

CHAPTER VI

FIGURES WHICH DO NOT BEGIN WITH OPENING A—A BOW—LIGHTNING—A BUTTERFLY—A WORM—TWIN STARS—A LIZARD—LITTLE FISHES—STORM CLOUDS—ONE HOGAN—AN APACHE TEEPEE—TALLOW DIPS—ONE CHIEF—CAROLINE ISLANDS DIAMONDS—A TURTLE—TEN TIMES.

A BOW



THIS is another of the Navaho figures shown to me by the same two Navaho girls, at the St. Louis Exposition, in November, 1904. The native name is *Ati-i* = a Bow.

First: Hold the string between the tips of the thumb and index of each hand, so that a short piece passes between the hands and a long loop hangs down. Make

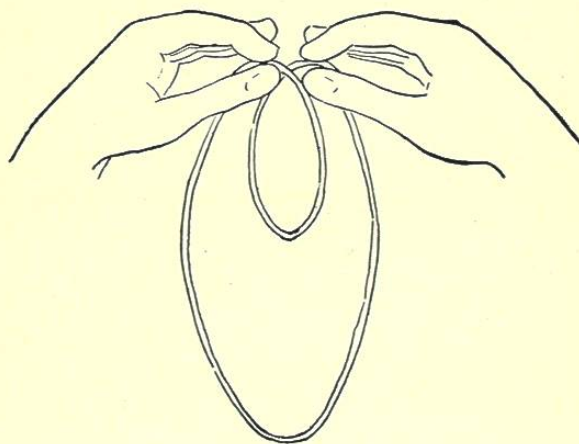


FIG. 478.

a small ring, hanging down, in the short string, putting the right hand string away from you over the left hand string (Fig. 478). Insert the index fingers into the ring downward and toward you (Fig. 479), and, putting the thumbs away from you into the long hanging loop (Fig. 480), separate the hands; and, turning the index fingers

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A BOW

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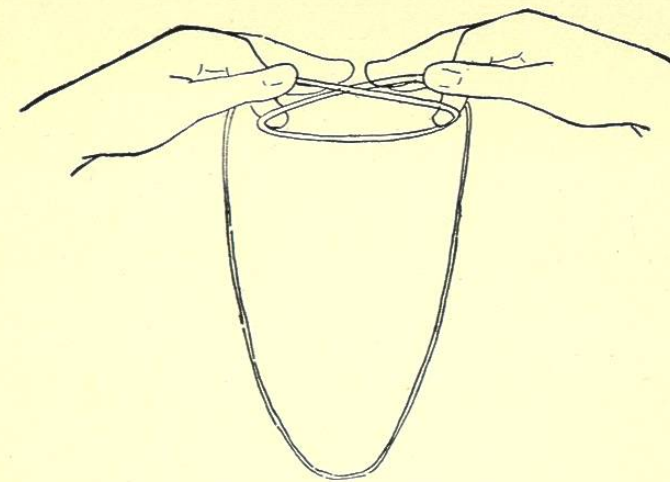


FIG. 479.

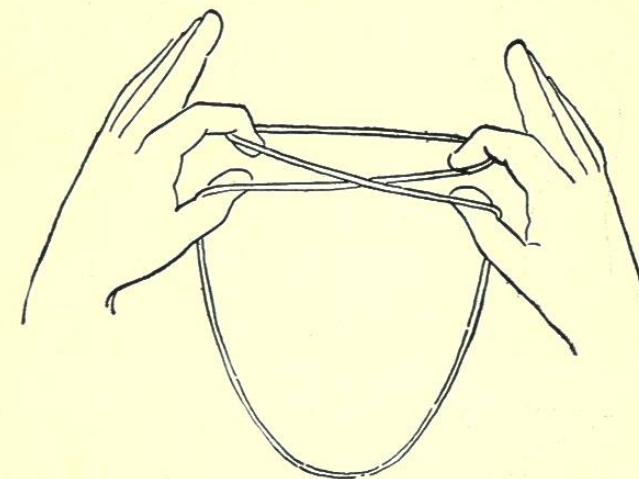


FIG. 480.

upward and outward, with the palms of the hands facing away from you, draw the strings tight (Fig. 481).

Turn the hands so that the palms face each other, and the thumbs come toward

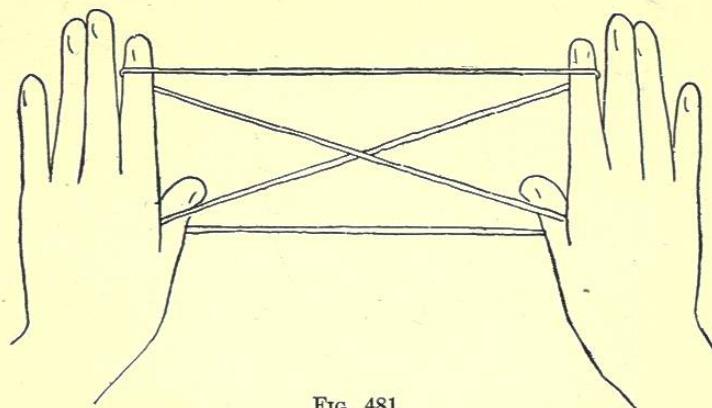


FIG. 481.

you and point upward. You now have a long crossed loop on each index, a long crossed loop on each thumb and a single cross in the centre of the figure (Fig. 482).

