

STRING GAMES

Arvind Gupta

Illustrations: Avinash Deshpande

Published by

National Book Trust

A-5, Green Park

New Delhi 110016, India

Price Rupees Forty only

String Games provides step-by-step instructions with illustrations for making diverse and interesting string figures. The fun-filled figures created by using strings of all sorts not only augment memory and imagination of young children but also enrich their hand-eye coordination.

INTRODUCTION

String is used for a number of things - from tying parcels to making bags and nets. Everyone needs string or something to tie with. This 'something' is different in different parts of the world. The Eskimo uses thin strips of sealskin to lash together his sledges or to fasten an axe-head to its shaft. Vegetable fibres are a very common form of 'string' among natives - we ourselves use raffia in a number of ways. *Sutli* is very commonly used in India for tying things together. Some native Australians use human hair - the women grow it for their men folk to use - while others use the great sinews from the Kangaroo's legs .

One common habit which almost everyone has is of fiddling and playing with anything that happens to be in their hands. You see it in buses when people fold or pleat their tickets and you see it in when pieces of string are knotted and twisted about.

It is easy to picture a group of natives idling over the mending of their fishing net One person fiddles with an odd length of twine tied into a loop until his neighbour exclaims 'Why, you have just made a house of string!' Someone else might now be inspired to copy the same string picture. This is probably how most of the 750 documented string games were invented.

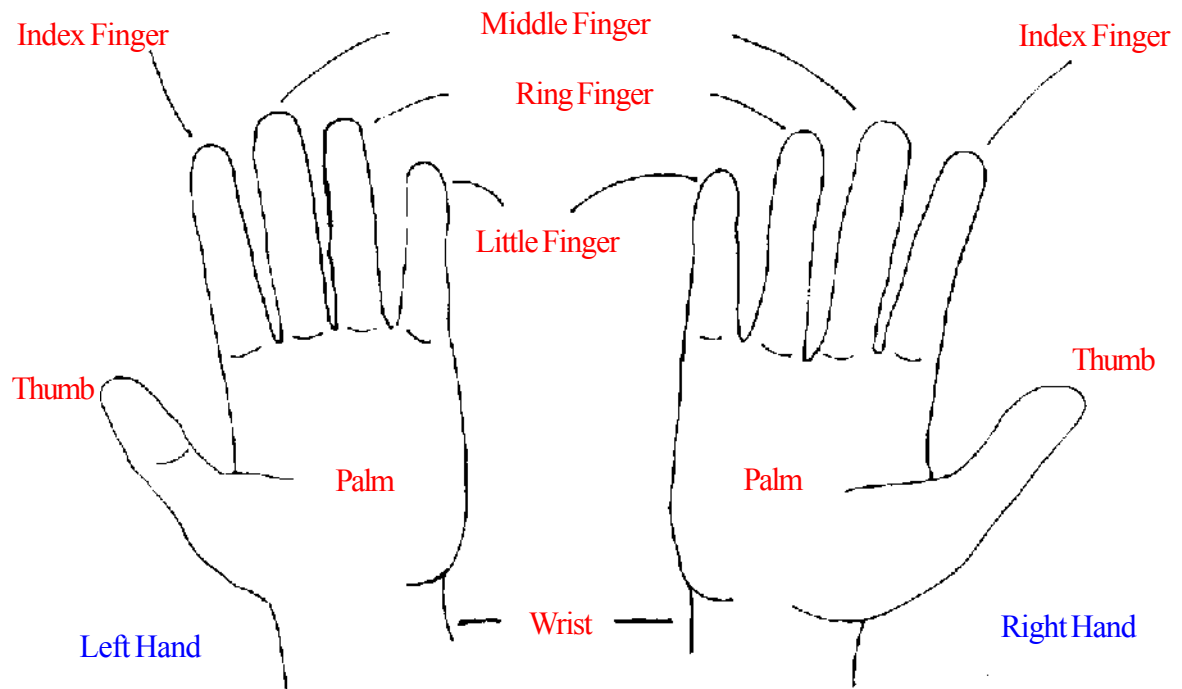
We can't be very sure but this is how many of the string games started. For you go where you will - to the arctic north or to the coral islands of the Pacific – string games are everywhere. The Eskimos with their long winter darkness, lasting for months, had plenty of time and became very clever at making string pictures. They will show you string pictures of deer, bears and other animals, of birds, kayaks (skin boats) and such like. The Navaho and Apache natives of America are adept at making tipis (tents) and little animals like coyotes and rabbits. Each race has its own string figures and when you come to think of it this is natural - for how would an Eskimo make a string picture of a palm tree, or an Australian of a polar bear.

String games are great fun. They exercise your memory and your imagination. They are great for hand and eye coordination. At times, the step-by-step instructions and illustrations for making a string figure might look difficult but the actual making of the figure might be really simple! So, don't panic if you have problems in your first few attempts Just go back to the beginning and start again. Soon you will have a good 'feel' - for the string.

It is best to start with the easier figures and as you feel more comfortable to go on to make those figures that have more steps and are more complicated. At first you will have to remember all the steps. But very soon your fingers will remember them for you. So learn these string figures and share them with your friends. They probably will show you some new ones. If you keep experimenting, who knows you might invent some wonderful string figures of your own. So always carry a string in your pocket.

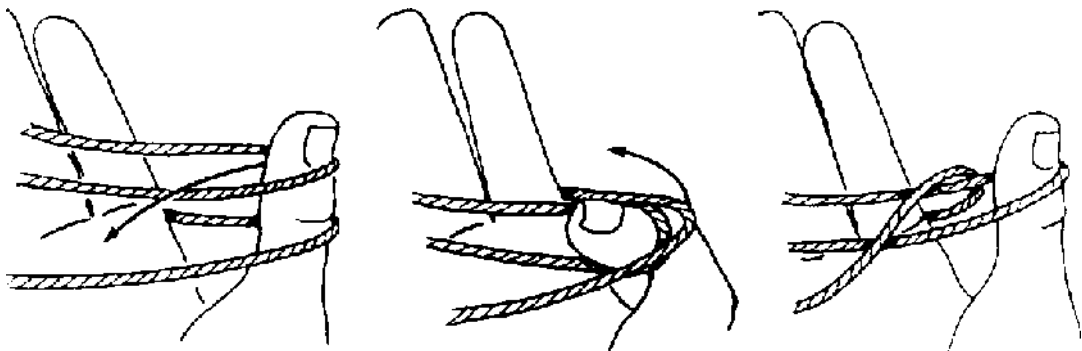
STRING START

People in the past have tried to document string figures. For this they often made drawings of the finished patterns. Some even tried sticking the finished string pattern on a piece of cardboard. The trouble is that once the string figure is finished, it is almost impossible to tell how it was made. To make it easier for beginners to make string figures, the fingers of the hands have been named as 'thumb, index finger, middle finger, ring finger and little finger' as shown below.



TO NAVAHO A LOOP

When you have loops on your thumb-a lower and an upper loop you can Navaho these loops by tipping down your thumb and letting the lower loop slip off. You can straighten your thumb again.



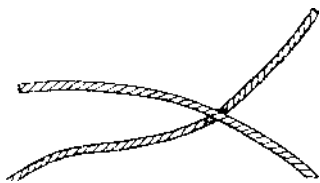
LENGTH OF STRING

How long a string should you take? As a general rule, a two metre long string which will make a metre long loop will do well. But then there are people with long and short arms and there are children. So a quick and easy way to find the correct length of string for your very own loop is to hold one end of the string and then stretch your arm up in the air, and cut the string where it touches the ground.

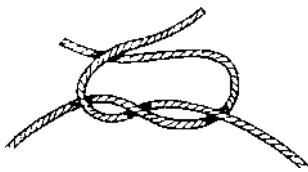
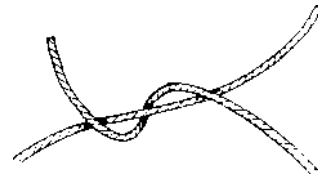


MAKING A LOOP FROM THE STRING

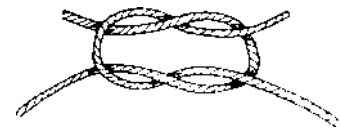
1. To tie a reef knot first lay the right end of the string across the left end.



2. Put the right end under the left string to tie the first part of the knot.



3. Now lay the left end across the right end



4. Put the left end under the right string and tighten the knot.

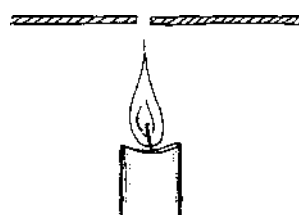
5. Trim the ends to make a neat and tiny knot.



JOINING THE STRING ENDS BY MELTING

If the string is made of nylon, then both its ends can be melted together, to make a very tiny and almost invisible knot. You might need adult help to do this.

1. Hold the ends of the string about a centimetre above the candle flame. Soon the ends will become soft and start melting.

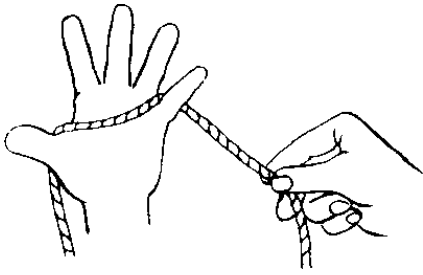


2. When two molten blobs appear on the ends, stick them together. Wait for about five seconds to let them cool and then roll them between your fingers to get a smooth joint.

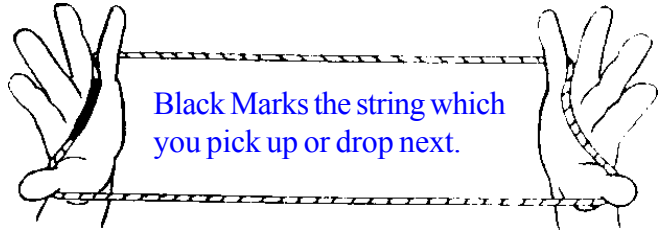


BASES

Many of the string figures start with a base. It is important to master them first.

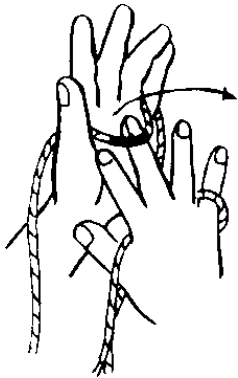


1. Hold a loop of string in your right hand and place it behind and around your left thumb and little finger.

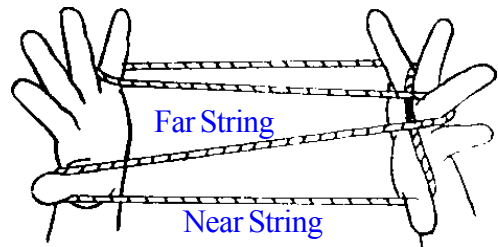


Black Marks the string which you pick up or drop next.

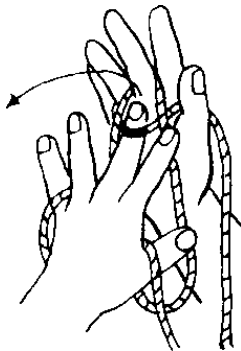
2. Repeat the above step with the right hand. This is called the **Starting Position**, or **Position 1**.



