

*Fourth:* The spear is "cast" from the left hand to the right hand, by putting the right index down between the right far thumb string and the right near little

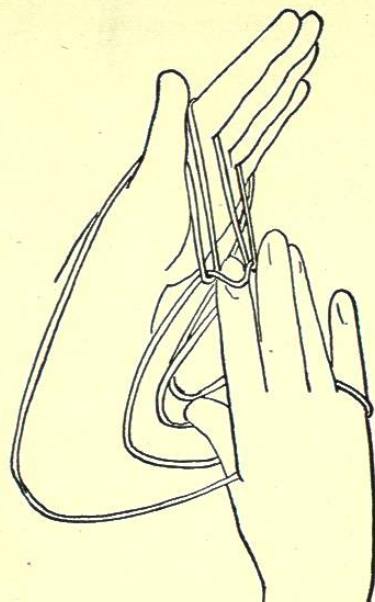


FIG. 292.

finger string, and then from below into the left index loop (Fig. 292), and drawing the loop joining the left hand loops out to the right on the back of the right index.

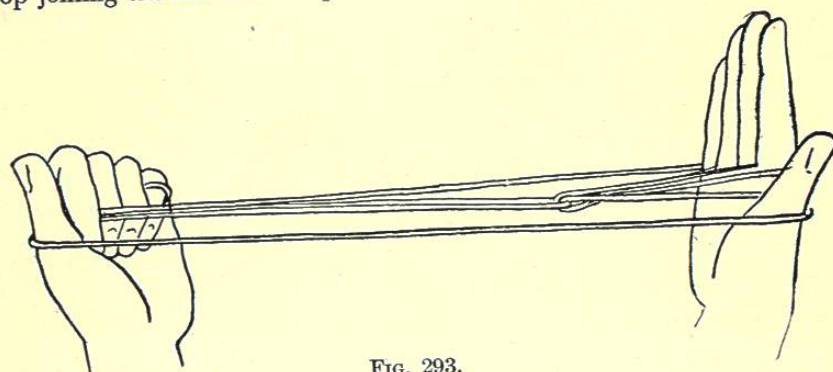


FIG. 293.

Then release the loop from the left index and close the fingers of the left hand down on the palm (Fig. 293).

The only point of interest in this figure is the fact that the finished pattern is formed first on one hand, and then may be transferred to the other hand.

The *Second* movement occurs again only in the next two figures.

## AN ARROW



This very pretty figure was shown to me by the two girls from whom I learned the other Navaho figures, at the St. Louis Exposition, in November, 1904. The native name is *Ka* = an Arrow.

*First:* Opening A. (The left palmar string *must* be taken up first.)

*Second:* The same as the *Second* movement of "Casting the Fish-Spear."

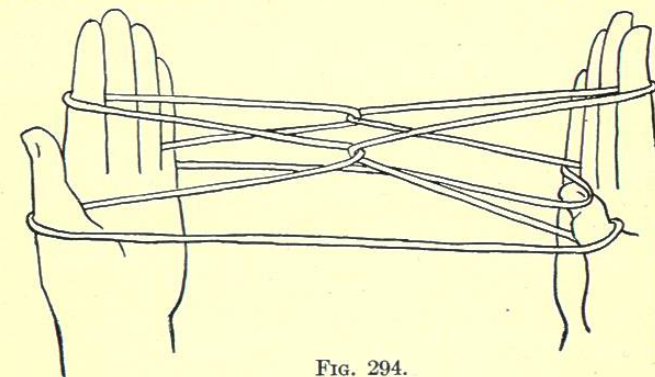


FIG. 294.

*Third:* Pass the right thumb away from you over the right far thumb string and under all the other strings, and, as you begin to return the thumb, catch on its

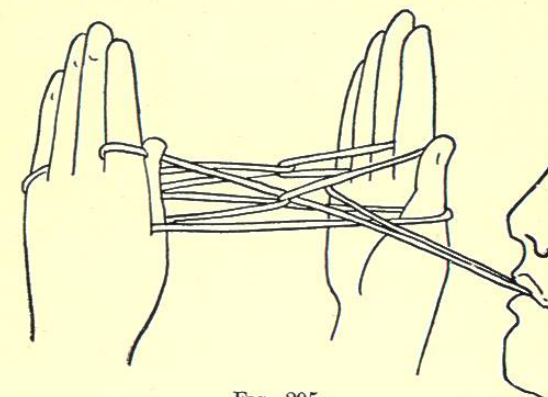


FIG. 295.

back the right far little finger string, and draw it back under the right near little finger string and the strings of the right index loop (Fig. 294, Right hand).