Second: Pass each thumb away from you over the near index string, and take up from below with the back of the thumb the far index string, and return the

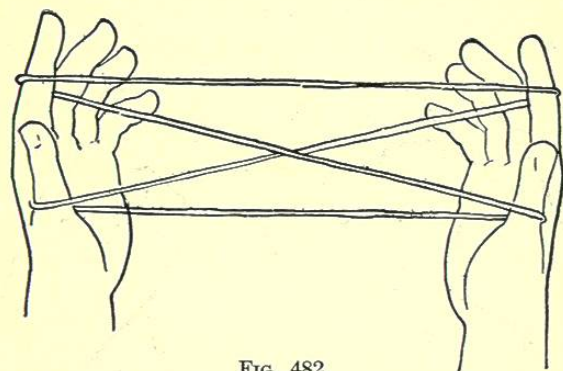


FIG. 482.

thumb to its former position (Fig. 483). This movement draws the far index string over the near index string.

Third: Pass each middle finger toward you over the near index string, and take up from below on the back of the finger the far thumb string (Fig. 484, Left hand), and return the middle finger to its original position (Fig. 484, Right hand).

Fourth: Turn the palms toward you, and put the ring and little fingers of each hand from below between the near index string and the far middle finger string (Fig. 485, Left hand), and pull down the near index string by closing the ring and little fingers on the palm (Fig. 485, Right hand). Keep the index and middle

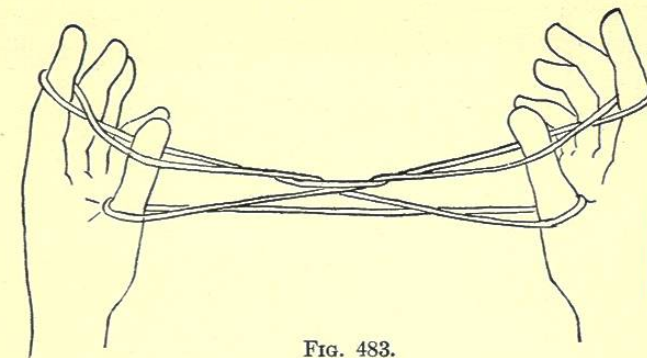


FIG. 483.

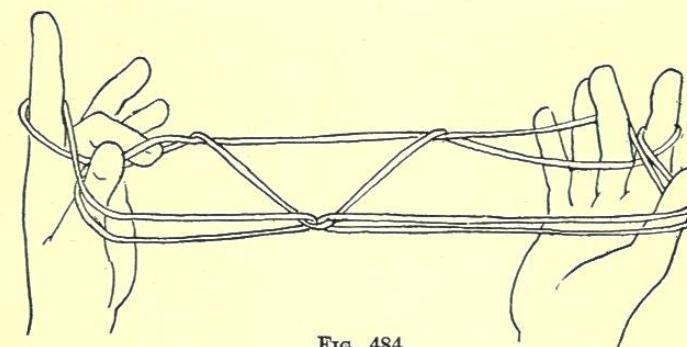


FIG. 484.

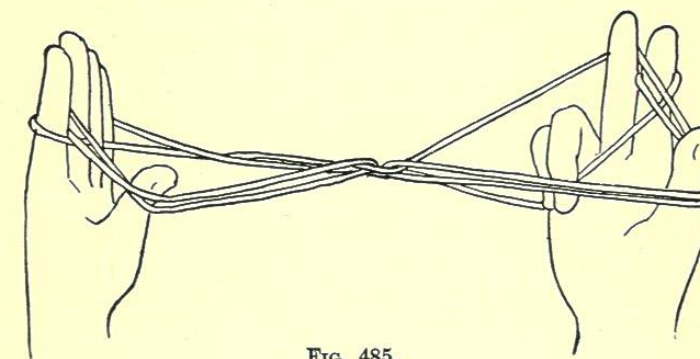


FIG. 485.

fingers erect; release the loops from the thumbs, and turn the palms away from you, drawing the strings tight (Fig. 486).

The "Bow" is not very interesting; it is the first of a series of six Navaho figures which begin in the same way—by an opening peculiar to the Navahos. At first glance the result of this movement—a loop on each thumb and a loop on each index—appears the same as you would have by releasing the little finger loops after Opening A; but you will notice that, whereas in that case the upper straight string

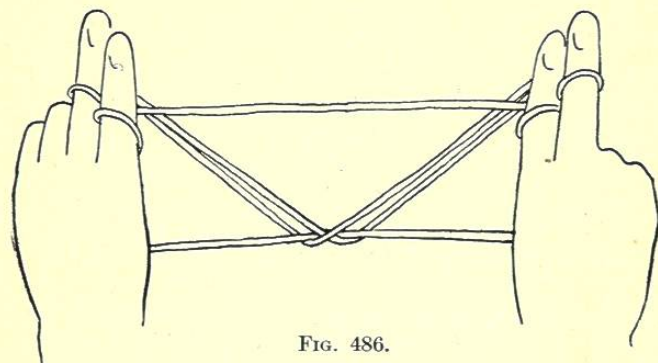


FIG. 486.

is formed by the far index strings and the lower straight string by the near thumb strings, by this Navaho opening we get the upper straight string formed of the near index strings and the lower straight string formed of the far thumb strings. In the Eskimo "Mouth" the result of the opening movement gives a loop on each thumb and index, but here the straight strings are both near strings.

LIGHTNING



I obtained this figure from Dr. Haddon in August, 1904. He learned it from two old Navaho men in Chicago in 1901, and has published a description of it (5, p. 222, pl. xv, Fig. 5). The Navaho name is *Atsinil-klish*. In the Philadelphia Free Museum of Science and Art there are two examples of the finished patterns, collected by Mr. Stewart Culin, but they are so badly distorted as to be scarcely recognizable: No. 22712 is Navaho, from St. Michael's Mission, Arizona; No. 22732 called *Vo-pi-ri-dai* = Lightning, is by the Tewa Indians from Isleta, N. M.