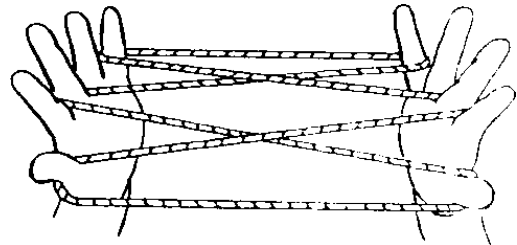
3. Now bring your right middle finger to scoop up the string from your left palm and pull the string back.



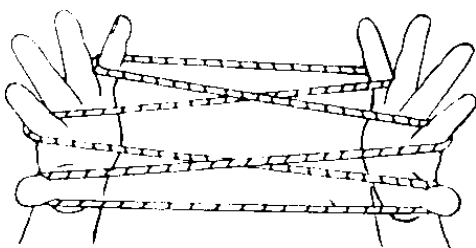
4. Both your hands will now be in this position.



5. With your left middle finger scoop up the string from your right palm and pull the string back.



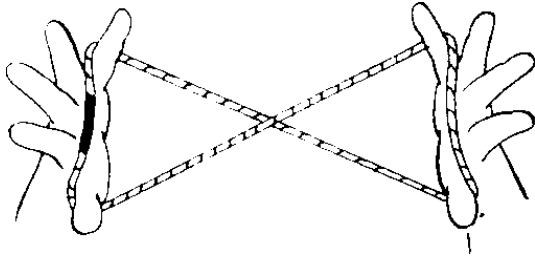
6. This is called the **Middle Finger Base** or **Opening A**. This is the most common base.



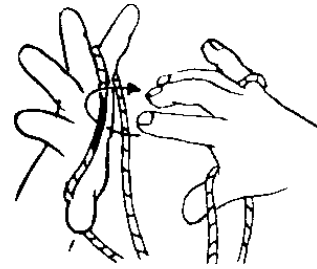
7. Instead of using the middle finger, you can use both your index fingers, to make the **Index Finger Base**.

THUMB TRAP

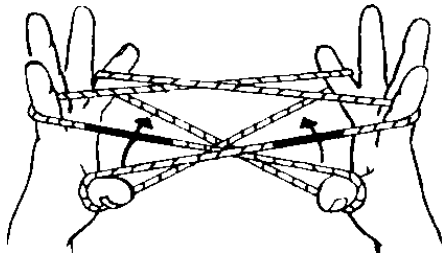
This is a very simple string trick. The end is very tricky too!



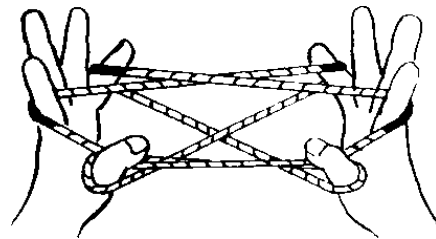
1. Put the string in the thumbs and little fingers of both hands. Give the loop a twist to make a cross in the middle.



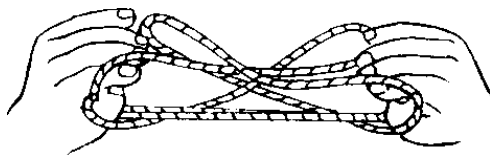
2. Now lift the left palm string with your right index finger. Lift the right hand palm string with your left index finger.



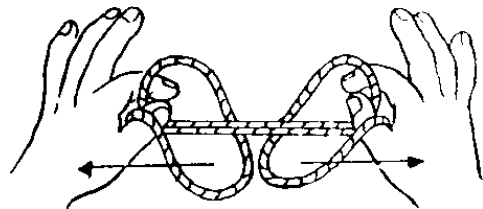
3. Put your thumbs into the forefinger loops as shown in the picture.



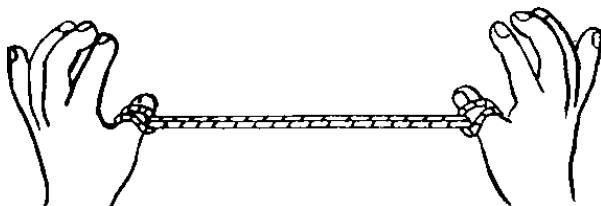
4. Hold the string underneath your thumbs. Release the index and little finger strings of both the hands.



5. Bend your hands inwards.



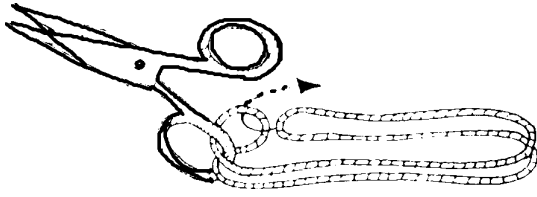
6. Pull your hands apart as far as they will go.



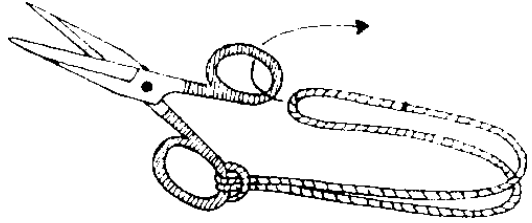
7. You will be surprised that both your thumbs will be trapped in a loop of string.

THE GREAT ESCAPE

You can challenge a friend to remove the scissors without cutting the string.

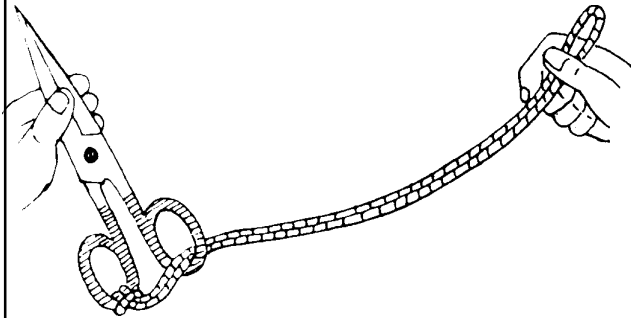


1. Passing one end of the string loop through the scissors hole, weave the other end loop of the string through this loop.

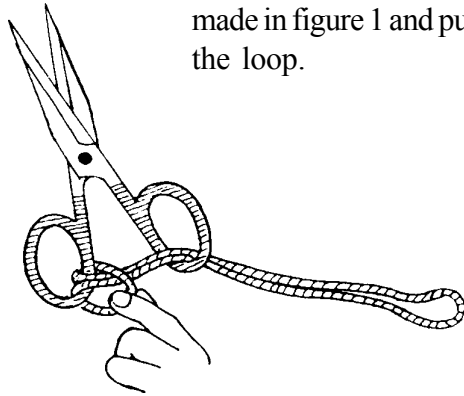


2. Pass the other end of the loop through the scissors second finger hole.

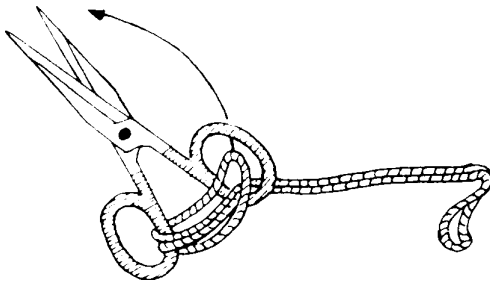
3. Hold one end of the loop and give the scissors to a friend and ask him to free the scissors from the loop of string without cutting it.



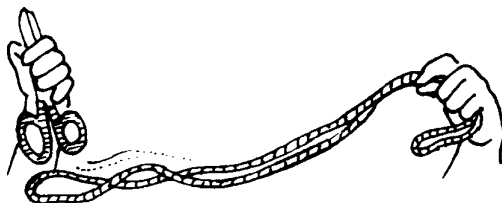
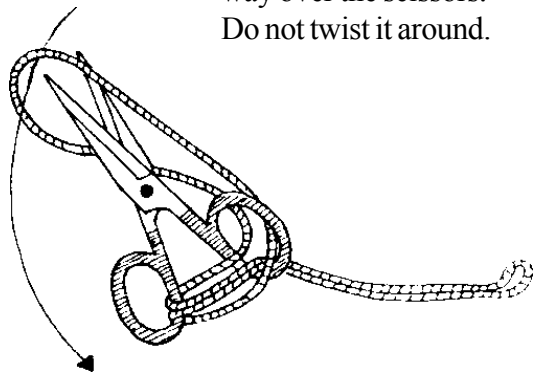
4. The way to do this is to loosen the loop knot made in figure 1 and pull the loop.



5. the opposite finger hole.



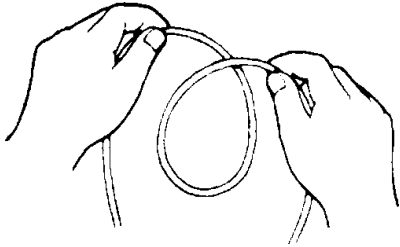
6. Pass this loop all the way over the scissors. Do not twist it around.



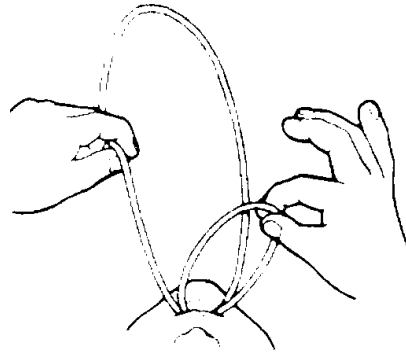
7. By pulling on the other end of the loop string you will be able to free the scissors.

A MAGICAL TRICK

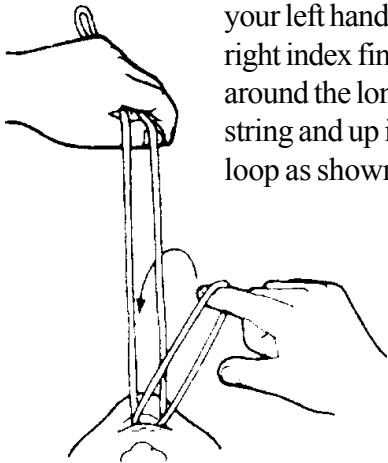
This easy trick has a magical ending.



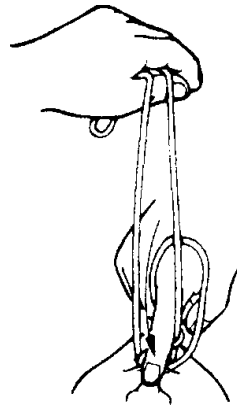
1. Hold the loop of string in both your hands. With the right hand string on top make a small loop within the large loop.



2. Place the top of the loops between your teeth. Put your right index finger (downwards) into the small loop.



3. Holding the large loop in your left hand, swing the right index finger over and around the long right hand string and up into the large loop as shown.



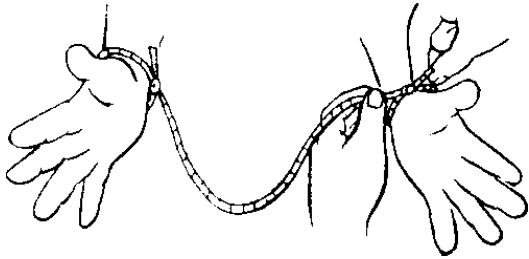
4. Touch your nose with your right hand finger.



