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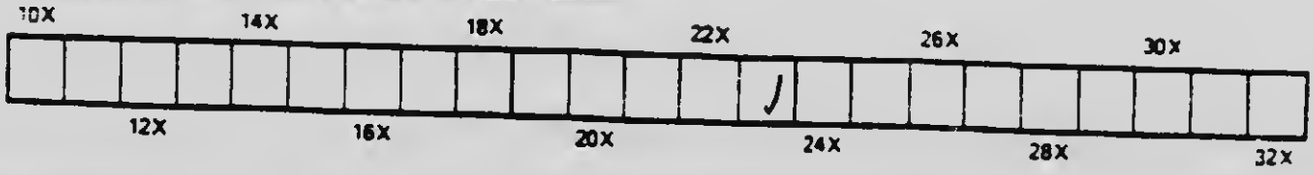

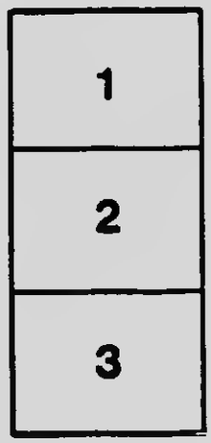

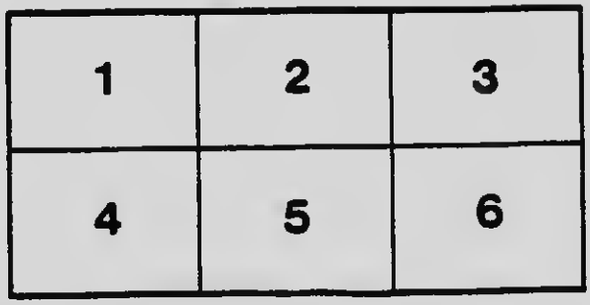

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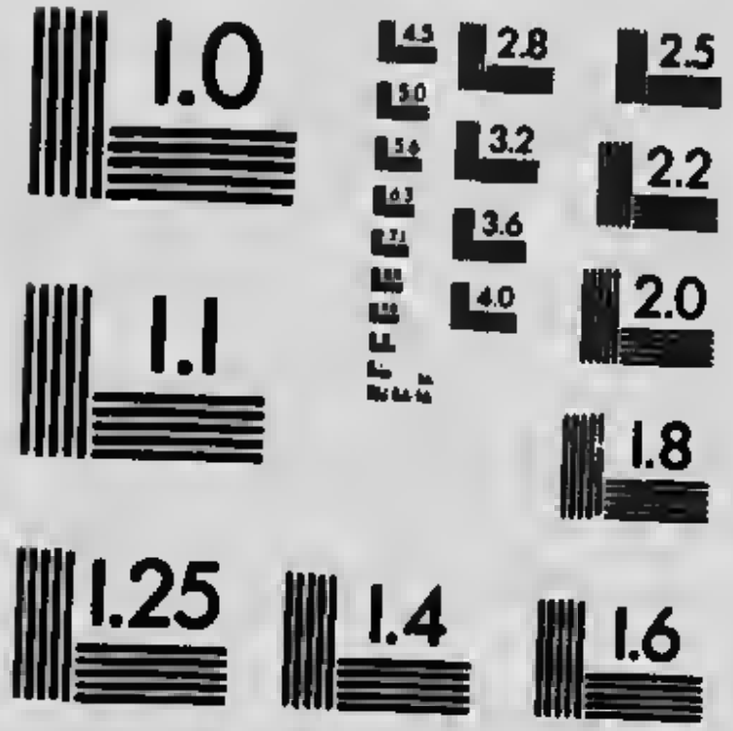

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The South Seas

ILLUSTRATED ADDRESS DELIVERED IN
OTTAWA, DECEMBER 9TH, 1904

BY

OTTO KLOTZ, LL.D., F.R.A.S.

THE SOUTH SEAS

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The Author and Cannibal Tom

THE SOUTH SEAS

ELECTRICITY had been laying one ocean after another under tribute, besides all the continents until the world was enmeshed with its conductors, with but one great bare spot,—the vast Pacific Ocean. This wide expanse of some 8,000 miles looked too formidable to financiers, as well as to cable engineers. But there were men whose moving spirit embraced something besides dollars and cents, whose horizon was not bounded by the circle of self-aggrandisement, men with prevision, who build for future generations. Such men saw the Pacific laving the shores of part of the British Empire on the east side, as well as on the west side. Let us bring these sides together, let them clasp hands, let them no longer be strangers to each other, let the bond be complet[illegible], so that all parts of the British Empire be united by one co[illegible]uous gi[illegible] for mutual progress and solidarity, such were the feelings and sentiments that actuated the men to whom we owe the Pacific Cable, and to no man is more credit due for unselfish and steadfast devotion to the cause for upwards of a quarter of a century, than to our own fellow citizen, Sir Sandford Fleming. I will not recite the difficulties encountered and obstacles thrown in the way to thwart the enterprise; suffice it to say that Great Britain, Canada, Australia and New Zealand jointly agreed to lay the cable. On October 31st, 1902, the last section was laid.

A few words about the cable and laying it. Let it be remembered that the section from Vancouver to Fanning Island was about a thousand miles longer than any cable that had hitherto been laid, and gave rise to differences of opinion among experts as to how much copper was necessary in the conductor for efficient work; for evidently it was useless to have the other three sections of the cable more efficient than the long one. It may be remarked that with the same sized conductor, a short cable is far faster than a longer one.

