

constant feeling of slightly grating friction to the operator as he rubs, and a fine powder should be rubbed off from the surface of the groove and pushed along by the end of the stick, so that it accumulates at the far end of the groove in a small heap. Great care must be taken that this small heap of powder is not shaken or blown away.

The friction being kept up slowly and steadily, the sides of the groove begin to blacken and soon to smoke. Rapid strokes are now resorted to, the fine dust rubbed off becomes black like soot, and at last ignites at the end of the stroke just as it is pushed into the small accumulated heap, which acts as tinder. A tiny wreath of smoke ascending from the heap shows that the operation has been successful. A gentle blowing soon sets the whole heap aglow.

The operation is excessively tiring to the wrists, since it has to be prolonged for a considerable time, but the greater the practice the less the waste of force. I have never succeeded in getting fire myself, though Mr. Darwin succeeded at Tahiti; and I have seen several Englishmen do so after practice, and especially Dr. Goode, R.N., who frequently lighted a candle in this way to show me the process on board H.M.S. "Dido" at Fiji. It is easy enough to get smoke and char the wood a little, but very difficult to get the actual fire. The slightest halt during the friction is fatal.

The old stone implements have entirely gone out of use in Tonga, and they are not plentiful, but I bought several from natives who had them put away in their houses. They call them "toki Tonga," Tongan axe, or adze, in distinction to foreign axes, whereas the Sandwich Islanders spoke of their adzes when I was buying them as stone adzes, "pohaku koi." All the stone adzes which I saw were unmounted; no doubt the handles had been used long ago, when iron was introduced, to fasten hoop-iron blades on to in the place of the discarded stone ones. The stone adze blades I procured were all of simple form like those of Fiji, and not with complex curved surfaces and shanks like those of Tahiti and some other Polynesian Islands.

The manners and customs of the ancient Tongans are probably better understood than those of any other Polynesian Islanders, because of the existence of Mariner's well-known account of them.*

The Island of Tonga is about 27 miles in extreme length, and 10 in extreme breadth. The island is entirely composed

* "An Account of the Natives of the Tonga Islands. Compiled from Communications by Mr. W. Mariner, several Years Resident in those Islands." By John Martin, M.D., London, 1817.