

tion by our own tidy housewives ; that is, that it is expected, when a borrowed kettle is returned, that there will be a small portion of the food which has been cooked in the kettle remaining in the bottom of the pot. The language has a particular word to designate this remnant. Should this custom be disregarded by any one, that person would never be able to borrow again, as the owner must always know what was cooked in her kettle.

Great indignation was the result of the action of a white woman, who returned a scoured kettle. She meant to teach a lesson in cleanliness ; but her act was much talked over, and interpreted as fresh evidence of the meanness of white folk !

Soon the savory odors give token that supper is ready. Dishes are set in the traditional places occupied by the members of the family, and the food ladled out, and portioned to each person. The little girl is sent out to call the men in. There is no formality about the family meal. If the father is a religious man, he may take a bit of his food, lift it up, and drop it in the fire ; the act is without ostentation, and apparently unobserved by the others. Sometimes the children take their supper together outside the tent. The mother seldom eats until all are fully served. She may join her children with her portion ; or if she has female companions in the tent, they will draw together, and gossip over the meal. Every one falls to with zest, and the pot is generally emptied.

After eating, all lie down, stretching out in the tent, or going outside if the day is fine, and resting in the long slanting sunlight. As the air cools, a fire is kindled ; and here grouped about the companionable blaze we watch the stars come out. Some persons doze, some discuss the journey, or recount reminiscences of former times : the women gather together and complete the story of the day ; while the children chase the fireflies, or subside into drowsy listeners. Across the hum of voices is borne the song of a young man, who, hidden in the grass, lies on his back drumming on his breast as he sings. There are no urgent demands upon any one. The matron has no dishes or linen to wash, or scrubbing to do ; there is nothing to clear away after the evening meal : the single pot is emptied, and set to one side. No transitory fashions perplex the fancy of the maiden, no lessons to learn harass the child. The men talk or sing, unconscious of money making or losing, or questions in science or art. To the people, no great disasters are probable, no great successes possible. The stars above silently hold their secrets, the un-

marred prairie tells no tales, and the silence of uninquisitive ignorance shuts down upon our little life.

To one thrust from the midst of civilization into so strange a camp-circle, the summer days hardly bring a realizing sense of the great estrangement between the two orders of society. It is only when the frozen calm of winter obliterates every touch of color and individuality of outline in the landscape that it becomes possible to gauge fully the mental poverty of aboriginal life. The cold nights when the tent freezes hard so that it sounds like a drum, and the frost lies thick on the bedrobes, make one dread to rise early ; and the sun is often up before the fire is kindled, and the kettle bubbles with the morning meal. After looking to what comfort it is possible to give the ponies, and having gathered in the wood, the outdoor work of the day is over.

In winter the tent is made warmer by putting a lining around to half the height of the tent-cloth, and by banking without and within, stuffing with grass the space between the lower edge of the tent-cloth and the ground to keep out the wind. This done, and with plenty of wood to feed the fire, one can be passably comfortable. During the day the women are busy making clothes, mending moccasins, or embroidering gala garments with porcupine quills or beads : the men, if not out trapping, are engaged in fashioning pipes and clubs, or shaping spoons on the ball of the foot. The winter is the season for story-telling, and many hours of the evening are spent in this enjoyment.

The cold season brings pleasures to the children, — snowballing, sliding down hill on blocks of ice, or standing on a flat stick and coasting swiftly, balancing with a pole. The glow on the faces of the little ones as they run in breathless from their sport to meet the welcome of the group within the tent, is about the only zest the days bring.

ALICE C. FLETCHER.

THE CAROLINE ISLANDS.