There are few products of industry that require greater care in the manufacture than a suhmarine cable,—the slightest flaw vitiates the whole, and it is a serious matter when the cable is lying at the bottom of the ocean, three and a half miles, as this one does, and found to have a flaw, doesn't work.

The essential parts of a cahle are the copper conductor, and its insulator or dialectric of gutta percha; both must be free from impurities and the gutta percha must he absolutely free from air, otherwise the immense pressure of the water, amounting to four tons to the square inch, at great depths, would force the air out and make what is termed a "leak" in the cahle, by making a connection hetween the copper and the water.

Juet as the railway engineer first makes a survey to select the best ground for huilding the railway, similarly the cable engineer examines and sounds the floor of the ocean to determine the route the cable is to take, for it does not do to lay it over hills, submarine craters or volcanoes, and had coral reefs, all of which were found in the survey for the Pacific Cable.

After the route has been chosen and laid down on a chart so that a ship can follow the varying course, the cable ship, especially huilt for the purpose and provided with all sorts of laying gear and testing apparatus, proceeds to lay the cable. Slowly the cable sinks until it rests on the hottom. In great depths the cable will be 20 miles astern of the vessel before it reaches bottom. Should by any accident or fault after the cahle is laid, the circuit be broken requiring repair of the cable, the fault can he located and the repair ship sent into the wide watery waste with directions where to put down the grapnels, hook the cable, bring it to the eurface, cut out the defective parts and after splicing a new piece, again consign it to the deep.

But we must hurry on. We have found the cahle completed and telegraphic communication opened hetween Australia and London, via the Pacific and Canada.

Here was Canada'e opportunity for extending the longitude work that she had carried from Greenwich across the Atlantic to Vancouver, to Australia and New Zealand, and there connect with the longitude carried the other way, via India to the Island continent thereby completing the first astronomic girdle of the

world, and at the same time giving valuable geographic data in the South Seas for navigation and commerce.

The Honorable Mr. Sifton, Minister of the Interior, authorized the work to be done, and it has been successfully carried out under my direction by Mr. Werry and myself.

As I shall not refer to any of the technical part of the work this evening, I may say here, however, that the first astronomic girdle of the world closed with an error of only one-fifteenth of a second of time.

An evening is too short to enter the field of discovery and exploration on the great Pacific or South Sea mostly bathed under a tropical sun; however, among the many brave and daring navigators who with their puny ships ploughed these waters and charted their myriad islands, one name stands out so pre-eminently conspicuous that I cannot refrain from mentioning it,—it is that of Captain Cook,—the greatest exploring navigator of all times, and who met such a lamentable death in the Sandwich or Hawaiian Islands in 1779.

We will now turn our attention to the natives met with during my many months stay in the Pacific.

I must admit, that I was overwhelmed by a thousand and one questions that presented themselves to me when thrown midst these tropical scenes,—there were so many peoples, whence came they originally, do they all speak one language or are there several or many, what are their habits and customs, what do they eat, to say nothing of the rampant flora presented to one. Verily one may exclaim with Plato—"For I, too, agree with Solon, that 'I would fain grow old learning many things'". By a slow process of evolution and losing no opportunity of gathering information from many sources, I feel myself somewhat disentangled from some of my original queries.

The first greeting I received in Polynesian was "Aloha" in Hawaii or Honolulu,—the word being equivalent to our "Welcome" or "Good-day," but literally meaning, "Love to you," a rather pretty greeting. The preponderance of vowels in this word as well as in most Hawaiian words gives the language a softness foreign to those of Teutonic root. As we sail the Southern Sea, "o'er whose blue bosom rose the starry isles," and encounter the Sam-

oans and Tongans, the greeting word has changed to "Alofa," the vowels remaining the same while the h changes to an f; now, when we reach New Zealand, the land of the Maoris, we are greeted with "Aroha". In this the Hawaiian l is changed to an r, as is done in many other words having the same meaning and retaining the same vowels.

It requires hut a short study and comparison to show the common stock of the languages spoken through the groups known as the Hawaiian, Samoan, Tongan, Tahitian and New Zealand; hut we must draw the line of language demarcation just east of Fiji; from there westward to the Solomon's, New Hebrides, and New Guinea, we get into a "hlack" country, and the language rich in vowels disappears. In order to make comparisons and to identify the same word in two of the Polynesian dialects, it is necessary to know the consonants of each language, and their mutual transition; that is, we must he familiar with the law corresponding to Grimm's law for the older Indo-Germanic, Low and High German languages. The vowels, as shown in Aloha and its variations, remain almost always the same.

Here we have then, in this vast archipelago lying on hoth sides of the equator and covering over four thousand miles in latitude and 6,000 miles in distance, one common language, yet differing in detail, spoken.

In Hawaiian we find only seven consonants, h, k, l, m, n, p, w, besides the usual five vowels, a, e, i, o, u. One peculiarity of the Polynesian language is that every word ends in a vowel and no two consonants can follow each other without the interposition of a vowel.