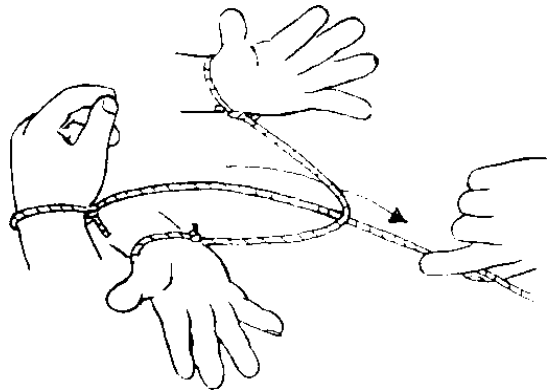
5. Release the strings from between your teeth. Pull the large loop away with your left hand and the strings will magically dissolve away from your right index finger.

HANDCUFFS

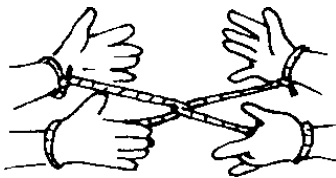
This amazing trick will provide you and your friend a lot of fun.
You will need two pieces of string and a friend.



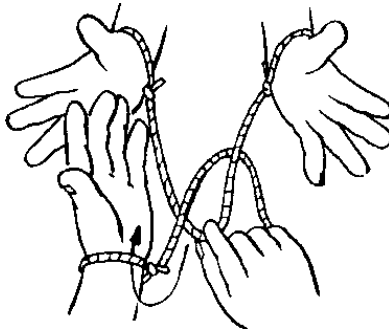
1. Tie the two ends of a string to the two wrists of your friend.



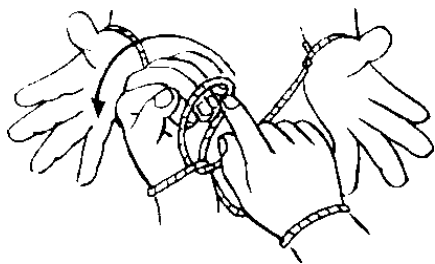
2. Then ask your friend to take the second string and tie its two ends to both your wrists.



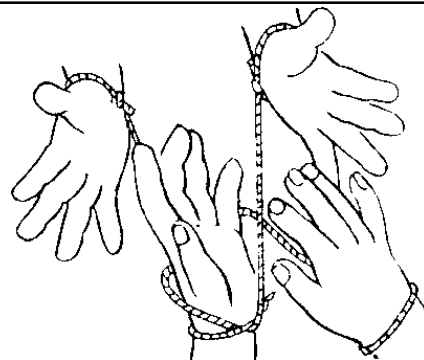
3. Both you and your friend will now be linked together.
How can you both separate?



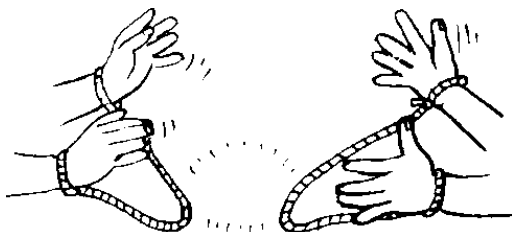
4. Hold the loop of string that ties your friend as shown. Push this loop underneath the string that you have tied around your left wrist. Do not twist the loop around.



5. Bend your left hand down and pass the loop over it.



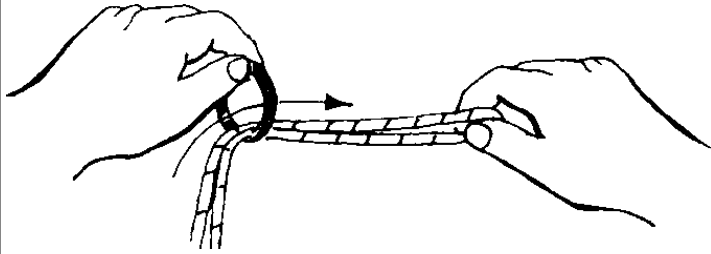
6. Now straighten out your left hand to make the loop of string move to the back.



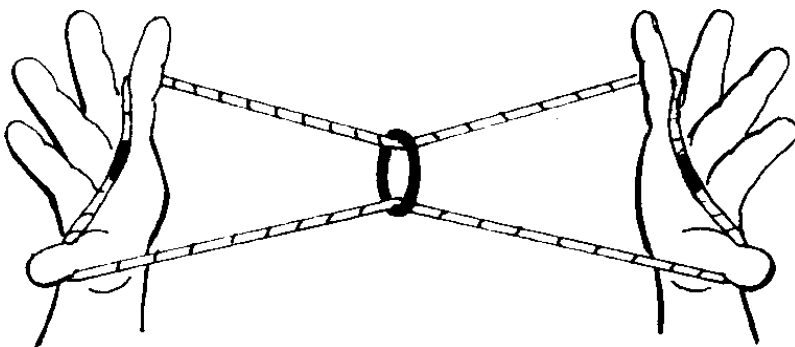
7. Step away from your friend and you will both be separated!

STRING IN A RING

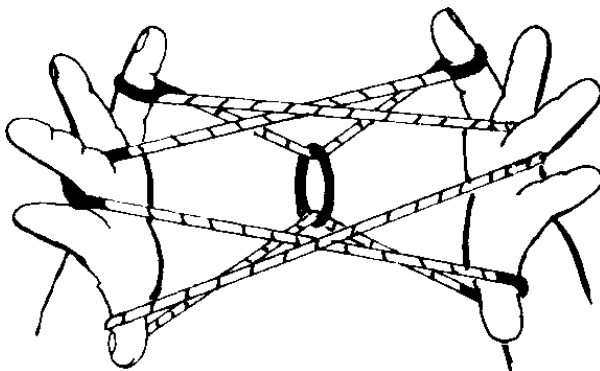
How do you remove the string from inside a ring?
This puzzle can be quite baffling if you don't know the secret



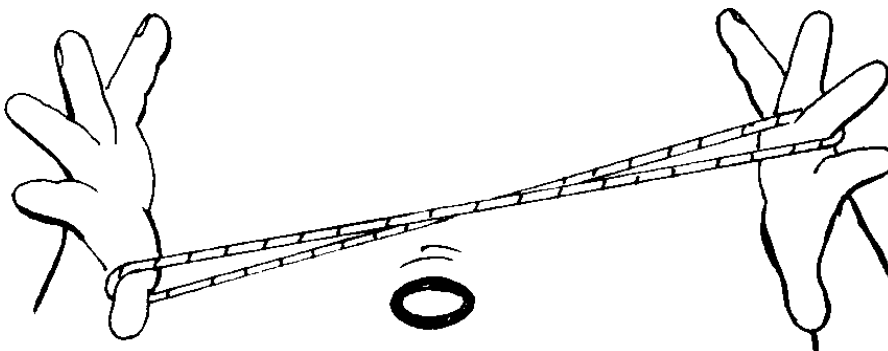
1. Put one end of a loop of string inside a ring. Pull the string to bring the ring in the middle.



2. Now loop the string across both your palms and behind your little fingers and thumbs. Do not twist the loop of string around.



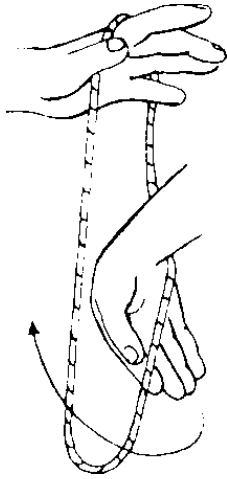
3. Pick up the left palm string with your right middle finger string and the right palm string with your left middle finger. Now release the string of both little fingers the left middle finger and the right thumb.



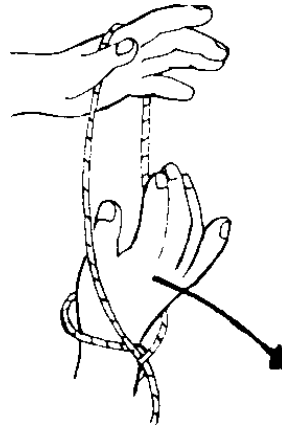
4. Be careful not to release the right middle finger and left thumb strings. On pulling your hands apart the ring will get free!

HAND TRAP

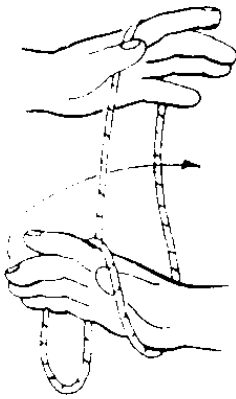
First you perform this trick and then ask your friends to repeat
They will have a real problem if they have not seen you perform very carefully.



1. In front of a friend place a loop of string over your left hand. Put your right hand (downwards) inside the loop and swing it around and up.



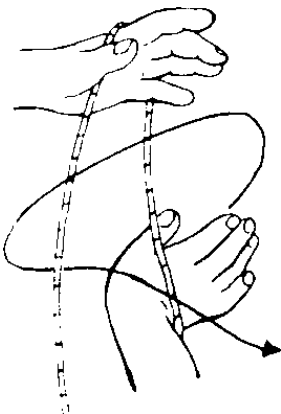
2. Put right hand into the back of the loop.



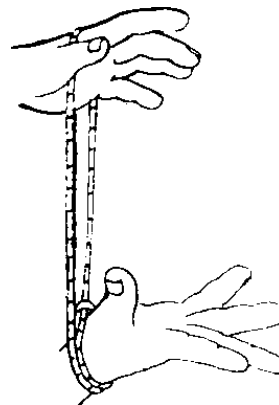
3. Pull your hands apart.



4. The string will be freed from your right hand.



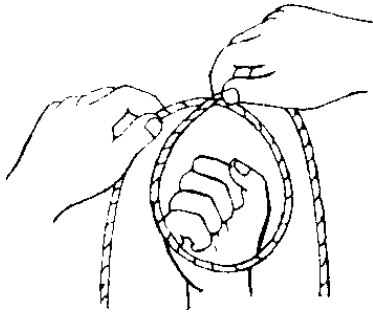
5. Now give the loop of string to a friend and ask if he can repeat the trick. Your friend will probably mistake the direction of the swing and go around the loop in the wrong direction.



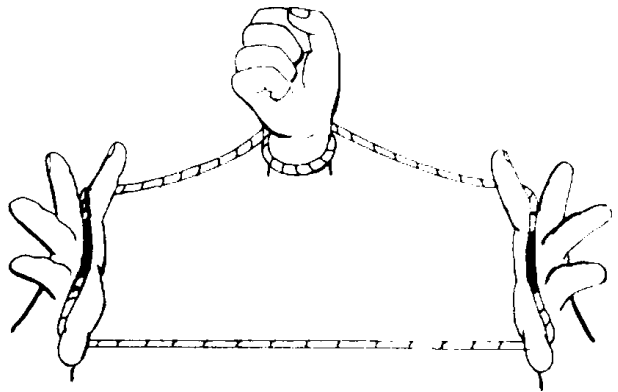
6. And his hand will be caught in a trap!

HAND CUT

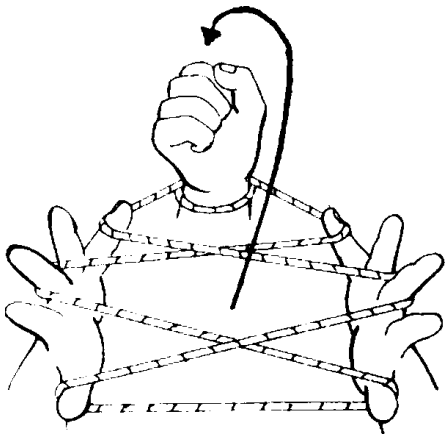
You will need the help of a friend to perform this amazing trick.



