## Geo. H. H. Redding

While angling for salmon and trout during a vacation, last summer, on the Cloud River, in Shasta County, I had an opportunity of seeing a Wintoon Indian make a fire by the friction of two pieces of wood. The process adopted by him differs in some particulars from that used by the savages of It will be of interest to the archaeologist who desires to other countries. preserve the evidence of all the habits and customs of man in his original savage condition, and may be of service in showing some ship-wrecked mariner how easily fire may be made where he can obtain two pieces of dry wood.

Word came to the United States Fishery that there was to be an Indian dance that evening at the upper rancheria, which is a beautiful spot on the right bank of the Cloud, about five miles above the fishery. Just before sunset, with two companions, I crossed the river in a dug-out, where we found the trail. The weather was perfect. The sun had descended below the hills that guard the western bank of the river. The narrow valley and its cold, hurrying stream, fringed with alders and azalias, were sinking into shade and seemed hushed to sudden silence, broken only in the still reaches and quiet pools by the occasional heavy splash of a salmon at play, or the sudden leap of the hungry trout intently busy in making entomological collections from among the ephemera, caddice and other flies, that spring into multitudinous and joyous existence under the magic wands of the long shadows creeping over the water. Our trail led along the east bank among the talus from Mount Persephone, whose gray limestone summits tower three thousand feet above the river. Our path was in the shadow of the opposite hills; but, a few hundred feet above us, the setting sun was bathing the somber rocks on our right in purple mist, while the loftier peaks stood out against the deep blue sky-like minarets burnished with refulgent gold.

After passing the cliffs, the trail led through groves of mingled oaks and pines self-planted on the benches above the river. How few Californians know that the particular region of the foothills of the Sierra in which both oaks and pines intermingle, is blessed with a more delightful and health-giving climate than any other portion of the State. The shadows now more rapidly darted up the mountain sides, and we were soon in the gloom of the forest, and found it difficult to keep our way. This trail is the only one near this bank used by the Indians in going up and down the river. Without doubt it has been used for thousands of years; yet in all this time it has never occurred to one of them to remove from it a fallen tree, or roll away a bowlder. I wondered, as we stumbled on in the dark, whether man, when first emerging from his original. savage state, commenced by the domestication of animals, cultivating the soil. or by clearing a path from his cave to the forest where he killed his game. The Wintoons have not yet arrived at any of these stages of civilization. They have no domestic animals other than the horse and dog, obtained originally from

<sup>\*</sup> The Californian, a Western Monthly Magazine, Vol. II, No. 12, December, 1880, PP. 563-566.

from the Spaniards. The nearest approach to cultivation is not connected with a supply of food, but with intoxication. All of their camps are "kitchenmiddens," in a state of slow but constant accretion, and the soil about them becomes very rich.

Wild tobacco (Nicotiana Bigelovii) grows sparsely in favored spots on the hills near the river. When, by accident, the seeds are carried to the rich and prolific soil of these kitchen-middens, it grows with added vigor to increased size, and is much prized by the Indians for smoking. To the civilized smoker of tobacco it has an intensely vile flavor, and is exceedingly nauseating and stupefying. When the plant makes its appearance above the ground in the spring they frequently loosen the earth about it with a sharpened stick, and pile brush about each plant to prevent it being trodden upon or injured. It has not occurred to them that the seeds could be saved and planted. While cultivating no food plants, they guard with jealous care particular oaks of the species Q. Chrysolepis, Kellogii, and Brewerii, and all the prolific nut-pines (P. Sabiniana), as these supply them a large amount of food. They are learning that the hog of the white man is their great enemy - that he eats the acorns as they drop from the trees, that he destroys the grass in the small valleys, the seeds of which they gather, and that he roots up and eats the camas (Camassia esculenta) and other bulbs, that yield them food when the salmon have returned to the ocean.

Filled, as these people are, with the densest ignorance and the most weird and mythical superstitions, they yet have, in all that relates to their supply of food, a knowledge of the natural history of their immediate vicinity that seems wonderful. No fish or crustacean of the river, no reptile, no animal or bird, no tree or plant, but has a name; and every child is taught these names, and given the knowledge of what can be used as food and what would be injurious.

In about an hour we arrived at the Government trout ponds, but found all the attendants had left for the dance, except an Indian with his canoe to ferry us again across the river. The village was about a mile above the crossing. On arriving we found a great many families had gathered, coming for many miles up and down the river. There were, probably, three hundred and fifty, of all ages. We learned that the dance and gathering was an annual meeting, partly religious, and that it is given as an expression of gratitude for the return of the salmon to the river.

The rancheria, or village, is on the right bank of the river, at a beautiful bend, where the water sweeps around the base of a mountain. From what could be seen at night, the spot had been occupied by the Indians for ages.

In the center of the rancheria was the temescal, or sweat-house. It was constructed by digging a large circular, basin-shaped hole in the ground, four or five feet deep. Around the edge of this hole large posts are sunk, about five feet apart, and which extend upward to the top of the ground. In the center are planted four large trunks of trees, with the original limbs upon them, extending a few feet above the surface. From these four trees stout limbs of trees are laid, reaching to the posts at the edge. These limbs are fastened firmly by withes to the branches at the center-trees. The whole is then thatched with pine and willow brush, and covered with a layer of earth about a foot in thickness. The entrance is a long, low passage, and is made by driving short, thin pine posts side by side, about three feet apart, and covered in the same manner as the house proper. To enter, one has to stoop quite low, and continue in this position until he comes into the sweat-house. We entered. All about us, crowded together, were the Indians, squatted on the earth, the males in the foreground, and the mahalas, or squaws, with their pappooses, in the rear. In the center a low, small fire was burning, quite near to which sat the caller of the dances, smoking a pipe which looked like three large wooden thimbles placed inside of each other. This he held perpendicularly in the air, with his head thrown back so as to allow his lips to inclose the mouthpiece. After puffing three or four times, he passed it to others of the crowd. Some of the Indians had similar pipes, but, so far as I could see, this one was the largest and finest.