One finds it strange that simple words in one's mother tongue should offer difficulty, even to impossihility, in pronunciation to others. Take the simple word, "dog"; to the Hawaiian this is impossihle of pronunciation; it presents three difficulties. In the first place he has no d sound, nor that of g, and lastly there is no terminal vowel. If we suhstitute two of his consonants and mako the word lop, he would still have to add a final vowel hefore the word hecame pronounceahle. If we ask him to say "Pacific," our name of the ocean that hathes his sunny isles, he will say "Pa-

kipika" the nearest he can come to Pacific, as he knows neither the s nor f sound. "Glory" he would render Kololo.

We must not forget, however, that our own range of pronunciation is limited, and that we often fail, sometimes lamentably, in our attempt at foreign pronunciation.

The Samoans are somewhat better supplied with consonants, and their vocabulary is rich in the sound of f. The Tongan alphabet is similar to that of Samoa. Our word Christmas, the meaning of which has been made known in the South Sea Islands, suffers a peculiar transformation by the Tongan to meet his defects and peculiarities of speech. In trying to pronounce it he says,—Kalimasi,—which I fear Santa Claus would scarcely recognize.

The Maori must get along with the eight consonants h, k, m, n, p, r, t, and w; and all words must adapt themselves to he clothed from these and the vowels. New Zealand has perpetuated many of the Maori place-names in its geographical vocabulary; but it must he confessed that their meaning is sometimes not poetic.

Whence the light-colored Polynesian, what relationship does his language bear to any other? These are questions that have occupied the attention of many able men.

The philologist goes forth armed with vocabularies and structural forms. He attaches a thread to his starting point, so as not to lose himself, and then starts off for the quarry. He is led hither and thither, always on the scent, and whether he sets out from Hawaii or New Zealand, we eventually find him in Northwest India, whence spread the Aryans and to whom we are related. The old belief in connecting the Polynesians with the Malays has been abandoned. As one of the best Maori scholars, Mr. E. Tregear, and whom I have the pleasure of knowing personally, says in one of his writings, "For every Malay word traceable in the Maori vocabulary, the student can find twenty Polynesian words in the German dictionary."

Philology is undoubtedly a powerful weapon for attacking the problem of the migrations of a people, showing how a language was modified as it was slowly dragged along the route of migration. How it influenced other languages with which it came in contact, and in turn was influenced by them, must be considered. To

disentangle the words as they fall from the lips of the unlettered natives, spread over nearly half the circumference of the earth, to assort them, to correlate them, to trace the kinship, to write the history or story of each word, how it has fought its battle to live, such is part of the task of the philologist, to say nothing of the legends and myths that often help to show or trace the wanderings of a people through other lands, by identifying similar legends, without necessarily establishing a relationship with the inhabitants of such lands. It is interesting and fascinating work.

There is another line of attack on the problem of the whence of a people. It is the one espoused by the ethnologist, whose field borders on or is included in the wider one of the general science of anthropology.

When the ethnologist takes the Polynesian in hand he studies his physical characteristics, his color, his eyes, his nose, his head, his build and compares them with those of other races. From the similarity or dissimilarity he draws his inferences of relationship or divergence. The ethnologist believes in the persistence of type rather than in the persistence of speech or language for establishing the oneness of widely separated peoples. However, the ends aimed at by both the philologist and ethnologist are in many cases the same, and from their joint testimony we hope to arrive at the truth, although the testimony is at times not only divergent but of an opposite nature.

With the scanty vocabularies that I was able to pick up of the various Polynesian languages, besides Fijian and Malay, I was struck by the identity in all of them of particularly one word, —wai—the word for water. It is that element in nature above all others that is necessarily common to all, and in more ways than one is essential for their very existence. Their simple food directly supplied by nature may differ, but water is the same for all, not only for drinking but also as the element surrounding their island homes and on and in which so much of their lives is spent. Philologists claim relationship of this word with the names of our own English Rivers, Wye and Medway.

There is another word which struck me on account of its similarity in so many different languages although it did not preserve the perfect identity of wai,—the word is lima or rima, the l

and the r being convertible, and meaning both five and hand. The dual meaning is obvious.

The counting among many of these people was really restricted to four, as designated by distinctive words. The counting was done in this manner: 1, 2, 3, 4,—band, equivalent to five. Beyond that, it would be one band and 1, 2, 3, 4, two hands, equivalent to ten. Beyond that we would have, two hands and 1, 2, 3, 4, two hands and one foot or 15, and so on till we had two hands and two feet or 20, when the arithmetical scale of the aborigine would be exhausted and any further number would simply be designated as many.

Having spoken of these two words wai and lima, it may be interesting to state that the home that Robert Louis Stevenson built for himself in Samoa was called "Vailima"—the five waters—alluding to the brooks that flowed from the mountain of his home. Here he found rest; the complete solitude and isolation from the conventionalities of the outside world suited his temperament and lent wing to his poetic fancy.

Last month it was 10 years since the author of Treasure Island passed away, leaving us, however, a rich heritage in his writings.

There is another word that readily strikes one for its universality, and that is the Maori word mata, meaning eye or face, which in Hawaii where the t is absent becomes maka. The word is common to all the Pacific Islands, and we may follow it to Java, the Malay Peninsula to China, to India, even to Madagascar and still identify it, even if sometimes somewhat modified. It is apparently one of the most persistent words to be found in the countries and lands of the Indian and Pacific Oceans. I have not time now to pursue the reason of this any further.