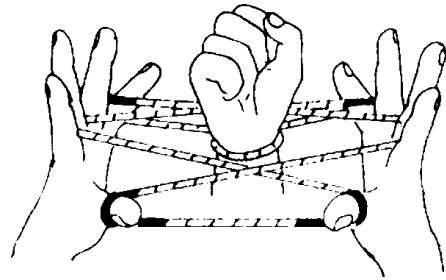
1. Hold the loop of string in both hands. Place the right hand string on top and make a loop. Place this loop over your friend's wrist.



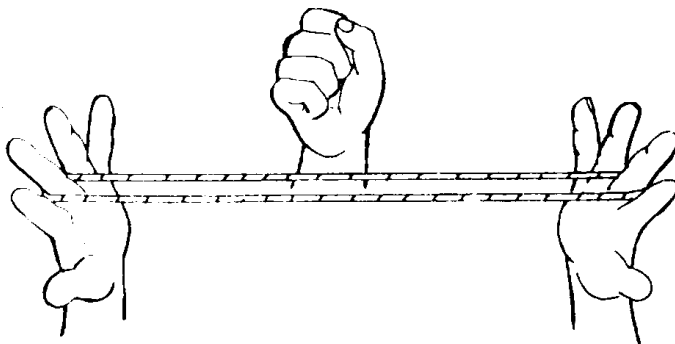
2. Now make the **starting position**.



3. Next make the middle finger base. Without leaving any of the string, place the centre of the **middle finger** base over your friend's hand.



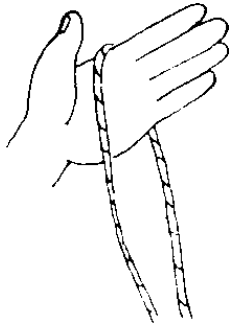
4. This will be the finished result. Now release the strings of the little fingers and thumbs.



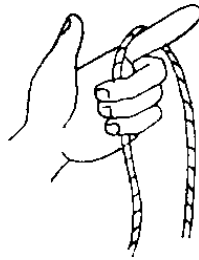
5. When you pull your hands apart your friend's wrist will magically be released from the string!

THE WINKING EYE

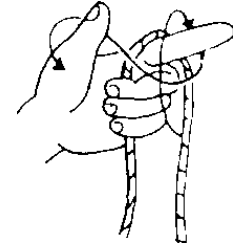
This string figure comes from Hawaii.
With a little imagination you can really see the eye twitch and wink.



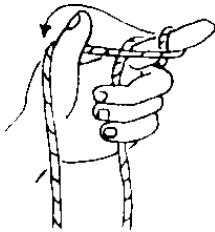
1. Hang the string loop over the fingers (but not on the thumb) of your left hand.



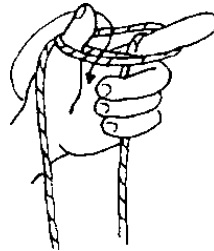
2. Close your left middle, ring and little fingers on the string hanging down across the palm. The left index finger will still be pointing out.



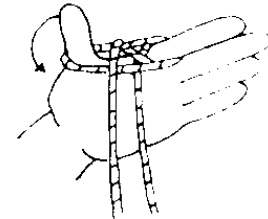
3. With your right thumb and index finger take the back string of the hanging loop and wrap it all the way round on your left index finger. Then bring it forward to hang up on your thumb.



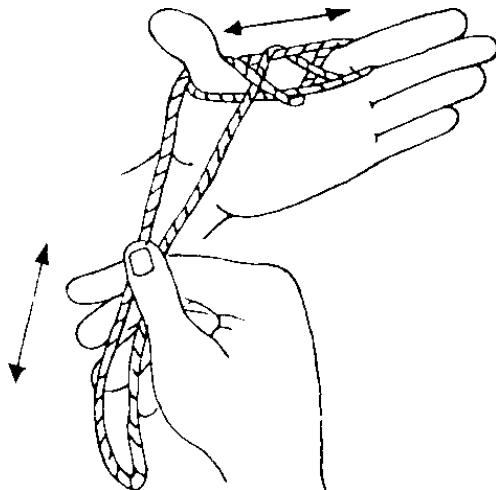
4. With your right index finger and thumb pull out the loop around the left index finger to share it with your left thumb. Be careful not to twist the loop while doing this.



5. Pick the left hand string of the hanging loop, lift it up over the string which runs between your index finger and thumb. Let this string hang down between the thumb and index finger.



6. Take the other string of the hanging loop and lift it over to hang over your thumb.

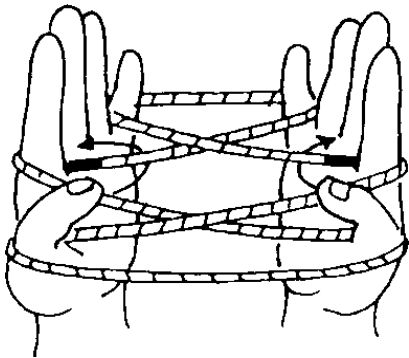


7. The eye can now be made to wink by pulling the string of the hanging loop. On doing this, the left index finger and thumb come closer and the eye closes. To open the eye you will have to pull your left thumb and index finger apart and loosen your grip on the hanging loop.

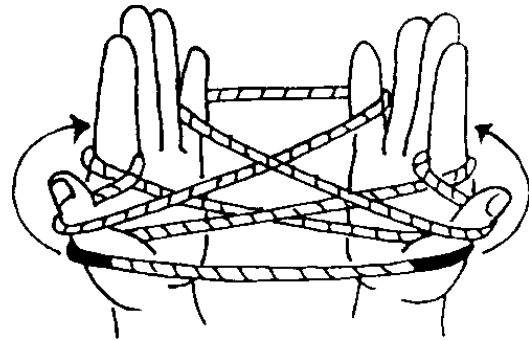
CUP AND SAUCER

This is a simple string figure.

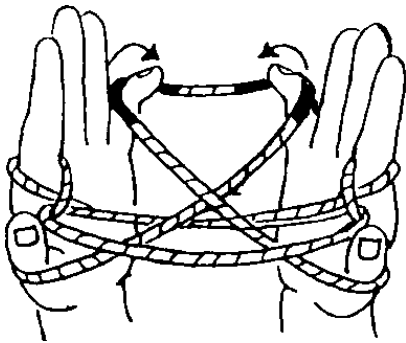
In Japan, it is called a saki cup when right side up and a house when it is upside down.



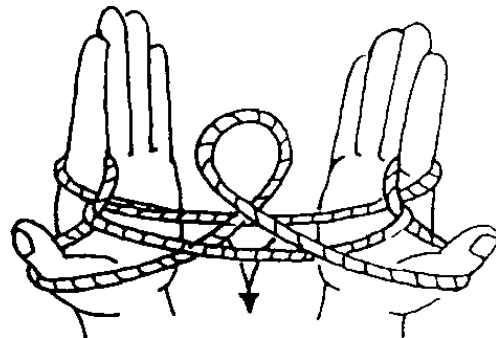
1. Start with the **index finger** base. For this figure, if you want, you can double up the string.



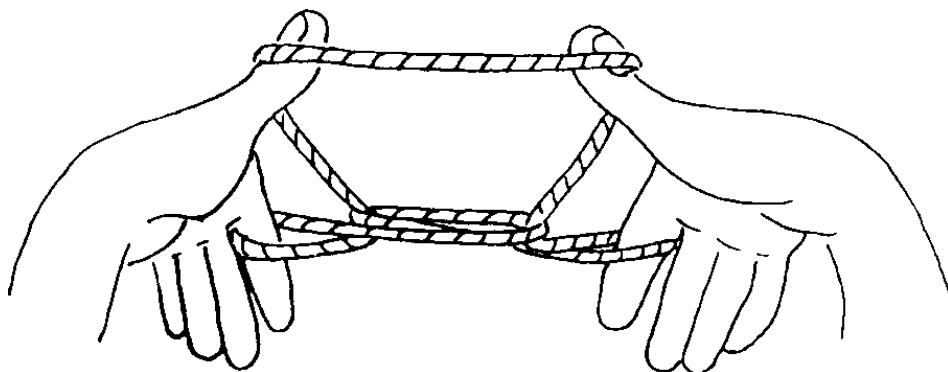
2. Your thumbs go over the far thumb strings, over the near index strings, then under the far index strings to get them and bring them towards you. The thumbs return to the basic position. Each thumb will now have two loops.



3. Pinch the lower loop on the left thumb with your right thumb and index finger, and discard it. Do the same to the lower loop of the right thumb.



4. Now drop the little finger loops.

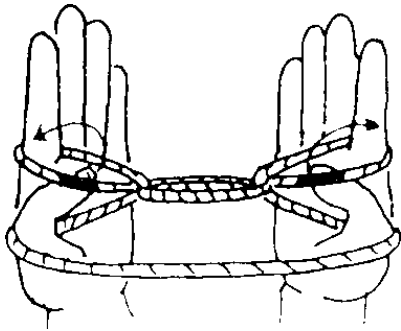


5. If you now pull your hands apart and do a thumbs up, then you can see a cup and a saucer in the middle.

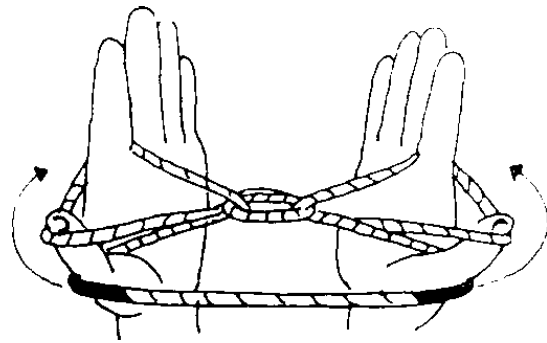
OWL'S EYES

The Owl's Eyes is a continuation of the Cup and Saucer.

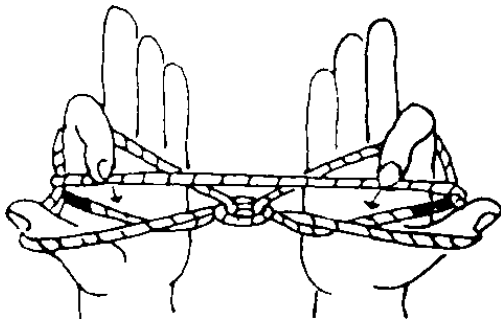
After completing the Owl's Eyes you can put them on your own eyes like a pair of glasses.



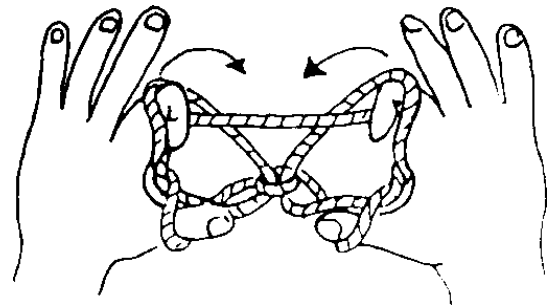
1. First make the **Cup and Saucer**. Then put your thumbs from underneath the index loops. Now you will have two loops on each thumb.



