these questions lie within the domain of legitimate inquiry: From whence came the builders of pyramids so enormous as those which are (or were) to be found in the Society Islands? Who were those white men of whom they spoke as having come to them from the rising sun? What men put up that iron cross on Taravau with the monogram of the King of Spain upon it? From whence came that ram which Cook found on Bora Bora? There is something worth knowing at the bottom of all this, if one could only get at the truth. Ay! but truth is so hard to get at, as we have a notable instance in the case of the mutiny of the "Bounty"—a story so well known to the world that one would have thought it altogether disposed of. But here we have now, more than eighty years after, a new history of that affair, published with evidence so reliable that we find the leading newspapers of Great Britain lauding the memory of Fletcher Christian as "an unfortunate, brave, and honorable man," and lamenting that Captain Bligh "should have ever afterwards been permitted to hold His Majesty's commission, instead of being held up to universal contempt." Truly time is the great avenger, and sets many a man's memory right before posterity; but that that is any advantage to the dead man is not so obvious.

Then followed the arrival of the first missionaries from Europe, who, like the traveller in the Gospel, "fell among thieves" by the way, from whose hands the Emperor Napoleon (premier) did generously release them, bidding them God-speed on the good work upon which they were engaged, and to whom they rendered that amount of gratitude which might from them be reasonably expected. After this succeeded the long wars of Pomare the Great, (?) of which it is a pity that the world does not know more, as the recital of them would materially support the aphorism that "Jesuitism is not confined to Rome." Let us not despise the day of small things; there is a useful lesson to be gained even out of the politics of Lilliput—and there were great men who came to the surface in those days: Joe, the armourer, who first fixed a cannon upon a slide between two double canoes; and Roberts, who had once been a clerk in Cox and Greenwood's, who was the King's Minister; and Rigole, the Captain of the Guard. Ah, one should have seen these things, or have heard them from the lips of those who passed through it all, as I have heard! These were stirring times. None the less so when the young Queen came to wear the maro, "La Reine des Gabiers," she who is Queen even now, though a pensioner of France—an old woman with wrinkled cheeks and a scarlet gown. She is not much to look at now, but many men in times past have taken their lives in their hands to do her a service; and I do not suppose, since the days of Chastelard, there lived a woman about whom more lies have been told. She was a woman who, as she never failed to make friends, never forgot them, and she had many brave and clever men. Captains Hunter, and Henry, Middleton, Moerenhout, the Baron de Thierry; but she had one evil genius, whose name was Pritchard, who took upon himself the office of her political adviser, and, embroiling her in a quarrel with the Jesuits, caused her kingdom to be taken from under her feet.

I have said this much concerning Tahiti for the reason that it is the longest known to us of any of the islands inhabited by the Maori race. The immediate cause of its annexation by a European State was the mismanagement of a man who had virtually usurped to himself the supreme power on the place, and who was destitute of commerial or political experience. That which did so happen to the Tahitians is an example (with variations of the *modus operandi*) of what most eventually happen to every other island of the Pacific—to wit, an epitome of the manifest destiny of all Polynesia.

No. II.—Tahiti and South Sea Trade.

Although the Island of Tahiti might have been rendered immensely productive, consisting as it does of volcanic ridges of inexhaustible fertility and valleys watered by abundant streams, it has never proved of much commercial value to France. The only object which induced the Government of that country to take possession of it having been to secure to themselves a naval station and penal settlement for military or political offenders, industry of any kind never received much encouragement from the State until a few years prior to the fall of the Emperor Napoleon, when an immense plantation of coffee, cotton, and other products was instituted at Atimaona, with Government assistance, under the name of "Terre Eugenie," a concern which has chiefly passed into the hands of English proprietors. The French do not usually make successful colonists or pioneers of commerce. Whatsoever settlements they found in foreign dependencies are commonly of one distinctive character—a caserne and canteen, some gun batteries, a Bureau maritime, café and billiards, *voila tout.* A little life is visible in the early morning and in the afternoon. At midday all the town is asleep; scarcely any sound disturbs the stillness, but the wind among the green alleys which border the streets, and the tramp of the gendarme as his sword clanks upon the stones.

Exclusive of the landing of military stores and material, the traffic of Papeète (the principal seaport of Tahiti) has been almost entirely inaugurated and supported by English enterprise; most of the leading merchants having been of that nation, their ventures in the majority of cases having been pre-eminently successful, some of them having realized very handsome fortunes. For example, a merchant who landed there, within my recollection, with, according to his own statement, only a few shillings in

his purse, and a small stock of goods, of which the whole value did not amount to £50, is now well known to be worth nothing short of £100,000 in property and cash. I am about to show how this was done, and how the same goose with the golden egg is still at the service of the merchants of Auckland, if they would energetically turn their attention to the opportunities of profit which Providence has placed as it were at their very doors in the innumerable islands of the great South Sea. I fancy I hear some one say, "Oh, but we have merchants, and they have traded to the Pacific for years back, and they have not done much; in fact, some of them are quite up a tree." I can understand this perfectly. I have heard the same remark made in Sydney with just as much truth; and the object with which I am now writing is to show what has been the cause of this, in many instances, want of so very brilliant success, and to point out the remedy. But before I proceed with the subject, I may premise that even among the merchants of Auckland, so apathetic as they generally have been in all matters connected with ventures in the Pacific, there are at the present moment some who cannot complain of evil fortune having attended their operations in those waters, forasmuch as I know at least one firm in this city who have now in their warehouse an immense stock of goods ordered by them from Europe, strictly for the supply of their own agents in the South Sea Islands, and which, for variety and suitability to the particular purpose in view, is not to be equalled in any one house of either Sydney or Melbourne. There is a secret of gold at the bottom of all this; it is pouring in from somewhere. I do not know to what particular islands they chiefly trade, or the names of any of their agents. I never asked them any questions, but I have been through their store, and what I saw there was enough to convince me that they had profited by some very successful experience in the same branch of Polynesian traffic in which I had spent many years of my life.

The most suggestive way of looking at the question is this. Those merchants who have succeeded to admiration in Polynesian trade (and I am about, in the course of these papers, to cite well-authenticated instances) have not been such as were resident or made their head-quarters in the Australian colonies (although the well-known names of Captains Towns and Smith are a guarantee of what has been done under that system), but those who have located themselves in certain central spots of the Pacific, from whence they send out agents to all the surrounding isles, small or great, men accustomed to be domesticated among the natives, speaking their language fluently, and intimately acquainted with their habits and wants. These men are supplied with small parcels of goods to enable them to make advances to the natives and to establish little trading posts in all populous villages, where they gather up such valuable produce as the place may afford, awaiting the periodical visits of schooners of small tonnage, which come round to them at stated times to take away what they may have collected, to settle all claims, and to leave a fresh supply of trade for the ensuing season. The produce thus obtained is carried to the central depôt, where it is stored up until transhipped into larger vessels, by which, in the most notable instances, it is conveyed direct to Europe. The profits of trade conducted in this manner among the Pacific Archipelagos are, as I purpose to demonstrate, very great, the risks very small indeed in comparison to those which attend the coasting trade of New Zealand or Australia. Thus, of all the vessels which have been lost in the Pacific, it is well known that more than one-half have gone ashore in calms, which, while it argues a certain amount of want of caution upon the part of the commanders, the result of long immunity from accident, goes to prove that if this trade has paid (as I am going to show how enormously it has paid), how much greater will the profits be when steam navigation is systematically introduced into Polynesian waters. And to whom would one naturally look to initiate so lucrative a system of enterprise if not to the merchants of Auckland? which, from its geographical position and internal resources, is evidently destined to be (though, strangely enough, it seems as yet never to have shown any inclination to be) the principal market of the commerce of the whole great South Sea.

It is in the manner that I have described that Messrs. Hort Brothers, and Brander, of Tahiti; Johann Cæsar Godeffroy, of Samoa; with Wilkens, Hennings, Hedemann, and many others, have made, or are making, fortunes "hand over fist." That the Horts got into difficulties afterwards was the result of over-speculation in other lines. As concerns the Island trade, I will presently show some instances of what they (*i.e.* the Horts) did make to my own knowledge, and at what outlay. And here is another light in which to regard the question, and in connection with which I am able to produce a mass of evidence. How many owners of vessels, trading stations, plantations, sugar and oil factories, or cotton-gin establishments, are to be found throughout the Pacific (as to my own knowledge they are to be found, being personally acquainted with most of them)—men who a few years ago were before the mast, or sailing as mates of ships at $30 a month! How did they, in so short a time, become possessed of all this property? If any man care to know, as I should imagine it very materially to the interest of the merchants of Auckland to know, I will describe circumstantially how, of my own knowledge, in a variety of instances, this came to be the case, in some future articles, wherein I purpose to deal less in generalities, but to go more immediately and deeply into facts.

No. III.—The Pearl Shell and Cocoa-nut Trade.

Very much public attention has been lately attracted to the subject of the colonization of New Guinea, especially since the late voyage of the "Basilisk" in those waters. You hear people saying, "There is a wonderful land; a land of fertility, of spices, of valuable fibres, of sago and cinnamon, of sandal wood and gold!" This impression may be very true, although it is not so very apparent that the greater part of it is not based solely upon hypothesis. But this fact is very certain, that it has always been a mania with our countrymen to look far away from home for that which they might find close to their own doors; just as people in England, desiring to convert the heathen, send out missionaries to Melanesia, when there are plenty of savages of a more degraded type, morally and physically, almost within a stone's throw of Belgravia. Thus we hear people talking about New Guinea and its fabulous riches, just as though whatsoever (as far as we know) is to be found there were not to be found in the islands of the Pacific, close beside us, if we except the cinnamon and the gold, of which the existence in New Guinea is as yet purely apocryphal.

It is not necessary to do more than to examine a chart of the Pacific to recognize at once what an immense area of land, the most productive, and at the same time most healthful, of any which is to be

found on the face of the earth, is represented by those great islands of the South Sea with which our navigators are most intimately acquainted, and inhabited by people whose customs, wants, habits of thought and action, as well as language, are closely analogous, and in some cases identical, with those of the aborigines of our adopted country of New Zealand. This resemblance gives us, in dealing with them, immeasurably the start of the Australias, or any other people of the world, from our extensive experience of the peculiarities of their race. These islands are represented by Viti Levu, Vanna Levu, Tongataboo, Vavao, Savaii, Upolu, Tutuila, Tahiti, Raiatea, Huahine, Nukuhiva, Fatoahiva, Hivaoa, as well as their intermediate isles, very many of which are of considerable size. We say nothing of New Caledonia, which, although subject to France, is open to our commerce. There are also the New Hebrides and Santa Cruz Groups, among which are to be found great lands—Edens of beauty and fertility.

Some of the South Sea Islands which lie on the route between New Zealand and the Isthmus of Darien (the natural gate of the Pacific), and are within easy sailing distance of Auckland, are unsurpassed for salubrity and productiveness, being favoured with so delightful a climate as to possess a cool and bracing atmosphere, combined with all the fertility of the torrid zone. There cotton, coffee, tea, sugar-cane, arrowroot, vanilla, tobacco, opium, ginger, as well as an infinity of valuable indigenous products, can be cultivated successfully side by side with the vegetables of Europe. Such are the beautiful islands of the Austral and the principal ones of the Hervey Group. Some of them are as much as thirty miles in circuit, and consist of lofty hills of volcanic débris, sloping down on all sides to the shore. They are clothed to the summit with the most gorgeous vegetation, groves of palm, orange, lime, coffee, candle-nut, and banana, which grow spontaneously; their valleys are of deep rich soil, watered by abundant streams; they have harbours, and forests of useful timber. Their inhabitants are amiable and highly intelligent, a people who could, by encouragement and wise example, be rendered prosperous, insomuch as they exhibit considerable aptitude in the mechanical arts and a desire for the comforts and luxuries of civilized life, but who chiefly exist at present in a condition of lamentable indolence, their time being in a great measure divided between the endeavour to render themselves eligible for the office of Mission teachers (an ambition which has become with them a mania), and the preparation and consumption of intoxicating drinks.

Such islands as these, lying in the midst of what will shortly become one of the highways of Pacific navigation, and presenting as they do such extraordinary inducements to profitable settlement, must inevitably, before long, either by purchase or conquest, pass into the possession of commercial speculators.

In addition to these are the innumerable low coral isles which are scattered over the face of the whole South Sea, many of them at present seldom or never visited by trading ships, and yet so intrinsically valuable that, had they been located in the Atlantic instead of the Pacific, every one of them would have constituted before now a bone of contention between the great maritime powers of the old world. As a proof of this, have there not been serious political troubles in the past and down to our own day concerning the possession of the coral banks of Messina, the amber-dredging grounds of the Baltic coasts, the cod fisheries of Newfoundland? Many of these islands, in some cases without inhabitants, in others occupied by small communities of indolent barbarians, teem with products infinitely more valuable (from the quantity in which they are obtainable) than those of which we have just made mention. So much is this the fact, that in many instances a square mile of them is even now (or can, at a trifling outlay, be within ten years rendered) worth more than the salary of a Colonial Governor. When this fact comes to be generally known, it is not too much to say that at some not far distant time there will be a greedy scramble for their possession between all those cities of the Southern hemisphere which support a mercantile marine; and very lively will be the lamentations, and enduring the chagrin, of those who shall have allowed to escape them the golden opportunity now so easily within their reach.

Men having a thorough practical experience of the Pacific trade will recognize the truth of this assertion, but it is not to be expected that the general public can understand it without demonstration. Figures, however, provide a mode of argument which goes straight home to the comprehension of men of business, and furnish incontrovertible proof. In the matter of indigenous products, requiring neither cultivation nor process of manufacture, we may cite as a notable instance the article pearl-oyster shell, the demand for which has in Europe, within the past four years, assumed an unprecedented activity, for the reason of there having been discovered certain processes whereby it is now devoted to purposes previously unknown. The extraordinary profits which have attended the operations of Captain Cadell and other pearl fishers on the coasts of North Australia for some time past, until their labour supplies were interfered with by the Government, has been a subject of remark in commercial circles. The same shell exists in vast quantities in various localities of the South Pacific, under more favourable conditions, inasmuch as the divers are obtainable on the spot or in the neighbourhood, with the additional advantage that the food they require is produced spontaneously on the scene of their labours, thus doing away with the necessity of transporting men from long distances, and having to supply them with the means of subsistence.

It is enough to say that during many years past men accustomed to this trade have been in the habit of collecting shell and disposing of it to such vessels as might chance to visit them, at prices ranging from £12 to £20 per ton, considering themselves well paid; whereas, at the latest quotations, the market value in Europe varies from £80 to £150, and there are rumours of even much higher figures. It has been reported that South Sea shell is of an inferior quality to that of North Australia, Manilla, or Ceylon. This is not really the case, but it is quite true that some years ago Tahitian (the name by which South Sea shell has been usually known) became greatly depreciated in the European market, in consequence of the merchants of that place having foolishly persisted in cleaning the shell before shipment. To accomplish this object the more readily, the traders were used to throw them out upon the sandy beach of the islands where they were obtained and let them lie for a day or two in the hot sun, the effect of which was that all the rough edges, knots, and coral lumps which were attached to them cracked off and left them smooth, but at the same time destroyed the splendid natural lustre which they would otherwise have retained had they been placed under cover immediately the living

fish had been removed from them. The Manilla fishers were always aware of this fact, and profited by their knowledge, in consequence of which their shell has for many years back commanded, in England and elsewhere, £120 per ton, when Tahitian was quoted at £40—although in reality there was no difference in the two samples as regards species, nor would have been in quality had equal care been taken of them both. The bulk of the Manilla shell was not, and is not now, derived from the Indian Archipelago, but from the Pacific; that is to say, from Hogolen, Lugunor, Nuguor, and other great islands of the Caroline Group, and is the same oyster which is found over the whole Pacific, on all islands possessing the conditions necessary to its existence.

Some idea of the value of such deposits may be gathered from the fact that, according to returns published by the Government of India, the value of a pearl bank in the Straits of Manaar, of two miles in circumference, with a depth of seven fathoms or thereabouts, is estimated at from £35,000 to £40,000 purchase, subject to the royalty demanded by the Government. The shell lies very thick there, more so than is usual in the Pacific; but when we consider that in the latter case many lagoons are to be found from twelve to twenty miles in diameter, wherein, so far as the shoal water extends, it is not possible to look over the side of the boat without seeing shell on the bottom ready for collection, and with neither dues, royalties, nor purchase-money to pay, it is very obvious that there is a great deal of money to be made.

With respect to the value of low coral atolls and lagoon islands, the time is at hand when they will all become the property of traders, in many cases men of limited means, who will enlist in their service or altogether take the place of the aboriginal inhabitants. In other instances, small groups of isles lying contiguous to one another will be monopolized by companies, who will work upon a gigantic scale: they will plant new cocoa-nut groves, thin out and improve the old ones, and bring the savages into subjection, not on the principle of brute force, but by the substitution of a reign of reason, mutual advantage, comfort and contentment, for barbarism and brutality. They will erect kobra mills, with powerful machinery, for the manufacture of oil, and apparatus for the preparation of the valuable fibres which now grow wild upon the coral cays, and which, though as yet altogether unknown to the commercial world, are nevertheless of such enduring strength that a fishing line—as twisted from them by the fingers of the savages, and only of the diameter of a common whipcord—will sustain a weight of several hundreds of pounds without starting a strand.

Any one such company working upon a large scale, and intrusting the conduct of their operations to energetic, conscientious, and experienced men, will produce in ten years more practical good in enlightening the dark places of Polynesia than could be effected by mission ships in as many generations, forasmuch as if we ever hope to elevate the moral status of barbarians so as to produce any enduring result, we must begin by appealing to their interest and improving their physical condition, creating in their minds a desire for the comforts, and even luxuries, which are inseparable from the higher life of the civilized races; and showing them how by persistent and pleasant industry, and by utilizing the products which Providence has placed within their reach, they may supply all these wants, and add to these comforts hitherto unknown. Do first what is most obviously necessary to advance the condition of the outward man; moral regeneration will assuredly follow. Did not Christ himself begin by administering to the bodily necessities of his hearers, bidding them afterwards repent and believe his gospel? Or, to use a more homely example, how was it with the Irish pauper, who, having been admitted into an institution for the relief of the destitute, was presently caused to sit down upon a bench, and presented with a copy of the "Sinner's Friend." "Faith!" said the *casual*, "it's not tracts I want, but sausages and tay."

It is enough to say that companies of merchants, acting upon principles of justice and benevolence towards the aborigines among whom they establish their stations throughout the Pacific, will not only materially assist the cause of human progress, but will themselves reap a golden harvest out of their enterprise.