I will just allude to one other word, one that has been adopted into our language, and that is, the word Kanaka, a common word in Australia but not indigenous, and found in its statutes. There it is used to designate imported native laborers, especially those for the sugar plantations, irrespective of the whence of the laborer. This is a pure Hawaiian word, and simply means man. As many of the Hawaiians were employed in the old days as sailors and visited in ships very many of the South Sea islands, they were generally called Kanakas and not Hawaiians or Sandwich islanders, and

thus the name spread as synonymous with native of the South Sea Islands, and as such has been adopted in the English language.

But we must hurry on. West of Tonga or the Friendly Isles as formerly called, lies the Fiji group, containing some of the largest islands in the Pacific proper, outside of New Zealand. Viti and Vanua Levu are each about a hundred miles long. Here we meet a different race, dark-skinned, and having kinky black hair, but not woolly as that of the Papuans. The principal Island, Viti Levu, is about as far south of the equator as Jamaica is north. From Fiji westward towards New Guinea we find only the dark-skinned races in the islands, while eastward the islands are occupied by Polynesians.

I arrived in Fiji in May, which is one of the autumn months in the southern hemisphere. My first impression was that I had landed in Dr. Saunders hothouse at the Experimental Farm; the oppressive, warm, moisture-laden atmosphere, where one smells the soil and the rank vegetation, almost overcame me. I began to perspire and in six weeks lost 20 pounds,—that is in weight. As my coming had been cabled, quarters had been secured for me. Immediately the first night I saw big things, like birds, flying about my domicile. I asked what they were,—cock-roaches was the answer. However, I had no fear, as I was too heavy to be carried away. When about retiring in a bed canopied with mosquito netting, I saw a spider fully six inches across in the netting. I promptly took aim and killed the arachnid. In the morning I informed the landlady of the incident. She thereupon told me I had done wrong, saying it was not only a harmless creature but useful for eating mosquitoes. Thus my Fijian lore began to take form. The next discovery that I made was that my leather boots that were black the night before, were now green, covered with mould, a small herbarium of the lower vegetable organisms. There is some compensation however, for the common scarlet hibiscus flower and the leaves of the shrub or tree are very efficacious for blacking boots. Of course I had to discard my tweed suit, and donned the white flannel coat and trousers I had brought with me. But these, too, were too warm for one born and brought up where the Great Bear rides high in the heavens. So I provided myself with white cotton garments. There was too

much of the *al fresco* in the native costume for me—I wasn't a Fijian.

I was surprised to find that among the white people there, those who indulged in liquor, almost invariably drank Scotch and soda. Upon expressing my astonishment that under a tropical sun ardent spirits were used in preference to beer or wine, I was told that the latter affected the liver. This same explanation was given later too in Australia and in India. Not knowing whether I have a liver or not I can't personally corrohorate the theory.

My next experience was when I set up my instrument and gazed on the southern sky. The good old Pole-star that had kept me straight, or, as the astronomer would say, had given me my azimuth, these many years, had long sunk in the sea, and in my march to these shores other stars had risen from the southern horizon. You have all heard of the Southern Cross—kite would be a more significant name—well, 99 out of a hundred persons must be shown the Cross before they recognize it. It is a poor constellation beside our Dipper or Great Bear. The fact that the ancients did not recognize the Cross as a separate constellation, hut included it in Centaur shows that it is not very conspicuous. The people of the southern hemisphere can boast, however, of having the star nearest to the earth, the hright star in Centaur. To give an idea how near it is, let us imagine it to be peopled and that the people could see things going on on the earth, then they would now he seeing the last stages of the Boer War, soldiers moving ahout South Africa,—for the light takes ahout four years to travel from the earth to Alpha Centauri.

Two other phenomena of the southern sky may he referred to, viz., the Coal Sacks and Magellanic Clouds—the first are dark spots in the heavens resembling small black clouds, and are due to the absence (to the naked eye) of stars. Especially one of them is well marked; but the casual observer on a clear night, would not have his attention arrested to infer its true meaning—just as the Magellanic clouds are in reality a galaxy of stars, appearing as two fleecy, white, drifting terrestrial clouds. Primitive man was and is more observant of nature than we of the strenuous life.

The astronomer, armed with his star catalogues soon feels himself at home in any part of this wide world. The observer's

constant prayer is a clear night, then he is happy. Alas! Fiji wasn't created that way. I was told that there was a rainy season there, and hy experience found that during the rest of the year it rained. Here, in Ottawa, the weather gives one a premonition what it is going to do; there it doesn't. With the slightest provocation it rains, and generally without any apparent provocation whatever.

Sitting in the ohservatory hut one is kept husy opening and closing the shutters in the roof to catch a star in the kaleidoscopic sky. It does try one's patience. However, hy dint of perseverance the work is accomplished.

In my occasional strolls amongst the rampant flora, I thought of my friends Professor Macoun and Dr. Fletcher; hut pressing musa or hanana leaves 10 feet long and other tropical plants, even if accomplished only to find them turn mouldy, made a hotanical collection out of the question. I spoke of the spider in my bedroom; that was a small one. There's a telephone line from the village to Government House, a mile or so distant. The spiders throw their massive webs across the line, and with the constant moisture or rain the effect is that the line is often short-circuited, won't work, until the spider webs have heen cleared away.

Along the roadside my attention was arrested hy many red flowers, which I mistook for our clover, for the resemhlance is very strong. Examining the plant that hore them I found it was a thorny vine, the sensitive plant, which when touched closes or folds its small leaves.