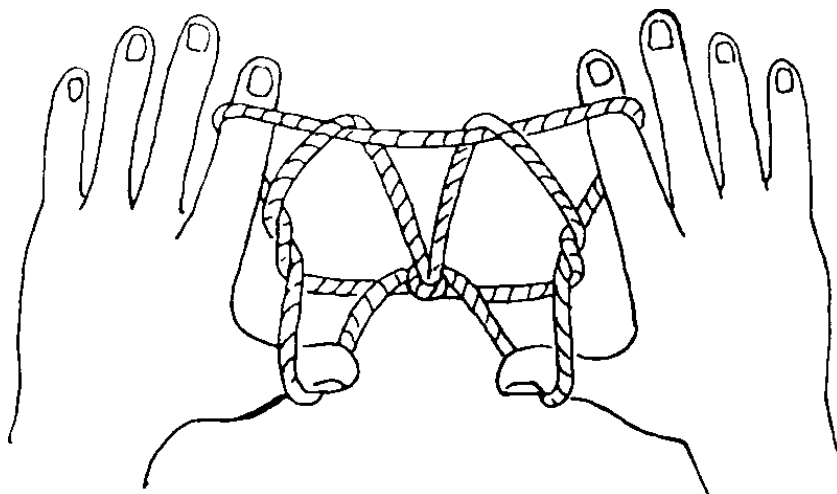
2. With your right thumb and index finger, pinch the lower loop of the thumb and discard it. Also discard the lower loop of the right thumb.



3. With your index fingers hook over the long string which crosses the middle of the figure, and down into the loops.



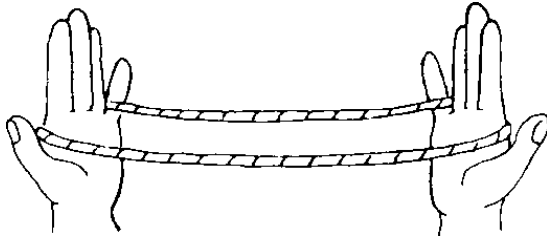
4. Turn your hands so that the palms face away from you. Do not worry about the index loops. They will automatically slip off the index fingers.



5. Now straighten your index fingers and pull them apart to make the **Owl's Eyes**.

THE SAW

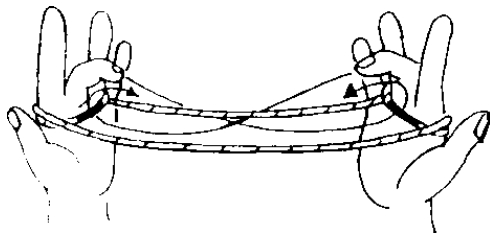
This figure is found in many parts of the world.
You will need the help of a friend to operate the cutting saw!



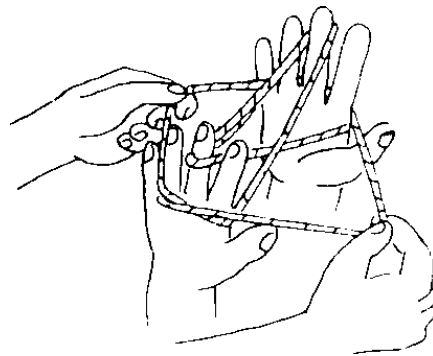
1. Put the loop of string behind the index, middle and ring fingers of both hands.



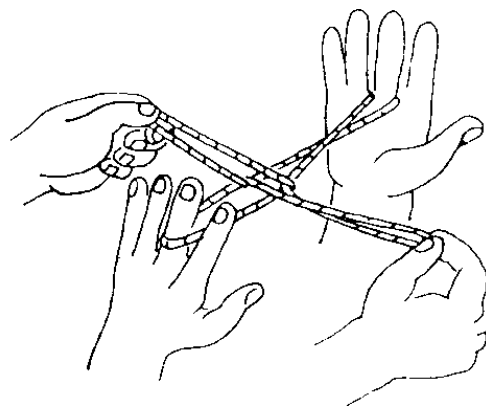
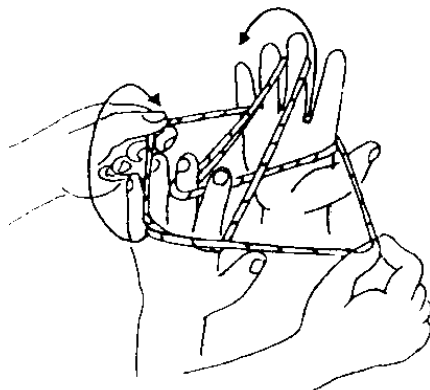
2. With the thumb and index finger of the right hand, take the near string and wrap it around the fingers of your left hand. Similarly, wrap the string around the fingers of your right hand.



3. Using the left middle finger, pick up the right palm string. With the right middle finger pick up the left palm string.



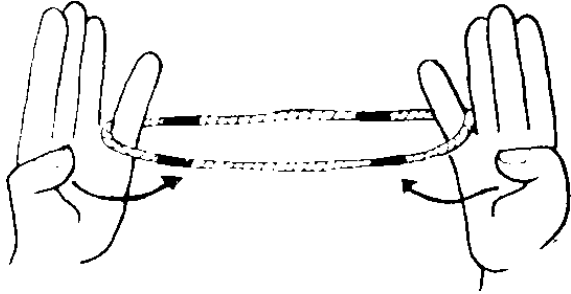
4. Now you will need a friend's help. Ask the friend to hold the two long strings which run from one hand to the other at the bottom of the figure.



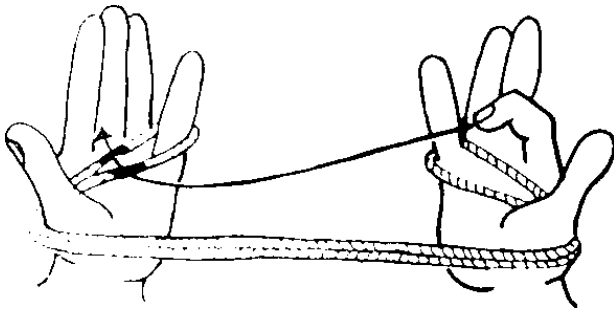
5. Press all the fingers tightly together so that the loops don't slip out. Keeping only the middle finger loops, gently discard all the other loops from your hands. Ask your friend to hold his strings. Now you and your friend can alternately pull and this way the strings will slide back and forth just like a cutting saw.

MOSQUITO OR FLY

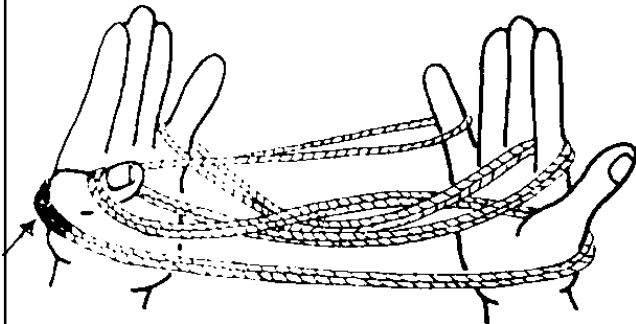
This string figure is a great fun to make especially if you hate mosquitoes and flies. You can have the pleasure of creating these pests and then squashing them with your hands.



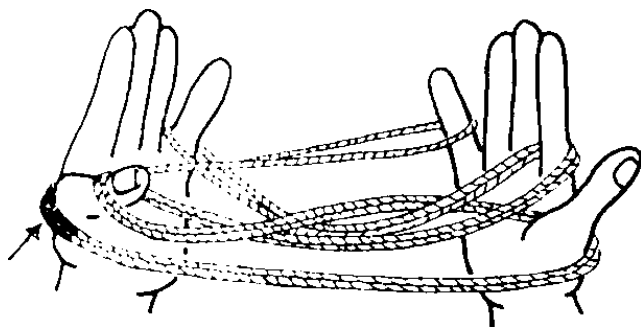
1. Begin with the string on the little fingers. Pick up both strings of the little finger loops with your thumbs.



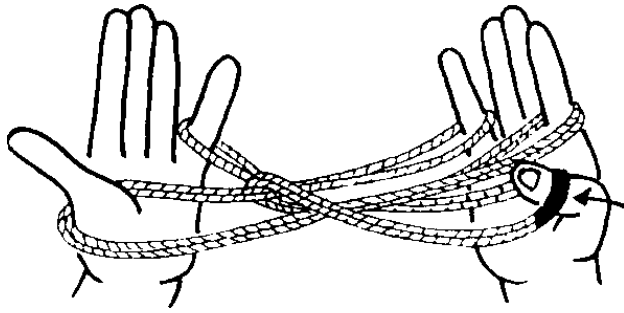
2. Pick up the two strings on the left palm with your right index finger.



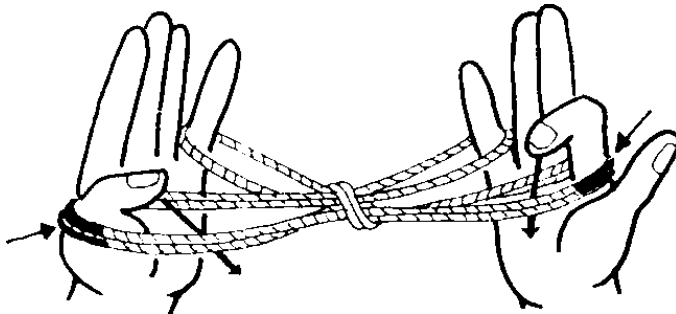
3. Use your left thumb to go over all the string to pick up the two right hand palm strings by the right little finger.



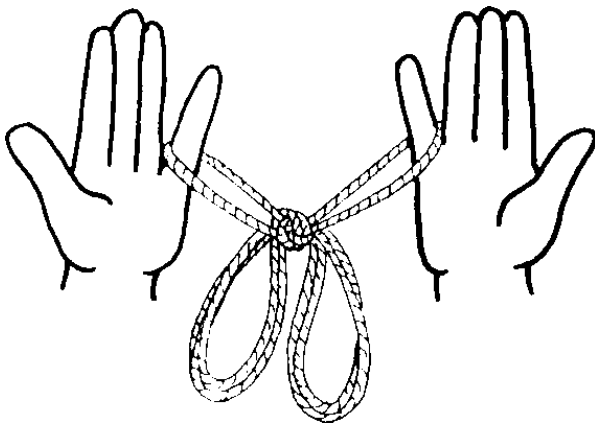
4. Drop the lower loops on the left thumb.



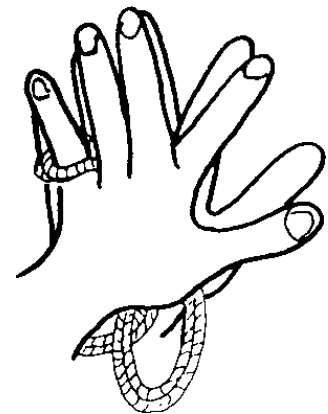
5. Drop the right thumb loops and pull the string tight with your palms facing away from you.