To make this apparent to the simplest comprehension, we will premise that one mile square of cocoa-nut trees, such as cover the low coral isles of the Pacific, produces during every year an average of 200,000 cocoa-nuts. This estimate is made by calculating the produce of every tree at twenty-five nuts a year, which is far below the yield; and by allowing the trees to run, say, 40 feet apart, which they do not, each nut will average half-a-pound, of which (when dry) the market value in the Pacific is one cent. Thus fifty tons of kobra (as the dry material is called), of a value of £400, is produced yearly by a mile square of wild and uncultivated trees. One willing labourer can perform in one day of six hours all the work of gathering, carrying together, peeling and breaking 400 cocoa-nuts; and as they are ripe at all times of the year alike, there is no season of enforced idleness, but the work may go on continuously. Thus two industrious white men (and white men accustomed to this work can perform it as skilfully as Polynesians), working only 250 days out of the year, and then only, if they choose, in the cool of the day, can, off a mile square of wild trees, earn to themselves 16s. each per day for those days which they work, or £400 per annum between them. Very handsome wages for men requiring no capital to start upon, unless it were a few axes and the like implements, a few casks of biscuit, a boat, and some hogs! But if they can afford to employ labour to assist them, and go systematically to work to clear away and burn the underwood, and to heap the ashes and other débris about the roots of the palms, as well as to plant new groves, their profits become rapidly and greatly increased. After a year of such treatment the yield of their groves would be augmented four-fold, and in ten years the value of their produce would amount annually to from £3,000 to £4,000, although this seemingly large return does not approach what can be annually realized from a mile of cocoa-nut plantation, cultivated and utilized as they are on the coasts of Cochin or Malabar.

Great profits have in past times attended the traffic in cocoa-nut oil, which is now becoming superseded by the kobra, or dried material, as involving less labour, less waste and stowage room, as well as when manufactured in Europe producing a superior sample of clear oil, free from rancid smell, and leaving the substance of the nut available for cattle food, for which purpose it is largely sold, pressed into cakes after the manner of linseed. When it comes to be generally known here that for several years back not less than a dozen large ships, despatched by some of the leading mercantile firms of Hamburg and Bremen, have been always to be found loading in one group or other of the

Pacific with this material alone, we can surely reasonably expect that Auckland will eventually secure to itself some share of a trade so profitable as this unquestionably is.

No. IV.—Tahiti and Raiatea.

Although the Island of Tahiti is inexhaustibly fertile, it is not superior in that respect to Raiatea, another great island of the same group. There, walking up any of the central valleys, one sees the mountains clothed up to the very summits with plantains, feiis, and bananas, growing altogether wild, and so thickly that the valley bears the aspect of a golden forest. But it is merely a beautiful wilderness. There are no systematic industries, beyond a few small plantations of cotton and sugar cane, the property of sons of missionaries of European extraction. The island is not half populated, and the lives of the inhabitants are spent in idleness, intoxication, and occasional civil war. The people of the neighbouring island of Huahine vegetate under precisely the same conditions: vice, and an indolence from which they never awaken unless it be to quarrel among themselves or with the foreigners with whom they come into contact, is with them the rule of life. Many lamentations have been poured forth by persons interested in South Sea Missions concerning the evil influences of French domination over the Society islanders; but their premises are groundless, and their arguments unsound. The Tahitian race never could be rendered systematically industrious or truly enlightened; they were always, and still are, indolent, luxurious, superstitious, and incurably vicious. Although by nature gentle, amiable, generous, and intensely affectionate, they delivered themselves up *con amore* to the vilest forms of heathen superstition, in the practice of which they exhibited an amount of depravity almost unparalleled in the history of mankind. Their conversion to Christianity was—I will not say in every individual case, but certainly in the aggregate, either mere pretence, induced by the liberal bestowal of blue beads, tomahawks, cotton print, and the like valuables; or the exchange of one superstition for another, generated by reverence for the superior strength of the gods of those invincible strangers who wielded the lightning of the musket and the cannon. It needs that one should live intimately among them to know them well, and such as have done so are very well aware that they are still as grossly superstitious as they were a hundred years ago; in fact, if not in outward form, like the strange nations which the Assyrians transported to Samaria, "they fear the Lord, but still unto this day they do after the former manners," and they love the memory (and still play the *rôle*) of the Areoi libertinism in which their forefathers were wont to dwell, though they have broken their idols and thrown down their stones of sacrifice. I have said they have no industry, but in their heathen days they practised a certain degree of it. They had all their own clothing to make, and very beautifully and ingeniously they made it from silky bark and fibres of trees. This was the work of women. The men laboured at the building of great canoes, wherein they made voyages round the Low Archipelago, the Austral Isles, and to Nukuhiva. Now, it is hard to persuade them to work at anything, unless it be some kind of occupation very easy, and speedily profitable to them, such as the gathering of oranges or fungus, or the making at times of a few barrels of lime-juice or cocoa-nut oil. Of course, all of them (except chiefs) work a little, but the amount of time spent in useful occupation is but a tithe of that consumed by them in idleness and debauchery. They never look poverty-stricken. The men are always well dressed in white shirts and "parieus" of figured cotton; the women in prints of elegant patterns, in the choice of which they display wonderfully good taste, and in the care of them the most fastidious cleanliness, being in this respect, in all that concerns their domestic habits, as superior to the common people of any nation of the earth with which we are acquainted, as they are remarkable for the entire absence of moral purity—a virtue which it would be as vain to look for among them as to expect to "gather grapes of thorns or figs of thistles," though one might surely look for better things if one were to believe all the twaddle which has been written about them. Every one who intimately knows the Tahitian people must candidly confess that all attempts to inculcate persistent industry have resulted in complete failure. They will not work any more than is sufficient to supply them with clothes and rum, which last they regard as a necessary of life; the food they require being produced spontaneously upon their fertile lands, or easily caught in their coral bays, costs them little trouble to obtain.

Consequently in the coming time, when Tahiti becomes (as it inevitably will become) a great centre of commercial activity, the labour required to conduct the plantations which will cover the whole available surface of the Society group, must be obtained from elsewhere, not exactly as is at present the case at Atimaona and Moorea, where Chinese coolies and Kingsmill savages have been imported in swarms, but a European race will establish themselves upon the land, who will perform their own labour chiefly with their own hands. They will not be the sickly sort of Papalangis whom one sees now generally throughout Polynesia on mission or trading stations, who have reduced themselves to a condition of chronic dyspepsia by persisting in European habits of food and living (ignoring the fact of their utter unsuitability to the dwellers in the torrid zone), or who kill their livers with alcohol, and then lay the blame on the climate, but men healthy, powerful, bronzed, and hardy, accustomed to paddle their own canoe, not afraid to look the blazing sun in the face, to plunge into the foam of a breaker, or make their way to land upon a surf-beaten shore. Such men as Jeff Strickland, of Aitutaki; William Masters, of Palmerston; Eli Jennings, of Quiros Isle; Harry Williams, of Manihiki; George Bicknell, of Fanning's Island, and a very great proportion of the "beachcombers" who have scattered themselves over the face of the whole coral sea. These men are not emaciated, pale, liver-disordered, or enervated by the heat of the climate. They are stalwart, smart, and lively. They have strength to lift a kedge anchor, and to carry 200 cocoa-nuts upon their shoulders out of the forests in the heat of the day (and they do it). They climb trees like apes, and dive for shell-fish to feed their families. They wear no shoes, but go barefooted at all times on beaches of sharp gravel and reefs of prickly coral. They gather beche-de-mer or chop wood for whale ships all through the long tropic day. Some of these men have as many as twenty children—with huge frames and gipsy countenances. Their sons are like bronze statues, their daughters models of beauty and strength. Their intellect is of a low order, it is true, and their morals of a very lax description; but they may improve in these respects as they continue to multiply (as they are doing very rapidly), and they are well fitted to do the work of the

world, and to take, as they will do, the place of the ancient incurable barbarian throughout the torrid zone of the Pacific.

In certain spots to the north of the equator, there is now springing up a race who will, beyond question, exercise in time a most powerful influence on the destinies of the Pacific. They are remarkable for superior intelligence, and for energy, patience, skill in navigation, and a faculty of acquiring the mechanical arts. They are the progeny of European and American mariners by Japanese mothers, and in them are to be found combined the grandest elements of success in life—that is to say, all the courage and spirit of adventure which distinguished their wild and roving fathers, mingled with the acuteness, ingenuity, and concentration of purpose which is so characteristic of the Mongolian, and especially of the Japanese. Among the progenitors of this kind of bastard civilization are to be found wanderers from every land of Christendom. They have not suffered by the change, but they revel in it. They have "eaten the lotus" (whereby, as said the ancients, a man loses all remembrance of his native country). They are acclimatized, they are no longer Europeans; they have no more liking for cold lands, they love the weather and the ways of the low latitudes. Take any of these men back to the old world, and he would pine for the Pacific, and die in a short time if you did not let him return to it. Most of them could not be persuaded to return to the old world or the States by any human inducement. Just as says Paunchy Billy, of Samoa, who was born in the same village as John Paul Jones, and who is in the habit of declaring, "Sir, I wouldn't go back to Britain now if you were to give me £1,000 a year, and yet I will say that when I came here first—more than thirty years ago—I had a fashion of sitting on the stones by the seaside of a night, and crying to myself for the home and friends I should never see again; but I know better now, and have done this many a year." Billy relates how, when Commodore Wilkes' Exploring Expedition visited the Navigators Isles, he went on board the "Porpoise," dressed in savage mats, and begged the Captain to take him away. "I don't want any men," was the answer, "but what countryman are you?" "A Scotchman," said Billy. "Well, then," replied the Yankee, "I guess I pity you more than a little; I cannot take you away, but here's a sheath knife and a plug of James River cavendish, of which I make you a present; had you been an American, I would have had you tied up to the gangway and have given you a dozen with the cat o' nine tails. Billy did not understand what he could have been guily of to have deserved this punishment, and asked the American to explain. "Because," retorted the commander, "had you been a citizen of the United States, I should have counted you a disgrace to humanity for letting yourself run wild among a lot of scalping savages; but seeing you are a Britisher, and there is not room enough for you all in your overcrowded country, I pity you from the bottom of my soul, I dew!"

No. V.—The Low Archipelago.

After the well-known incident of the mutiny of the "Bounty" very few vessels visited the Society Islands until the renewal of war between England and France after the peace of Amiens, when the South Seas became traversed in all directions by strolling privateers or rather pirates—as very many of them were in reality, disguising their real practices under cover of a letter of marque. The true object for which many of these vessels had been fitted out was to loot the more unprotected settlements of the coasts of Chile and Peru, or wheresoever on the Spanish Main (as all the seaboard from the Gulf of California to the Strait of Magalhaens is called) they might effect a landing, and force a *trade*—that is to say, compel the authorities to barter with them at their own price, under threats of burning their towns in case of refusal.

Many of these expeditions, chiefly under the British flag, had been fitted out at the seaports of Hindostan, while others had been organized in Manilla or Guam. Port Jackson, as Sydney was then styled, was not behind hand in supplying her quota to the congregation of rascals who had presented themselves with the freedom of the seas. Among her contributions was the celebrated Captain Jorgensen, who took to London two natives of Tahiti, and presented them to Sir Joseph Banks, who put them in a mission school, where, as might have been expected, they shortly died; and the famous Mr. Bass, a man of great valour and intelligence, the discoverer of the Straits which bear his name, and which he is said to have surveyed in an open boat. He came to a melancholy end; for at Valdiora, on the coast of Chile, having compelled the Spaniards by force of arms to barter for his cargo, he was daring enough to go on shore with a great part of his crew and drink in their company, when being attacked by the inhabitants they defended themselves to no purpose, but were all taken prisoners, and transported to the silver mines, where they ended their days in misery and chains.

This state of affairs continued with but little improvement up to the year 1825 and beyond it, when the South American States having successfully shaken off the yoke of Spain, became in a position to free themselves from the smaller tormentors in the shape of pirates and contrabandiers who had stung them in every available spot during the terrific struggle for liberty which they had sustained for so many years.

Does it not speak well for the climate of the Pacific Islands when there are still to be found ancient mariners who can relate their experience of those stirring times—such as Mr. Nobbs, of Norfolk Island; Bainbridge, of Papeite (who was a powder-boy on board the "Macedonian" when she was captured by Commodore Decatur); Old Joe, of Mauki; and Jack Sclate, of Nukunau, who served under Cochrane in that terrible business when he cut out a prize from under the guns of Valparaiso. Among the Australian adventurers of that day, one not the least remarkable was one Captain Goodenough, or "Koronake," as he is called among the South Sea Islanders, who visited the beautiful island of Rarotonga long before it was known to the world, and which Cook had missed in so strange a manner, since he must have passed close by it without seeing it, though he was not in reality its first discoverer, as the tradition of the natives places it beyond a doubt that it was visited by the "Bounty," while under the command of Fletcher Christian, on her passage from Tofoa to Tubuai. This Goodenough appears to have had a gay time of it, and to have been a person of an easy disposition. Being hospitably entertained by the natives, he came into collision with them in consequence of the unruly amativeness displayed by his crew. The savages in revenge killed his wife, and another European woman, her servant or companion (who, suspecting no danger, were on shore washing linen by the bank of a creek), and, according to immemorial usage, baked and ate them. Goodenough,

however, was not inconsolable, but, the olive-branch being extended to him, accepted it, and took to himself another wife, of the same family who had eaten the late Mrs. G. He took her to sea with him, and, becoming weary of her society, finally left her on the Island of Aitutaki, where many years afterwards she was found by the enterprising missionary John Williams, and piloted him to her native land of Rarotonga, where she is still living. Goodenough never told of the land he had found—from commercial reasons so also Williams said nothing of what he knew concerning Goodenough's discovery, as he desired naturally enough to secure to himself the credit of it.

After the successful termination of the South American rebellions, war began to give way to peaceful industry, and sperm-whale fishers abounded in the waters of the Pacific; the privateers from the Indian Seas became converted into traders in search of sandal wood, pearls, and other valuables; a lucrative traffic also became established with China in the article of tortoise-shell (erroneously so called, as it is the scales of the hawkbill turtle which in the Pacific are known by this name: there is a tortoise of gigantic size existing on the Gallapagos, but his shell is of no value whatever), sharks' fins and beche-de-mer—that singular edible so highly prized by the gourmands of the Celestial Flowery Land.

At this time the agents of the London Missionary Society had, after repeated reverses, obtained great influence over the inhabitants of the Society Islands; and the extreme arrogance with which they dictated terms to the traders, and the vexatious regulations which they established for the guidance of morals, and restrictions upon the introduction of intoxicating drinks, engendered bitter animosity between themselves, the whale-fishers, and the commercial adventurers who visited the various Goshens over which they now claimed the sole control.

To these disturbances may be really traced the long sequence of troubles which eventuated in the war which ended in the French occupation. It was not in reality raised upon a question of religion (although that element was taken advantage of as a lever to effect a certain political purpose), but it was the result of a deep-laid scheme originating with merchants, who resented the interference of Protestant ecclesiastics with their worldly business.

Another ingredient of disorder was introduced into their midst by the arrival from time to time of escaped convicts from the penal settlements of Australia, who, finding themselves transplanted into a sort of Paradise, fraternised with seamen who had deserted from ships, herded together for mutual protection, and formed communities of dangerous ruffians. Their organization was, and in certain quarters of the Pacific still is, similar to that of the associated beachcombers of the Spanish Main—a description of gentry whose doings, if truly recorded, would fill several volumes of interesting matter.

In those days the trade of the Society Islands was chiefly confined to the barter of hogs, fowls, and vegetables, with whale ships; but a few adventurous traders, finding their way down so far from the China Sea, inaugurated a traffic in sharks' fins and beche-de-mer. It was while in the search for these articles that the attention of persons engaged in it was attracted to the vast deposits of pearl oysters which abounded in what is known as the Low Archipelago. It is in this strange region, commonly spoken of as a mere congeries of desert reefs, that the greatest wealth of the Society Isles has laid, and does still lie. Tahiti itself may be inexhaustibly fertile (as it is); Raiatea, likewise a paradise of gorgeous vegetation; so also all the other isles which cluster round the great volcanic centre; but in the present aspects of trade, all that they are able to produce is insignificant in comparison to the riches that will eventually be derived from the pearly lakes and palmy cays of the coral-bound Paumotus. I make this statement with all due consideration, seeing that I am about to demonstrate its truth; and before going further into the question that these islands, so lonely and so little regarded by the world that they are more frequently spoken of by mariners as a dangerous excrescence upon the surface of the sea, are precisely similar in their characters and conditions (as concerns the yielding of valuable products) to some thousands of others which are scattered over the whole face of the coral seas, which at the present moment, in a multitude of instances, may be either purchased for a mere trifle in the shape of blue beads and calico, or are at the service of any merchant who chooses to take possession of them. The time is not far distant when men of business in Auckland will look back with absolute astonishment to the blindness of these days, in which vessels are despatched to distant places to purchase cargoes of merchandise, and upon their voyage run through or pass by a huudred islands, upon very many of which they might obtain the very stuff they are going after for nothing, had they but experience enough to go on shore and collect it for themselves.

To illustrate this proposition, let us take, *par exemple*, what has been done in the Paumotus. (This name is commonly spelt differently; it is correct as I have given it. It is compounded of two words, Pau-motu, signifying a "cloud of islands," and is very expressive, as most barbarous names are found to be when one is able to trace their original meaning.)

This extraordinary region of shoals and cays, commonly called the "Low (or Dangerous) Archipelago," extends over 16 degrees of longitude, and consists of four groups, containing altogether 78 islands or coral atolls, all with the exception of three having lagoon reefs, varying in size from a few miles to over 100 miles in circumference. These islands have long borne an evil name by reason of the intricacy of their navigation, the powerful and sometimes contrary currents which set between them, and the extreme ferocity of their inhabitants. This is now past: the various islets, shoals, and straits are now well known and defined—thanks to the researches of MM. Delemarche and Chizoline, and the excellent charts of M. Vincedon Dumoulin. The numbers of the aborigines are very greatly reduced. Although the archipelago twenty years ago was immensely populous, emigration to the Society Islands, a love of roving—which is a ruling passion with these amphibious savages—disease, which has decimated them in a frightful manner, and the repeated raids of slave ships from the Spanish Main, have brought down the population to less than 5,000, of which probably not more than one-fifth who inhabit the S.E. portion of the archipelago are still in a state of primeval barbarism.

In former times these people were noted for their bravery—both in the navigation of the seas and in combats of all kinds; so much were they esteemed in this respect that Pomare the Great—as he was called from his conquests—always employed them as his guards, and the word Paumotu as applied to a man became synonymous with warrior, even as now when referring to a woman it constitutes a much less honorable distinction.

The natives of Paumotu have been long in demand as whalemen. They are skilful boat-steerers, and to strike a fish none could surpass them in coolness and certainty. They are also, without exception, the best pearl divers in the Pacific, or perhaps in the world. They go down without weights or nose-stoppers (as are used by the fishers of Manaar or Baldein), but just plunge overboard naked as they stand; and you can get them down to as deep as 25 fathoms to clear a chain, or do other work, if you give them sufficient inducement. They are brave, faithful, honest, and kind-hearted; the only objection which can be made to them is that they are disgustingly independent, demanding high wages for their work, and essentially rowdy, exhibiting an incurable predilection for rum and loose company.