Commercially the principal products of Fiji are sugar, copra, (dried cocoa-nut) and green fruits. One might he tempted to say that everything grows or will grow in Fiji on account of the richness of the soil, ample moisture and warmth; hut this is not the case. Its very exuherancc and fertility, and want of seasons of rest for Nature's work, are incompatihle with the successful growth of grapes, apples, raspherries, strawberries, tomatoes, potatoes and other of our common and valued products. Prodigal as Nature is in the tropics, it is the temperate zone that produces the staff of life.

I was interested in a visit paid to a plantation where were

Coast of Fiji

grown the vanilla bean, turmeric, allspice, coffee, tea, cacao (from which chocolate is made) the cocaine plant, cotton, pepper, pine-apples and ginger. It may be remarked that the vanilla plant belongs to the orchids, and is trained or grown on croton trees planted for the purpose. Another peculiar thing about the plant is that its flowers are not self-fertilizing, and the fertilization is done by hand. Whether the introduction of bees would obviate this manual labor, I am not prepared to say. The vanilla bean, when pulled from the plant would readily pass for our long green vegetable bean. At this stage it is wholly devoid of aroma. This is only developed in the kilns and by a sweating process, when the alkaloid vanillin is produced.

The South Sea Islanders are essentially vegetarians, although fish form an important part of their diet too. The hunt furnishes them nothing but the wild pigeon and the duck. There is no other game or wild animal. The gaudily colored parrakeet is common and its feathers are used for ornamental purposes.

The principal food of the Fijian is the yam, and a striking proof how important a place it occupies in his life, is the fact that his time-reckoning for the year is based on the various stages in the cultivation or growth of the favorite tuber. The yam is a big root, something like our mangel, as a rule though far larger. It is cooked on hot stones. The next vegetable mostly eaten is the taro, a much smaller root. It belongs to the arum family and is grown on very wet ground. I have watched them preparing dainty morsels from the taro. After steaming or cooking the root it was mashed, then mixed with grated cocoanut and sugar cane, and then made into small balls ready for the epicure.

Breadfruit is common. It resembles in shape a Rugby football; but is not so large. It grows on one of the finest trees in the South Seas, and is steamed for eating. These three vegetables, the yam, taro and breadfruit may best be described as taking the place of our potato.

Snakes, of which there are not many in the islands and nearly all harmless, are considered a delicacy and are reserved for the nobility. The large ones used are frequently kept for some time to fatten. One of the old white planters told me of his enjoyment of some eel when he was guest of a chief. He found out too late

that he had eaten snake. Dr. Seemann, who made a natural history collection, deplored that a large snake that he wanted, or rather its skin, had to be served to the roko. Truly we are all slaves of habit and custom: "Use doth breed a habit in a man."

Sitting beside my landlady one evening under the trees, she suddenly brushed her head. I jumped up and asked "What's the matter?" "Oh, I thought a snake had dropped down from the tree." It was but a twig." Small harmless snakes crawl about the trees in search of insects.

Outside of human flesh, which is practically a thing of the past, there is nothing revolting in the food of the South Sea Islanders. It may be remarked that although some of the early adventurers and missionaries gratified the palate of the Fijians, they were not enjoyed as much as their own people. As I was told, the white people tasted "salty." I was glad I was white.

Besides the fish from the sea, large turtles are caught too, for food; but the latter are reserved mostly for the king and aristocracy. The fishing is generally done by the women, with nets and they confine themselves to the proximity of the shore. A few act as drivers, splashing the water, while the others, always in pairs for holding a net, keep a sharp lookout for dipping and raising the net at the proper time.

In the old days, this was a very dangerous occupation for the women. It afforded a good opportunity for surprising, capturing and subsequently eating them, by a neighboring hostile tribe. I shall have something more to say about cannibals when the pictures are thrown on the screen.

It is scarcely necessary to mention that all the South Sea Islanders are expert swimmers and divers, and their endurance in the sea when overtaken by misfortune borders on the incredible. The shores and mouths of rivers are all infested with sharks, the terrors of the sea, and the cause of my non-enjoyment of sea-bathing.

There was a church being built in Fiji, during my stay, by native labor. It fell to the lot of women and girls to provide material for the lime. Coral was used for this purpose, and girls would dive into the briny deep and break off branches of the coral forest. It has happened that an arm or foot was left behind, torn

off by the voracious shark. While mentioning the church, besides the civilising work done by the missionaries, the world owes them a debt for having preserved the languages throughout the whole Pacific by the publication of grammars and lexicons or dictionaries. The setting of type, printing and binding were generally done with their own hands and with the most primitive means. There were some grand men, and I may add women, scattered about the Pacific in the old days. We cannot but admire the pluck and courage of these early pioneers in facing their arduous duties under the trying and dangerous conditions.

We all delight in a piece of coral, its delicate form, its infinite variety of design; but when one has been among the living coral, in the riotous marine flower garden, where the most resplendent colors vie with each other and revel in their warm bath, then the corals of our cabinets appear in their true light, as skeletons, dead things, bereft of their pristine beauty.

A visit to a coral reef resting midst those exquisite blue, blue waters, at low tide is one of the greatest charms that the South Seas have to offer. The varied life seen, the intensely rich colors displayed, enchant one. I only deplored my ignorance when surrounded by Nature's richest storehouse.