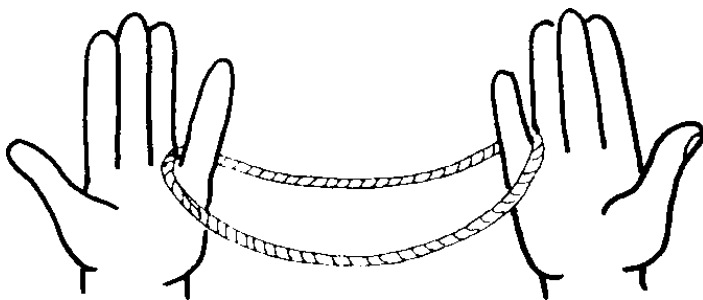
6. Without pulling, drop the loops on your right index finger and with your left thumb.



7. You will be able to see the mosquito with its wings.



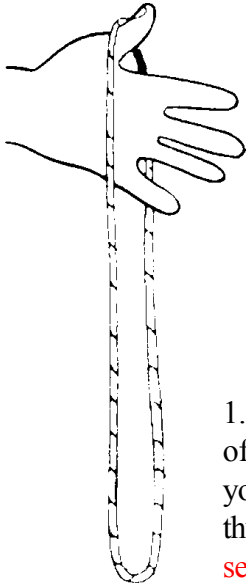
8. Now comes the fun part. Clap both your hands together to 'kill' the mosquito.



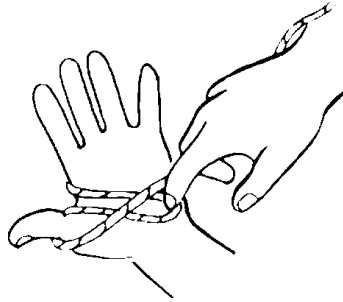
9. Quickly pull your hands apart as far as you can and the mosquito will disappear.

THE STRING STORY

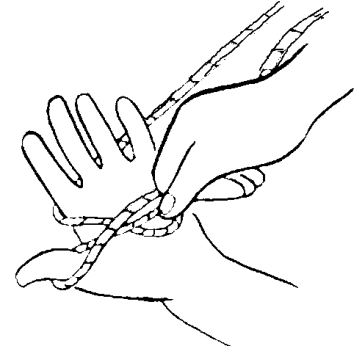
This story is known throughout the world. The Indian version is as follows:
A farmer first ploughs the field, then he sows the seeds, next he waters the crop.
Finally he applies manure. The crop is now ready to be harvested.
Then a fat rat comes and eats up all the crop.



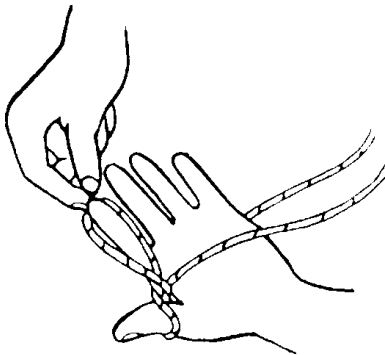
1. Hang the loop of string over your left hand thumb. (farmer selects the field)



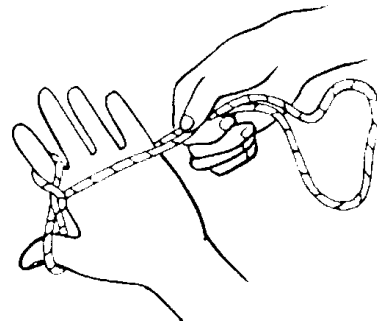
2. Put your right index finger under the front string and hook the string that is between the left thumb and index finger.



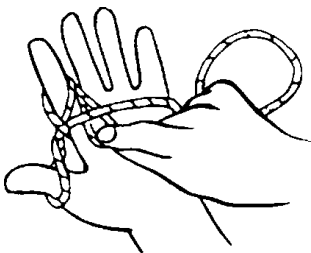
3. Give this loop one twist to the right (it won't work if the twist is the way).



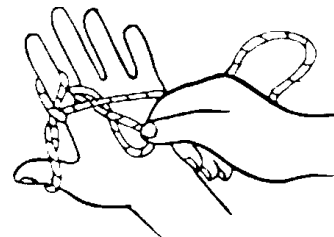
4. Place this small loop over your left index finger (farmer ploughs the field).



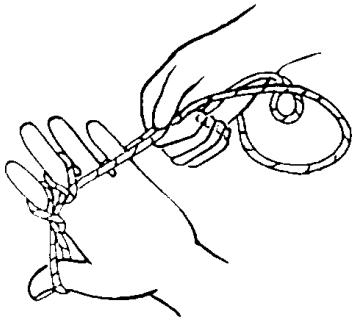
5. Hold the hanging strings with your right hand and pull them tight.



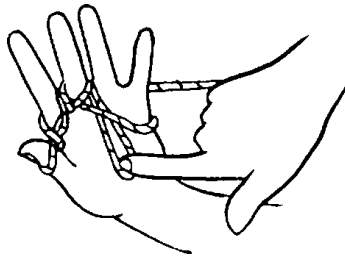
6. With your right hand index finger again hook the string between the left index and middle finger.



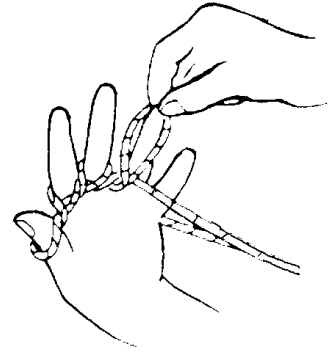
7. Pull it under the front string. Give this loop a twist to the right and...



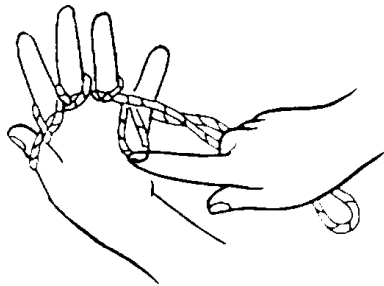
8. place it in the middle finger. Pull everything tight. (farmer sows the seeds).



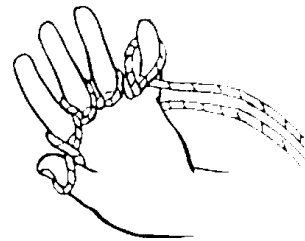
9. Again hook the string between the middle and ring fingers and pull the loop to the front.



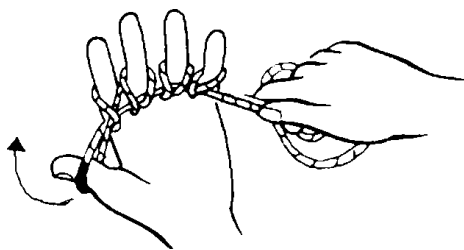
10. Twist to the right and place it over your left ring finger (farmer waters the crop).



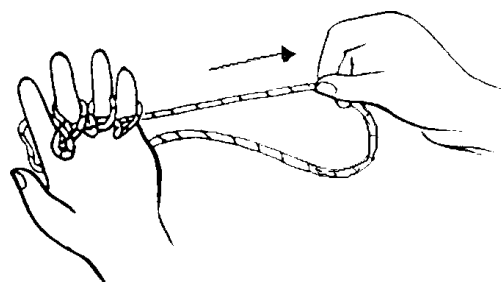
11. Finally reach under the front string between your ring and little finger and pull a loop of the back string to the front.



12. Give this loop a twist to the right and place it in your left little finger (farmer applies manure).



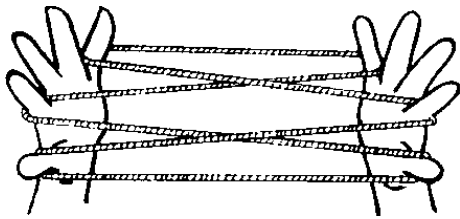
13. This should be the final result (the crop is ready). Release the left thumb loop (a fat rat comes and the left thumb loop is the rat).



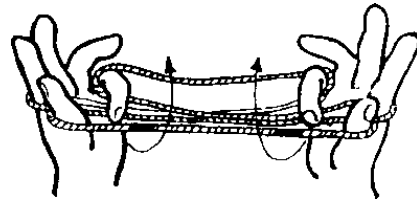
14. Pull the front string away from your left hand. The loops will unwind from all the fingers (the fat rat eats up all the crop). This is the end of the story.

MAN CLIMBING A TREE

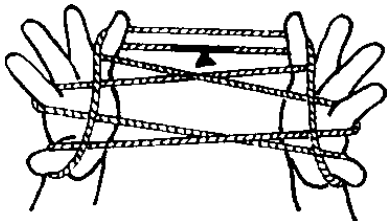
This is a very dynamic string figure. It is said to have originated in Australia.



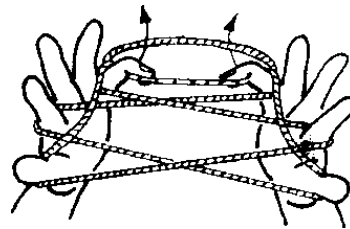
1. Start with the **Index Finger Base**.



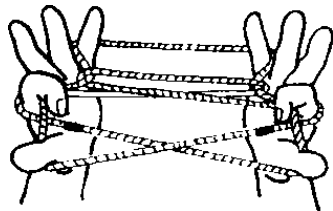
2. With your little fingers scoop up the near string and pull it back.



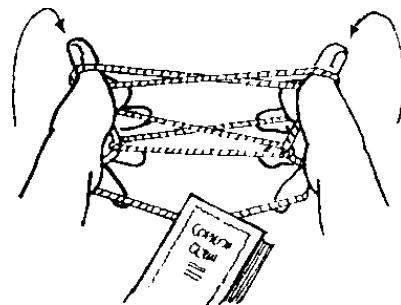
3. This should be the finished result. Release the string indicated by the arrow.



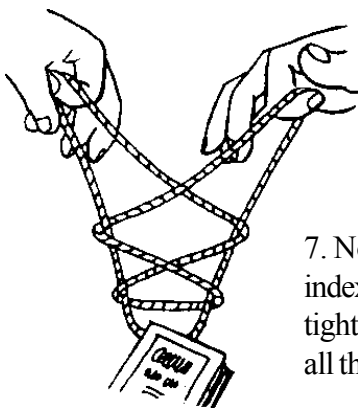
4. This picture shows the releasing action.



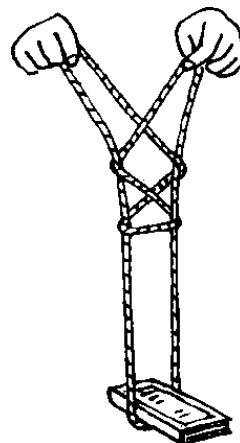
5. Bend your index fingers down and tightly hold the string that goes across them.



6. Twist your hands away from you. Use a book to hold down the far bottom string on the floor.



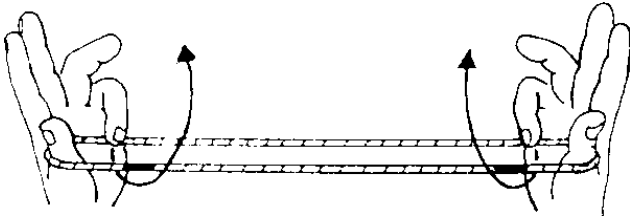
7. Now hold the index finger strings tightly and release all the other strings.



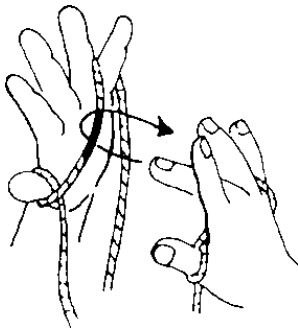
8. By alternately pulling upwards on each of the index strings you can make the man climb up the tree.