First, Second and Third: The same as the *First, Second and Third* movements of the "Bow."

Fourth: Bend each ring finger toward you over the far middle finger string and take up from below with the back of the finger the near index string (Fig. 487, Left hand), and return the ring finger to its position (Fig. 487, Right hand).

Fifth: Pass each little finger over the far ring finger string, and take up from

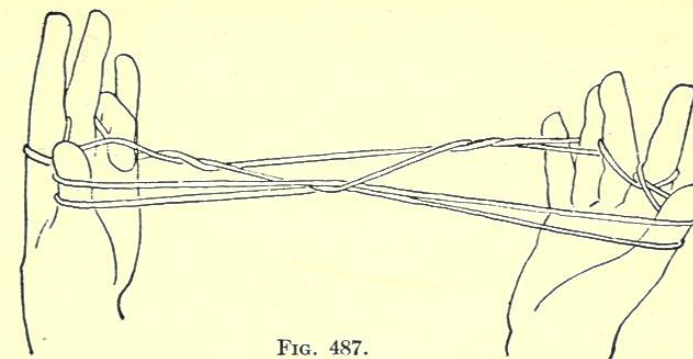


FIG. 487.

below on the back of the finger the far middle finger string (Fig. 488, Left hand), and return the little finger to its position (Fig. 488, Right hand).

You now have two twisted strings passing between the two little fingers, two loose strings passing over the thumbs and two strings laced around the other fingers.

Sixth: Turn the hands with the thumbs upward and the palms facing each

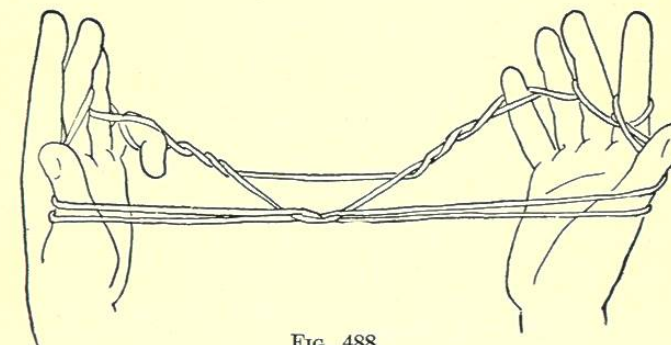


FIG. 488.

other. The little finger strings should be taut, but must not be disturbed. Keep all the fingers close together so that the strings cannot slip; the success of the figure

depends entirely upon this precaution. Take the thumbs out of their loops (Fig. 489), and throw these loops away from you over the tightly drawn twisted little finger strings (Fig. 490).

Seventh: Insert each thumb into the small space between the twisted little finger strings, close to the little finger, and lift up the upper of the two strings (which

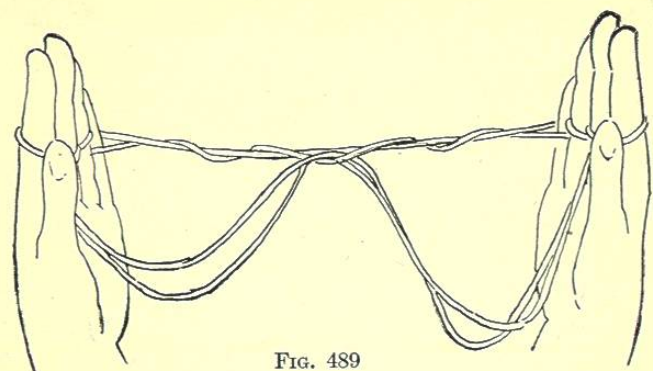


FIG. 489

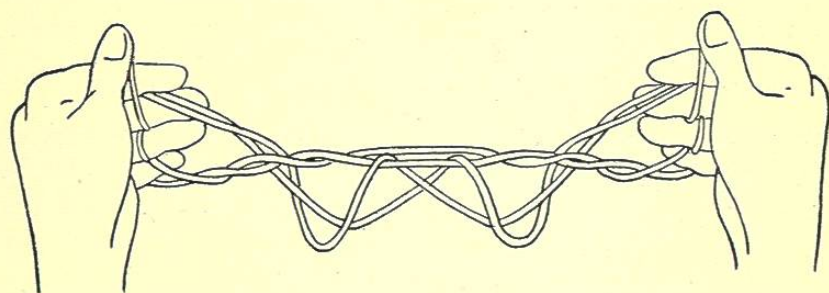


FIG. 490

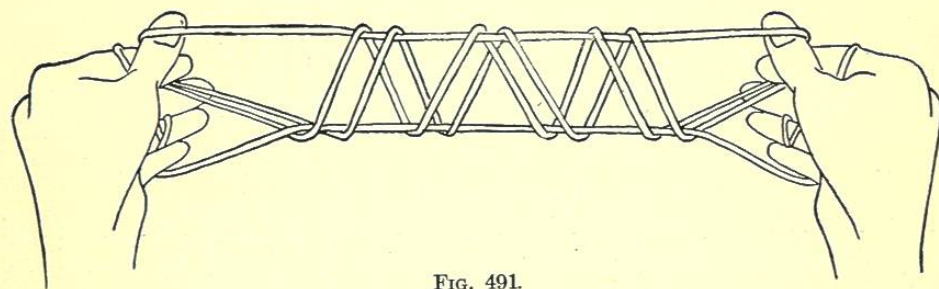


FIG. 491

is the far ring finger string). Now, if the lower string be kept tightly drawn and the other fingers be kept close together, the loose hanging strings (the original thumb loops) will become wrapped around the twisted little finger strings as these gradually untwist when the upper string is lifted by the thumb. This movement forms the figure, which should be about two inches high (Fig. 491). A better effect is produced if the thumbs lift the upper little finger string just as you toss the hanging loop over; the zigzag lightning will then flash into view.