One may exclaim with Thomson:

> O Nature! Enrich me with the knowledge of thy works.
> Who can paint like nature? Can imagination boast
> Amid its gay creation, hues like hers?

I saw here the living bêche de mer or trepang, which I had seen by the ton in its dried and commercial etage. This is a sea slug about as thick as the wrist and nearly a foot long. It is one of the greatest delicacies of the Chinese epicure, and no dinner amongst the *bon ton* in China is considered complete without soup of the bêche de mer. A Chinese told me it took a week to cook; hence dinner must be ordered rather early. I brought some home with me, which is there now under protest, for I have threatened to cook it, but I shall have to wait, I presume, until the mistress of the house is away on vacation.

One of the most peculiar products of the sea in this part of the Pacific is the Balolo; it is an annelid, a wormlike creature,

reminding one of living vermicelli, and appears only in October and November, especially in the latter month, and it is said at a certain phase of the moon, when, before sun-rise, they appear on the surface in countless millions. The natives are out, and every available canoe and boat is on the water to store the catch. It is a veritable and material Diet of Worms, in contradistinction to the other one about four centuries ago. As soon as the sun is above the horizon they disappear as mysteriously as they came, and another twelve month must elapse ere the dainty dish becomes available. It is a great treat for those living some distance inland to receive a basket of these worms. In sending such a gift, it is always first partially cooked to prevent it from spoiling too quickly. This was always done, too, when sending human flesh. The Fijian never ate tainted fish or birds; but he was not so fastidious with a joint off his neighbor.

Dogs, pigs and fowls were found on many of the South Sea Islands, at the time of their discovery, so that they were not introduced by Europeans. Cattle, however. were introduced by the early navigators.

It is peculiar how a wrong notion once conceived, persists. When the Fijian saw the first bull and cow introduced, and mighty strange animals they were to him, he asked what they were, bull and a cow, was the answer. He took this to be one word, and adopted it as signifying the species, so that when he eats a piece of beef, as some now do, he says he eats bullamakow. Milk is, to the adult Fijian, disgusting; as he puts it, to drink the juice squeezed out of an animal, away! The eating of eggs, too, is considered babyish.

The South Sea Islanders, especially the Samoans and Tongans, are cleanly in their persons. However, the forest of hair of the Fijians, is I think not wholly untenanted. The Polynesians after their daily bath generally rub themselves with scented cocoanut oil. Formerly sandalwood, which was abundant, served the purpose of perfume by grating it on coral. Now, sweet smelling flowers are used. Many a time in the early evening was I made aware of my approach to the Samoan quarters by the fragrance borne on the balmy air. Undoubtedly these people of the coral strand are far cleaner than the average white man.

The Fijian house is substantially and neatly built. The sides are often made detachable for securing a draught. The native houses have but one room and the floor or rather earth is covered with mats except around the fire place near the middle, where most of the cooking is done on stones. There is no chimney, and the smoke finds its ways out through the thatched roof, at the same time smoking the thatch so that insects of all sorts find it an unpleasant abode. Nevertheless, sometimes a centipede, 10 inches or a foot long, drops down on the mats, which however is deftly caught by the Fijian and put out of harm's way.

To keep the mats clean, he washes his feet before entering his house. For this purpose there is a wooden trough at the door of each house filled with water. After the principal meal of the day, which was partaken by the family in the evening, the adult male population repairs to the large mbure, or club-house, there to gossip, make sinnet or cord from cocoanut fibre, and spend the night. The husbands and fathers do not sleep in their own houses. Funny custom. This sinnet is a most useful article. It is used for decorative purposes in the houses, and when plaited into larger strands serves as rope for their sails and boats. It takes the place of string, cord, rope and nails. I have seen bales and bales of it in the temple where it is stored.

The Fijian is largely communistic, and he cannot understand how in any country there can be any poor people as long as there is anything to eat. To our notions he is lazy. "Why work?" he asks. "Nature supplies me with my every want." His philosophy in Fiji is sound.

Our modern "strike" is not wholly unknown to him. Their houses are built by professional carpenters. There is no fixed price for the building. You engage the carpenter by first making him a present. Then when it is about half finished, he expects the major part of his honorarium. When it is not forthcoming to the extent he expects, he packs up his tools and "strikes," and does not return until his desires are appeased. Plumbers, moulders and bricklayers are not represented in Fiji.

We white people are a conceited race. We imagine that what we know and do is the best in the world. When we come in contact with aborig[illegible]s, we don't take time to study their habits, customs,

morals, but straightway with Bible in one hand and rifle in the other start on our own self-imposed message of civilization.

Character, a higher attribute in man than wordly knowledge, invariably suffered amongst the Polynesian by contact with his Aryan brother. We have stopped their inter-tribal and fraticidal wars by superior force, but have introduced disease more deadly to these primitive people than all their conflicts. Only a few years ago measles carried off in the islands about Fiji something like 35,000 lives. For that we are responsible. And so the work of civilization goes on and the native population dwindles away till the white peril is the sole master of these sun-bathed isles.

I will say this, however, that of the various powers that have attempted colonization and control of autochthons, the British have been eminently the most successful, and this from the fact that they have more regard for the original freedom of natives than have other nations. They grant more autonomy, than others do. There is less "bossing" and there is less rattle of the sword.

What right we have in the abstract to invade the domain of other inhabitants of this earth, and force our civilization upon them (for our advantage) I leave to the student of world ethics.