SINGLE DIAMOND

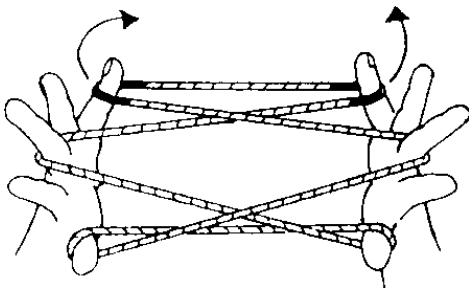
With just a few moves you can make a single diamond.
Later on you can make two, three and four diamonds.



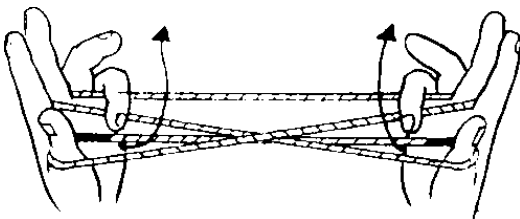
1. Place the loop of string over your thumbs. With the help of the little fingers scoop up the near string.



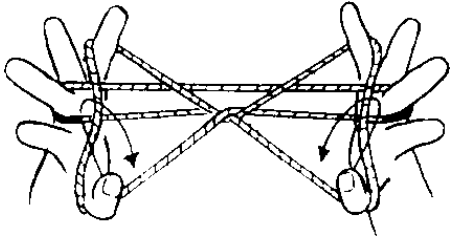
2. Pick the left palm string with the right middle finger and the right palm string with the middle finger.



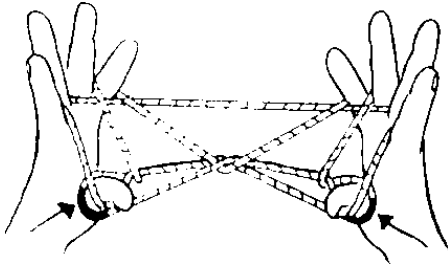
3. Release both little finger loops.



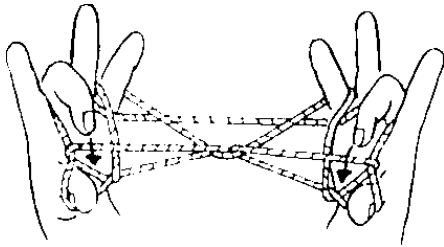
4. Bend your little fingers and scoop up the far thumb strings.



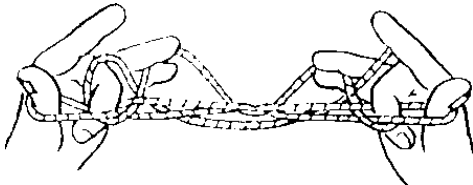
5. Bend the thumbs over and scoop up the middle finger strings as shown. You can use the thumb and index finger of the other hand to do this job.



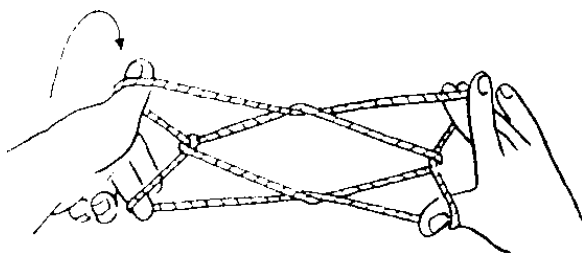
6. Release the bottom thumb string by lifting them over the top ones. With a little practice you will be able to slip them easily.



7. Bend your middle fingers down and put them into two little triangles.



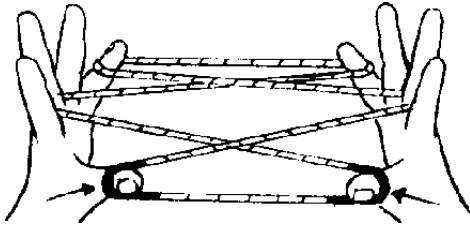
8. Release the little finger and the outside middle finger strings. Hold on to the thumb and inside middle finger strings.



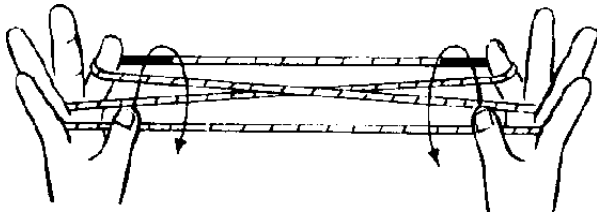
9. Carefully pull your hands apart. As you twist your left hand away from you, a single diamond will appear.

DOUBLE DIAMOND

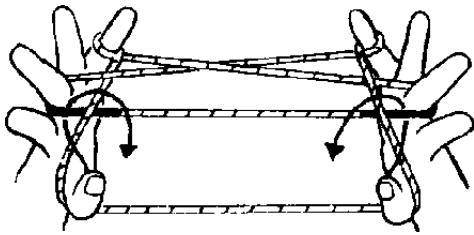
The next step after a single diamond is a double diamond.



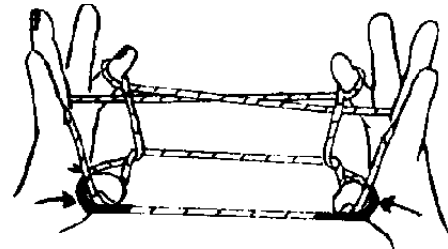
1. Make the **Middle Finger Base**.
Release the thumb strings.



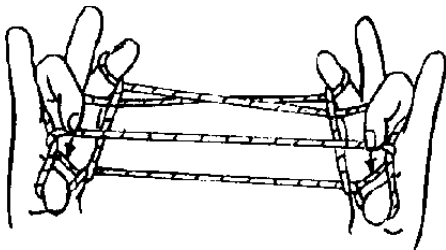
2. With bend thumbs scoop up the far string.



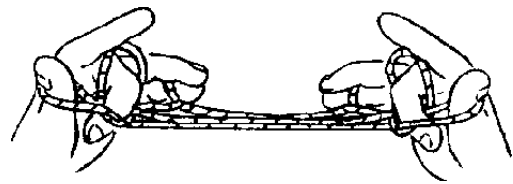
3. Bend your thumbs over and scoop up the near middle finger strings as shown.



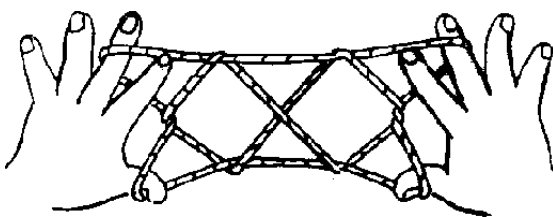
4. Release the bottom thumb strings by lifting them over the top ones, with your teeth.



5. Bend the middle fingers down and put them in the two small triangles as shown.



6. Release the little finger and outside middle strings. Keep hold of the thumb and inside middle finger strings.



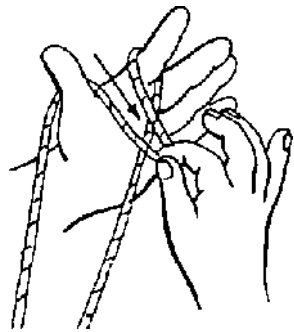
7. Full your hands apart and twist both hands away from you to make it double diamond.

TRIPLE DIAMOND

This is a very beautiful diamond pattern.



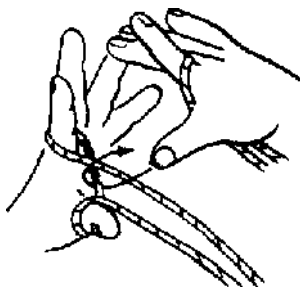
1. Place a loop of string over the left thumb and index finger.



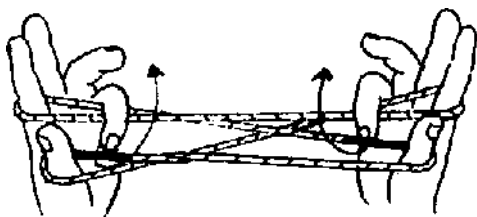
2. With the right index finger and thumb hold and pull away the string between your left thumb and index finger.



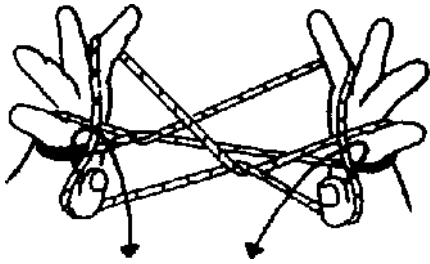
3. Twist the right hand over towards yourself and upwards.



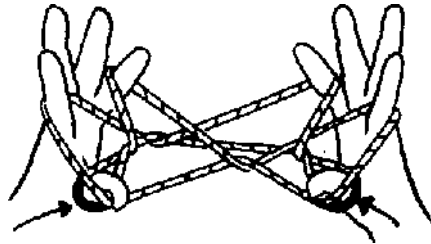
4. With the right thumb scoop up the string from the palm of your left hand.



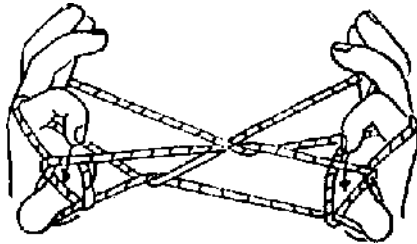
5. Bend the little fingers over and scoop up the far thumb strings.



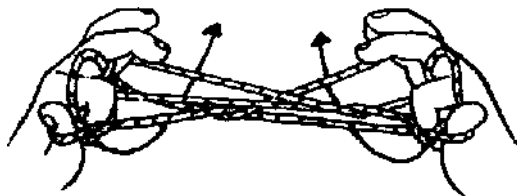
6. Bend the thumbs over and scoop up the near index finger strings.



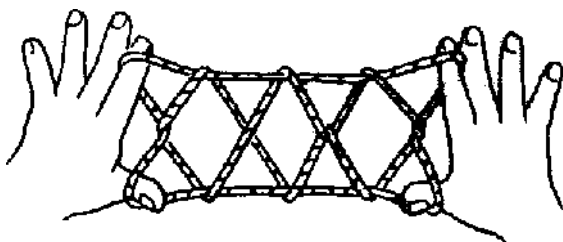
7. Use your teeth to release the bottom thumb strings by lifting them over the top ones.



8. Bend the index fingers down and put them into the small triangles.



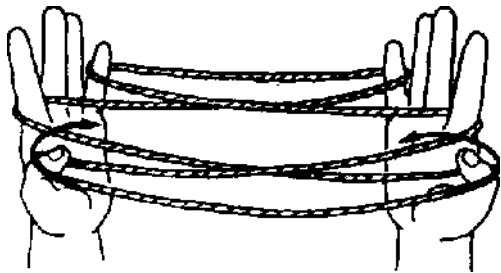
9. Release the little finger strings and the outside index finger strings. Hold on to the thumb and inside index finger strings.