Those Europeans who know them well, and are accustomed to their ways, feel safer in their society than in that of any other natives in the Pacific under circumstances of difficulty and danger, whether it be in storms at sea or in quarrels upon savage coasts; and far and wide as they are known—even from Rapa to Rotumah—to say that a man is a Paumotu amounts to the assurance that he is a good man either to work or fight, but who at the same time will demand of his employers good pay, good usage, and the free exercise of his natural instincts. As a natural consequence with such a people, missionary endeavours have not amounted to much; they are utterly intractable, except as regards conversion to the Catholic faith, which the majority of them now profess, and in which they exhibit much enthusiasm, in so far as being especially careful not to leave their homes or to enter upon any adventure which may involve personal risk, without a stock of rosaries, scapularies, crucifixes, such as Carlyle describes as "spiritual block and tackle."

The chief seat of ecclesiastical authority in the Paumotu group has long been Manga Reva, or Gambier's Isles, where resides a Romish bishop and community of friars, &c. The pearl fishery at this place has been immensely profitable, and a very great quantity of those precious gems have passed into the possession of the priests since the first establishment of a mission there, more than forty years ago. There can be little doubt but that it was from here that the large pearl was obtained now in the possession of Her Majesty, and which her agent purchased of Messrs. Storr and Mortimer for £6,000. One of their employés had bought it of a Tahitian trader in Valparaiso, and the common impression among the islands is that it came from Gambier's. Out of the 78 islands of the Paumotus, 35 are known to contain pearl shell in their lagoons. I am about to show what great profits have been made out of those deposits within the last thirty years by Tahitian and Chilian traders, at a time when mother-of-pearl commanded a price in the market amounting to usually not more than one-fourth of that which rules at present. It is very commonly supposed that the pearl fisheries of the Paumotus are exhausted. I shall also be so far able to make apparent that such is not the case, as to justify my previous assertion that the islands of the Low Archipelago constitute a mine of wealth of which the commercial world has at the present moment but little cognizance.

No. VI.—The Low Archipelago Pearl Fisheries.

Of these isles, all with the exception of three are atolls, of that peculiar form of which the origin has so long been an enigma to geologists—that it is to say, that they consist of coral belts, frequently not more than a mile wide or even less, of a circular, oval, or sometimes triangular form, enclosing in the majority of cases a central lagoon with an entrance on the side opposite to the direction of the prevailing trade wind. These passages are in some instances navigable for vessels of large tonnage; in others they consist of a mere depression in the surface of the reef sufficient to enable the natives to paddle their fishing canoes in and out of the lagoon at high tide. The lagoons themselves are generally shallow, though in some places they exhibit vast hollows with an apparent depth of 50 or more fathoms. Their appearance is most extraordinary and beautiful; the water, from the absence of the debris of streams or of any kind of alluvion (from the fact of the land being entirely composed of coral rock and gravel), exhibits so surprising a transparency that an object the size of a man's hand may in calm weather be distinctly seen at a depth of 10 fathoms. The aspect of the bottom is that of a wilderness of marine vegetation of the most wonderful forms and gorgeous colours, seeming in some places to be spread over the surface of sloping hills, in others to be growing out from the sides of tall pillars or towers pierced with vast caves, in which the refracted beams of the sunshine cause the water to glow with the colours of the opal, and the innumerable species of zoophytes clinging to the rocks to glisten like gems, while between the huge caverned masses are wide spaces floored with sand perfectly level and white as snow, upon which the great green mounds covered with coral trees throw fantastic shadows, so that in leaning over the side of a canoe and contemplating these so remarkable appearances, one cannot escape being reminded of the fabled grove of Aladdin, or of that garden which Don Quixote imagined himself to have seen in the grotto of Montesinos, "El mas bello amenoy deleitoso que puede criar la naturaleza." Amongst all this are to be seen great multitudes of fishes of the most extraordinary shapes and hues, gold and purple and violet and scarlet, jet black, mottled, and every shade of green.

In some of the enclosed lagoons of the Paumotus all the fish, without exception, are poisonous, of which the reason is unknown. Sharks are in great plenty, very bold and greedy, but quite harmless as a general rule to man, by reason of their natural food being in so great abundance. The pearl-divers take no heed of them. A much more disagreeable enemy is the veki or great squid (the "pieuvre" of Victor Hugo, which he so graphically describes in his "Travailleurs de la Mer." This horrible creature, who possesses the extraordinary faculty of being able within five minutes to change himself into fifty different forms, none resembling the other, but each more hideous than the last, is fortunately of a retiring disposition and excessively timid, otherwise he would constitute a most dangerous antagonist. He stretches out his long arms and seizes whatsoever comes within his grasp. But his most objectionable practice is that, when disturbed, he vomits a quantity of inky fluid, which renders the surrounding water intensely dark, so that the diver who may chance to encounter him under some overhanging shelf or coral cave, may become entangled in the gloom, and so lose his way to the surface or strike himself against the rocks. Fortunately within the lagoons these are small, and so incapable of mischief; but in the deep sea outside the coral reefs, they grow to enormous size, and on exposed fisheries, such as those of Panama, are a great source of dread to the Americans and

Europeans, who dive in armour. Taking pearl-fishing in the coral islands of the Pacific upon the whole, I do not know any occupation connected with the sea in which the men engaged are so little liable to accident. Of course it can only be successfully practised by persons of experience; the divers must be amphibious—born to it; the directors, men acquainted with their language, habits, and wants. The employment of diving apparatus has frequently been suggested; it is used on the coasts of Colombia and Guatemala; in the Pacific Isles it has never yet been tried in pearl fishery, and, except in a few instances, it will not answer; the nature of the bottom will not permit it. I will explain this hereafter, when describing more minutely the mode of procedure.

Referring to the origin of coral atolls, like those of Paumotu, it seems most probable, as has been suggested by Darwin, that they are relics of an ancient continent, the peaks of a sierra, which, having been undermined by volcanic fires, have sunk down and left behind them their fringing reefs or coral crusts, which, during ages of their existence, had accumulated around them. This metamorphosis may have been effected at once, or gradually in the course of many centuries; in some cases comparatively recently, as in the instance of one island of Tokerau, where the bottom of the lagoon is still strewn with the trunks of gigantic timber which formerly grew upon the land of which it has usurped the place. That coral will not grow at vast depths in the ocean is now well known; consequently the reefs which appear on the surface of the waters have been deposited upon and around submarine eminences which have in many cases settled down and disappeared. Some are of opinion that all lagoon reefs have been built upon crater lips, which cannot have been the case, from the fact that the lava flow could not in every instance have broken out upon the leeward side, as is commonly the position of the gaps or passages through the coral barriers. Again, it is usual for mountain peaks to be left standing in the very centre of the crater immediately over the funnel, as would have been in the case of Uvea, Hogolen, Palao, and other similar great atolls had it been so. It is true that their nuclei are igneous rock, but it seems more rational that their submersion had been arrested in some way, else that they are still slowly going down. The old idea of coral isles having been built up from the bottom of the ocean by the labours of an insect must now be abandoned, forasmuch as coral is not a mere concretion but a true vegetable, as may be readily perceived by examining it in all stages of growth, from the time when it first appears like a tender fungus, soft and leathery, which, under the naked foot, feels like a cushion of moss, to the stony petrifaction in some species solid as marble. It is true that, like sponge, it has been fitted by Providence for the habitation of animalculæ, but the animalculæ do not produce it. As to how the pearl oyster is propagated in coral lagoons, is involved in considerable obscurity. I have no theory upon the subject; I can, however, supply certain data from long observation. Two islands of apparently precisely the same character, as far as natural formation, outflow and influx of the tide, depth of water, &c., are concerned, may be found within a few miles of one another, (as is frequently the case), yet the lagoon of the one swarms with pearl oyster, while in that of the other not one has ever been found. You will say, "Why not transplant them, as breeders do oysters?" This has been tried, not only in our time, but generations ago, without any success, by the aborigines, to whom pearl shell has always been most valuable, not only for ornament, but because for very many most necessary purposes it supplies to them the use of metals, as for the making of dishes, spoons, fishhooks, knives, and a variety of implements. Consequently, on islands where it was not indigenous they were most anxious to obtain it, and with that view made repeated attempts to introduce it into their own lakes, by carefully transporting the young shells attached to pieces of rock from one island to another, keeping them all the time in pure sea-water, but never succeeded. Moreover, there is no tradition of pearl oysters having once existed in a place and having become extinct; consequently there is some condition necessary to its growth with which we are unacquainted. There is no variety in the species, but very much difference in size and thickness to which it attains in diverse localities, as also in the production of pearls of value. For some of these peculiarities there is a way of accounting. The pearl oyster of the Pacific dislikes sand, and will not live upon it or grow to its full size in its immediate vicinity—that is to say, in a tide wave or where the sand pollutes the water. In still lagoons where the sand lies at a depth and is never moved, the pearl shell grows well on the rocks which rise out of it. But this fish most delights in the great caves and hollows of the clean-growing coral, where the waters are limpid and altogether free from such extraneous atoms as might irritate and annoy it. In such situations it grows to a great size (sometimes as much as 18 inches in diameter). These huge bivalves in those places frequently attach themselves to the roofs of caverns, sometimes a dozen being linked together by the strong fibrous threads whereby they make themselves fast; a rich prize for the diver, who is obliged to separate them with his knife, and from exceeding weight to make more than one plunge before securing the whole of the congeries. As a general rule, in well-fed and clean grown fish such as these, pearls are seldom to be met with. When that is the case, they are usually of considerable value, being large, well-formed, and pure. The oysters which produce the greatest numbers of pearls are thick and stunted, having a scabby and deformed appearance. There is a colour about their cable (or attachment whereby they hold on to the rock) unmistakable to an experienced fisher; so much so, that such a one, as in my own case, could with safety lay a wager to pick out from a boat-load of unopened oysters at least 75 per cent. of those which contained pearls upon a most cursory examination. There can be no doubt whatever that the production of pearls is, in most cases, the result of some disease or inconvenience suffered by the fish. Instances are occasionally met with in which oysters in an apparent state of perfect health and large growth contain pearls, usually then only one, and that large, round, and beautiful. On the other hand, in some distorted and scabby-looking shells, one will find, at times, twenty or more pearls (there have been instances of 100), small, shapeless, and of no value. Some have supposed that the irritation caused by the presence of parasites in the shape of small red crabs and lobsters, which infest the pearl oyster, and must cause it very much annoyance (forasmuch as their nippers are sufficiently strong to inflict at times a disagreeable pinch upon a man's fingers when engaged in opening the shells), were the cause of pearls being formed; but this cannot be the case, for the reason that these creatures seem to exist in the greatest numbers in large, clean, and healthy shells, in which are no pearls. Pearls of value in Pacific lagoons are not plentiful, though in some localities one may usually depend with certainty on finding them in sufficient quantity to cover the expense of getting up

the shell. A very great number of the most valuable pearls on the Pacific fisheries, as a rule, have been, and still are, lost, for this reason: The fishers allow their diving women to open the shells, which they do squatted upon the sand of the beach, holding the great oysters between their knees, when they wrench them open, a process which requires considerable force, and in the act whatsoever pearls may be loose in the shell immediately slip out with the water and slime which the shell contains, and are irrevocably lost. These are the finest of all pearls. They are not plentiful, but occur occasionally, and their value is after this manner, that one of them is in the majority of cases worth more than all those put together which may be obtained in the usual way (that is to say, lodged in the muscle) out of several tons of pearl oysters.

If it were in the power of man to get up and sift the bottom of any pearl oyster bank in the world, how great would be the treasure obtained! forasmuch as oysters in their old age (that is to say, past the seventh year of their growth) produce pearls most largely, then die and discharge their contents. It may be well said of all localities where the pearl oyster grows, that

There are jewels rich and rare
In the caverns of the deep,

inasmuch as that for every pearl of value that has been fished up by man, how many thousands have been buried in the sand, or incorporated in coral petrifactions! As concerns the losing of pearls in the opening of shells with the knife, such could not occur on the Oriental fisheries, where the oysters are all deposited in pits to decay, and the remains afterwards carefully washed and sifted; but there is no necessity for so unhealthy and tedious a process. A practised hand can readily open 1,000 shells in a day's work in such a manner as to make sure that not a single pearl shall be lost. One circumstance I have noticed, that when pearl oysters grow singly (apart from each other), they produce but very few pearls. Where they are crowded together, or tightly jammed in crevices of rocks, the reverse is the case. This may have some connection with want of liberty to move about, whereby they perhaps become diseased, for it is a fact that pearl oysters at certain times *walk;* that is to say, shift their quarters from rock to rock. However unlikely this may appear from the aspect of the shell, and the seemingly immovable manner in which they attach themselves to the stone, here is a proof which all fishers of experience will recognize: young pearl oysters are usually found in vast multitudes, packed closely together. Several bushels of them will frequently be attached to a single stone, filling up all hollows in a compact mass. It is perfectly evident that they cannot continue to grow that way, but must, as they increase in size, loosen themselves and shift elsewhere. But it is very certain that an oyster the size of a sixpence is as firmly bound to the stone, in proportion to its strength, as is another the size of a soup-plate; *ergo*, if the small ones have power to move (as we know they do), the large ones must be able to exercise a like locomotion. Moreover, if at certain times of the year a man should gather from any coral shoal all the discoverable pearl oysters, and yet in a week or two return there (especially after a gale of wind), he would again find in that place shells which had made their appearance during his absence from the neighbouring caves and hollows of the rocks. I have long been of opinion that the pearl oyster of the coral lagoons is not spawned altogether within the lagoon, but chiefly in the deep sea outside, for the reason that if any man will go, between the months of December and March (which seems in the Pacific to be the breeding season with many marine creatures), and stand upon the outer edge of a flat reef, on the windward side of any pearl lagoon, when the tide is making, he will observe the water to be everywhere full of young pearl oysters no bigger than his finger-nail, and others much less, all floating in towards the still water of the lagoon, where, having arrived, they sink to the bottom and settle down for life. Again, when the tide is going out, they are not seen to return to the ocean with it; neither, if a man will go and watch upon the lee reef, will he find any of them being carried over there. This has proved to me that the savages tell the truth—though the white men are not willing to believe them—when they say that if a diver could get down and work under the breaker, on the outside of the coral reef, he would find there even more shell than is to be found in the lagoon.

Of all the islands of the South Pacific, with the exception of the San Pablo, of Magalhaens (no doubt the same to which Cook gave the name of "Palmerston"), the Paumotus were first known to European navigators. The earliest discovered was San Miguel Archangel, seen by Quiros in 1606. Others were visited by Le Maire, Schouten, and Jacob Roggewein; but it was not until the beginning of the reign of the present Queen Pomare that they became generally accessible to civilized man. So great was the dread entertained by mariners of the ferocity of their inhabitants, that when, some forty years ago, at the windward end of the Archipelago, the "Essex," whale ship, was struck and sunk by an infuriated fish, the crew preferred to make their way in their boats to the coast of Chili—a distance of over 3,000 miles—to risking their lives in the endeavour to reach the Society Islands through a region of reefs and shoals inhabited by merciless cannibals. Attention was first attracted to the pearl deposits of Paumotu by the shell which was obtained from thence by the natives of Tahiti, and used by them for all manner of domestic purposes. But little notice was taken of them until it came to the knowledge of merchants of Valparaiso that certain Romish missionaries, who had established themselves among the savages of Manga Reva (Gambier's Isles), had there obtained several parcels of valuable pearls. Their avarice was immediately stimulated, and several vessels were despatched in search of these precious gems, with but ill success, for the traders soon discovered that pearls alone are not worth fishing for in that part of the world, but did not fail to perceive that the shell, or mother-of-pearl, was easily obtainable and extremely profitable, and so the trade flourished, and has continued with many fluctuations of the market up to this day. Various causes have of late years contributed to enormously increase its value, so that the profits of a pearl fishery are, at the present time, four times greater than they have ever been up to a few years past. Many fishers have made the remark: How is it that in these days we so seldom get hold of large pearls, when twenty years ago great numbers of them were to be found in the possession of the savages?

The agents of Messrs. Godeffroy on one occasion shipped to Europe, in one parcel, pearls to the value of 20,000 dollars, the product of a few months' collection among the Paumotus. Beachcombers,

also, who had been daring enough to land upon remote lagoon isles, and had managed to escape the ovens of the cannibals, frequently realized great sums of money by the sale of parcels of these gems, which, as a general rule, they disposed of for much less than their worth, which they were unable to truly estimate. Such was the case with Joe Bird, of Mangarongaro, who was known to have made over 6,000 dollars in this way, a great part of which was found in his chest by his wives, who divided it among them, after he had been put to death by his own men. In like manner Harry Williams, of Manihiki, amassed silver coin until he had as much as nearly filled a powder keg, which one day, in a drunken fit, he broke to pieces with an axe, and scattering the contents upon the sand, told the savages among whom he lived to take as much as they wanted, which they presently did, carrying the treasure off to their houses, crying, "Aué, aué! the white man has gone mad, and broken the barrel in which he kept his gods; shall we give them back to him? Oh, no! Let the white man go and find more." So, many people have asked the question, "How was it that pearls of value were so much more plentiful in former years?" There is a way of accounting for it; in part by the fact that, on every new fishery, the great shells are found in the shoal water to an extent which is never afterwards possible while the fishery continues to be frequented, and also for this reason, that the savages had been hoarding them. Not from hope of gain, for they had no such knowledge, but from superstition; thus, in every village was a house specially built and set apart wherein they kept their gods, or what answered the purpose of such. In this place it was customary to make offerings of the largest of everything they found (as well as whatsoever was new and strange to them), as the largest cocoa-nut, crab, fish of any kind, shell, or pearl: these things were made sacred, and hung up in this building; small articles, such as pearls, teeth of dead men, teeth and claws of animals, were enclosed in little bags, and carefully stowed away. Thus these places might be likened to a sort of museum, in which everything rare and curious had been preserved from generation to generation from an unknown time; and when communion with white men began to slacken their faith in their ancient devil-worship, much of what was really precious among these strange collections fell into the possession of the first strolling ruffian who was bold enough to land and live among them.

Many men in those days lost their lives in this trade, and others made themselves notorious for their evil deeds in connection with it—notably one Captain Rugg, who made a practice of cruising round the Paumotus, and wheresoever he found a quantity of shell ready for shipment, seizing it by armed force.

This man finally reaped the just reward of his misdeeds; for, having had the assurance to fire into the "Dolphin," an American vessel of war, to which he had declined to render an account of himself, he was, by the "Porpoise," one of the same squadron, chased into the North Pacific, and there sunk with all his crew.

In those days the yield of pearl shell of the Paumotu was enormous, and its value comparatively low, though great profits were made in the traffic, the natives being barbarous and ignorant, insomuch as they in some instances were willing to give 1,000 shells for an iron tomahawk, and for other articles of barter in the same proportion, which is still the case in some groups of the North Pacific into which civilization has not yet penetrated. Coming down to later times, it is probable that the yield of shell in the Paumotus twenty years ago amounted to about 1,000 tons annually, of which part found its way to Valparaiso, where agencies were established by European firms, some to Sydney, and a considerable proportion to China. As the aborigines became more intelligent, they demanded higher rates of remuneration. Cotton print and articles of luxury took the place of blue beads and hoop iron in their estimation. At the same time, new markets and uses being found for the product, its value considerably advanced.