We all know how the innocent introduction of the rabbit into Australia became in time the greatest scourge with which any country has ever been afflicted. It may, however, be not so well known that a scourge, too, has been introduced into the South Sea Islands in the form of a garden plant bearing a rather pretty flower. It is the lantana. It threatens to take possession of the soil and so serious I found the situation in Hawaii that the Government is moving heaven and earth to devise means for its extermination.

But we must tarry no longer midst the coral reefs, and sail for the most southerly land of the Polynesians, to New Zealand, the home of the Maori.

Their environment, the climatic conditions necessarily produced arts, unknown and unnecessary to his Samoan relative. Particularly was this the case with clothing. While the Samoan or Fijian need dress in little more than a broad smile, increased to a fringe around the waist amongst the adults, the Maori has to

cover his body fairly well, a part of the year at least, against the elements.

Fortunately New Zealand produces a native plant, that we call flax. Phormium tenax the botanists call it, which readily adapts itself for the preparation of a fibre and by plaiting into various forms of so-called mats, is used for covering the body, principally the shoulders, and loins.

Their houses, too, are more substantial than those of the tropics. The vocation of the Maori was fighting, as the British learned to their cost. A peculiar habit evolved by this warlike spirit was the protrusion of the tongue. This was practised from early youth with the object of looking terrible, when sticking out the tongue to an inordinate and abnormal length. The extended tongue is almost invariably seen in their carvings of the human figure. It may be remarked, too, that in all such carvings, only three instead of four fingers are shown. This pertained especially to their tiki, or revered token, made of green-stone or jade, and worn around the neck. The explanation of showing only three instead of the four fingers is, that it therefore represented no particular person, and any insult offered to the image, need consequently not be resented as a personal affront.

The old Maori was a cannibal too, but not like the Fijian, who was the cannibal *par excellence*. I visited the Bay of Islands, en route to the cable station, where the first settlement by missionaries was made. New Zealand was first under the control of New South Wales, the oldest colony in Australia. The Governor at Sydney appointed the missionary a magistrate, and on the two Maori chiefs living on the same bay, he conferred the same dignity and tried to impress upon them the importance of the office. As the Governor afterwards said, he made the two magistrates, so that they wouldn't eat the third.

When I got to New Zealand, I felt more at home on account of the surroundings, especially by the sight of evergreens. Wellington, the capital, situate about midway in the islands, is in latitude south corresponding to that north, between Chicago and New York. Here I met and was entertained by the venerable Sir James Hector, the Nestor of all scientific work in New Zealand, and who nearly 50 years ago explored with Capt. Palliser our

Northwestern Plains and Rocky Mountains. Tho Kicking Horse river in the Rockies derives its name from an accident to Sir James or Dr. Hector as he then was. It was interesting to hear from his own lips, the story, how he was kicked hy his pet pony, and considered dead, so that preparation had already hegun for his hurial, only to be foiled by his showing still signs of life. I cannot but pay a tribute to the scientific work done in New Zealand, and to their publications, notahly, the Transactions of the New Zealand Institute, work which perhaps Canada cannot show its equal. Dr. Rutherford of McGill University, to whom the Rumford gold medal was recently awarded hy the Royal Society of England, was born and educated in New Zealand.

But this is digressing, nor must I enter upon the social problems that New Zealand is trying to solve, and which are being watched by the world at large with the greatest interest. As New Zealand is the laboratory of social experiments, so it is the laboratory of the forces of Nature. In the South island we find a lofty range of mountains, covered with eternal snow and glaciers, carving out valleys, and the elements relentlessly grinding and washing down the mountains to the sea to build up new lands. On the North island we enter the workshop of Hades. In the district of Rotorua we smell the hereafter, sulphur and hot fumes, and experience trembiings and eruptions. It is an uncanny feeling to walk about the bubhling, quaking, steaming grounds, which the Government has set aside as a reservation or park for tourists. Maori girls act as guides, and tell the stories and legends of these weird haunts. Time does not permit me to narrate some of these interesting tales. The Maoris living in these parts have cooking made easy. Their principal food is the kumara or sweet potato, They simply wrap the food in a mat, made of the flax spoken of and put it over a steaming hole and, presto! the food is cooked.

I had the peculiar sensation of heing rowed over a lake, Lake Rotomahana, where the water hoiled and bubbled and thumped underneath the hoat. One cannot help imagining—if the boat had upset, there would have been no lecture to-night.

New Zealand is the country of ferns. With us, our vacant lands are covered with grass, there with ferns,—you smell ferns. Beside this common fern, the tree fern is much in evidence too, and

gives the landscape a tropical appearance. From the root of the fern, the Maori prepares a bread.

The grandest product of New Zealand is the Kauri pine. Its leaves, instead of heing needles like with our pines, resemble the small leaf of our hoxwood shruh; but the tree itself, what a monarch of the soil! Straight and free from limbs,—far, far up; it rises to a height of 180 feet from a base reaching at times 17 feet in diameter. This majestic tree is the finest specimen of the forest that I have seen in my tour around the world. It furnishes an excellent, remarkahly durahle and straight-grained timher, which is much in demand. It is superior to any of our pines. Besides lumbering, the tree furnishes another industry.—gum digging. The copious resinous exudation from the tree is known as kauri gum. However, the product from the present forests is small compared with that from forests of the same species, hut of another geological age. The gum is huried at varying depths down to ahout 15 feet, and the divining rod for finding it, is not witch-hazel, the occult means for finding water, but a thin steel rod, which is shoved into the earth, and the expert recognizes the touch when resin is struck. Chunks are found weighing upwards of a hundred pounds. It is mostly used for fine varnish, although some is used for ornaments, like its sister resin, amber, which, however, is far more valuahle.