This is one of the most effective and satisfactory of all the figures, but one in which the novice is very apt to fail owing to his letting the strings slip through the fingers just before its completion. The lacing of the far thumb string and the near index string on the rest of the fingers, which is begun by the middle finger in the "Bow," is carried further in this figure by the ring and little fingers. These movements are peculiar to the "Bow" and to "Lightning."

A BUTTERFLY



I obtained this figure from the two Navaho girls at the St. Louis Exposition. The native name is *Ga-lo-kí* or *Ga-hi-kí*.

First: The same as the *First* movement of "The Bow."

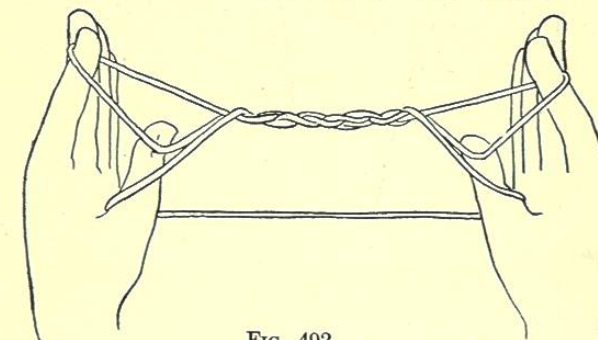


FIG. 492.

Second: Twist each index loop five times by rotating each index down toward you, and up again five times.

Third: Put each thumb from below into the index loop and, without removing the index, separate the thumb from the index (Fig. 492).

Fourth: On each hand in turn, with the teeth slip the lower (the original) thumb loop over the loop passing around both thumb and index, then entirely off the thumb, and let it drop to the palmar side. Separate the hands (Fig. 493).

Fifth: Bring the hands close together, with the index finger and thumb of the one hand pointing toward the index finger and thumb of the other hand; then

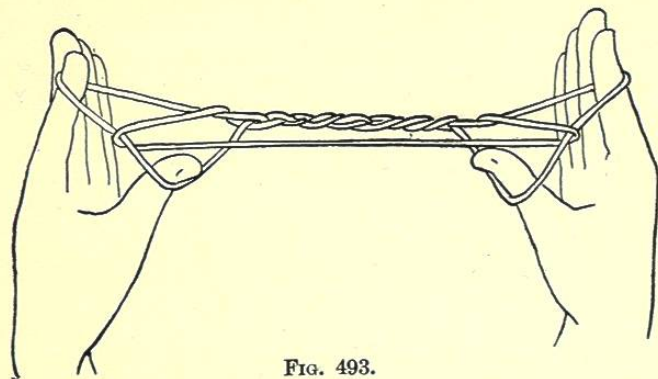


FIG. 493.

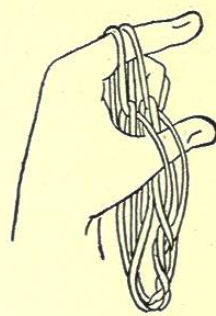


FIG. 494.

hang the right index loop on the left index, and the right thumb loop on the left thumb (Fig. 494). Take up with the right index, from the left side, the loop you have just put on the left thumb, and take up with the right thumb, from the right side, the loop which was originally on the left thumb (Fig. 495); then with the right

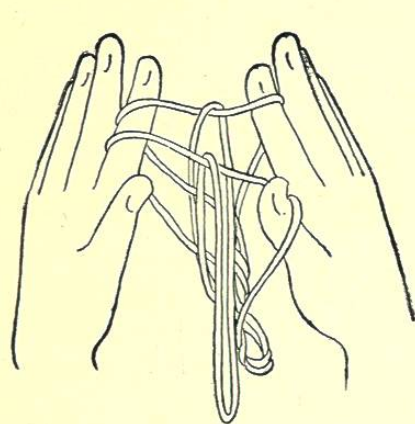


FIG. 495.

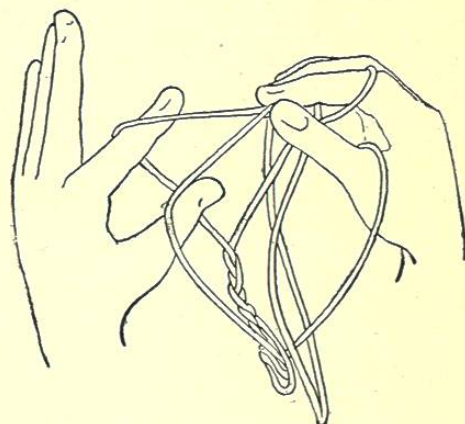


FIG. 496.

thumb and index lift both loops from the left index, and put the left index away from you into the loop just hung on the left index, and put the left thumb toward you into the loop originally on the left thumb (Fig. 496). Now, placing the hands with the thumbs up and the fingers pointing away from you, draw them slowly apart,

and when the strings have partially rolled up in the middle of the figure (Fig. 497), pull down with the middle, ring and little fingers of each hand the far index string and the near thumb string (Fig. 498), and the wings of the butterfly will be held up

