weapon. It is also proper to say that forms as rude as ours occur in New Zealand. The elk skin armor (Fig. 105) worn by warriors in battle as protection from arrows is now nearly obsolete. These suits have been worn by several generations, and in some of the modern battles with the whites. The cusps and triangular figures are intended to denote the number of enemies slain and captives taken. It is worn so as to cover the left side, with the left arm through the slit, the head through the opening, and the tie on the right shoulder, and it is also tied below the right arm. The arrow cuts and bullet marks were received in battle.

There is another kind of armor made of wattles and twine, woven and bound with buckskin. (Fig. 106.) This is worn in battle to protect the body; it is tied across the breast from left to right. The red lines denote the number of enemies slain or captives taken, also the rank of the wearer.

This class of armor was in common use among the Natano and Kenuck Indians before the introduction of fire-arms, but it is now nearly obsolete. This is the only complete suit which Lieutenant Ray was able to obtain.

BOAT BUILDING.

As the redwood grows only along the Lower Klamath the Yurok have a monopoly of making canoes; and they sell many to the Karok. A canoe on the Klamath is not pointed like the Chippewa canoe, but the width at either end is equal to the tree's diameter. (Figs. 107, 108.) On the great bar across the mouth of the river, and all along the coast for 80 miles, there are tens of thousands of mighty redwoods cast up on the strand, having been either floated down by the rivers or grubbed down by the surf; hence the Indians are not obliged to fell any trees, and have only to burn them into suitable lengths. In making the canoe they spread pitch on whatever place they wish to reduce, and when it has burned deep enough they clap on a piece of raw bark and extinguish the fire. By this means they round them out with wonderful symmetry and elegance, leaving the sides and ends very thin and as smooth as if they had been sand-papered. At the stern they burn and polish out a neat little bracket, which serves as a seat for the boatman. They spend an infinity of puddering on these canoes, two Indians sometimes working on one five or six months, burning, scraping, and polishing with stones (nowadays they use iron tools and dispatch the work in a few days). When completed they are sold for various sums, ranging from $10 to $30, or even more. They are not as handsome as the Smith River or the T'-sin-ūk canoes, but quite as serviceable.

A large one will carry 5 tons of merchandise, and in early days they used to take many cargoes of fish from the Klamath, shooting the dangerous rapids and surf at the mouth with consummate skill, going boldly to sea in heavy weather, and reaching Crescent City, 22 miles distant, whence they returned with merchandise. When they are not

using these canoes they turn them bottom side up on the sandy beach and bream them, or haul them into damp and shady coves, or cover them thickly with leaves and brushwood to prevent the thin ends from sun-cracking. When they do become thus cracked, they bore holes through with bucks-horn and bind the ends together with withes, twisting the same tight with sticks—a kind of rude tourniquet, which closes up the cracks better than calking would do. (*Cf.* Powers, Contr. N. A. Ethnol. III.)

MONEY AND ITS USES.

The money-box is made from a section of antler (Fig. 109), probably elk. The rough outer portion has been removed and the white substance cut to resemble a flat column with banded ends. There are in this case rings at either end. Between these bands, on the concave portion, a slit $2\frac{1}{8}$ inches long and about $\frac{1}{4}$ of an inch wide is cut down to the core; the latter is carefully scraped out to form a box or pocket. Into this dentalium shells or Indian currency are put (Fig. 110), a little plate of antler laid over the mouth, and a long strip of buckskin wrapped many times around the whole and tucked in. (Fig. 109*a*.) In this particular specimen the tail of some fur-bearing animal did service, in addition to the mouth cover, in keeping the money from rattling around in the box.

A more elaborate money-box is made of a large section of elk horn; $6\frac{3}{8}$ inches long and $2\frac{1}{4}$ inches thick. The central column is 4 inches; the remaining space forms two bands at the ends, each ornamented with three deeply cut lines and the etched triangles which constitute the chief element of a carver's ornament among the Hupas. The mouth of the box is $3\frac{1}{2}$ by $\frac{5}{16}$ inches. On either side of the mouth a rectangular space is etched in triangles, leaving plain rhombs, no two of which are of the same proportions. The covering of the mouth in this case was the ivory scale of a centigrade thermometer—ominous comment upon the fate of some former prospector. Around the cover was wrapped more than a yard and a half of buckskin, about three-fourths of an inch in width. The contents of this box were most interesting. Six dentalium shells, which we shall number from 1 to 6, were thus characterized:

1. $2\frac{1}{8}$ inches, wrapped with red fish skin.
2. Same length, wrapped with red fish skin.
3. 2 inches, wrapped around the top with woody fibers.
4. 2 inches, wrapped only in upper portion with snake skin.
5. $1\frac{5}{16}$ inches, wrapped with maiden's-hair-fern stalk.
6. $1\frac{3}{4}$ inches, wrapped with woody fiber, dyed red.

Other shells are wrapped with skin and fern and tipped with woodpecker feathers.

The Karok, says Mr. Powers, use the red scalp of the woodpecker for money, which rates at $2.50 to $5 apiece, and the dentalium shell, of which they grind off the tip and string it on strings. The shortest pieces are worth 25 cents; the largest about $2; the value increasing rapidly