Although wheat is successfully grown, although gold-mining has proved remunerative, and although manufactures have been well established, yet New Zealand is essentially a pastoral country. Their progress in the dairying industry in the last few years is simply amazing, astounding. I never ate better Stilton cheese than the New Zealand product, and her butter is most excellent.

Large areas in the South island are devoted to sheep.

Tools, implements and goods introduced hy the white man have been of far greater advantage to the Maori than to the other Polynesians in warmer latitudes; for the Maori is more dependent upon labor for his existence than the Fijian or Samoan.

The Maori is an inveterate smoker, and it is not unusual to see mothers give infants their pipes to quiet them; and so strong a hold has smoking ohtained that it is a deadly privation to keep a Maori from smoking for half an hour at a stretch.

Tattooing we find common among many primitive people; but none has raised it to such an art as the New Zealander. While the Samoan covered his equatorial regions with punctured patterns and designs, the Maori proudly wore his crest on his face. As the heads and bodies of chiefs were, after death, embalmed, the former became coveted articles by the early traders, and were purchased at pretty good figures. Such a trade sprang up that the Maoris couldn't supply the demand, so that they had recourse to tattooing slaves, feeding them well at the same time. When the work was completed, the slave had to surrender his head to find its way to some museum. The Governor of New South Wales finally put a stop to this inhuman traffic. A nicely tattooed head was worth about a hundred dollars.

Lafcadio Hearn writes: "The real religion of Japan, the "religion still professed in one form or other, by the entire nation, "is that cult which has been the foundation of all civilized re-"ligions, and of all civilized society—ancestor worship" This has developed into three forms—from the Domestic Cult to the Communal Cult, and lastly to the State Cult. The first, or worship of family ancestors, is common to all the Polynesians and is especially marked among the Maoris. No occasion is lost in paying tribute to the many virtues of their forbears as well as of near relatives and friends. Even the ordinary greeting at meeting, which the Maori does by rubbing noses, is immediately followed by the tangi, or moaning or wailing, at the time recalling the memory of someone, probably of one recently deceased, whose virtues are extolled. These tangis, in which whole communities would take part, assumed such proportions that the Government had to interfere.

The legends, traditions and lore of the Maoris were zealously guarded by their wisemen or tohungas, whose offices were sacred. It is from them that the ancient history of these people has been obtained.

But the intrusion of the white race—the spread of schools and commerce, the introduction of agricultural implements—all have hastened effacing the tohungas, and either doing the same with the Maori or else drawing him within the vortex of modern civilization. In any event, the Maori as an interesting subject

of study of the Polynesian race, is fast disappearing from the face of the earth.

The relentless law of Nature—the survival of the fittest—be it in the vegetable or animal kingdom, ever shows its supremacy. On the advent of the Maori, the huge Moa was still inhabiting the island but is now long extinct. This ostrich-like bird attained a height of 12 feet and many of its bones have been and are being found. A dwarf representative of the wingless class is still found in the kiwi or apteryx, the feathers of which are plaited into their pretty korowais or shoulder capes. The native fly has been superseded by our house-fly. One of the most singular cases in natural history, is that of the New Zealand bird, kea, which was strictly granivorous or vegetarian, we might say. However, shortly after the introduction of sheep and their increase into large flocks or mobs, as called there, the bird became carnivorous, and now knows to a nicety where to attack a lamb to get at the kidneys and kidney fat, which are the only parts eaten.

Thus slowly all forms of life are moulded by environments. Here I am reminded of what Sir James Hector said to me in Wellington. I had made some remark about the wind, when he added, that in time a new species of man would be developed in Wellington, the head would be differentiated by a ring projection, produced by the constant grabbing at the hat and pressing it down, to prevent it being blown away. Wellington is windy.

As I want to show quite a number of slides, I must draw my brief discourse of my visit to the South Seas to a close. Time does not permit to cross the ever restless Tasman Sea from New Zealand to Australia and linger in the island continent where I spent some months, too, observing; nor refer to enchanting Ceylon, nor to the experiences in Egypt, beholding 6,000 years of history at my feet when on the summit of the great pyramid.

When I had completed my work and journey, I had circumnavigated the globe, and no longer needed to rely on Magellan for proof of the rotundity of the earth.

Travelling the world over, and with eyes open, modifies one's views. In younger days one is so very cock-sure, one speaks ex cathedra, and is surrounded by a halo of superlatives, of which "best in the world" takes a most prominent place. The old

German proverb "over the hills there are people, too" is realised by travel.

We find beneficent Nature has strewn her treasures o'er hill and plain; has planted foreign lands with peoples, and has endowed them with attributes our own. In many realms we are but children to their achievements.

Travel teaches one to be less assertive, and to recognize that all good is not centred in one spot on this earth; that we can all learn from one another in this wide world for our mutual benefit.

I returned home from my trip with a profound respect for the wealth, grandeur, and achievements in other lands, and with a greater love for our Canada.