*Fourth:* With the teeth pick up from the right thumb this right far little finger string, which you have just drawn toward you, remove the right thumb (Fig. 295),



and moving the hands away from you, release the loops from the little fingers and draw the strings tight.

You now have a loop on each thumb and a loop on the left index. The loop held by the teeth makes one twist near the mouth, and then the right string passes to the far side of the right index, around that finger and to the centre of the figure,

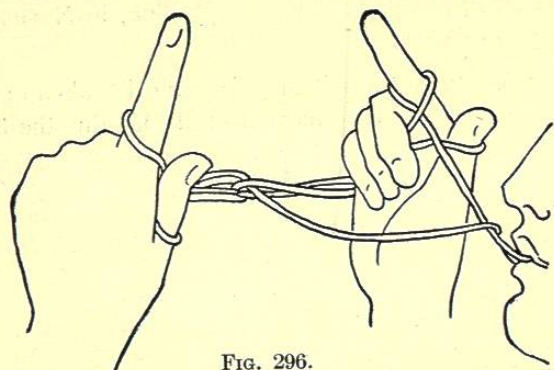


FIG. 296.

while the left string goes at once to the centre of the figure and then to the far side of the left index, to form the left index loop.

*Fifth:* Turn the hands with the palms toward you and close the middle, ring and little fingers of the left hand down on the palm, over the thumb and index loops; and close the middle, ring and little fingers of the right hand down on the palm, over the near index string and the thumb loop (Fig. 296). Now put the tip of the right thumb against the tip of the right index, and the tip of the left thumb against the tip of the left index, and turning the hands with the knuckles toward one another,

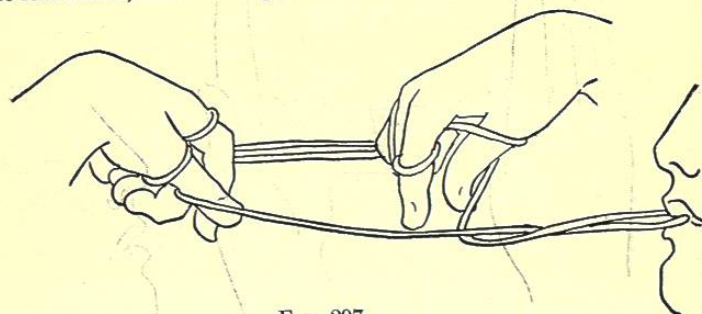


FIG. 297.

and the palms down, put the thumb and index (still held together) of each hand down between the two strings of the loop held by the mouth, below (to the far side of) the twist in the loop (Fig. 297). The middle, ring and little fingers must be kept closed on the palms throughout the following movement.

By lifting the elbows and bending the hands down at the wrists, direct the thumb

and index (still held together) of the right hand toward the right, under the right string of the loop held by the teeth; and direct the thumb and index (still held together) of the left hand toward the left, under the left string of the loop held by

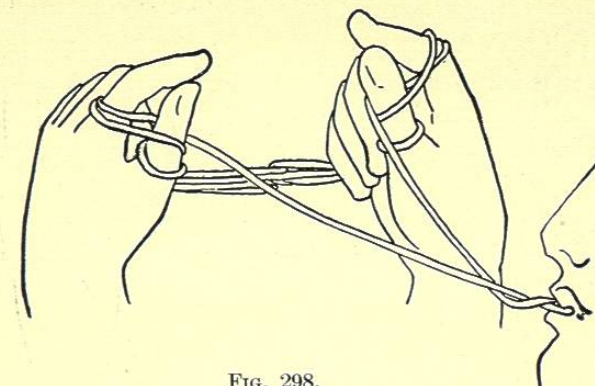


FIG. 298.

the teeth. Now, if both hands be moved up toward the chin and turned at the wrist toward you and upward, while you drop your elbows, each string of the loop can be caught around the thumb and index of the hand of the same side, and when the hands are put in the usual position each string will pass from the teeth to the far side of the index finger, between the index and middle fingers to the back of the hand, and

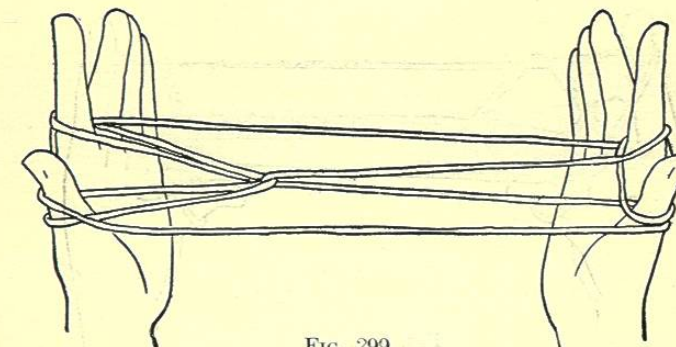


FIG. 299.

then toward you across the backs of the thumb and index, around the thumb to the palm, and again between the index and middle fingers (Fig. 298).