Up to the present time we may very safely estimate the Paumotu Group has yielded to traders of various nations not less than 25,000 tons of pearl shell, representing, at the lowest rates which have ruled in Europe since the trade attracted any great attention, over £1,000,000.

The Paumotu fisheries are now frequently represented as exhausted. This is not true, although the quantity obtainable probably does not exceed 200 tons during the year. The reason is obvious. The pearl oyster requires seven years to arrive at maturity, and in the Paumotus they have been allowed no rest during the greater part of the last thirty years. As they are exceedingly prolific if allowed reasonable time to recruit, they would soon recover their former flourishing condition. But I do not point to the Paumotus (which are an appanage of France) as a special field of enterprise for the merchants of New Zealand. I simply desire to give a few well-authenticated instances of profits which have been made there (and how), in order to show what amount of success may be anticipated in the prosecution of similar ventures upon other pearl islands which have either never been entered by fishers, or have lain dormant for a great number of years.

No. VII.—The Paumotu Group.

The islands of the Paumotus consist, for the most part, of low coral, usually not more than 30 feet above the level of high water (frequently much less), covered with a vegetation stunted and wiry, consisting chiefly of Pandanus (screw palm), with patches of cocoa-nut and the remains of groves of gigantic tomano. I say the remains, for the reason that this wood has from all time been in great request for the construction of canoes, and consequently was accounted very valuable. It seems incredible how in times past, before the introduction of iron into this region, the savages contrived to work it, as in hardness it is equal to mahogany; and the sight of the enormous stumps which remain in many places bears striking testimony to the patient ingenuity of the barbarian artificers, who with axes of stone were able to cut down and hew into shape so intensely hard a material. On many low coral atolls trunks of these trees are still to be seen from 10 to 15 feet in diameter, which, though long ago denuded of their monstrous limbs, are still green and solid, covered with verdant shoots. Their appearance is very beautiful, the leaves being dark and glossy, the size of a man's hand, of a form and colour like that of a laurel. The flowers are small and of a waxen whiteness, growing in large clusters highly odoriferous, out of which the savages extract, by a rude process, a strong scent wherewith to perfume their bodies. The seed is of the size and perfect roundness of a billiard ball. The

timber of the tomano has been long regarded as a valuable article of commerce, many vessels in past years being engaged in its collection, the logs being chiefly carried to San Francisco and the Spanish Main. It has now become scarce from this cause; indeed, even a generation since it was on inhabited isles very difficult to obtain in a transportable form, in consequence of its being so much used in canoe construction, and would have been altogether so had it not been for the fact that great and dense groves of it were on many islands "tabu" for religious purposes, altars, idol shrines, and places of sacrifices being located under their shadow, as in the case of the great Morai at Raiatea, and similar places of devil-worship. There are on these coral atolls other useful kinds of timber indigenous, such as the *to*, a very beautiful and fine-grained wood, now almost extinct; the *nangiia*, which, from its extreme hardness and strength, supplied to the savages, for many purposes, the place of iron implements; and the *tainu* (or *tahunu*), a remarkable provision of nature, since of all wood it is the most suitable for the speedy production of fire by friction: a piece of tahunu, which has been gathered when green and allowed to dry gradually in a sheltered place, can, in the hands of a skilful operator, be made to ignite in less than one minute. The process is exceedingly simple, but requires a great deal more practice and skill than appears at first sight; one of the most unmistakable tests of a man's experience of the savage state is the ability to make fire in this manner.

The majority of the islands of the Low Archipelago are as yet incapable of any cultivation, except chiefly for the growth of the cocoa-nut, consisting as they do almost entirely of coral gravel, with very little soil. Some fruits, however, have been introduced with success. For instance, limes flourish, and fig trees attain the greatest luxuriance. There are a few islands in the group which possess a most fertile soil, and are of considerable extent, such as Manga Reva, a basaltic land over 2,000 feet high. Here are five islands within one reef, one of them at least five miles long, clothed with forest and watered by abundant springs. But of the whole area of the Paumotus at least two-thirds are overrun by the screw palm tree or Pandanus, called *fara* in the native tongue. This is one of the most singular of all vegetable products, and demands an amount of attention of commercial speculators such as has never as yet been accorded to it, for the reason that in the time to come it is destined to supply (when its peculiar properties become generally known) the staple of several most profitable industries.

Growing in the most barren spots, creating to all appearance a dense and rotten jungle, it has been usually regarded by Europeans as a useless pest, whereas it is in reality one of the most remarkable products which the Divine wisdom has bestowed to supply the wants of man in the savage state, and, when utilized, as it shortly will be, to contribute to some of the most important necessities of civilization.

Its appearance is grotesque, somewhat resembling the grass tree of Australia, or the cabbage tree of New Zealand. It is called "screw palm" for the reason that it grows with a twist like the screw of an auger. Its height is usually from 20 to 40 feet, the stem being straight like a column, sending forth branches at regular intervals, in such a form as sometimes to remind one of the golden candlestick in the Tabernacle of Moses. Each of these limbs terminates in a tuft of long drooping leaves, having in the centre a large yellowish flower, of an overpowering odour, very agreeable, but sickly by reason of its intensity. Underneath this tuft hangs the fruit, which is of a dark green colour outwardly, of the size of a man's head, and a form resembling a pine apple, or more exactly that of the cone which on ancient sculptures is made to surmount the Thyrsus of Bacchus. This fruit is commonly regarded by white men as not only unpalatable, but even as not edible; nevertheless, it constitutes almost the sole subsistence of tens of thousands of barbarians, forasmuch as on very many low islands of the coral seas, such as some of the Kingsmills, and perhaps one-half of the Raliks, no other vegetable food exists.

When the fruit is ripe it easily comes to pieces, and is found to consist of a multitude of separate capsules, each of the form of a truncated cone with square corners, the small ends being arranged around a central core. Their surface is bright and smooth as ivory; in one species yellow, in the other blood-red. The outer end is hard as a stone, the inner soft, of the consistence of sugar-cane, and containing an equal, if not larger, proportion of saccharine matter. The interior of the capsule is fibrous; the custom of the natives is to chew the soft end, and having thus extracted all the nutriment, to throw on one side the hard portion, which they let lie in the sun till thoroughly dry, when they crack it between two stones and extract the "kiko" or kernel, which is similar to a filbert, and very wholesome. The ripe fruit, when boiled down, produces a large percentage of excellent molasses; also, when steamed in the Maori oven and mashed up in warm water, it yields an intoxicating liquor when fermented, and a strong spirit by distillation. But the chief use to which it is devoted is the preparation of what is called on the equator *kabobo*, which serves the savage of the more barren isles in the place of bread. The soft parts of the fruit are grated, and the pulp so obtained is dried in the sun. Its appearance is then that of coarse pine sawdust, of a dark brown colour and sweetish taste. It is packed in baskets, solidly trodden into a hard mass with the feet, and will keep for any length of time. When required for use, it is moistened, kneaded, and baked on the coals. It is strong food, easily digestible, and very wholesome, but not palatable to a European until he has become used to it; as it eats very much as coarse meal would do if one could imagine it to be mixed with more than an equal quantity of sawdust. All the navigating savages of the North Pacific victual their canoes with it when they go to sea. The Pandanus tree grows usually upon coral, gravel, and clean sand, where there is no particle of mould or soil, so that it seems beyond measure surprising that its roots could then find either moisture or nourishment. Nevertheless, it contains a superabundance of oily sap, which exudes freely wheresoever it is cut with an axe. Growing as it does upon sandbanks and gravel beds, it would be liable at any moment to be torn up by the wind if special provision had not been made for its security; from the ground upwards round and round the stem in a spiral row following the twist of the tree (to the height of about 12 feet) are what at first appear to be excrescences looking like warts; these continue to protrude in the form of horns growing downwards straight, and about the thickness of a man's arm, until they touch the ground, where they take deep root, sending out suckers in all directions, and so form a series of stays or shrouds round the tree on every side, so that it may safely defy the power of the most furious storms. These stays (which are of all lengths up to 12 feet), when

macerated in water and freed from their oily pulp, yield a fibre something similar in appearance to jute, perfectly white and exceedingly strong, which, although at present seemingly unknown to the commercial world, it is to be expected will not long remain so.

The trunk of the Pandanus tree, at maturity, is hollow like a stove-pipe. The wood is never more than a few inches in thickness, and is absolutely as hard as bone, and so takes the most splendid polish. It is also as tough as whalebone; out of it are made the beautiful bows used by the savages of the equator and the Carolines, of which I believe the like is not to be found elsewhere in the world. One may well imagine with what admiration the English archers of olden times would have regarded such matchless weapons.

But the greatest value of the Pandanus tree consists in its leaves. These are more than a fathom in length, and from two to four inches wide, of a bright green, similar in appearance to the sword grass, having a rib down the centre, and being edged on both sides with a row of sharp prickles. Roofs of houses, sails of canoes, flooring mats, beds, baskets, and, where the Tappa tree is not found, all the clothing of the natives, are manufactured from the leaf. Wonderful and beautiful fabrics are made from it, all plaited by hand, and dyed various colours; waistcloths and sashes white as linen, and so soft that they are worn with perfect comfort on the naked skin; bed coverings, so finely woven that in European houses they have been often used as tablecloths; ponohos and girdles, so highly prized that the chiefs who possess them usually refuse to part with them even for as much as with us would amount to the value of a cashmere shawl.

But it is not in its adaptability to these purposes that the commercial value of this leaf consists, but because it presents one of the most easily obtainable and suitable materials for the manufacture of paper, and, from its extreme cheapness and inexhaustible abundance, will probably supersede all other substances for this purpose. It grows over the whole face of the coral seas, where it may be cut without leave or license, and it requires nothing but steeping in salt water, pounding, and bleaching in the sun to make it as soft and as white as linen rag. At the present time, when the future supply of the raw material for the manufacture is so earnestly debated, the fact of its being so easily and cheaply obtainable becomes a most important question.

No. VIII.—The Trade of the Paumotu Group.

In the matter of cocoa-nut oil, the average yield of the Paumotu Group has been for some years past not more than 200 tons annually, equal to 600 tons of kobra or dried cocoa-nut, which is in every respect the more profitable article to deal in, being infinitely less troublesome to manufacture, involving no waste and saving a large area of storage room, insomuch as the general practice in shipping kobra is to shoot it loose into the hold just as coals or guano. Of course it makes dead weight, but is not counted bad cargo for shifting, and is a great preservative of the timbers of a ship; the oil seems to steam from it, and to thoroughly saturate the pores of the wood. In iron ships which are cemented over the ballast, it is necessary to lay down a thick flooring of plank under the kobra, otherwise the oil penetrates the concrete and destroys its cohesion. A vessel of this class—the "Cæsar Godeffroy"—was ballasted with brickwork bound together and levelled with a floor of cement as hard as marble; but it was found after carrying a cargo of kobra that the cement had decomposed and the ballast was all adrift.

Such small vessels as cruise round the islands to pick up cargoes and carry them to central depôts, such as Tahiti, Samoa, Vavao, or Tongatabu, take their kobra in bags for the convenience of transhipment, or in baskets of nikau (cocoa-nut leaf), made by the natives. The price usually paid by the traders for the dried material varies from one to three cents per lb. in goods upon which the usual profit varies from 100 to 300 per cent. Thus, low lines of prints costing from 7d. to 8d. per fathom are retailed at 2s. Shirts which cost in the colonies 15s. per dozen are sold at 6s. a-piece, needles one penny each, and a small reel of sewing cotton 1s. A card of what is called Vandyke braid (an article in great demand in the Islands) costs 7d., and contains 21 fathoms; it is usual to retail it at one real (or 6d.) per fathom! What comes under the denomination of "manongi," that is to say, bergamot, musk, or the like strong scents (of which the Polynesians are intensely fond, and which they consequently buy with the greatest avidity), constitutes a very profitable medium of exchange, insomuch as in Sydney this article is obtained at 7s. per dozen vial bottles, which it is usual to retail to the barbarians at one dollar each! Combs, looking-glasses, and gilt ornaments command proportionately high prices; and upon fish-hooks, files, and various iron implements, the profits are very great. Cavendish tobacco is in all cases a dollar a pound, and prints, of whatsoever kind, are never sold at less than half-a-dollar per fathom; the superior lines and Turkey red muslin, as likewise Denims and twilled duck, always 75 cents. In the matter of ribbons, dyed feathers, beads, &c., the trader "sticks it on" according to his judgment, regulated by the amount of anxiety to possess these articles exhibited by the natives with whom he may be dealing. A judicious trafficker, on going ashore for the purpose of trade, usually makes himself a perambulating advertisement of his own goods, thus: He puts on a pair of trousers of precisely that kind he is most anxious to sell—a shirt of some gaudy colour or "flash of lightning" pattern, round his waist he winds a crape sash or piece of handkerchief of imitation silk, he wears a felt hat with a huge buckle and a great bunch of dyed feathers of the most gorgeous description, his ears are pierced and loaded with gilt rings, round his neck are wound several yards of ribbon, strings of beads, chains, &c., and his clothing is saturated with bergamot, verbena, or some similar perfume: as by these kinds of strong scents the Polynesians are as irresistibly attracted as rats are by that of aniseed, or dogs by the odour of a red herring. Thus attired, regardless of expense, he is looked upon as a sublime personage, and marches up the village street escorted by a dense crowd of simple islanders bursting with admiration, pushing and "scrouging" to get a nearer view of his gorgeous habiliments, influenced by much the same feelings with which the ladies of London regarded the Persian Shah.

Each article of his dress or ornament is separately criticised, and when informed that any one of these splendid things can be purchased so cheaply—only a basket or two of kobra or a few calabashes of oil, they become wild with excitement and rush off to collect their produce so as to be in time, lest the stock of valuables should be soon exhausted. Once get Kanakas to fancy a thing, and they are not particular what they have to pay for it; furthermore, when one man buys a thing all his friends and

neighbours commonly go in for the same kind of investment. One very good way of "heaving a sprat to catch a mackerel" is to present to the chief or great Panjandrum of the settlement, a sample of whatsoever stock you desire most especially to get rid of. The distinguished personage is certain to wear it in public, and the people to buy the like from the force of example. Although on most of the semi-civilized islands of the Pacific, articles of dress, ornament, and domestic comfort are the commodities most in demand, there are other groups where kobra and pearl-shell are obtainable, and where fire-arms, swords, and other weapons, are required in exchange. In such cases enormous profits are frequently made; thus, in 1871, Mr. Vogleman sold to the King of Apiang a 4-lb. iron gun (which had been put into his vessel as ballast) for 30,000 dried cocoa-nuts, of which the value in the islands was 300 dollars (£60). The piece of ordnance itself was intrinsically worth £1, the price of old iron, it being thickly coated with rust, and honeycombed to a degree which rendered it very dangerous to discharge. At the same time his Majesty bought a quantity of gunpowder at a rate corresponding to five dollars per lb., and a number of lobster cans filled with scrap iron, at a proportionately high figure.

Near about the same date, Captain Hayes sold to the people of Huahine a 9-pound gun, upon a slide, for 1,000 dollars' worth of cocoa-nut oil and oranges; and swords at twenty dollars each, which had been bought from Spence Brothers, of Melbourne, at half-a-crown!

On some islands where cocoa-nut is dried in great quantities, such as the Kingsmills and Mulgraves, the natives, who are a low type of savages, exhibit no desire for any articles of barter beyond knives, tomahawks, blue beads, and tobacco. This last they have been used to obtain from Sydney traders; it is of the description known as "sheepwash," of a very vile kind, inasmuch as they have been known to retail it to white men at 1s. per lb. It was quite of a similar character of excellence to a brand of gin which a year or two back was being retailed in the islands at 9s. per case of 15 quart bottles. It was known by the name of "chain lightning," and in flavour and aroma resembled that methylated spirit which in Australia is distilled out of gum timber in charcoal factories. This delectable elixir was brought to the islands by a New Zealand trader, but what city of the Southern hemisphere could claim the credit of its manufacture is one of the mysteries which will probably never be solved in this world.

The process of the manufacture of kobra is of the simplest kind. The best is that which is dried whole in the nut. For this purpose nothing is necessary but a large house or shed in which to stack the nuts. They must be placed upon a floor or stage to prevent them from touching the ground, else they will not dry but grow. The husk must not be removed, otherwise the eye in the end would be attacked by the "Kalulu," a sort of cockroach, for the sake of the water they contain; and the air being admitted to the interior, the kernel would at once begin to decay. If unpeeled and kept off the ground, in three months the water has disappeared and the kernel has become of a consistency like leather, in which state it will keep for ever, undergoing no change either from the effects of climate, damp, or other cause. This is the best of kobra, makes the clearest and the sweetest oil, and does not diminish in weight by evaporation. When thoroughly dry, which is easily found out by shaking the nut, the husk is stripped off, the shell is broken, and the kernel cut in pieces, so as to prevent its taking up too much room.

The other system is that of drying the nuts in the sun, which, if pursued carefully, makes good kobra, although never equal to that which has been dried in the shade, for the reason that, in the former case, the water which the nut contains is evaporated suddenly, and so not always effectually, in the latter gradually and perfectly. The usual practice is to skin the nuts, break them in two halves, throw out the water, and lay the broken pieces out on the hot coral beach to dry, which, in fine weather, will occupy about three days; but they must be taken in or covered up at night, and in case of a shower of rain, immediately protected from it, as kobra which has been rained upon will not keep, but always turns mouldy after a time, and will infect and spoil all the rest with which it comes in contact. Another singular fact in connection with this process (and for which it is not very easy to account) is as follows:—It frequently happens that a long spell of cloudy or damp weather takes place at a time when a quantity of kobra is being sun dried. To counteract the mischief created by the damp, it has been the practice of very many to make fires under stages, and so complete (as they supposed) the drying process by artificial heat. In such a case the kobra invariably breeds animalculæ, which within a few months will entirely consume it, and spreading to any other and better sample which may be stored in its neighbourhood, will destroy that in like manner.

Upon some islands, where the natives have become partially civilized, they decline to manufacture dried cocoa-nut, for the reason that, having been accustomed to sell their nuts to whaling and other ships at a dollar per hundred, they find that when converted into kobra they do not amount to that value. The fact is that in doing a trade they do not understand the principle of making a reduction in favour of regular customers who are prepared to deal with them periodically for large quantities of their produce.

