

them, and sent an example to the National Museum in 1876. (Cont. to N. Am. Ethnol., III, 74).

Another article of furniture in this meagerly-furnished household is the low stool of wood in form of a truncated cone, 11 inches wide and 3 inches high (Fig. 6). There are no tables, neither carpets nor hangings, except as the well-tanned buck-skins and pelts on floor and wall perform the functions of tapestry and curtains.

DRESS AND ADORNMENT.

The native dress for every-day wear among the northern Californian Indians was formerly very meager and little varied (Powers, Cont. N. A. Ethnol., III, Figs. 2, 3, 5, 6, 8, 23, 28, 30, 31). For the body, the robe of tanned deer-skin or of pelts sewed together (Fig. 7) sufficed for both sexes. Among Lieutenant Ray's collection is a man's cloak of deer-skin, made of two hides of young deer sewed together, or rather each side consists of three-fourths of a skin so united that the two tails hang down below and the two necks extend around the shoulders of the wearer, fastening in front.

The ordinary head covering for the men was formerly a hood of skin or leather ornamented, but the women wore the daintiest cap in the world, a hemispherical bowl of basketry made of a tough fiber twined with the greatest nicety and embroidered in black, brown, and yellow. (Plates I, II, III, Figs. 8-25.) The body weaving is done with the brown fiber, showing on the inside and occasionally on the outside in narrow bands, figures, and diaper work. Most of the outer side is ornamented by overlaying each strand of the brown with a strip of tough grass in natural color or dyed, or with a strip of the black stalk of the maiden-hair fern. In twining her weft, the savage weaver managed to keep these colored grass strips outward, although she would for variety occasionally hide the grass and reveal the body brown. The patterns are produced by a never-recurring variety of fillets, bands, triangles, and parallelograms which please the eye by their form and color, but which are the easiest of all to produce, requiring only careful attention to counting stitches.

The shoes of the Hupas and of the other Indians of this region are made high like gaiters and are cut from a single piece of buckskin (Plate IV, Figs. 26-31) sewed up at the back rather carelessly by a buckskin cord as in basting. Down the instep a curious seam is formed as follows (Fig. 29): The two edges of the leather are slightly split, they are then brought together as in joining the edges of a carpet. A loose cord of sinew is laid along the two edges and a whipped stitching of sinew made to join the two inner margins of the edges of the buckskin, inclosing at the same time the loose cord of sinew.

When the shoe is rounded out, the two outer margins of the leather come together on the outside of the shoe and conceal the sewing altogether. A coarse sandal of the thick portion of the elk-hide or of twined

matting is worn by some tribes (Fig. 30), and also a nicely woven legging of soft basketry (Fig. 31). The latter, however, belong to full or ceremonial dress.

The ceremonial costume of all the Indians in the region under consideration is most elaborate, free use being made of pelts, buckskins, and paint, and of feathers especially. A few pieces of costume gathered by Lieutenant Ray will be described in detail.

Hats of elk-skin, tanned and painted, are made in the following manner (Fig. 32): A strip of elk-skin about 7 inches wide is cut in shape of a right trapezoid, measuring 19 inches along the upper edge and 22 inches along the lower. The two ends are sewed together with twofold sinew thread by a row of blind stitches, visible on the inside and not on the outside of the hat. The body of the hat is painted red. Four panels or cartouches are bounded by blue lines, from which extend inwardly points and wavy lines. The interior of the spaces is in white pipe-clay. A tall goose-feather plume arises in front, and a pendant owl feather hangs behind. The strings are of calico rag. Such hats are worn by young men at a dance which is given when they attain the age of 20 years, at which they are admitted to the councils of the bands.

Head bands of soft deer skin are worn, $14\frac{1}{2}$ by 5 inches, ingeniously ornamented with rows of different material recalling certain types of Eskimo embroidery. (Fig. 33.) Along the bottom will be a stripe 1 inch wide formed of deer-skin with the hair on, pointed upwards, and shorn straight above. Over this may be a broad stripe $3\frac{1}{2}$ inches wide formed by many breasts of blue jays. This, too, is succeeded by another band, perhaps of deer-skin. Further up a stripe formed of black and white triangle alternating, the former of feathers, the latter of deer hair. Above all a row of nearly a hundred pompons of wood-pecker's crest. The back is stiffened with several vertical splints set in like modern whalebone. Along the sides two buckskin flaps lap over at the back of the head. Lieutenant Ray says that such articles are used as money. They are worn by men at festal dances, and used as a medium of exchange. In traffic the value is about \$30, and Stephen Powers speaks of an inferior one for which the owner refused \$60.

Hair ornaments for the dance are made of strips of *haliotis* shell (varying from $4\frac{1}{2}$ to 1 inch in length and oblong, though irregular in outline) and pierced at one end. Through this hole a loop of leather string is passed and wrapped in three places with a strip of yellow grass for ornament. Two bunches of these pendants, nine in each bunch, are connected by a string just long enough to reach over the head and permit the pendants to hang gracefully on either side. When shaken these bunches produce a pleasing sound.

Every attractive object is laid under contribution in the Hupa head-dress, otter-skin, wings, crests, necks, tail feathers of flickers, wood-peckers, ducks, blue jays, fox-skin, pretty shells, dyed grass, quail-skins, etc. (Plates V, VI, Figs. 34-41.)