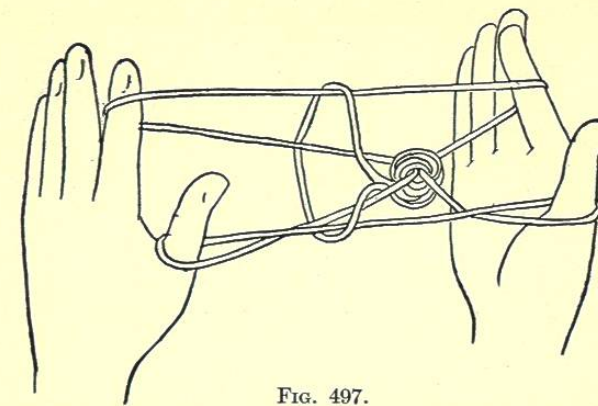


FIG. 497.

by the strings extended between the widely separated thumbs and index fingers, and the proboscis will appear rolled up on the strings held down by the other fingers.

This is a charming figure, and unlike any of the others. It is very easy to form; if the *Fifth* movement be done properly, the finished pattern always appears. If

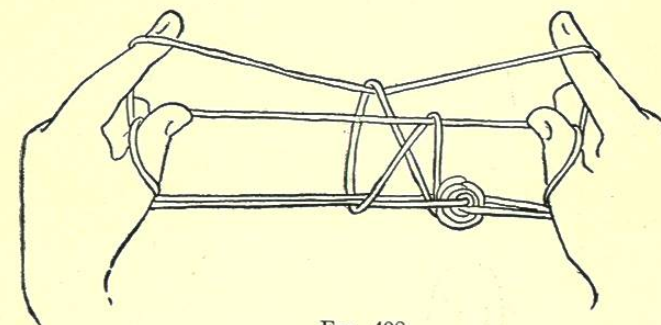


FIG. 498.

you twist the index loops more than five times, the proboscis will not roll up nicely, if less than four times, it will not be sufficiently large.

The final movement is like "Lightning," in that the twists put on the strings in the earlier movements, by untwisting assist in the formation of the finished pattern.

A WORM



This is another Navaho figure which I secured from the same Indians who taught me the preceding figure.

First: Hold the string between the thumb and index of each hand so that a short piece passes between the hands and a long loop hangs down. Make a small ring, hanging down, in the short string, putting the right hand string away from you over the left hand string. Insert the index fingers into the ring downward and toward you and with the thumbs in the long hanging loop separate the hands and, turning the index fingers upward and outward, with the palms of the hands facing away from you, draw the strings tight.

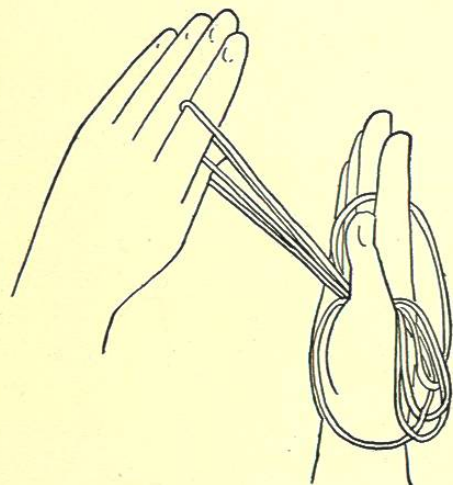


FIG. 499.

Holding the right hand with the palm away from you, move the left hand first to the right between your body and the right hand and then away from you over the right hand, and lay all the left strings, doubled back on the right hand strings, between the right thumb and index (Fig. 499), and hold them there by pressing these two fingers together. Then,

separating the hands slightly (not enough, however, to pull the strings through the right thumb and index), draw the strings moderately tight (Fig. 500), and turn the right hand with the palm to the left, and turn the left thumb down and then up toward you, and

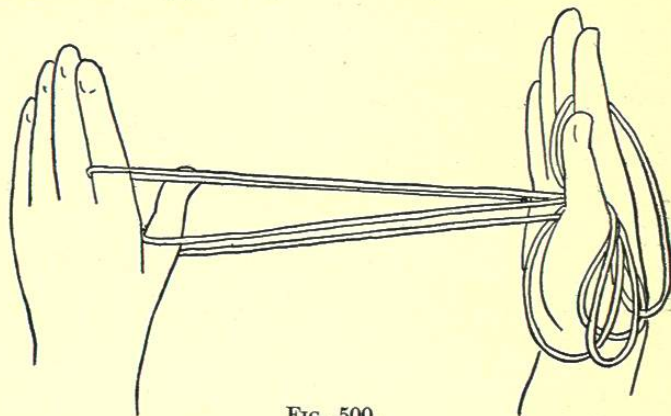


FIG. 500.

A WORM

point the left index upward (Fig. 501). Now separate the hands, drawing the strings through the right thumb and index, and pull them tight (Fig. 502).

Second: Turn the palms toward you, and put the middle, ring and little fingers of each hand from below into the index loop (Fig. 503, Left hand), and bend these fingers toward you down over the near index string (Fig. 503, Right hand).

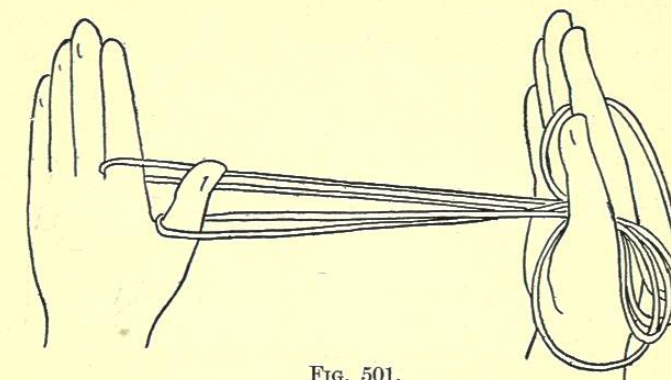


FIG. 501.