On the same grounds they choose rather to make oil than kobra, although the oil trader pays them no more for the product of 100 cocoa-nuts than the whaleman gives them for the nuts themselves without the labour of peeling, breaking, scraping, and squeezing which is necessary to make the oil. As the trade increases they will perceive what is most obviously to their interest in this respect, and the manufacture of cocoa-nut oil by the old primitive method will become a thing of the past. One circumstance is tending greatly to enlighten them upon this point, which is, that upon very many islands Europeans or Americans have established themselves, and acquired possession of cocoa-nut groves, of which they devote the whole produce (with the exception of what they require for their own subsistence) to the preparation of kobra. These men do all their work with their own hands, or with the assistance of indigènes, to whom they pay wages. In many cases they have invented improved appliances for the better and more speedy attainment of their object. Thus, in the ordinary manner of spreading out the broken cocoa-nuts upon the sand, it requires from three days to a week of dry hot weather to convert them into a good sample of kobra. In addition to this is the constant necessity to watch lest a chance shower of rain should render the material unsaleable, as likewise the great trouble of collecting it and putting it under cover at night. To avoid this extra labour the white men engaged in the business construct a large shed with a roof of palm leaf, quite impervious to rain;

within it they lay down a floor of planks, which they lodge upon rollers working upon wooden rails in such a manner that the floor, which is made large enough to contain, at a time, several thousand broken cocoa-nuts, can be pushed out from under cover and drawn back again instantly, should it become necessary. The whole surface of this moveable floor they cover with sheets of galvanized iron or the tin with which the packing-cases are lined, in which the traders receive their cotton prints from the merchants. The intense heat generated by the radiation of the sunshine from the bright metal causes the kobra to become sufficiently dry in one day (which, by the ordinary process of laying it upon the coral sand could not have been effected in less than three), while at the first appearance of a change of weather the floor and all which it contains is without difficulty shunted into the shed, where it is effectually protected from any damage which might result to it from the rain. Barbarians, although at first very dull of comprehension in a matter of business, are keenly alive to their own interest, and they soon begin to argue after this manner: "If it be profitable for white men, who are so much more greedy of gain than we, to come and live amongst us and to go to all this trouble, it must also be profitable to us; let us, therefore, imitate the example of these white men."

No. IX.—The Pearl Shell Trade.

As the trade in pearl shell has of late years received an unprecedented impetus, it cannot fail to be useful to merchants interested therein to note for their information certain facts concerning the manners of its production, which, although very evident to men of an observant turn of mind who have had much experience in its collection, yet do not seem to be generally known to men of science. The pearl oyster of the Pacific is an inhabitant of the interior lagoons of certain of the great coral atolls—a necessity of its existence appears to be clean, growing coral, to which to attach itself free from sand or drift, and a considerable influx and outflow of the sea at the rise and fall of the tide. That they are not absolutely confined to lagoons, but that they do exist in great quantity under the tremendous breakers which beat upon the outer reefs (as also, probably, at great depths in the sea beyond them), is a fact not generally known, but is nevertheless true. As a proof of this, there are to be found chiefly on the windward side of all coral reefs enclosing pearl lagoons (and especially at certain seasons of the year) incredible numbers of microscopic pearl oysters and others of larger size, up to the diameter of a shilling, tossed about in the foam of the breakers and travelling with the flood tide over the reef towards the calm waters of the lagoon. These have been spawned in the deep sea or in the coral caves under the foaming surf which thunders on the outer reef, and seek, by some instinct of their nature, to make their own way into the placid waters enclosed within that stormy barrier. The oysters which are spawned within the lagoon are formed in congeries attached to the parent shells, or clustered in vast numbers fastened to one another in the holes of the rocks. The shell comes to maturity in about seven years, at which time its average weight is about one pound, exclusive of the fish contained in it. The usual size is about that of a soup-plate, or ten inches in diameter, although in rare instances they arrive at as much as eighteen. After this the creature perishes, detaches itself from the rock, opens to close no more, the fish decays, and the shell, becoming coated with coral and other stony parasites within and without, loses all value. The pearl oyster is gregarious; wheresoever one is found, there are of a surety vast numbers somewhere in the immediate vicinity. They are found in coral caverns hanging from the roof, linked together after the manner of a chain, or clustered in large piles firmly attached to one another. This attachment is only temporary. It has been generally believed that the pearl oyster is a fixture, and certainly the appearance of the cable by which it binds itself to the rock would warrant that supposition. This apparatus has the look of a large tassel, consisting of an infinite number of slender filaments, each about the thickness of a pack thread. It springs from the body of the fish, and passes through an orifice between the shells immediately next the hinge. During life its colour is iridescent, changing from a dark green to a golden bronze, exhibiting while in motion various prismatic hues. It fastens itself to the rugged rock with so determined a hold as frequently to require the utmost strength of a powerful man to tear it from them. Under these circumstances, it seems incredible that the creature should move from place to place. But, to borrow the words of Galileo, "Nevertheless it does move;" and under the influences of certain causes, these bivalves are in the habit of migrating *en masse*, not for any great distance, it is true, yet from one coral shelf to others in the immediate neighbourhood. As concerns the reason of their exodus, it might possibly be an alteration in the temperature of the water, caused by change of weather, or a scarcity of the animalculæ upon which the oyster feeds. The presence of drift sand is obnoxious to its comfort; consequently in the neighbourhood of banks and cays composed of that kind of débris it will not live. In lagoons which have no tideway it is not found, and if introduced there perishes. The experiment has frequently been tried, and its failure seems traceable to the following cause: Wheresoever sea-water becomes stagnant in the lagoons of the Pacific, there make their appearance, in great numbers, a hideous reptile resembling a centipede, which is found from the smallest conceivable size up to a foot long: these enter and devour the oyster. They may have other enemies; this one is the most notable. Under favourable conditions, the life of the pearl oyster would seem to be one of uninterrupted ease and passive enjoyment. Himself a creature most gloriously beautiful, his existence is passed among forms of the most surpassing loveliness, bathed in the cool, bright, unpolluted waters of the main. There he adheres to the side of some caverned cliff, covered with marine vegetation, and spreading out his ample beard (of which the dazzling colours when viewed in the light of the refracted sunshine, beaming through the limpid element in which he dwells, are like the tints of the opal, or of that stone which is called cat's eye by the merchants of Ceylon, and, sweeping around him his snaky tongue, he feeds daintily and waxes fat, and devotes the surplus of his nacreous secretion to the production of a precious gem, such as might haply be counted among the chief treasures of a kingdom, like the apocryphal eardrop which the wicked Queen of Egypt (upon whom Mark Antony was so fatally spooney) was said to have swallowed in a dram of vinegar; or the famous pendant which hung upon the bosom of that Lollia Paulina whose wealth in jewels was so enormous that she was entitled by the Roman people, "The grave-pit and magazine of the conquering robbers of the universe." It may be as well to mention here that pearls are, under certain conditions, liable to a form of decay, or a loss of brilliancy, which impairs their value. A good preservative against such a contingency is to keep them in magnesia.

Surely his lines are cast in pleasant places, and his existence might be one of unalloyed happiness; nevertheless, he has his afflictions. Some facetious writer speaks of an oyster as being "crossed in love." I know not how that may be, but this I have observed, that almost all well-grown pearl-oysters are infested by parasites in the shape of a scarlet lobster, about the size of a shrimp. This pestilent intruder introduces himself into the shell in conjunction, as it appears, with the partner of his joys, and making themselves a bed under the fat, soft body of their victim, resisting all attempts to dislodge them, rear their interesting progeny, and cause no end of pain and annoyance. The true cause of the production of pearls is, I believe, not known. It is supposed by many to be a disease in the fish; I am inclined to this opinion, and will state my reasons. In the first place, wheresoever a pearl fishery is found of which the oysters grow to great size, with a clean, smooth, outer surface, free from knots, humps, worm holes, or other blemishes, in fact presenting every appearance of healthy and uninterrupted development (which is particularly noticeable in lagoons where the shells be wide apart), there will the pearls be extremely scarce; so much so that it would not pay to prosecute such a fishery for the profit to be derived from the pearls alone, although the shell is proportionately more valuable. On the other hand, where shells are closely crowded together, deformed by pressure, abnormally thickened about the base, having laminæ of which their outside is composed forced at their edges into an unnatural contact, so as to induce a belief that their growth had been stunted, as likewise being studded with warts and knots of a scabby appearance, being moreover honeycombed with small worm-holes which penetrate more or less deeply into the nacre—there will pearls most exceedingly abound. It is not uncommon for as many as a hundred pearls to be found in such a shell, though the presumption is that where they exist in such great numbers, very few, and frequently none whatever, will possess any market value. But of the presence of the conditions necessary to the production of a pearl inside of an oyster there is one very significant and certain sign, the faculty of detecting which can only be acquired by practice. While the fish is alive, the two flat surfaces which appear at the back of the hinge present very beautiful prismatic colours; the cable which attaches it to the rock is in like manner remarkable. When the shell contains pearls, the prevailing colours of these portions is, while in vigorous life (as when just removed from the waters), a certain shade of bronze, brilliant but evanescent, which is not easy to describe, but very easy to be recognized by the experienced fisher. By this means a man well used to the work will, with great certainty, pick out from a boat-load of living oysters at least 75 per cent. of those which contain pearls.

In the Pacific, all oysters are opened by the knife, which, if carefully performed, is the best plan. The best instrument for this purpose is a common table knife of good steel ground thin until the blade is flexible, and fitted into a stout handle. A skilful operator will open a ton of shells in an ordinary day's work, and not miss the pearls if there be any. It cannot be done rapidly without frequently cutting the hands (sometimes seriously), as the edges are as sharp as glass. But men working for themselves, with a prospect of considerable gain, do not mind such accidents. The excitement is like that of gold-mining. White men, well up to this work, will never (if they can avoid it) allow valuable shells to be opened by any other hands than their own, as the Kanakas are sure to steal them if they have an opportunity, and so skillful are they in concealing them, that it is very difficult to detect them in the act. It was thus that the pearl deposit of Tapepaahua was discovered. Upon the lee reef of this place—which is a great coral atoll of 50 miles in circumference, nowhere more than 15 feet above the level of high water—about fifteen years ago there went ashore a New Bedford whale ship called the "Gem." There were some strange circumstances connected with the loss of this vessel, which, however interesting, would occupy too much space in an article of this kind. It is enough to say that Messrs. Hort Brothers, of Tahiti, despatched one of their vessels to the scene of the wreck in order to pick up whatever it was possible to recover, for she was full of sperm oil, and the copper and other material obtainable was of considerable value. The parties engaged in this venture anchored their vessel in the interior lagoon, and remained several weeks collecting the oil casks and burning the wreck in order to get out the boats and what else might have been worth saving. Their crew consisted of Tahitians and Paumotu men. During their stay these were allowed unlimited liberty to go a-fishing, and in their spare time to amuse themselves as they pleased. One day the captain's attention was attracted to a violent quarrel going on among the Paumotans upon the ship's forecastle. Upon his going forward the row subsided, and he observed one of them endeavouring to conceal something in the corner of his maro, or girdle he wore about his loins. On being questioned as to what this might be, he replied "tobacco"—a palpable falsehood, for the reason that being well supplied with that article, they could have no need to quarrel about or conceal it. Being laid hold of by the captain he presently swallowed the substance which constituted the cause of contention—which the master perceiving, he dragged him to the quarterdeck and administered a dose of tartar emetic, after which, in the process of casting up his accounts, he brought to light a large and valuable pearl. An investigation followed, in the course of which the captain learned what he was previously ignorant of, that his anchor was down upon a coral shoal, thickly covered with pearl shell of great size and splendid quality. He never reported the matter to his owners, but concealed his knowledge of this precious deposit until several years after. Having got a small vessel of his own, he engaged a number of Penrhyn islanders to fish for him at this place, under the supervision of a European, who, however, finding some cause of contention with his men, was by them murdered and thrown into the sea, and the fishery became deserted, as it is to this day.

When the shells are landed, the usual custom of the *boss* fisherman is to sort them into two piles, such as he supposes to contain pearls to be opened by himself, the rest by the natives. The empty shells ought to be at once placed under a shed to protect them from the rays of the sun, and so preserve their beautiful colours. In hard times it is usual for men to eat the fish which comes out of the pearl shell, cooking the residue in an oven of stones, and then drying them in the sun; but they are coarse, rank, and disagreeable as food, though perfectly wholesome. The pearls are usually lodged in the rong muscle of the fish, out of which the *cable*, as it is called, springs. This is about the thickness of that part of a man's hand which is next to the thumb. The flesh being semi-transparent, the pearls are at once seen from their brightness, which refracts the light. Their presence is easily detected; sometimes they exist in great numbers in one fish, but in such case they are generally small

and ill-formed. There are other pearls which are found loose in the shell, and these are always of very fine quality, perfectly round, and very often large. If the shell be carelessly opened, such pearl, if it be in it, invariably falls out, being carried out by the beard in the agony of the fish when divided by the knife, and is thus almost sure to be ejected from the shell. Thus it has been that upon the Pacific fisheries by far the greater number of the most valuable of these gems have been irretrievably lost, for the reason that the natives, howsoever experienced, never look for a pearl elsewhere than in the muscle of the fish. They squat down on the sand, place the shell between their legs, stick in the knife, and wrench it open; and if there be one of these beard pearls (which are often worth a hundred of the others), down it slips into the sand, and is never seen; but as a rule not more than one oyster out of a thousand contains a pearl upon the beard.

Fine calm weather is of course most favourable to pearl fishing, but not indispensable, as the amphibious natives of some groups seek the shell by swimming with their heads below the surface of the water, and having discovered it, inhale a good draught of air, and then go down and fetch up as many as they can readily lay hold of. Polynesian divers do not use any stones to sink them, or any apparatus to close the nostrils, as do the Cingalese. They will stay under water about three minutes, sometimes longer, and can bring shell (if put to it) out of twenty fathoms. It requires some extra inducement to get them down that depth, and of course they cannot stick long at it, but Penrhyn islanders, Paumotans, or Rapa men, can do it if they like. Where shell is found at that depth, they are of enormous size, as much as eighteen inches in diameter, so that a pair, when opened out by the hinge, will measure a yard across. This work of pearl-diving is very hard, and the heat of the sun, aggravated by its radiation from the still water of the lagoons, is frightful. The divers rub their bodies with oil, otherwise their bronzed skin would peel off in huge blisters. On many islands women are more skilful at this work than men, as, being accustomed from early life to supply cockles and clams to the lords of the creation, they are the better divers.

They are paid in cloth—*i.e.*, cotton print—tobacco, hardware, and ornaments such as earrings, beads, dyed feathers, &c., and other articles of small trade too various to enumerate, the rates of payment not being by any means alike upon different islands, as also the articles of barter most greedily sought after in some fisheries not being in demand upon others, which necessitates a trading agent to have some previous knowledge of the various localities where the shell is obtainable, and of the especial likings of the natives, in order to drive a successful traffic. Under such circumstances, in the latest of my experience, the cost of raising shell amounts to the value of about £5 per ton. Many old fisheries out of which great profit has been made (such as Tukau, from whence Messrs. Hort Brothers, in 1856–57, obtained, inside of twelve months, 120 tons of shell, with fifteen Paumotu divers, and the help of the wives which they took to themselves upon the ground) are now supposed to be exhausted, or (as in the case of Mangarongaro, where there has been for some time back an outcry about small shell) so far depreciated by constant fishing, and not giving them time to grow to maturity, as to be now of little value. This is a mistake in both instances; the best of the shell lies still in the deep water and in the great coral caverns underneath the exhausted shelves, from whence the savages, by judicious persuasion, can be easily induced to bring them to the surface. There are some lagoons in which any great quantity, and in some cases any shell whatever, is not supposed to exist, yet there is at those places a very considerable deposit, which has been overlooked for the reason that the fishers, not finding any in the shoal water, had not thought to look elsewhere. The shallow water at these places is skirted by sandy bays, in the neighbourhood of which (as I have said before) this fish will not live. Again, where the lagoons run into great bights, where there is no perceptible current, the shoal water is too hot for them; although in the deep hollows they exceedingly abound, but in such manner that they are not easy to be seen, unless a man goes down purposely to look for them. Pearl oysters are like sponges—certain conditions are necessary to their development; whereas in other localities, presenting apparently the same natural aspects, they are not found at all.

No. X.—Sunday Island.

On the direct route between New Zealand and the Friendly Isles, and about half way, lie the Islands of Huon Kermadec, so called after that unfortunate French commander, who, in company with M. D'Entrecasteaux, was despatched in search of La Perouse. There are three islands—Raoul, or Sunday Island, Curtis, and Macauley. The two latter are not inhabitable, neither is it possible to land upon them. They are volcanic. Curtis Island discharges great quantities of steam which spouts out of the crevices of the rocks. Sunday Island is about the same distance N.E. of Auckland as Norfolk Island is to the N.W. It is available for settlement, and has been inhabited at divers times by people of European extraction. It is about twelve miles in circumference; the height is 1600 ft.; much of the soil is very rich, consisting of volcanic ashes and vegetable mould. The ground is warm in some places, so much so that in some spots food may be baked in it after the manner of an oven by simply burying it in the loose soil. Bananas and other tropical vegetables have been cultivated here with great success by the various families of beachcombers who have from time to time made a home upon it. It is at present deserted. The first little community of Sunday islanders consisted of three families of American whalers with Polynesian half-caste wives; their children were numerous, as likewise very handsome and very healthy. There are said to be three anchorages on Sunday Island. I only know one, which is towards the north, partly sheltered by a chain of islets and detached rocks. Here is a semicircular bay, in which the water shoals rapidly, with good holding ground. There is good landing on a sandy beach. Whalefish are plentiful about here at certain seasons. I saw here once a monstrous "veki" (*octopus*), which had been torn by them. Where these creatures are found, the sperm whale resort very much.

Very large turtle come up at this place; both the green kind and "hawksbill," which is most valuable, the shell being usually sold at 5 dollars per lb. to the whale-ships and Sydney traders. It had always appeared to me a very strange mystery how it comes that this species of turtle (hau kebile), is almost never found (I might say never, since an instance does not occur once in a generation of men) westward, or as it is usually called in the Pacific to "windward," of the 180th meridian of longitude or thereabouts. There it is always spoken of by the natives as the "honu no te opunga," the turtle of the going down of the sun.

Turtle-shell at this time (even that of the green turtle, which was formerly unsaleable) has now acquired a value unprecedented in former years, for the reason of its being now the fashion to wear it not only in the form of combs, but in that of cuffs, bracelets, necklaces, and a variety of ornaments, not always carved as formerly, but, the shell being melted, they are manufactured by some stamping process.

In books on the Pacific Isles—and even in trade reports—one sees mention of "tortoise-shell:" it is a misnomer. There is no such creature to be found there, unless in the New Hebrides or Solomon's, which I do not believe. There is a tortoise on the Galapagos peculiar to those islands, and of immense size, but his shell is like bull's hide, and is of no value for any known purpose.

The hawksbill turtle, at a certain season of the year, feeds on the beche-de-mer. Where the one is found so is the other, and *vice versâ*. I shall have more to say of this when speaking of the latter animal, which is a valuable article of commerce, and at present in great demand.

In places where the hawksbill turtle are very plentiful, it is the custom of the savages to strip them of the valuable plates with which their back is covered. This is done by introducing a hot knife under the laminæ. The creature is then allowed to return to the sea, perhaps to be taken and stripped again on some future occasion. To some desert cays of the Pacific, such as Palmerston, Mopeia, Suwarrow, and Peregrino, men resort for the sole purpose of catching turtle (*i.e.*, the green species, no others being found there), and trying them down for the oil, of which a good-sized one will yield ten gallons. The price which they receive from traders is usually one dollar per gallon.