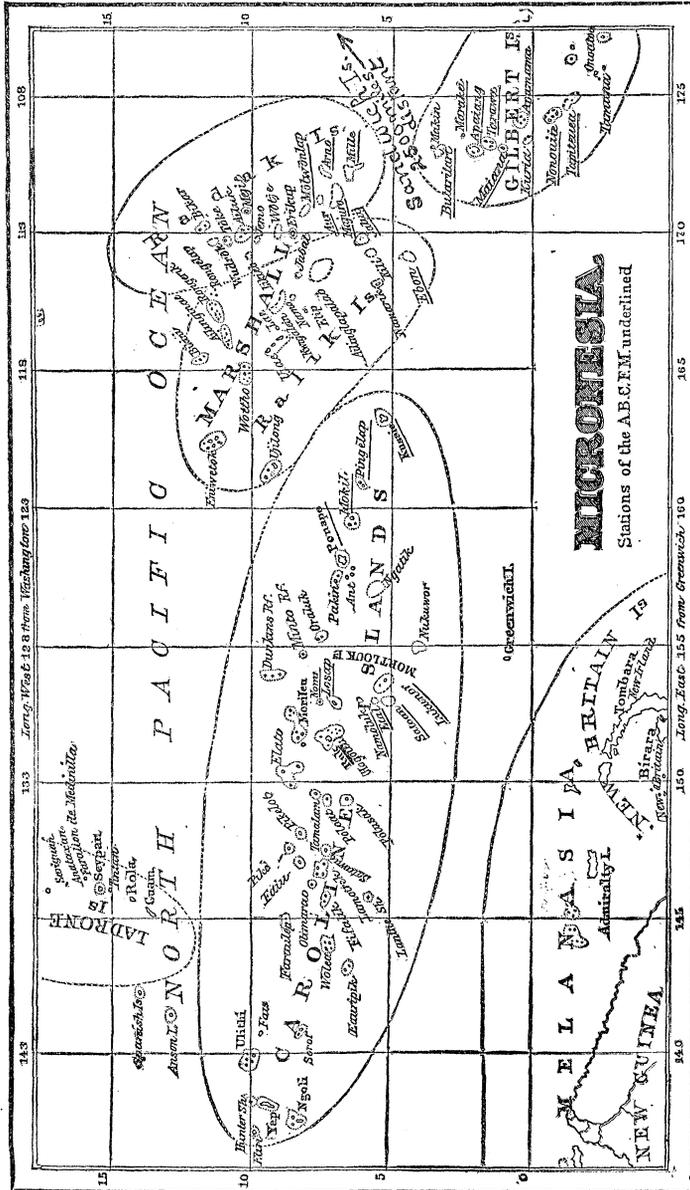
MICRONESIA, or the 'Little Islands,' is a fitting name given to that portion of the Pacific Ocean lying between 134° and 177° longitude east from Greenwich, and from 2° south to 20° north latitude. Within these boundaries it is estimated that there are not far from one thousand islands, divided into four groups, — the Gilbert, Marshall, Caroline, and Ladrone. The Ladrone Islands on the north, between 144° and 146° longitude, were discovered by Magellan

in 1581, and are under Spanish rule, being used for a penal settlement. The native population on this group is entirely extinct. The Gilbert and Marshall Islands on the eastern

lying north of the equator between 134° and 165° east longitude. They were discovered in 1528 by Alvaro de Saavedra, and are usually divided into the eastern, western, and central

Carolines; but there are no definite boundaries to these sections. On the western end, the largest islands are Pelew and Yap. These, with Ponape and Ruk in the central, and Kusaie on the eastern sections, are the only high islands, the rest being of coral formation, and rising but a few feet above the level of the ocean. The highest point on Yap is about 1,200 feet, while the top of Ponape is said to be not less than 3,000 feet. Ruk, or Hogoleu, is an archipelago encircled by an immense barrier-reef some 150 miles in extent. The lagoon which is thus enclosed, though irregular in shape, is not far from thirty miles in breadth, within which are several high islands varying from 200 to 1,000 feet in altitude.

The climate of this region is, of course, tropical, the thermometer at Ponape ranging from 70° to 87° F. The three principal products which thrive upon coral islands, and are the main support of human life, are the cocoanut-palm, which grows wild, the bread-fruit, and the pandanus or screw-pine. Taro is also produced on some of the islands. On Kusaie, Ponape, Ruk, and Yap, there is a much larger range of products. It is said that on Ponape there are not less than a dozen different varieties of bananas. Since American missionaries have resided there, various tropical fruits have been introduced, and also animals. These high islands are covered with forest-trees, and abound in pigeons



side of Micronesia are all of coral formation, and with few exceptions are very small in area.

The largest group of the four is the Carolines

Map loaned by the Amer. board of comm. of for. miss.

and wild birds.