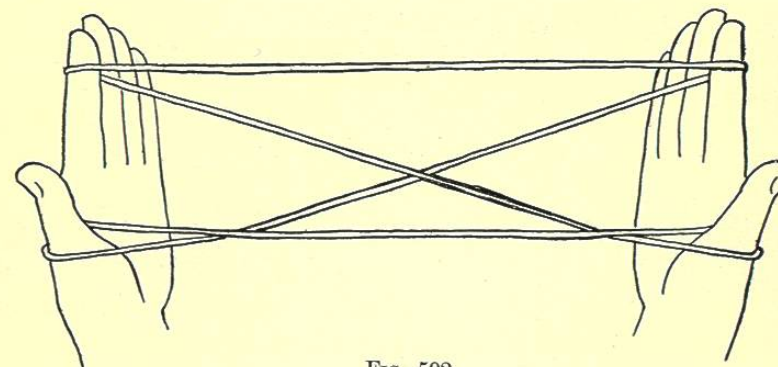


FIG. 502.

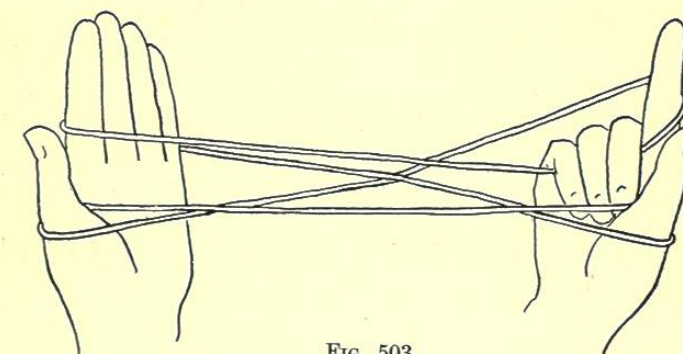


FIG. 503.

Then, holding this string down with the ring and little fingers, put the middle finger from above into the thumb loop, and close the middle finger down on the palm, holding the string in the bend of the finger as you turn the hands so that the palms face each other (Fig. 504).

You now have on each hand: (1) a near thumb string which passes behind the thumb, then away from you around the bent middle finger, and then straight across

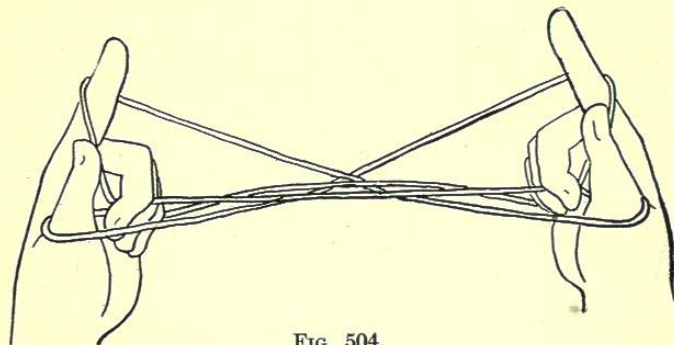


FIG. 504.

to the other middle finger; (2) a far little finger string which passes toward you under the bent little, ring and middle fingers, up on the near side of the index, away from you around its tip and finally, as a far index string, to the centre of the figure.

Third: Bring the hands close together, the thumb and index of one hand pointing toward the thumb and index of the other hand (Fig. 505), and keep through-

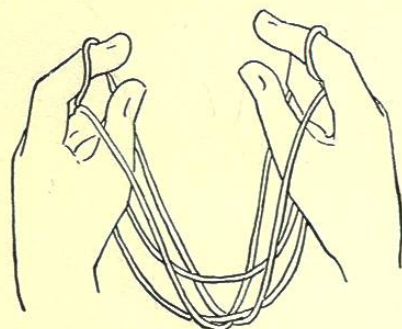


FIG. 505.

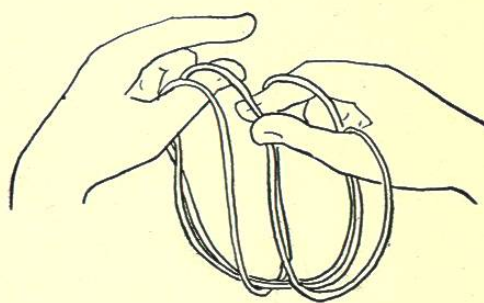


FIG. 506.

out the following movements the other fingers closed on the palm, in order to hold their strings securely.

With the right thumb and index lay the left index string over the left thumb beside the left thumb string and on the far side of it. Withdraw the left index (Fig. 506). With the right index put the right index loop over the left thumb (Fig. 507) and withdraw the right index. See that this string is close beside the other

two, on the side nearest the tip of the thumb. Put both index fingers toward you under these three strings and withdraw the left thumb (Fig. 508). With the left

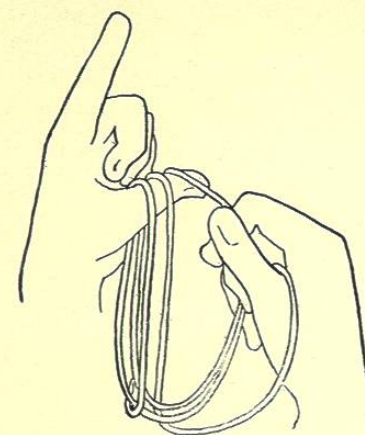


FIG. 507.