I have known beachcombers (that is to say, strolling adventurers who came there in boats accompanied by Polynesian wives) on Palmerston Island to have in a pen, or place walled in by stone into which the tide flowed, as many as forty great turtle at a time, which they fed on moss gathered from the coral reef. They could, had they chosen, have kept very many more, but they had no way of disposing of them, and no casks to contain the oil.

It has often surprised me that no merchant of New Zealand had ever thought of taking up Sunday Island for a whaling station. The anchorage is not secure at every season of the year, but more so than Norfolk Island. It is not large, being only twelve miles round, but much of it is very fertile, and the rest would support many goats or sheep. Not long since I was speaking to Captain Baker, of the "Bella," a trader belonging to Opotiki, on this subject. He was born on Sunday Island, and agreed with me that it was remarkable that no New Zealand people had ever made a settlement there. Before these people elected to make a home for themselves upon this place, it was usual for whale ships to call and leave letters in a certain well-known place for one another. The first settlers (who came about 1840) planted vegetables and caught turtle, which they kept in pens for the supply of whale ships. (The turtle at this island are plentiful, and of great size.) They used also to cure great quantities of fish and mutton-birds, which they caught upon the rocks in vast numbers and at certain seasons. They were wont to say that whatsoever seed a man might scatter about the place would grow luxuriantly. A cooper of a whale ship, who had stayed on shore here for a time, emptied out his mattrass as he was leaving; it had been stuffed with the heads of that kind of flag of which so much use is made to close the joints of the staves of casks. Among this were some seeds which grew and overran all the border of the little lake of fresh water which exists inland a short distance from the usual landing-place.

About 1861 there came to Sunday Island a slaver, on her way to Callao. She had on board over 200 Tokerau natives, among whom had broken out some disease of the typhoid nature. They were landed here and all died, as did about half of the unfortunate settlers and their children; the rest departed in the first whale ship that came along, fearing the pestilence, which seemed to have established itself upon their island. The last inhabitant of Sunday Island was one Covat, a man of strange experience, with a Samoan wife. He is now on the Fijis. He quitted his island home, on which he was very happy and had reared a fine family, in consequence of being frightened by a volcanic disturbance. In the early part of the year 1872, the water in the little fresh-water lake on Sunday Island began to boil furiously, which was followed by a column of fire spouting up from the middle of it. A whale ship in the neighbourhood, seeing the flame, bore up and took away Covat and his family, together with a comrade of the whalemen, whom they landed two weeks before, his leg being broken while killing a fish. Thus the place became finally deserted.

In September, 1872, I landed there, having previously stayed some time upon it in the year 1869 (myself and my companions having then lost our vessel, which had foundered at sea 100 miles off this place two days previous). I found no one, and the place was much scorched towards the interior. All signs of volcanic disturbance had disappeared, with the exception of the dead trees upon the hill sides surrounding the little lake, and some black cinders and ashes which were strewed about the margin. All was becoming green again, Covat's house was uninjured, and the banana trees had fruit on them. I saw no reason why a man should be afraid to stay here. It was a more fertile spot to all appearance than Rimatara where there are several hundred inhabitants.

XI.—Beche-de-mer.

All the lagoon islands of the coral seas, of a formation similar to that of the Paumotus, are famous for the production of beche-de-mer, which is one of the most important articles of commerce obtained in the Pacific. It is an old saying, "One half of the world does not know how the other half lives." And, truly, it is very surprising to contemplate the diversity of the "little games" wherewithal to make money, inaugurated by men who "do business in the great waters" of the South Sea. *Par exemple.* there is a master mariner, known to me, who goes by the name of "the Dustman," which happened in this manner: Certain of us, upon one occasion, boarded this man at sea, and being invited into the cabin found everything covered with a fine impalpable powder. It was everywhere—upon the deck, upon the table-cloth, in the glass tumblers, in the soup; the captain's hair and beard were full of it; the black steward's wool was encrusted with it, and his skin seemed to have contracted a drab colour; every man in the ship was the same. I thought of that saying in the Scripture, "Memento homo quod pulvis es, et ad pulverem reverteris." "What the devil could it be?" we inquired of one another. Not guano, for it had no smell; not sulphur, for it was too light, and of the wrong colour. Ashes!

that's what it was. This man had found a great deposit of it on a volcanic island recently in eruption. He had filled his vessel and was on his way to Europe with it, and it proved the most valuable cargo he had ever carried in his life, for the Russian Government, purchased it at a high price, for the purpose of making cement to lay between the stones of their fortifications. But as concerns beche-de-mer, men may stroll about the seas looking for islands whereon to cut wood, or to dig ashes or guano, to make barilla, or to pick fungus, or to "gather shells from youth to age," as the poet says; but what say you to catching snails? a singular operation verily! but an immensely profitable one, ludicrous as the thing may appear.

Beche-de-mer, called by the Chinese "Tripang," and by the Polynesian "Rodi," in the South Sea, and in the Caroline Group, "Menika," is of that species of mollusc classed as the "Holothurides." It has the appearance of a great slug or leech, and, like most other marine animals of the same type, lives upon suction and upon microscopic animalcules. Its anatomical structure is simple. It has the form of an elongated sac, of a gristly consistence, traversed internally by strong muscles; the rest consists of intestines, which are perfectly transparent, and, on examination, appear to contain nothing but water and sand—of the latter a large proportion, although what part so indigestible a substance may be disposed to play in the economy of its organism may be known to the creature itself, but has always been an enigma to me. The mouth of the beche-de-mer is triangular, with three teeth like those of a leech. It has no appearance of eyes. Its powers of locomotion are limited, so much so that one could not perceive it to move except by observing its relative distance from any neighbouring object. Its normal condition is that of repose; its existence is doubtless a very harmless one, but its sphere of usefulness is somewhat circumscribed. It seems to have few enemies with the exception of the turtle, which only molests it in the days of its youth and at certain seasons of the year. Crawling along the mossy coral of the snow-white bottom of the lagoon, it leads a life of passive enjoyment, which seems to consist in taking water and sand at one end, and squirting it out at the other. There are four kinds of beche-de-mer—the gray, the black, the red, and the leopard. The gray kind is the most valuable, but is only found where the hawksbill turtle is found—that is to say, not much to windward (eastward) of the 180th meridian. It grows usually, when at maturity, to about 18 inches long, and somewhat less in circumference. The colour is a slaty gray, and it is distinguished from the other species by having upon either side a row of little protuberances like teats. It frequents the flat reef and the sandy bottom of shallow lagoons. The black beche-de-mer lives only on clean sandy bottoms at a depth of from knee-deep at low water down to ten fathoms. It grows large, sometimes as long as 30 inches, and as thick as a man's leg. On the back and sides it is jet black, smooth and bright, like enamelled leather; the under side is slaty gray. When very old it becomes encrusted with small shells. The red kind is the smallest, and of the least value; it seldom attains more than a foot in length, usually less. It lives upon the coral reef; in the greatest profusion towards the outer edge where the surf breaks continuously. In this respect it differs essentially from the black kind, which delights in quiet waters and smooth sand, and will not live either in noisy waves or on rough rock. The leopard kind grows as large as the largest of the black; it is of an olive-green colour, variegated with green spots surrounded by an orange-coloured rim; hence its name. It has another peculiarity; all beche-de-mer are harmless when laid hold of but this one. On those occasions he spues out of himself a quantity of slender filaments resembling white cotton lamp-wick; he can produce several hanks of it; it is glutinous, and whatsoever it touches it attaches itself to in the most tenacious manner. This would not signify if it were merely satisfied with sticking fast, but it is not so; wheresoever it clings it burns like a blister, and upon any part of the human skin produces immediate and painful inflammation. An American whaleman, who was walking with me on one occasion upon a coral reef, trod upon one of these creatures with his bare foot, and got blistered in consequence. "Wonderful," said he "are the works of nature. I had used to believe that Providence made all things for some good purpose, but what good use can be in this darned reptile, it surpasses my means to imagine." "Never you mind, sonny," said I, "Providence knows better than we, and that ugly slug is worth 500 dollars a ton in Shanghai; if we could only get enough of it there."

It was said by King James I., that "he was a brave man who first undertook to swallow a live oyster;" but he who first with his bare hand took hold of a live beche-de-mer deserved at least an equal amount of credit, seeing that it is an essentially hideous and venomous-looking thing; the which last supposition is not altogether without foundation, forasmuch as it possesses some very poisonous properties. Thus its intestines are always full of water, which one might suppose, from the way in which it lives, to be common harmless salt water, but it is not so. When taken hold of, it squirts out the water which it contains, sometimes in a spiteful manner, and with evident malicious intent. If a drop of this liquid enters the human eye it produces a sensation like that of contact with a red-hot coal, resulting in violent and dangerous inflammation; if inoculated into any abrasion of the skin, the consequences are still more serious. I have known men to come very near losing their eyesight, and to suffer weeks of great misery and pain from this cause. It has been generally supposed (I believe by men of science) that this mollusc is of slow growth. This is not so. They will increase from an inch in length to the size of a man's hand within three months. They have other peculiarities, for which it is not easy to account; for instance, they are not found everywhere upon a coral reef or lagoon bottom, but in great patches, which proves them to be gregarious and of a sociable disposition. They possess also a certain degree of intelligence, which is evident from existing facts, but which does not seem easy to explain; as thus: these creatures (which have no apparent eyes) have some means of communicating with one another, and a very certain knowledge of each other's proximity. Thus, frequently after having discovered in any one place a greater multitude of these slugs than it was possible, from our means of transport, to have carried home to the curing-houses, it was our practice to lay them down on coral rock, with the intent to call for them again on the morrow; but it was usual afterwards to find them in congeries, whereas we had left them the previous day one here and one there, far apart from one another. Again, if a man should strip all the visible beche-de-mer from any part of a coral reef, and immediately afterwards the wind changed and came on to blow heavily, after the subsidence of the gale that place would be found as thickly crowded with these molluscs as it had been previously; which leads one to infer that they had been lodged in the cavities of the coral, and had

shifted their quarters during the bad weather, for some reasons known to themselves, but to us not by any means apparent.

That an animal so suspicious in its aspect, and gifted with certain poisonous properties, should be in demand as an article of human food (and, moreover, regarded as a delicacy), seems beyond measure extraordinary; but it is a fact that the wealthy classes of the Celestial Flowery Land exhibit so remarkable a fondness for the flesh (if it can be so called) of this glutinous reptile as to pay an exceedingly high price for it. "There is reason," says Shakespere, "in the roasting of eggs;" and there is for this apparently eccentric appetite (independent of the fact of its being a mere gelatinous luxury)—a reason very patent to the Mongolian mind, but which it is not necessary for me to particularize. It is probable that any one prompted by special curiosity might get his mind enlightened upon the interesting subject by applying to our worthy fellow-citizen, Mr. James Ah Kew, forasmuch as Chinamen, so different in most respects to the rest of humanity, seldom do anything without a substantial reason, and generally have a correct understanding of the same. For many centuries past, Chinese mariners have frequented the coasts of the Indian Archipelago, of New Guinea, and New Holland, and it was from this course that the northern shores of that great island were as well known to them before the days of Marco Polo as they are to ourselves at the present time. When Captain Flinders was engaged in the first exploration of that locality, he encountered in one of the harbours a fleet of vessels which he at first supposed to be pirates, but which, on closer acquaintance, he found to be Chinese tripang fishers, with whom he became very friendly, and from their intelligent commodore he received some valuable information, and was shown by him a chart showing the features of the principal points of the coast, and their relative positions to those of New Guinea and Tinsor. There can be no doubt that it was from this source that the Dutch navigators of former days derived the information which directed them to the discovery of New Holland, and set the Spaniards speculating upon the precise localit of thaty land which they were the first to name Australia.

As concerns maritime enterprise in the coral seas, no traffic has ever done more towards assisting the progress of discovery than the tripang trade of China, not excepting the sperm-whale fishery, forasmuch as the whalemen generally do but find islands, the beche-de-mer fishers land and live upon them until their cargoes are completed, and thus have been able to supply information not by other means obtainable.

It is commonly supposed that the market price of this singular substance in its prepared state is subject to great fluctuations. This is not really the case. The difference in price has, in the most cases arisen from the condition in which the article was delivered in China. As the superiority or otherwise of certain samples is not a question of seasons or circumstances over which the fishers have no control, but simply of sufficient experience, and due precaution, or *vice versâ*, I purpose next to describe circumstantially the different processes of preparation and stowage as practised by those who have been most successful in the trade.

The beche-de-mer fishery is one of those occupations which, while they involve no actual risk, can be entered upon with a very limited capital. In the majority of cases it is prosecuted by seafaring men, who having become weary of a life of hard work and little to take for it, on board of whale ships or merchant vessels, have landed from them on one or other of the Pacific isles, and, becoming domesticated among the natives, enlist their services in this pursuit, remunerating them for their labour by dividing among them a portion of their profits in the shape of printed calico, blue beads, tomahawks, tobacco, and other necessaries. They are usually rough and wild fellows, but withal hospitable and generous, as men must needs be who spend their lives among the copper-coloured Polynesians, for Maoris hate a mean man, and will not long endure his society; their motto is, "Disburse, divide; let your good fortune boil over in the direction of your friends; we are brothers, why should we not share with one another?" Consequently these men are usually poor, but of great power amongst the savage tribes with whom they choose to spend their days. They dictate terms to traders in dealing with the natives for whatsoever they produce; they advise the chiefs; they interpret, and receive commission for so doing (generally in the form of tobacco and "chain lightning,"—that is to say, the frightful liquor which is carried about the Pacific under the names of square gin, fatoa rum, or the like elixirs). These men are a sort of practical philosophers; they are outsiders of civilization, and they accept the situation *con amore:*

"They have burst all links of habit,
And have wandered far away;
On from island unto island,
At the gateways of the day."

It is a common practice with them to build small crafts with the assistance of the natives, or to get hold of ships' boats and "raise upon them;" and in this sort of vessel they cruise from one desert island to another, carrying cocoa-nuts for provender, and eking out the rest of their subsistence with fish, turtle, and sea-birds' eggs. When they find an atoll which produces beche-de-mer in anything like abundance, they squat down for a few months, or it may be a year or two, and cure and store it up until some passing vessel calls to purchase it; and if no such chance should occur, they fill their little vessel with a part of it, and going to some of the great islands where merchants are used to resort, they agree with some of them to send a vessel for the remainder. These men lead strange lives, and full of adventure—they are thoroughly acclimatized, and so deeply indoctrinated with barbarian ideas as to be sometimes apparently in doubt as to whether they had ever lived in civilized land. Once in the Kingsmill Island I had a conversation with a man of this kind relative to the best way of cooking a cray-fish. "We," said he, "are used to cooking them in an oven of hot stones, but white men mostly like them boiled in a pot." It was evident that his mind was in somewhat of a fog as to whether himself had any claim to be ranked among the sons of Japhet. Another, who is now living on Manuai, asked me to read a certain paper for him. "Were you never taught to read?" I inquired. "Oh, yes," he replied, "I had a good schooling once, but it's so long ago, that I don't know English from Dutch when it's wrote down." This man's son (who spoke good English), remarked to me that he should very much like to be able to read. "Don't you try to know too much," replied I; "knowledge is only a lot of bother" (Solomon, I believe, was of this opinion). "Ah! but," continued he, "I should like to read the Bible;

there's good stories in it—specially that part about the pirates." "Indeed," said I, "you must be mistaken; there's no such thing in the Bible." "Oh, yes," continued he, "don't you remember where Robinson Crusoe gets taken by the Turkish pirate?" I laughed very much, but was quite unable to convince him of his mistake. He said that a seaman who had been cast away upon his father's island had been used to read the tale aloud to them from a large book, "and I know," concluded he, "that the book was a Bible, for it was nearly half as big as a brandy case."

The reckless manner in which some of these half-savage mariners stroll about the coral seas is not a little remarkable. Thus, one Harry Williams, of Manihiki, went from Maldon to his own island, a distance of 500 miles, in a flat-bottomed punt, accompanied by natives. George Prescott (a cousin of the author of "The Conquest of Mexico") sailed from Tahiti to Samoa in a whale-boat, not much less than 1,500 miles the route he made of it. Captain Jeff Strickland took a schooner's boat of seven tons from Fiji to Sydney to be coppered; from Sydney he sailed to Tahiti with no companions but one man, a Polynesian woman, and a boy of 11 years of age. Upon this passage he lay to with her for five days through a living gale of wind off the North Cape of New Zealand. Afterwards he ran her for a matter of three years beche-de-mer fishing, all over the South Sea to windward of Tonga, which is no small thing even for a big ship to do, counting the hurricane months. (This remarkable little craft, which was known as the "Gonamarama," was swamped in 1871 by a waterspout off the coast of Tutuila; the crew swam ashore.) Besides this kind of semi-barbarous adventurers, there are many shipmasters and merchants who have been long used to sail vessels of from 30 to 100 tons, chiefly out of the ports of Tahiti, Honolulu, Guam, or Manilla, in quest of beche-de-mer, whose practice it is to frequent such great lagoon atolls as it is possible to get inside of and come to an anchor. There they lie up for months, until their cargo is complete. They land their trypots and other requisities, build some palm-leaf huts to lodge their men, and a smoke-house for the curing of the fish, and have usually a jolly time of it. The labour of collecting and drying the fish is performed partly by their crews, who are commonly Polynesian natives—with the exception of the mate, and perhaps trading master or interpreter—and such islanders as they bring along with them, if it be a desert and uninhabited place, or otherwise the aborigines whom they find in possession. Women are in great requisition on these kind of expeditions, they being well up to the work, willing and good-tempered, and much more easy to control than the like number of men. Traders who have much experience of this pursuit universally admit the desirability of in all cases engaging an equal number of women to that of the men concerned in the enterprise. Neglect of this arrangement has in many instances led to serious quarrels, maroonings, the taking of men's lives, and the like disagreeableness. There is a sort of charm about this kind of occupation which the dwellers in the Babel of civilization might be at a loss to comprehend—an elasticity of spirits arising from the consciousness of perfect liberty and absolute release from all conventional restraint, a total oblivion of all debts or duties, and entire exemption from any form of mental anxiety. There is a certain amount of reason in this. To spend one's days in a rock-bound haven where the waters are eternally at rest, no matter what storms may raise the sea which rolls outside the coral barrier. To run about barefoot upon silvery sands, where the cool sea-breeze all the year round conquers the sultriness of the tropic sunshine. To paddle about upon the still waters of a calm lagoon, whose limpid waves display beneath them an infinity of strange and beautiful forms. To sleep softly and to dream sweetly, sung to rest by the ceaseless sounding of the distant sea, and rustling of the night wind among the feathery palms. To know nothing of what is going on in the outer world, and to care as little. To have no ideas beyond those included within the horizon of vision; to climb to the summit of some lofty tree, and to see at one glance all which constitutes for ourself the material universe—to wit, a calm green lake, a circlet of verdant islets and snow-white sandy beaches, a coral reef bathed in a sheet of dazzling foam, and, outside of all, the vast circle of the restless ocean, more intensely blue from contrast with the cloudless sky; with nothing to relieve its oppressive monotony but, may be, the rainbow spume of some spouting whalefish, or the glancing pinions of the lone sea-birds.