It is difficult to estimate the number of inhabitants within the group. Ponape has about 5,000, Ruk about 12,000, Yap 8,000 or 10,000. The people belong to the brown Poly-

nesian race, having straight hair. They are tall, well formed, and vigorous, much addicted to war, yet not characteristically savage. Rev. Mr. Doane of Ponape describes the Rukite as of "a soft saffron tinge, his form symmetrical, limbs round, and of good length between joints, step easy, eye round, black, and lustrous, not dimmed by the use of ava or toddy from the cocoanut-blossom, lips rather thin for a Micronesian, hair wavy and long. I thought him a fine-looking native. Some of the women are quite beautiful." The islanders are skilful in navigating their proas, which are fitted with outriggers; and they often make long voyages without compass, though not infrequently a boat-load is drifted away, and is lost. The people throughout the islands formerly tattooed themselves, a custom which is rapidly passing away. Their houses are simply roofs on posts about four feet from the ground. In these attics they sleep with a wooden pillow and a mat covering. Until recently, there was little clothing seen on men or women. There was no marriage-rite known, though the pairing of men and women was respected. Each of the Micronesian groups has a distinct language, and within the Caroline islands the variations are more than dialectic. There are at least six or eight distinct languages within the group.

The Caroline islander as found, was not an idolater, though full of superstition. He had neither images nor temples, though certain places were avoided because he believed that they were inhabited by spirits. In a few places priests were found whose aid was sought in curing the sick. As to the government of the islands, there has been hitherto no attempt on the part of foreign powers to exercise control over them. Each island has its chief, who is absolutely independent, though sometimes controlled by a council of the people. His authority is hereditary, and is derived in the line of the mother. On a few of the islands, there is more than one tribe, in which case each division is ruled by its own chief. There is no confederation known throughout the group.

A remarkable change has been effected in the islands within the last generation. In 1852 American missionaries, under the care of the American board of foreign missions, were located on Ponape, and have since occupied Kusaie, Ruk, and the Mortlocks. From these points they have extended their labors through the agency of native helpers to several islands of the group, as well as into the Marshall and Gilbert Groups. There are at present twelve American missionaries, men and women, to be

found on the islands, who are aided in their work by the Morning star, a barkentine with auxiliary steam-power, which enables them to visit the islands, and locate the native helpers. On its present voyage this vessel is expected to land teachers on the island of Yap. Since the landing of these missionaries, the whole condition of society on many of the islands has been entirely changed. In some places the whole population is found in schools; and on most of the islands occupied by Christian teachers the people are respectably clad, and are accepting the civilization and religious truth offered them. Within Micronesia the missionaries have under their care more than forty churches, with over four thousand church-members.

As to the question of the sovereignty of the Carolines, which is now in dispute between Spain and Germany, it may be said that, though Spain may claim possession on the ground of prior discovery, she has not for three centuries enforced that claim, or occupied any of the islands, unless it may be a single one nearest her Philippine possessions. Germany has no claim save on the ground that a dozen traders, more or less, have taken advantage of the improved condition of affairs, due to the labors of American missionaries, and have carried on a small trade in the dried fruit of the cocoanut. The interests of civilization and humanity do not require that either of these nations should assume control. E. E. STRONG.

SCIENCE IN COMMON SCHOOLS.

Bones.¹

BONES are the framework of the human body. If I had no more bones in me, I should not have so much shape as I have now. If I had no bones in me, I should not have so much motion, and grandma would be glad; but I like motion. Bones give me motion, because they are something hard for motion to cling to. If I had no bones, my brains, heart, lungs, and larger blood-vessels would be lying round in me sort of loose-like, and might get hurted; but not much, lest it is hard hit.

If my bones were burned, I should be all brittle, and you could crumble me up, because all the animal would be out of me. If I was soaked in a kind of acid, I should be limber. Teacher showed some bones that had been soaked. I could tie a knot in one. I had rather be soaked than burned.

Some of my bones don't grow snug, and close to my other bones, like the branches to the trunk of a tree do; and I am glad they don't; for if they did, I could not play leap-frog, and other good games I know.

¹ Composition by a boy in one of the lower grades of a New-England grammar school.