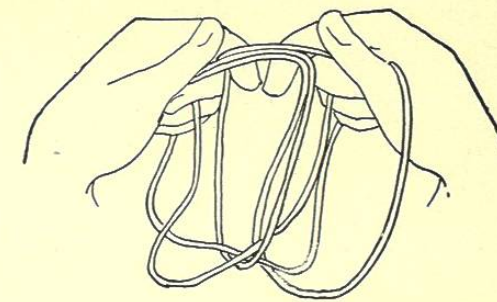


FIG. 508.

thumb draw the right thumb string across the index fingers on the near side of the other three strings (Fig. 509).

There are now four strings passing over the sides of the index fingers: On the right hand, the near string passes over the index and middle fingers and out between the middle finger and the ring finger. The two middle strings pass around the

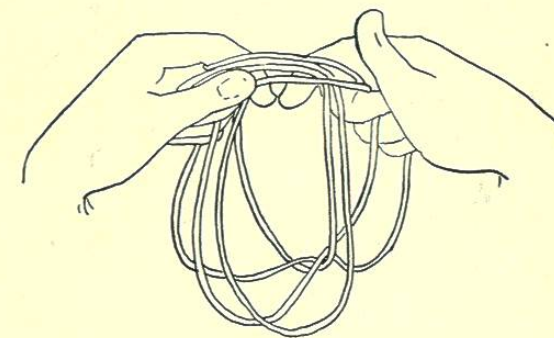


FIG. 509.

index only, and the far string passes around all the fingers closed on the palm; on the left hand, the near string and the far string pass around the index only, and of the two middle strings, the near one passes over both index and middle fingers and

out between the middle finger and ring finger, and the far one passes around all the fingers closed on the palm (Fig. 510).

Fourth : Hold the index fingers back to back with their tips pointing toward you and push toward you with each thumb (out to the tip of the index) the string which,

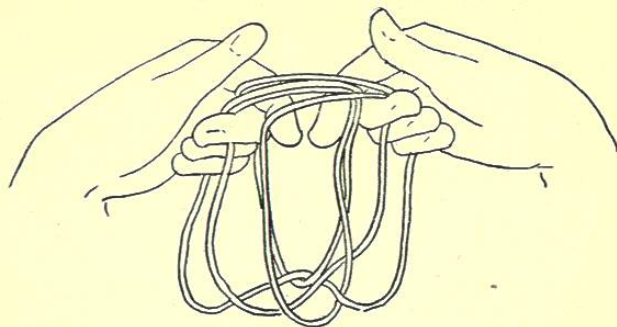


FIG. 510.

crossing the index and middle fingers, passes between the middle and ring fingers (Fig. 511). Hold all the strings on the index fingers by pressing down the thumbs.

Withdraw each middle finger, away from you, entirely out of the hanging loops, and insert it again, toward you, between the other hanging strings and the hanging part of the string held toward you on the tip of the index (Fig. 512). Draw each of these latter strings away from you through the hanging loops by straightening

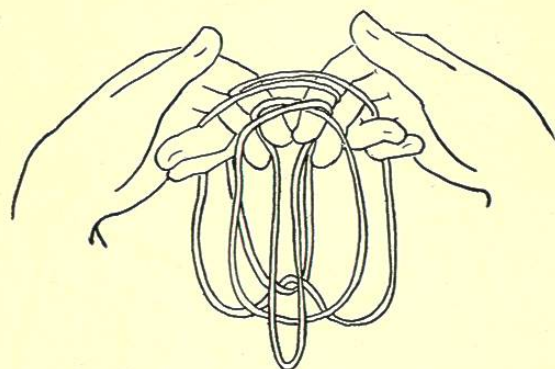


FIG. 511.

the middle finger (Fig. 513). Then pass each thumb away from you, above the ring finger and under the string which is still held to the palm by the ring and little fingers (Fig. 514). The strings are thus released from the index fingers. Release the string held down by each ring and little finger; separate the hands, with

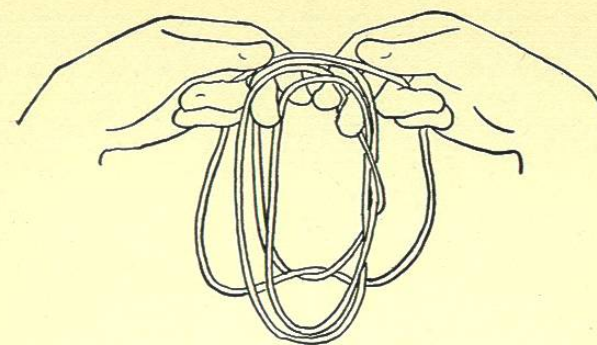


FIG. 512.

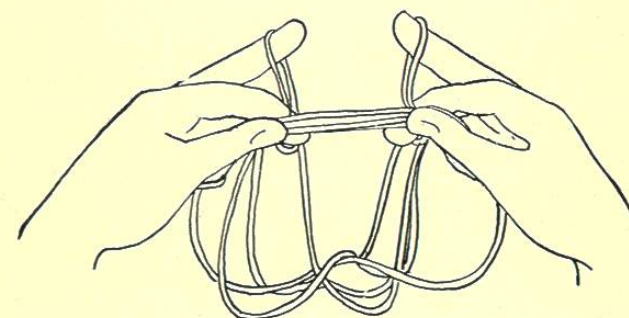


FIG. 513.