*Sixth:* Release the loop held by the teeth; separate the hands, and draw the strings tight (Fig. 299).

You now have on each hand: A single lower loop on the thumb, a single lower loop on the index, and an upper loop which passes around both thumb and index.

*Seventh:* With the thumb and index (or with the teeth) lift the lower loop off the thumb, and lift the lower loop off the index of each hand in turn, passing the



loop over the loop which goes around both thumb and index, but permitting that loop to remain around these fingers. The single loops which you have slipped from each thumb and each index are now looped around the string passing from the back of the thumb to the back of the index (Fig. 300). One of the four strings

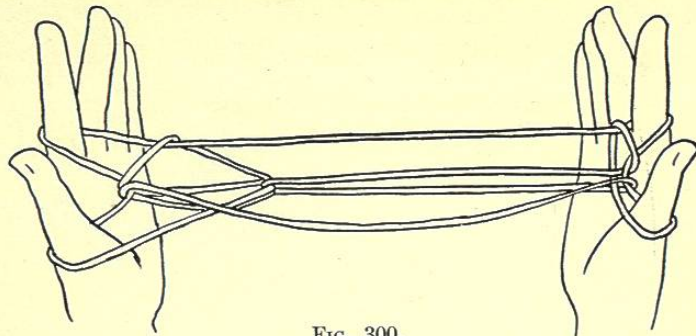


FIG. 300.

of these loops, the upper near one, passes straight across the figure and above the other three strings.

*Eighth:* Put the middle finger of each hand from below between the strings forming the thumb loop, and then on the far side of this upper straight near string passing directly across the figure, and bending the middle finger toward you over this string (Fig. 301), pull it down; then release the loop from each thumb and draw the

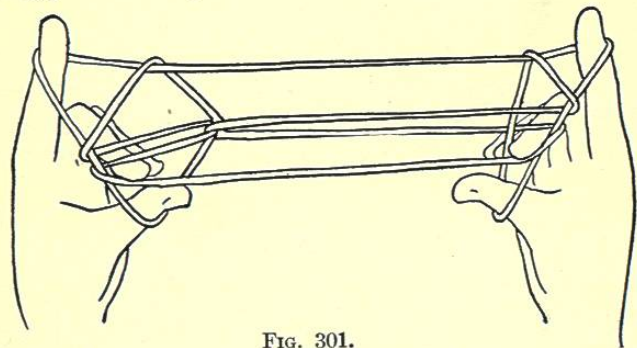


FIG. 301.

strings tight. The figure is extended between the index fingers and the middle fingers closed on the palms (Fig. 302).

The head of the "Arrow" is near the left hand; the feathered end near the right hand. By pushing together with the thumb the loops forming the point of the "Arrow," the head can be rendered very distinct; in the same way the feathered end can be made perfectly symmetrical.

The "Arrow" begins, practically, with an unsymmetrical movement, and although the subsequent movements are done with both hands the figure does not

again become entirely symmetrical. The *First* and *Second* movements are similar to the same movements in "Casting the Fish-Spear." The object of the *Third*,

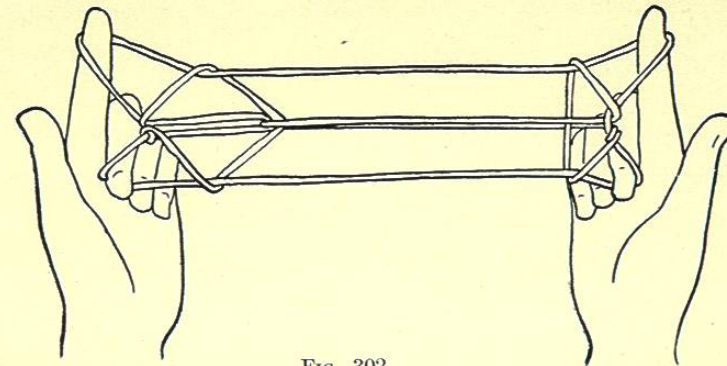


FIG. 302.