There is one advantage in beche-de-mer fishing, that upon the great desert reefs where it most abounds the fisher never needs to be idle. In calm weather they gather the red kind off the top of the reef, just inside the foam of the breakers; in stormy times they dive for the black species inside the lagoon. From its size and colour it is plainly visible to a depth of at least ten fathoms, even when the water is much ruffled by the wind,—the more so as it lives only on the smooth white sandy bottom. The material required for the prosecution of this business is of the most limited character—merely a boat, a few axes to cut building materials and firewood, a supply of long knives for all hands, and, in some cases, two or three of the great cast-iron boilers (or trypots), such as are used on board of whale ships, with buckets and forks of many prongs, of that kind which, on gold diggings, the miners use to stir the gravel in their sluice-boxes. The first preliminary operation is to build two houses—one for the curing of the fish, which is done by smoking (just as people smoke bacon), the other for the purpose of storing it after being sufficiently cured.

These are mere sheds rudely thatched with palm leaves, and closed round on all sides with coarse mats of the same material. The thatch must be perfectly water-tight, for the reason that although salt water takes no effect upon cured beche-de-mer, and will not injure it in any way, rain water will entirely destroy it. The smoke-house is built of an oblong shape, having inside of it two sets of stages made of thin sticks or split palm branches fastened horizontally to a strong framework; a narrow passage is left between them, and underneath them are two drains dug in the ground wherein to make fires to create smoke. No nails are required in their construction, all the fastenings of the woodwork being of cocoa-nut fibre.

The terms upon which the labourers are engaged for beche-de-mer fishing depends on the circumstances of the case. Beachcombers who have native wives and families commonly make up a party of their wives' relations and near neighbours, and remunerate them for their work by sharing with them a part of the proceeds. Adventurers who sail small vessels, and have no settled home on the islands to which the labourers belong, hire them for a specified time at a fixed rate of wages, under a written agreement, which is witnessed by their king. Although in the majority of cases no one understands the document but the white men concerned in its concoction, yet the most ignorant barbarians are

pleased to see a promise written down, there being to their untutored minds a something sacred and solemnly binding connected with the operation. (How beautiful is their simplicity! and how expanded would their views become upon this point, could they but comprehend the sublime nonchalance with which many of the sons of civilization append their signatures to "a bit of stiff," without the slightest consideration as to the entirely hypothetical nature of the chances of their being able to meet the liability incurred by the said process.) Here follows a verbatim translation of a memorandum of this kind between one "Ururoa" (*i.e.*, Longbeard, a white man known to the natives by that name, as Polynesians generally invent a soubriquet from some physical peculiarity for any European whom they may happen to have dealings with), and certain people of Nukunivano:—

"We, men and women of Nukunivano, whose marks are put at the bottom of this paper, agree to go with the Captain Longbeard to the island of 'Gannet Cay,' and to fish for beche-de-mer for six moons, and to be paid, each man or woman, 14 fathoms of calico or 21 plugs of tobacco per moon, or other things as we like, such as knives and needles, at a value as we have before agreed; and at the end of six moons to be returned to our home, if the wind should be fair for us to come back at that time. The chief, whose name is Dogfish, shall superintend the work. The Captain Longbeard shall tell the chief Dogfish what the people are to do, and Dogfish shall tell the people. The Captain Longbeard shall not beat any of the people. The people shall not fight among themselves, but if there be any quarrel among them, they shall refer it to the Captain Longbeard and to the chief Dogfish. If any one of the people die, that which is due to him or her shall be intrusted to the chief Dogfish, to be given to his or her family. The Captain Longbeard shall supply to all the people, for nothing, lines and fish-hooks, that they may catch themselves food. All food and fresh water shall be taken charge of and fairly divided by the chief Dogfish. Twenty-eight days shall count for one moon; out of each moon shall be four days' rest—that is to say, the people shall work six days, and on the seventh day they shall do no work. They shall not lie to the chief Dogfish, or be lazy, sulky, or dissatisfied. There is no more to say." Here follow the names of the people's marks, each against their own. And, as a general rule, they have a good time of it; they live together like one family, and part good friends.

The poor barbarians are good-tempered, generous even to folly, and ready at any time to encounter the most deadly perils in the service of white men who treat them with kindness and liberality. Very many there are of us who have been indebted for our lives to their loving-kindness and unselfish bravery,

Through days of danger and ways of fear,

starving upon desert cays, lost upon lonely seas, running with a rag of sail before furious winds, tossed in the foam of breakers where the sharks are jostling one another. Talking not long ago to a gentleman who has a morbid antipathy to Maoris, of whatsoever tribe and lineage, and would have them exterminated as noxious vermin, I remarked, "Be assured my friend, had you known as many kind women and brave men as I have done in the islands of the great South Sea, you would not wish to see them civilized off the face of the earth."

As concerns life in a beche-de-mer camp, it is characterized by a sameness which amounts to monotony, and would be wearisome to many minds. Let us take, for instance, the incidents of one day on some desert isle like Gaspar Rico, Peregrino, or Palmerston. Beginning with the dark hour just before the dawn, the stars are shining with an intense brilliancy, reflected on the steel-bright surface of the calm lagoon. The sandy pathways seem like snow. The heavy forest of towering palms and banyans, interlocked with trailing vines, assumes weird and fantastic shapes, and shows a black outline against the clear blue sky; under their dark shadows twinkle innumerable points of light—the lamps of great glow-worms and luminous grubs. The trade wind moans among the forest leaves, and mingles its music with the hollow roar of the surf that rolls upon the coral reef. There are sounds of life, too, in the sombre shades—a sound from time to time as of blows with a pick-axe. In such a spot one might imagine it to be pirates who delve for hidden treasure, or murderers digging graves; but it is the "knovin," the "uguvale" (the great land-crab of the desert isles)—he is breaking a cocoa-nut for his morning meal. When the gray dawn glimmers in the east, the sea-birds flap their wings, and cry to one another from the lofty boughs. As the light increases, they quit their roosts, and fly away to seek their living on the sea. They go swiftly and in long lines dead to windward, for they know when they return they will be weary and loaded with fish for their young ones, so they will want a fair wind home. Presently evidences of human existence become apparent in the solitude. Amongst a little cluster of palm-leaf huts breaks forth a gabbling of tongues, and dusky figures carrying glowing firebrands pass from one dwelling to another. Men in the costume of the Grecian statues, and women half-covered by their hair, trot down the sandy pathways to bathe in the cold lagoon. They meet others by the way, and exchange civilities: "Tena korua!" "Eeki ouli kaina;" "Aere korua ki tai mo!" "Eeki, aere maua." They make no remarks about the weather; it is not their habit, the seasons undergo so little change in these blessed latitudes. When the glorious sun rises over the dimpled sea and lights up the woodland with his golden beams, there is a sound of axes in the forest, the men are cutting logs to keep up the fires beneath their smoking fish. Then the women uncover the Maori ovens and spread out the "kai," rolled up in palm leaves and nicely done brown; fishes of all sorts, and fat cockles, and gannet's eggs, and perhaps a great turtle baked in his armour, and huge land crabs, and roasted nuts, and many other good things. And when all have eaten, they stow away what remains, and wash up the dishes while the men collect their gear—knives, and baskets, and fish-spears, and lines, and gourds of water. One or two remain at home to watch the smoking, and by the time the sun is level with the crowns of the palms, the rest launch the boat, and spread the tall brown sail, and steer for some distant cay or coral shoal, where they spend the day in light labour, which is to them mere sport, tumbling about like Nereids in the clear cool water, wandering about upon the mossy reef, laughing and skylarking as they gather the slimy slug and spear the fish among the stones; until early in the afternoon, when they return to their little settlement, where some clean and cook the beche-de-mer, while the rest go to providing food. And by the time they get their suppers it is night; then they make fires, and spread mats beside them, and lie down and tell tales of phantom ships, and of ghosts and tupakos, and of impossible adventures and voyages to wonderful islands, and they sing songs, and the musicians play upon a Pandean pipes and a

shark-skin drum, and they get up and dance upon the smooth white sand by the light of the broad bright moon until the night is far spent, when they all go to rest, to wake again at daydawn with the sea-birds —just as happy and as innocent in their lives as they. Of course all is not sunshine and moonbeam at all times in the lives of beche-de-mer fishers. Many terrible tragedies have taken place among parties engaged in this pursuit; but in the majority of cases, throughout those islands of the South Pacific inhabited by the copper-coloured race of Polynesians, the preponderance of the blame has been on the side of the white man, and, in the most instances, other men's wives have been at the bottom of the mischief. Also, it has frequently occurred that Europeans, destitute of honor or humanity, have hired simple islanders, both men and women, for beche-de-mer fishing, and when their work was done, left them destitute in strange places, or sold them for slaves, or brutally ill-treated them for small occasion. One cannot wonder that the judgment of God should seem to cleave in some shape to this sort of scoundrels, who very usually wind up with a violent death, as did happen in half-a-dozen cases of which I had personal knowledge—Joe Bird, Jules Tirel, Joachim Gauza, Aaron Symons, Paddy Cooney, and Captain Daggett, who is reported to have been killed last year on the Island of Tanna.

Beche-de-mer is a wrinkled slimy creature, of precisely the appearance of a gigantic snail. When disturbed he swells himself up very considerably, and takes in a great quantity of water, which greatly increases his size. He is also elastic to such a degree that if one of them be slung by the middle across a pole, he will, by his own weight, stretch to several times his normal length. His shape is that of a cucumber; the red kind is seldom more than a foot long. Beche-de-mer is found upon coral shoals, where the water is not more than knee-deep at low tide. The most expeditious mode of collection is to make a little flat-bottomed punt of boards, or a small canoe dug out of a hollow log. (Upon most desert isles is a species of banyan tree, called "buka," of which the wood is very soft and buoyant, and consequently very well adapted to this purpose.) This constitutes an excellent mode of conveyance, as the fisher trails it behind him with a rope as he walks along the reef, and throws the slugs into it as fast as he can pick them up, and when the punt is loaded, tows it away to the edge of the deeper water, where he discharges his cargo into the larger boats which are used in the fishery. When the usual quantity of slug has been collected, the large boat is steered for home, and on the way the boat's crew employ themselves in gutting the fish. This is done by splitting up the whole length of the underside of the creature with a sharp knife, which is done over the gunwale, so that the intestines slip out into the sea. These intestines are apparently full of nothing but water and fine sand; they are transparent, about the thickness of a goose quill, and of great length. (I have often thought from their appearance that they might be utilized for the making of catgut, and perhaps isinglass.) When the boat arrives at the landing-place the fish must be taken on shore and cooked immediately, for a special reason. It is a remarkable peculiarity of this creature, that if a number of them be placed together, as long as they retain life they can be separated, although by reason of their plasticity they adopt their form to that of any substance with which they may be in contact after being taken out of the water, but shortly after their intestines are removed they lose all resemblance to their original form, and amalgamate into one indistinguishable and indivisible glutinous mass of the appearance and consistency of bird-lime, of which no use can be made, inasmuch as it adheres to whatsoever it touches with the tenacity of glue. There are several ways of preparing it for curing. The most primitive is to steam it in a Maori oven of hot stones. This is made by scooping out a large hole in the earth, in which the fire is made of small wood piled on its ends, cocoa-nut, husks, &c. Over this the stones are heaped, intermixed with more wood and husks. Hard stones are preferred, when obtainable, as they hold the heat better than coral, and do not become calcined. When they are thoroughly hot, they are spread out over the bottom of the hole, the fish is laid upon them as close as it will lie, and covered up first with large green leaves, then with "nikau" mats, and finally with a mound of earth. This is the orthodox Polynesian method of cooking everything.

I have already mentioned that, in preparing beche-de-mer, it is necessary to exercise caution, so as not to permit the liquor which is contained in its inside to get into the eyes or any abrasion of the skin, otherwise great pain and annoyance will result. After the beche-de-mer has been in the oven a sufficient time (which need not be more than an hour), it may be removed to the smoke-house. The steaming process has considerably altered its appearance; its size is reduced, and it has lost its sliminess. It looks like a piece of boiled cowheel or bacon rind of a dark colour. It is usual at this stage to spread out each separate slug by means of spanners—*i.e.*, little bits of stick inserted transversely into the under side, which have the effect of keeping it flat and preventing it from curling up during the curing process, so that it dries up more rapidly and completely. It is then laid upon the drying stages, and fires are lighted underneath it of damp and sappy wood, in order to produce a dense and pungent smoke, which is well confined by closing up the building with "pakau," that is to say, coarse mats of "nikau" (by which I do not mean the "nikau" tree of New Zealand, but the term which is applied by the South Sea Islanders to the leaf of the cocoa palm). By this plan the beche-de-mer, if a strong smoke be kept up, will cook effectually in forty-eight hours, or, at the outside, in three days. It must be turned at least once. (I have said nothing about taking out the teeth, as practised by some, for the reason that it is wholly unnecessary; they dry up to the consistence of chalk, and do not affect the value of good beche-de-mer in any degree.) Another method of preparation is by boiling it in the great trypots which are used by the whale-fishers. It is boiled twice in salt water, about ten minutes each time. This is the more expeditious way of cooking, but it necessitates a longer smoking, as it will not cure thoroughly after it in less than eight days, and after all never resists the damp so well as that which has been steamed in the oven. A third and most effective system is to put the beche-de-mer into a hogshead or close box, into which a steam pipe is introduced from a boiler. This is a very expeditious plan, and most to be recommended. When sufficiently smoke-dried, the fish is packed into strong baskets of nikau, which it is not desirable to have stitched up until the time of shipment, for the reason that it is advisable to occasionally spread it out, so as to give it the advantage of a thorough scorching in the hot sun, and to give opportunity to pick out any soft or imperfectly cured sample. It must be borne in mind that its preservation depends entirely on its being thoroughly dried. Beche-de-mer, when properly cured, should be of the consistency of sole leather; and unless this result is attained, it is the most precarious kind of merchandise to deal in. The ultimate destiny

of most beche-de-mer being the Chinese market, which involves long transport, unless perfectly cured, it can never reach the end of its voyage without becoming greatly depreciated and sometimes altogether destroyed by decomposition. I have seen whole cargoes in Guam and elsewhere thrown into the sea from this cause. In every instance where such has been the case, it has been the result of ignorance or negligence. It is not only quite possible, but with due care and precaution perfectly easy, to preserve beche-de-mer in such a manner that it will keep without injury, not only during a voyage to China, but, if need be, until the day of resurrection; as thus, if the beche-de-mer be cured thoroughly, as it is bound to be if it is smoked sufficiently and dried in the hot sun till it rattles like a bag of walnuts (which is no more that any trader expects who has been used to deal in it with success); then, if any one be afraid of transport in damp weather or leaky decks, put it into iron tanks (a tank will hold 30 cwts.), plaster the lid round with white lead, and one might rest on the assurance that the beche-de-mer would be secure from decay as long as the iron was not penetrated by the atmosphere, which would not happen for some years at all events. The difficulty of preserving beche-de-mer consists in this—if not thoroughly divested of its juices, or if subjected to damp, or brought into contact with fresh water, it speedily dissolves into a glutinous fluid, of an appearance like molasses, and of an odour like decayed eggs.

No. XII.—Beche-de-mer, Sponge, and Turtle Fishing.

I have already observed that from some unexplained reason beche-de-mer is not found in the same abundance upon every part of a coral reef or sandy lagoon, although there may be no apparent difference in the depth of water or other local condition. On some islands it is very generally distributed over the whole surface of the shoals; on others it occurs only in patches. There is also another fact to be borne in mind. On most of the atolls of the Pacific are to be found in the shallow water, where it is not more than knee-deep at low tide (and consequently during the day very warm), both on the sand and on the flat coral, immense quantities of a sort of black beche-de-mer from six inches to a foot in length, which is of no use whatever in commerce, for inasmuch as it consists only of a gelatinous skin filled with water, and cannot be preserved since it has no solid substance, and when cooked almost wholly dissolves. When lying in the water, it does not much differ in appearance from the marketable black kind, excepting in so far that it is rather more slender in proportion to its length; also, that around its mouth it exhibits small tentacles resembling the horns of a snail. It has frequently happened that men void of experience, seeing the great abundance of this creature upon coral reefs, have reported such localities as being productive in the true black beche-de-mer of commerce, when at the same time there was nothing of the kind to be found there.

There is to be met with frequently among beche-de-mer a marine animal of a very singular aspect. It is called by the natives of Tokerau "taumata" (that is to say, skull cap, from the fact of its being sometimes converted to that use). It is about the size of a man's head, or somewhat larger. As concerns its shape, if you take a square piece of paper and double down the corners in such a manner that the points meet in the middle, that will represent it very nearly, excepting that the form will be more rounded. The under side, where the foldings take place, lies flat upon the rock or sand; the upper is concave, and of a reddish brown colour, so that it looks like a loaf of bread. It is of a gristly consistence, and covered with small warts. It has no appearance of eyes or power of locomotion so far as one can discern, and therefore seems to represent one of the lowest forms of animal life. (I should like to know Mr. Darwin's opinion as to the ultimate future of such an organism as this.) The beche-de-mer, blind and helpless as it seems to be, may be regarded as an intelligent animal in comparison. It appears to live upon suction. When taken out of the water, it can exist a very considerable time, if not absolutely exposed to the hot sun. There may possibly be a use for this thing, if one only knew it (it is not regarded as edible); but the only purpose to which savages devote it is for the making of a kind of skull cap or helmet, which they effect by cutting round the under side (for it cannot be opened by any violence) and scooping out the inside. When dry it becomes as hard as bone. Beche-de-mer fishers frequently cut these creatures into strips, and cure them with their beche-de-mer, on the principle that "all is fish that comes to the net;" but the practice is dishonest, and ought never to be permitted, if for no other reason, from the mere fact that it has a tendency to depreciate the article in the Chinese market.