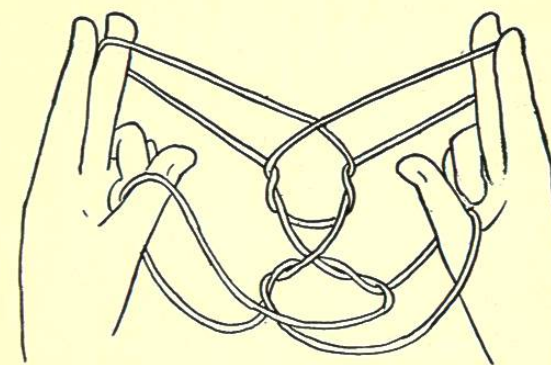


FIG. 514.

the palms turned away from you, and extend the figure between the thumbs and middle fingers (Fig. 515).

This figure has several novel movements; the *Third* and *Fourth* are rather hard to learn, but should present no difficulties in execution. With practice the figure can be formed rapidly and with certainty. The pattern produced by the opening

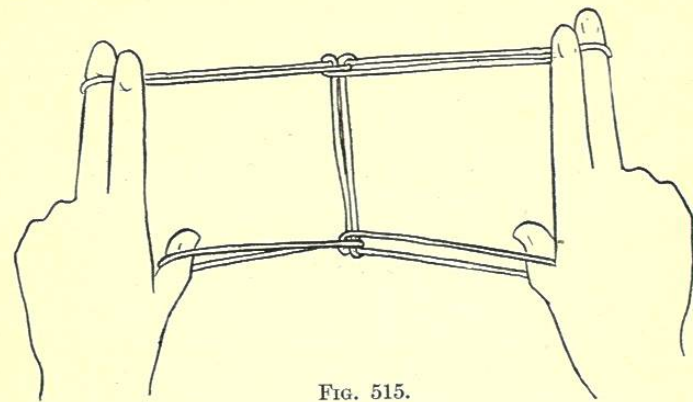


FIG. 515.

movement is very like the pattern produced by the opening movement of the "Bow" but the lower straight string passes on the near side of the near thumb strings, and not on the far side of them.

TWIN STARS



I collected this figure in the same way as the preceding figure. There are two examples of this pattern in the Philadelphia Free Museum of Science and Art, collected by Mr. Stewart Culin; No. 22715 is a Navaho figure, from St. Michael's Mission, Arizona, called *Sono-tsihu* = Twin Stars; No. 22606 is from Zuñi, N. M., called *Pi-cho-wai, wai-lo-lo* = Lightning; it has been artificially distorted.

First: The same as the *First* movement of "The Bow."

Second: Transfer the index loops to the thumbs, by putting each thumb from below into the index loop returning the thumb to its position, and withdrawing the index (Fig. 516). Keep the two loops on the thumb well separated; the loop taken from the index up at the tip.

Third: Bend each index toward you and down through the upper thumb loop, and then down to the far side of the lower far thumb string; take up on the back of the finger this lower far string (Fig. 517, Left hand), and lift it up on the tip of the finger as you straighten the latter to its position (Fig. 517, Right hand).

Fourth: Pass each middle and ring finger from below (that is, toward you) through the lower thumb loop, and catch between these fingers the upper near thumb string (Fig. 518), and draw it away from you through the lower thumb loop; then, hooking the middle finger over the string, release the loops from the thumbs,

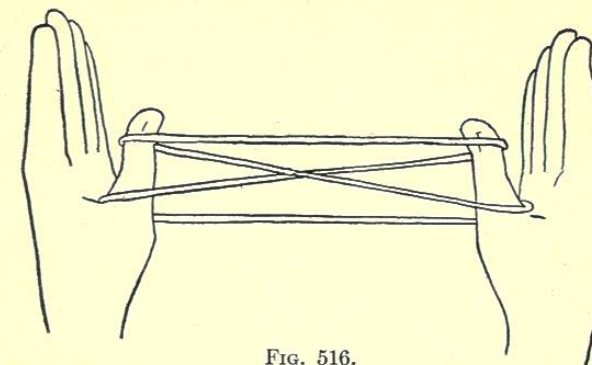


FIG. 516.

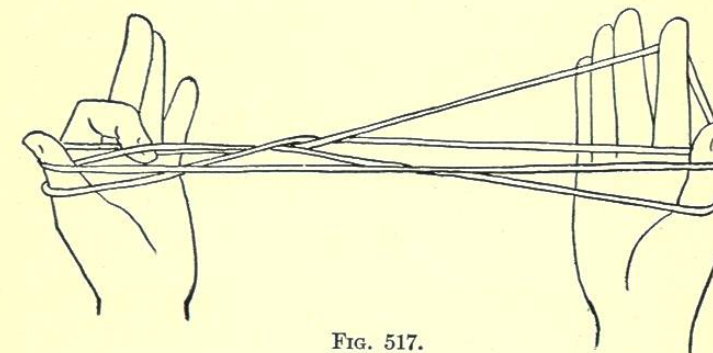


FIG. 517.

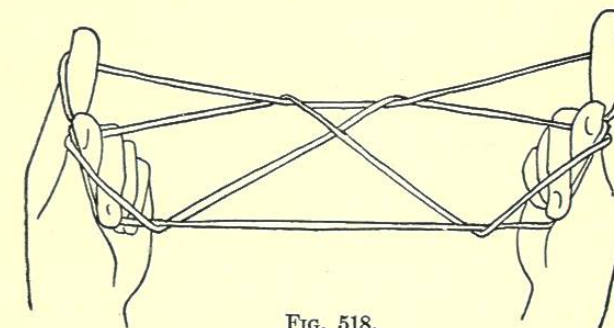


FIG. 518.