*Fourth* and *Fifth* movements is to wrap the far index strings (which usually form the little finger loops) around both the index and thumb. The *Seventh* and *Eighth* movements are characteristic Navaho movements.



## A PORCUPINE

The "Porcupine" is a Klamath Indian game obtained by Mr. John L. Cox, at Hampton, Virginia, from Emma Jackson, of Oregon.

*First:* Opening A. (The *left* palmar string *must* be taken up first.)

*Second:* The same as the *Second* movement of "Casting the Fish-Spear." With the right thumb and index pull in turn the left near thumb string and the left

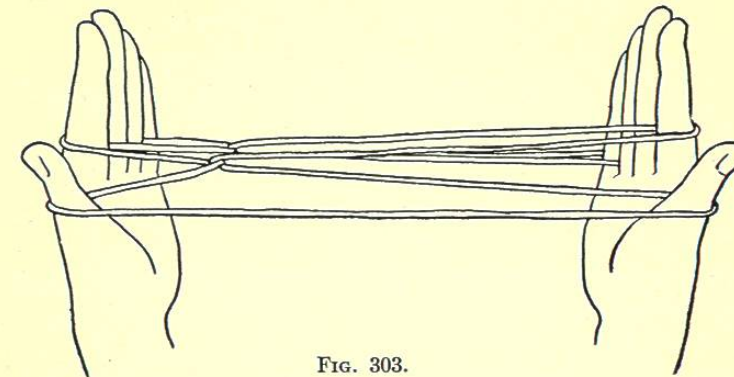


FIG. 303.

far little finger to the right, in order to bring central crossings of the strings near the left hand (Fig. 303).



*Third:* Transfer the left index loop to the left thumb, by putting the thumb from below into the index loop, withdrawing the index, and returning the thumb to its position.

*Fourth:* Transfer the left little finger loop to the left thumb, by bending the thumb away from you over the far thumb strings and taking up from below on the

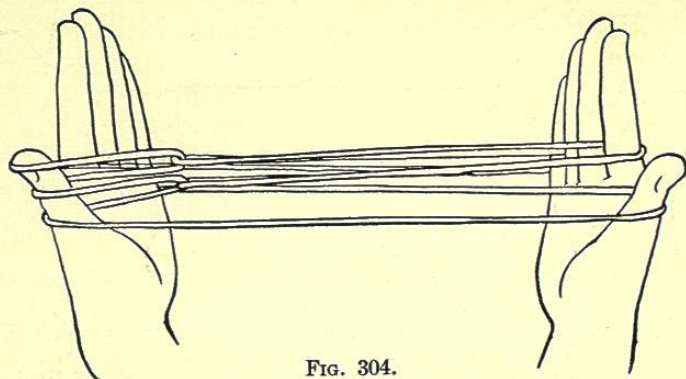


FIG. 304.

back of the thumb the near little finger string; then withdrawing the little finger, return the left thumb to its position. Keep the three loops on the right thumb well separated (Fig. 304).

*Fifth:* Put the left ring finger from below through the two lower loops on the left thumb, and, pushing the two lower far strings away from you with the back of the finger (Fig. 305), bend the ring finger toward you over the upper far thumb string (the far string which passes directly from the left thumb to the right little

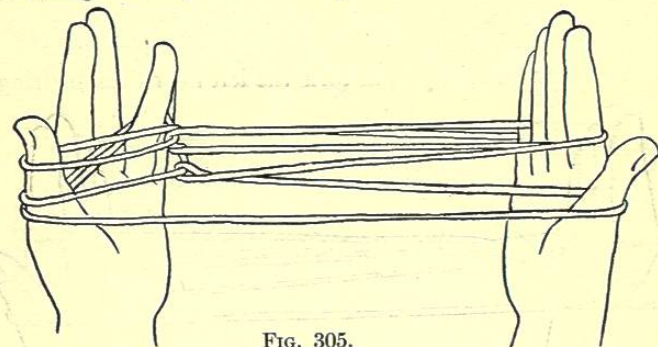


FIG. 305.

finger) and draw it down and hold it by closing the ring finger over it on the palm (Fig. 306).