Directly opposite to the entrance, there had been a kind of fence erected, behind which the dancers were getting ready. We did not have long to wait, for soon the caller commenced yelling, and all the eyes of the audience were turned toward the dressing-room. Out came the Indians -- seven men and about fifteen mahalas. The men were naked, except for a girdle of eagle feathers about their loins and a narrow band of woodpecker feathers about the forehead. The latter is very handsome, and brings a good sum when sold. In their hands they carried long, thin reeds, covered with small, fine feathers, which they blew as they ran around the fire, stamping the ground. The women wore calico dresses of bright colors, and in their hands carried grasses, which they held up. As the men ran, the women formed a half circle about them, turning from side to side, all singing in a monotonous, low tone. They were accompanied by the musicians, who consisted of three men - one blowing a reed, one pounding on an old tin pan, and the other striking a split stick against a piece of wood. time was perfect, and it was astonishing with what rapidity the men dancers got over the ground. They put their whole strength into the dance, and keep it up for an hour at a time, only stopping at intervals to get breath and hear comments on their performance. When the dance is finished, the men cast off the feathers and run naked, reeking with perspiration, and plunge into the river, the water of which is rarely warmer than 45° Fahrenheit.

It is usually those who are sick who take part in the dance of this kind, and this treatment is supposed to cure; but, as a remedy or luxury, it seems to have been in universal use among all the California Indians.

While the monotonous dance was in progress, we left the sweat-house, <sup>and</sup>, meeting Sarah, the daughter of the old Chief Consolulu, I asked her to tell her father that I wanted him to have an Indian make a fire as it was made before white men came to the country. Sarah is one of the few members of the Wintoon tribe who have any knowledge of the English language. When a child, she was taken to live with a family at Shasta. In a few years she became homesick, and longed for the companionship of her own people, for their wild, free life, and for the mountains where she was born. So Sarah turned her back to civilization and its constraints, and joined her people, that she might live as they live, and share their joys and privations. She retains, apparently, but little evidence of the attempt at civilization except her Christian name and some knowledge of the English language.

After long negotiations, and the exercise of considerable diplomacy, an Indian came to me, bringing his beaver-skin quiver, filled with arrows. From among these he took a dried branch of buckeye (Aesculus Californica) about as long as the shaft of an arrow, but much larger at one end. From his quiver he also produced a piece of cedar (Librocedrus de urrens). This was about eighteen inches in length, an inch thick, and two inches wide in the center, but tapering to a rough point at each end. Its general appearance might be described as boatshaped. In the center of this piece of cedar, on one side, he had made a circular hole a quarter of an inch deep, with a piece of obsidian, and from this hole he had cut a channel extending to the edge of the wood. He now gathered a handful of dry grass, and some fine, dry, powdered wood from a decayed pine. Each end of the boat-shaped piece of cedar, with the side containing the hole and channel uppermost, was placed on a couple of flat stones and held firmly by another Indian. The dry grass was piled loosely under the center, and on it was scattered the fine powder of the decayed wood. The fine powder was also scattered in the channel leading to the hole in the center of the boat-shaped piece of cedar. He now took the branch of buckeye and placed the largest end in the circular hole, and, spitting on his hands, commenced revolving it back and forth rapidly between his palms, and at the same time bearing down with considerable force. This constant exercise of pressure, while revolving the buckeye, caused his hands to be rapidly shifted to the lower end of the stick, when he would remove them to the top again and renew the process. At the end of five minutes he was perspiring from the exercise, and no fire had been produced. He stopped a few seconds and said something. I asked Sarah to translate his speech. Sarah told me he was saying, "Fire, why don't you come to me now as you did when I was a boy?"

This he repeated several times, and commenced work again. In another five minutes smoke made its appearance where the two woods were in contact. In a few seconds the powdered dust of the decayed wood took fire, and the fine coals communicated this fire to the dust in the channel, and rolled down to the dust scattered on the dry grass. He now took the bundle of grass in his hands, and, carefully blowing upon it, soon created a blaze. Meanwhile, a great many of the Indians came out where we were, and crowded about us, and seemed to take great interest in the proceedings. All manner of questions were asked of us, and translated by Sarah; among which were: "Where you come from? Don't white man have any more matches?" or, "You like this way better than white man's way?" The buckeye is very much harder than the cedar; and I find it is the invariable custom among savage people, in making fire by friction, to use woods of different texture and hardness.

As soon as the fire blazed the crowd went back into the sweat-house, and we with them, but only to remain a short time, as it was already midnight, and we had a long distance to travel. Soon we were on our way to the fishery. As we were crossing the river, the moon came over the mountains and shone down upon us. We made a weird looking picture in the canoes, with an Indian at each end, paddle in hand. As the first gray streaks of dawn appeared in the north-eastern sky, we arrived at the fishery.