Among the profitable industries of the coral seas, the collection of sponges is not the least important. It is said that the sponges of the Pacific are of a kind inferior to those of the Levant or Red Sea. It may be so, but I believe not in every case, as sponges are met with occasionally in the Pacific as large and well shaped, and apparently as soft, as any that are to be found in the market. I am of opinion that the Turks and Arabs have some peculiar mode of preparing their sponges with which the fishers of the South Sea are not acquainted, and that this really constitutes the difference. Sponges of a superior kind are gathered in great quantities in the Gulf of Mexico, about the Bahama Banks, and at Green Turtle Bay; they realize a high price in the market, but as far as I have seen do not differ from those found in the Pacific. To fish for sponges with success requires a certain degree of practice, as they are very difficult to recognize in the water when in a live state. They grow on the coral and very much in the crevices of it, and are not by any means conspicuous, as they look like a part of the stone. When removed, they are heavy, slimy, hard, and black as tar. The best of them are of the form of a mushroom, and they are found from the size of a man's fist up to two feet in diameter. They usually lie within the lagoons, in water of a depth from one to ten fathoms. They are inhabited by animalcula, which in the process of cleaning are decomposed and washed away. In order to effect this object upon a sandy beach where the tide ebbs and flows, a number of forked sticks are driven into the sand, and upon them are fastened slender poles as a sort of framework; from these sponges are suspended by strings in such a manner that when the tide is in the sponges are floating in it; when it is not, they are exposed to the wind and sun. In the latter case the animalcula die and decay, and by alternate scorchings and washings the sponge becomes cleaned and bleached, as well as softened, in consequence of the removal of the glutinous creatures which had inhabited it. When prepared in this manner, the usual rate of barter in the islands where they are chiefly obtained is four large sponges for one yard of calico. I have found that they were greatly improved both in colour and softness by being

washed in hot fresh water, which had been previously strongly impregnated with the alkali of wood ashes.

I have had occasion, in a former paper, to mention turtle-shell as one of the valuable products of the coral isles. It is commonly spoken of as tortoise-shell, which, in the case of the hawksbill turtle, is no great misnomer, as there is but little difference between the animals, except in so far that the latter has flippers instead of paws. On the Gallapagos is a gigantic species of tortoise, of which the shell is of no use, though the flesh is very good eating. This creature, which is, I believe, found nowhere else on the face of the earth, grows to so great a bulk as to weigh half a ton, and it is said even more; he is quite harmless. A seaman of a New Bedford whale-ship, a few years ago, was supposed by his companions to have lost himself on one of the Gallapagos. They sought him for a week without success, when to their astonishment he made his appearance driving one of these immense brutes with a club. It was the largest they had ever seen or heard of, and he had spent several days and nights in getting it down from the mountains to the sea beach. This monster might probably have been several centuries old, for, like all the tortoise tribe, they are of very slow growth. I believe that it is admitted by men of science that there is strong presumptive evidence of land tortoises of the old world, in a domesticated state, having lived for more than 200 years. Twenty years ago two young tortoises of the Gallapagos were brought to Aitutake by a whale-fisher, who had a wife and family on that island. He took them on shore in his pockets, and let them go adrift in the bush. Eight years afterwards the natives found one of them dead after a bush fire, and they say it was no larger than the blade of a paddle, which would be of an oval shape, and about a foot in diameter. The Gallapagos Islands, which are a horrible congeries of extinct volcanic craters, seem to be inhabited by no living creatures but these great tortoises, and vast multitudes of hideous iguanas, which also are very good eating. Among the natives of the coral isles there are certain laws with respect to catching turtle. Whosoever sees the turtle first (be it man or woman) claims the shell. Be it remembered the shell is valuable to them for many purposes. Not only do they make of it many articles of domestic use, but among the more savage tribes it is carved into grotesque ornaments, which they attach to their heads and bodies; also they cut it into long strips, with which they cover the seams of their canoes, and of the thickest portion they make ear-rings, finger-rings, bracelets, and fish-hooks. In fact, it would be difficult to enumerate the multitude of uses to which the "una home," as it is called, is devoted by barbarians. Some of the bones also of the turtle are made to serve many useful purposes—such as bodkins, fish-hooks, spoons, and especially knives.] Civilized men will be apt to smile at the idea of a bone knife! But I have seen many knives made from the blade bones of the turtle, which, although clumsy in form, were quite as effective for any ordinary purpose as steel knives could have been; one which I had in my own possession was very old, having been made in a former generation. It required to be very seldom sharpened, and then took such an edge as no man would like to run his finger carelessly along. When a turtle is caught, be it large or small, the flesh is divided among the whole of the inhabitants of the village to which the captors belong, so that in many cases a very small piece comes to the share of each individual. The weight of a full-grown turtle is usually about 4 cwts. in the Pacific, but sometimes they are found as much as 6 cwts. They are profitable to fish for, not only on account of the shell, but for the oil which they contain, of which a good-sized one will yield ten gallons. The trade price is usually one dollar per gallon. Among savages they are sought after chiefly for the flesh, which they eat either cooked or raw. It is like beef, and is no great delicacy. Turtle soup, as far as I can understand it, resembles the broth which a cobbler is said to have made of his lapstone; he was supplied with a variety of excellent ingredients to boil with it, and it turned out very good indeed. The creature is killed by striking it on the back of the head with a club; a bundle of dry leaves is then ignited and passed over the shell, so as to loosen the plates, which are pulled off; the under part of the shell is then split from the upper, and the meat is cut up. On some lands all turtles are claimed by the King; in that case, the plates being removed from the back, the animal is put whole in an oven of hot stones, and baked. When there are not sufficient in the company to consume the whole carcase at one meal, the residue is preserved in a very ingenious manner. The turtle being baked with his back down, the hollow of the shell is full of melted fat or oil; this is baled out and taken care of; the meat which is intended to be preserved is cut into junks, each about the size of a man's fist. One or more of these is put into a cocoa-nut shell, and the oil poured upon it till the shell is nearly filled; the mouth is then closed, with a green leaf tied over it; it is then put away until wanted, when it is again put into the oven and made hot. In this manner the meat can be preserved for an indefinite time without spoiling.

There are several ways of catching turtle, but the most usual is to watch for them at night. When they are taken during the day, it is generally by surprising them while they are asleep on the surface of the water. On those occasions the practice is, as soon as the turtle is discovered, for several persons to go out to him in a canoe, and paddle silently alongside, when they seize him and lift him on board before he knows what is going on. They are quite harmless, except in the mere matter of floundering and striking out with their flippers, with which they can deliver a severe blow. It is very rare for them to attempt to bite. When a turtle is found sleeping, and he be of great size, and but few men to seize him, it is usual to harpoon him. During the breeding season these creatures are very careless of their safety; they are found in congeries, and, under certain circumstances, exhibit no sense of danger, or desire to escape from the presence of man. When several turtles are in this state, a like number of men, having approached them in a canoe, will jump overboard and lay hold of them thus: the man gets on the back of the turtle, and takes hold with his hands of the front of the shell, just behind the neck. This prevents him from "sounding," that is to say, going down head foremost, as a turtle will always do when alarmed, if not prevented, as in this case he is effectually by the weight of the man on his back. He is thus quite helpless, for he has no idea of getting rid of his rider, except by diving head first, and allows himself to be steered in any direction his captors may choose. Thus he is brought up alongside of the canoe, and hoisted into it without resistance. But in playing this little game, which seems so simple, there are several things which it is necessary to know. One of them is, that a turtle in the water can cut a naked man very dangerously with his flippers; another thing to be avoided is to catch the turtle by the tail. God help the man that knows no better than to do so, for the reptile will in that case instantly shut his tail close up to his body, whereby he will hold the man's

hand as tight as though it were in a vice, and, diving head foremost, will take him down to the bottom of the sea. On lagoon isles turtles are never (except by some extraordinary accident) found within the reef, unless the lagoon have a wide entrance, through which the tide ebbs and flows freely. They do not like stagnant or warm water, but delight in the fresh dashing spray which breaks upon the outer reef. There also they find the long green moss upon which they delight to feed. There are times of the year, however, when they are found wandering about in the shallow water upon the top of the reef in search of small beche-de-mer, which they swallow in great quantities until they quite fill themselves. At those times, whenever the male or bull turtle is found, the female is not far away; they are generally close together. In such case the savages declare that the turtle are bound on a cruise to some island far away, and are laying in provender for their voyage. When found upon the coral shoals, it is usual to secure them by spearing them with a harpoon, not of course by attempting to pierce the shell, but by driving it into any of the orifices, generally the back of the neck. But the greater number of turtle are taken on shore, on sandy beaches, where they resort to lay their eggs during the night. They select for this purpose solitary places, not necessarily on uninhabited isles, but always at a distance from the dwellings of men. About full moon is a favourite time with them. The female goes on shore, the male lies out beyond the breakers and watches for his mate. She lands with the high tide, and returns to the sea with the next flood; consequently, she remains on shore several hours. If overtaken by daylight before high water, she goes out on the reef and lies still there, waiting for the tide to come in. While in this situation turtle are often taken by fishers, as they do not attempt to move, not even if a man should tread upon them, which has frequently happened in the grey of the dawn to men who have been out early seeking other fish. When the turtle lands to lay, she goes well up on the dry beach above high watermark, frequently under the shadow of trees, and there scratches out a great circular hollow, throwing out the sand with her flippers. As the creature turns herself round and round in the hole, it becomes smooth within, like a basin, and about so deep that the turtle sinks below the level of the surrounding sand. Then, in the middle of this pit, she digs out a small perpendicular cavity, about the depth of a man's arm, and therein deposits her eggs to the number of over 100, and, filling up the whole excavation, returns to sea. Thus, though a man may easily find the track of a turtle, it takes considerable experience to discover the eggs. It is the practice of the fishers to walk round the beach, after high tide, in places where turtle are expected to resort, on moonlight nights, about full and change, and to look for the signs of their presence, which are easily discoverable, as the animal leaves a broad track on the sand. This they follow up until they find her either lying in a pit or on her way to or from the water. The turtle offers no resistance, but tries to make its escape into the sea, and it is surprising, from its clumsy appearance, with what rapidity it can get over the ground. The mode of capture is to turn it over on its back, and it does not seem very feasible, for the uninitiated in the business, how a single man, running in heavy sand, can contrive to capsize an animal of 300 lbs., or even greater weight. But there is a knack extremely simple to those who are used to it. The manner of a turtle's locomotion on dry land, when interfered with or obstructed, is by wriggling with sudden jerks from side to side, making short strokes with its flippers. The fisher takes his opportunity when it is just on the cant, and tips it over on its back with ease. Much injury is frequently done to the shell by turning the animal over on stones and gravel, and leaving it there, as in its efforts to right itself it cuts and scrapes the plates. It is likewise abominable to witness the ill-treatment which these animals experience at the hands not only of savages but white fishers, before they are finally despatched, being often kept for hours on the hot sand under the broiling sun, their shells also scorched by fire off their backs while they are still alive, and then being battered about the head with clubs often for half an hour before life is extinct. They are, of course, very tenacious of life, like all the reptilia; but one would think that there can be no better way to kill them without torture than to cut off their head with a sharp axe or cleaver. Even in that case they continue to move about for some time afterwards, and I have noticed that the head, when not taken off close to the base of the skull, apparently will not die at all, at least, until decomposition has far advanced. I have never been able to understand this; but it seemed to me to involve some strange mystery, for I have noticed the same thing in serpents, that there is a place in the neck, that if you cut below it, the head continues to live, and *vice versa*. Turtles are frequently killed by being capsized in a surf, and dashed with violence upon rocks. Sometimes, also, they escape with life after sustaining great injuries. I have seen one which, at some former time, must have had its shell split completely open longitudinally, for there was the mark of a scar in that direction having the exact appearance of a seam which had been caulked.

The eggs of the turtle are perfectly round, and rather smaller than a billiard ball; they are white and without shell, the covering being like parchment. They contain a yellow yoke about the size of a grape shot, floating in a water liquid. They are sufficiently wholesome as food when boiled or baked in the Maori oven, but their flavour is insipid and fishy. A turtle will often contain as many as 300 eggs, but will not usually lay more than half of them at a time. If the fisher finds the tracks of a turtle on the sand, but should not succeed in catching it—if he have been previously on the watch about the same locality—he will know whether the turtle has been lately on shore there shortly before; if not, he will look out again for it at the same place exactly the ninth night from that time; and if it comes not then, on the eighteenth, for if no accident have occurred to it in the meanwhile, it will assuredly return at either one of those periods, exactly at the same spot, or somewhere not more than a cable's length to leeward of it (never to windward). If it should not come back on the eighteenth night from its first appearance it will never return any more, at least until the following year. It is very remarkable how an animal of so stupid an aspect should display so marvellous an instinct in the observance of times and seasons, but it is so. They are also exceedingly cunning in the concealment of their eggs. Moreover, if they perceive a man in their neighbourhood, instead of stupidly rushing to make an immediate escape, they will lie *perdu* for hours, as though in hope that he might depart without perceiving them. When the young are hatched, which takes place in a month, they are about the size of a Bolivian dollar, perfectly formed, and prepared to begin life upon their own hook, which they commence by digging their way out of the sand and scuttling off into the deep sea, although many of them never reach it, in consequence of being pounced upon and

gobbled up by "man-of-war hawks," or the like birds of prey, if it be daylight, or if in the night, by the "koviu" or great land-crab, concerning which I have something hereafter to say, inasmuch as his peculiarities not only invest him with a certain amount of interest, but entitle him to be ranked among animals of superior intelligence. It has long been customary with natives of the coral seas to rear and tame turtles. They become much attached to the persons who feed them, and though they spend much of their time in the salt water invariably return to the houses where they are domesticated.

ADDITIONAL MEMORANDA BY MR. H. B. STERNDALE.

The United States and the Samoan Group.

In my previous memoranda, I mentioned the Island of Upolu as being the most important of the Samoan Group. Lying midway between Savaii and Tutuila, upon the latter being the splendid harbour of Pago-Pago, Upolu is of much greater commercial consequence than either of them, for the reasons that Savaii possesses but one harbour, and that a small one, very inferior in point of security, and that Tutuila is much less fertile than Upolu, and has a smaller area of land available for plantation purposes.

The scheme propounded by the Americans appears, as far as I understand it, to be the establishment of a naval station and the purchase of some 10,000 acres of land contiguous to the seaports, *i.e.*, partly on Tutuila and the remainder on Upolu. It is reported that Americans have already purchased a considerable area at Pago-Pago. The inference is that they propose to monopolize what vacant land may still be available on that harbour, and to take up the remainder of the 10,000, which will probably be the larger portion of it, on Upolu. This is very significant, and will, if carried out, exercise a very important influence on the commercial future of the Central Pacific. Upolu (or its port of Apia rather) is now the commercial centre or receiving depôt for the products of Tonga Hapai, the Union Group, the Ellice Group, the Gilberts, the Marshalls, and the Carolines, as well as for the detached outlying islands near them all, such as Niuafou, Fotuna, Alofa, Uvea, Tokerau, Manihiki, Niuè, and many others. The port of Apia is divided between three commercial interests, the Germans, the English, and the Americans. The American trade up to the present time has been insignificant; the German, very extensive; the English, although represented by about seven establishments, entirely divided among small business men. The Germans and Americans have always pulled together: so much so, that for several years, while the Germans were extensively engaged in the purchase of lands, they registered all their title deeds in the American Consulate. The Germans bought up large tracts of land. Indeed, four years ago, Caesar Godeffroy owned somewhere about 25,000 acres on Upolu alone. The Americans also, including their Consul, acquired lands by domesticating themselves among the natives, intermarrying, &c. Their lands are all of the best as regards future agricultural prospects, and are contiguous to the harbour of Apia. The English have very little land, and what they have is of no great commercial importance as regards the future settlement of the place; for the reason that no property of consequence was acquired by English settlers at Apia during those times when land was easily procurable, except such as was given by the natives to John Williams, the Samoan missionary. This he bequeathed to his son, the present British Consul, who sold much of his best land to the French Roman Catholic Mission when they founded their present establishments, so that very little valuable land, or such as is contiguous to the seaport, now remain in the possession of Englishmen.

Mr. Consul Williams is now an invalid in Sydney, and his case is said to be hopeless. His son, a very young man, is, I believe, discharging his duties, and will probably be appointed in his stead. He is a storekeeper, a business which of course he must relinquish if permanently appointed to fill his father's place. The policy of Consul Williams has not given satisfaction to the English residents of Samoa. His private character has been such as to render him much respected and beloved by his countrymen at the Navigators; but in his consular capacity he has caused irreparable mischief. Many British subjects have renounced their nationality and made common cause with the Germans and Americans. His son, consequently, does not possess the confidence of the English residents, and English interests at Apia are in an unhealthy state. This has not been made sufficiently apparent in the New Zealand papers, because their correspondents have been usually persons more or less connected with the Mission.

If the Americans take up (say) 5,000 acres of land contiguous to Apia harbour, they can only obtain it by purchasing the property of their own countrymen, and by buying up the remainder of the native lands which lie between the settlement and the mountains; unless, indeed, they make some composition with the Germans, which they are very likely to do from community of interests. In either case, the English proprietors will be in a manner thrust out, as many of them are now located upon land to which they have no tenure but by sufferance of the chiefs. The English settlement will be confined to a fractional part of the whole harbour, with but small facilities for the conduct of their business. The question will resolve itself into this: Is Apia to be regarded as an American or as a German possession? The possession of Apia means the sovereignty of the Navigator Islands.

This is one view of the question, but yet another may be taken. To the east of Apia, and about nine miles distant, is another harbour called Salafata. It is regarded by whalers and other seafarers as equal in security, &c., to that of Apia. There is no settlement, but around it are considerable tracts of land already the property of Americans and Germans. No English of any consideration are there. If the Americans elect to purchase their land and form their station at Salafata, the result will be that the American Consul and residents will remove from Apia to that place, which will become the great nucleus of American trade in the Pacific; and then the English now in Apia, or who may subsequently settle there, will have only their old rivals, the Germans, to contend with. Although but a few miles apart, there will be no land communication between the

two settlements, as the nature of the country will not permit it; but a considerable trade along the sea coast will spring up between them, which cannot fail to be beneficial to both.

The Kobra Trade.

The kobra trade of the Society Islands is assuming large proportions. A French gentleman who has been for some years associated with Mr. Brander, of Tahiti, has purchased the island of Rurutu from the natives, and has been engaged in cocoa-nut plantation for eighteen months, and in improving the existing wild trees. He anticipates that, at ruling rates for kobra, this property will, in four years from the present time, begin to yield an income of £4,000 per annum.

A large portion of the island of Tubuai has been purchased by the same firm for a like purpose.

Active operations of the same kind are being commenced in the Paumutos, which it is believed will soon be occupied entirely by Europeans. The French authorities have declared their intention to give every encouragement to settlement in those islands. It is worthy of notice that the Paumutos, or Low Archipelago, are an absolute possession of France, and not a protectorate, as are the islands of Tahiti, Moorea, and those of the Austral Group, including Rapa. The two splendid islands of Raiatea and Huaheine, with their small dependencies, are in no way subject to France in reality, but had their independence secured to them by virtue of a treaty of which the terms were guaranteed by England, somewhere about the years 1846 or 1847. The Marquesas are still retained as an absolute possession of France, and are now regarded by them as very valuable.

Mr. Brander, of Tahiti, has erected very expensive and powerful machinery at Valparaiso for the manufacture of cocoa-nut oil from kobra, which is shipped to that port from his warehouses in Tahiti. A San Francisco firm have proposed the establishment of a depôt of the same kind at Raiatea. Mr. Brander has also purchased Easter Island, which lies in the direct route, about half-way between Tahiti and Valparaiso. He has removed most of the aborigines to his own Tahitian plantation, and has replaced them by Chilenos and others in his employ, who are stocking the island with cattle and sheep, for which it is well adapted.

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