*Sixth:* Turn the left hand so that the thumb, index and middle fingers point away from you; then bending the left index and middle fingers, pass the middle finger toward you through all the left thumb loops and pass the left index toward you into the two upper left thumb loops and then between the two upper near thumb

strings and the lower near thumb string (the near string which passes directly from thumb to thumb) (Fig. 307). Now, holding this lower near thumb string between

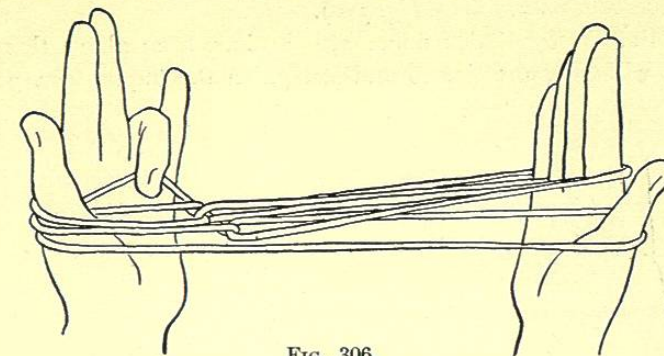


FIG. 306.

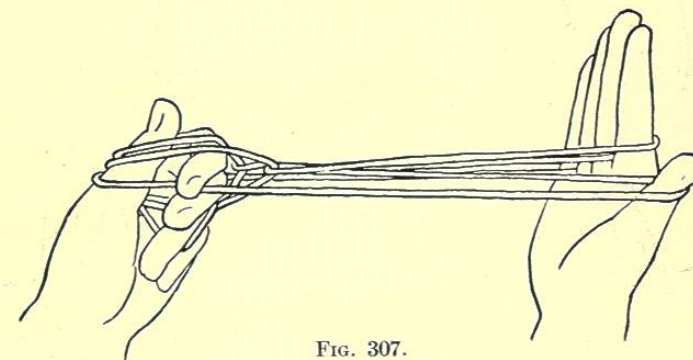


FIG. 307.

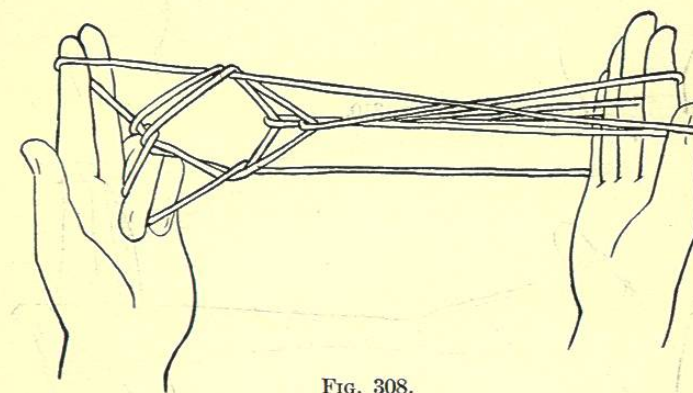


FIG. 308.

the index and middle finger, draw these fingers away from you, and by turning the index down and then away from you take the string up on the tip of that finger. Release the left thumb (Fig. 308).



*Seventh*: Put the left thumb under the two right lower strings of the lozenge now formed near the left hand (Fig. 309) and pick them up on the back of the thumb. Return the thumb to its position (Fig. 310).

*Eighth*: Put the left index finger with its loop from above through the left thumb loops, withdraw the thumb and straighten the finger (Fig. 311); transfer

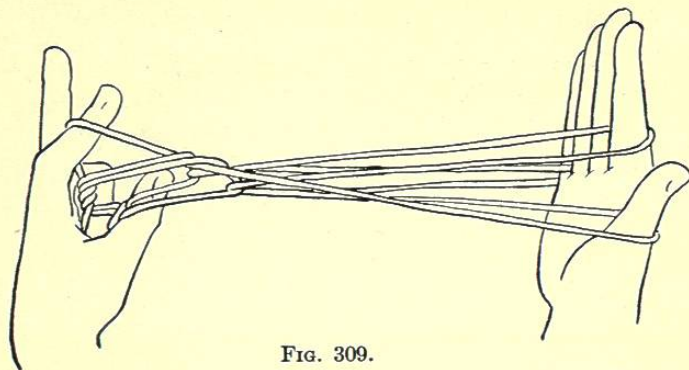


FIG. 309.

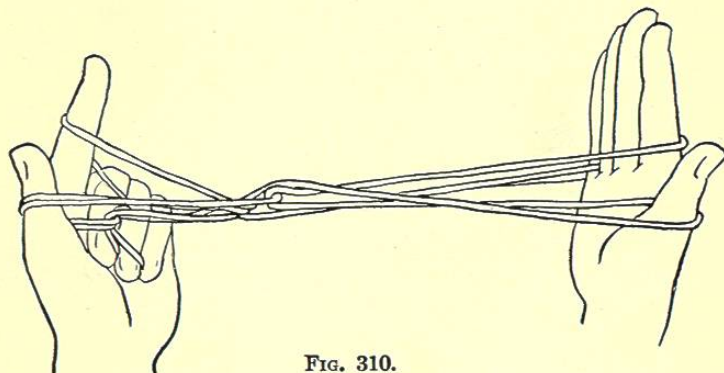


FIG. 310.

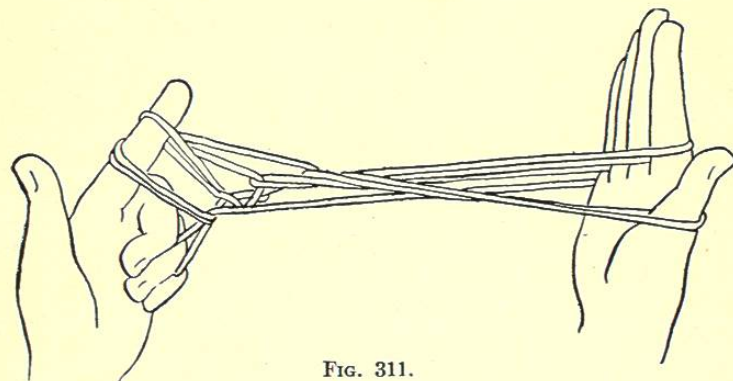


FIG. 311.

the original left index loop to the thumb by picking up from below the near index string and withdrawing the index from all its loops (Fig. 312). Transfer the left

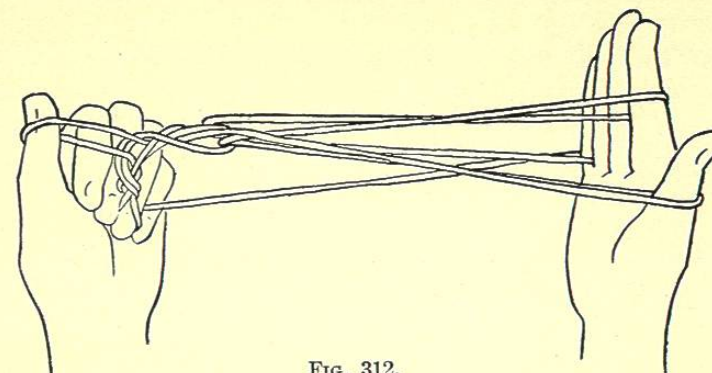


FIG. 312.

thumb loop to the index, by pulling the index into it from below and withdrawing the thumb.

*Ninth*: Release the loops from the right thumb and little finger and draw the hands apart and the porcupine is formed near the left hand (Fig. 313).

This is a very easy figure because the *Third*, *Fourth*, *Fifth* and *Sixth* move-

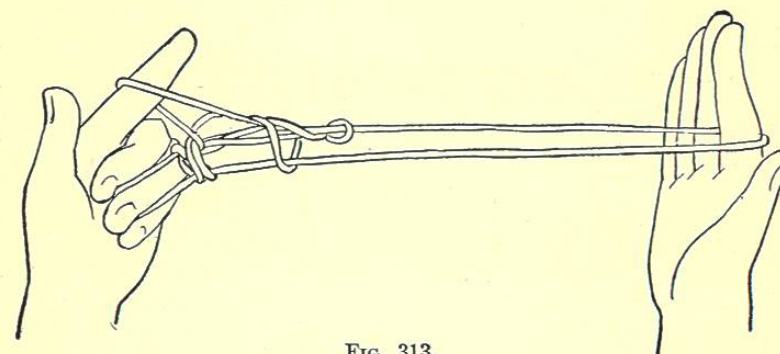


FIG. 313.

ments are the same as the *Second*, *Third*, *Fourth* and *Fifth* movements of the "Two Stars," but carried out on the left hand only. The *Seventh* and *Eighth* movements are new ones.

The "Porcupine" appears to be really an Eskimo figure, and one very widely distributed; it is found in Alaska under the name of "Wolf" or "Wolverine" (p. 361), and, as a "Fox," is one of the six patterns from Smith Sound given by A. L. Kroeber in the Bulletin of the American Museum of Natural History, XII, 1899, p. 298.