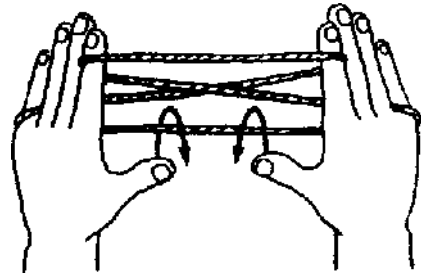
10. Pull the hands away from yourself making three diamonds in a row.

JACOB'S LADDER

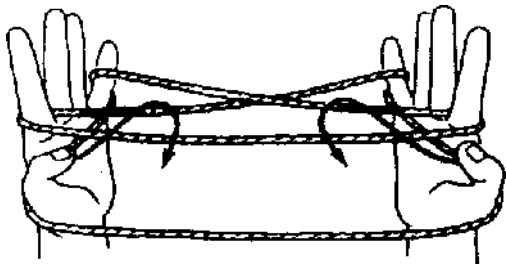
The Jacob's Ladder is also known as the fishnet or four-diamonds.
It is very well known in many parts of the world.



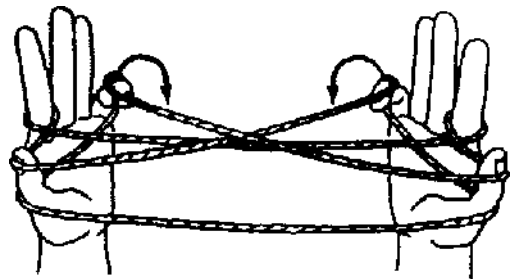
1. Start with **Opening A**.
Drop the thumb loops.



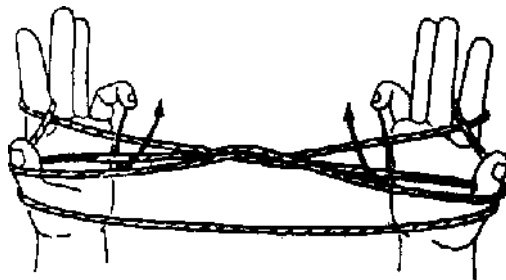
2. With both thumbs pick up from below the far little finger strings (the bottom strings).



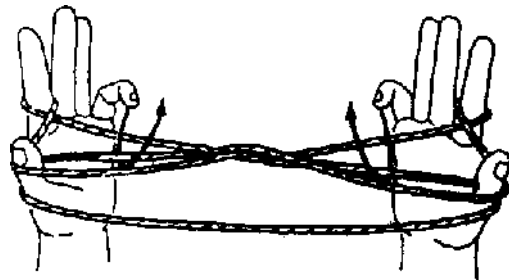
3. Both thumbs go over near index string to get the far index strings and return.



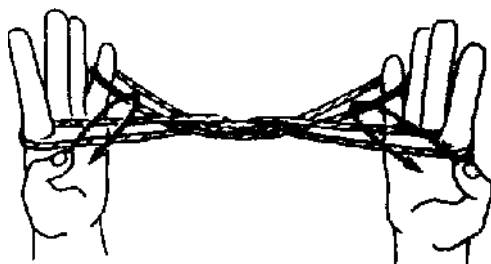
4. Drop the little finger loops.



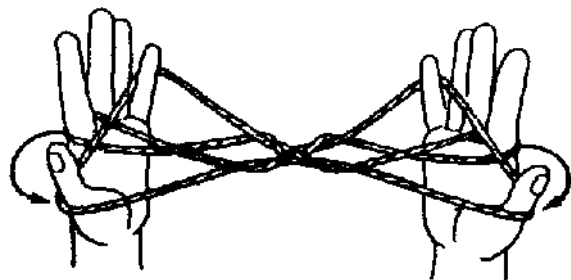
5. Both little finger go over the near index strings to get the far thumb strings and return.



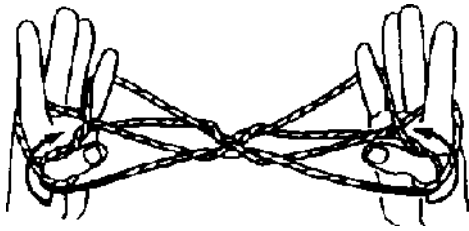
6. Now drop the thumb loops. The string look like a **Cat's Whiskers!**



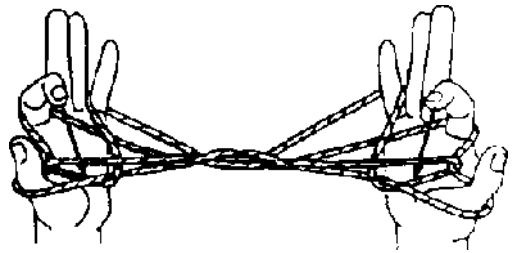
7. The thumbs go over both strings of the index loops to get the near little finger strings and return.



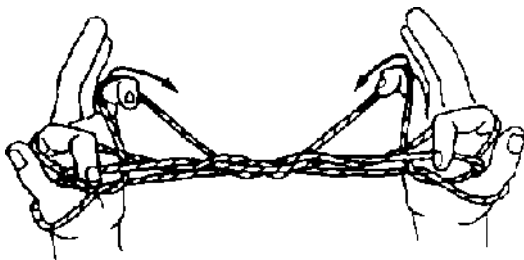
8. Repeat this again to share the right index loop with your right thumb.



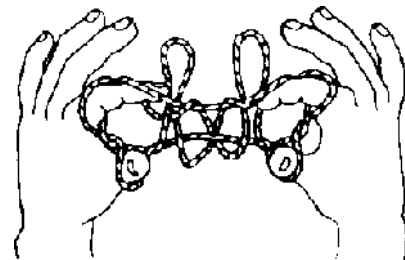
9. Tip your thumbs down (you call also use your fingers or teeth) to Navaho first the left thumb loops, then the right.



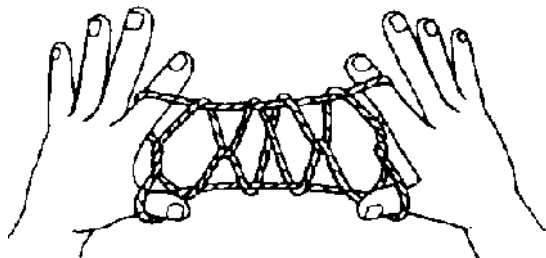
10. Put your index fingers in the string triangles next to the thumbs.



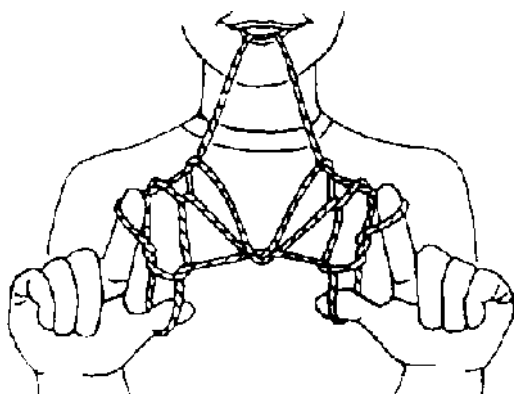
11. Gently remove the little fingers out of their loops.



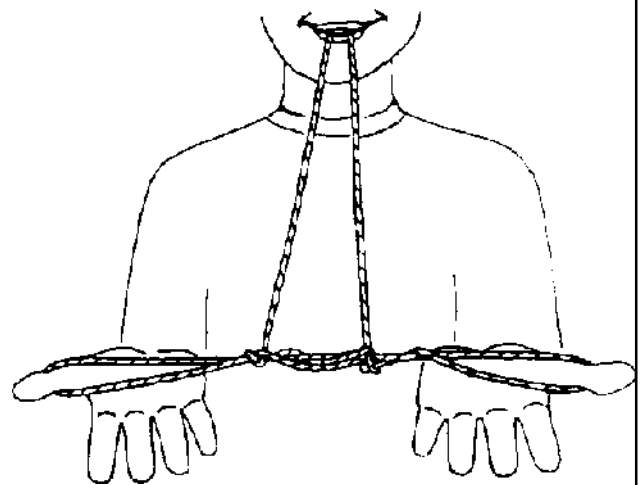
12. Turn your hands so that the palms face away from you. The index loops will just slip off the index fingers.



13. Now straighten up your index finger to get the four diamond **Jacob's Ladder**



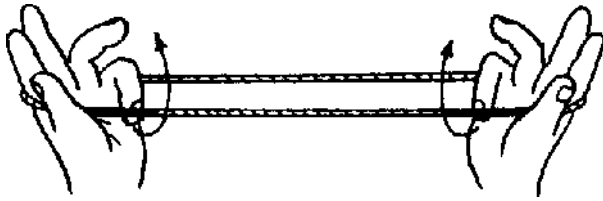
14. To make the Eiffel Tower, hold the midpoint of the top string between your teeth and pull. From this you can make the **Witch's Hat**.



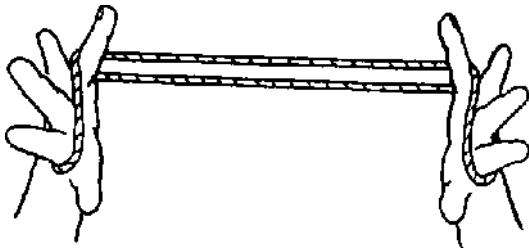
15. To make the Witch's Hat, hold the midpoint of the top string between your teeth. Drop the loops of the index fingers and pull down with your thumbs.

EARTHQUAKE HOUSE

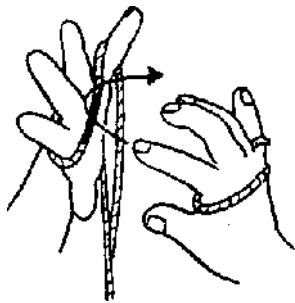
Many parts of India like Uttarkashi, Latur and Bhuj are very prone to earthquakes. The string house collapses in the earthquake and two boys run for their lives.



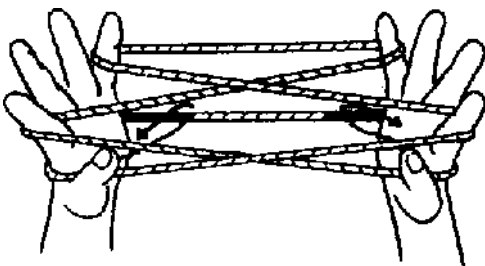
1. Place the string around the four fingers of each hand. Using the little fingers scoop up the near string and pull it back.



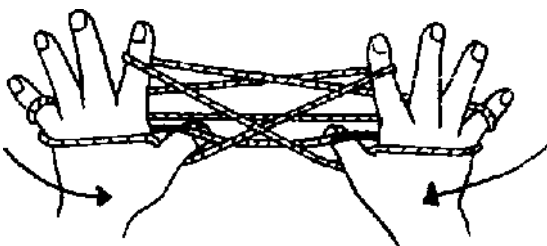
2. After you have finished the string will look like this.



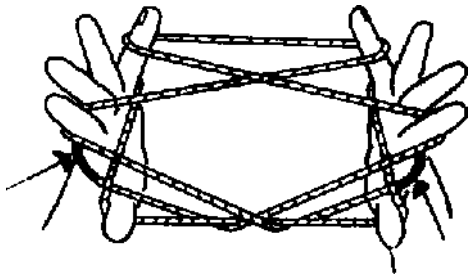
3. With the right index finger pick up the left palm string. With the left index finger pick up the right hand palm string.



4. This should be the finished result. Now bend your thumbs into the near triangles as shown and scoop up...



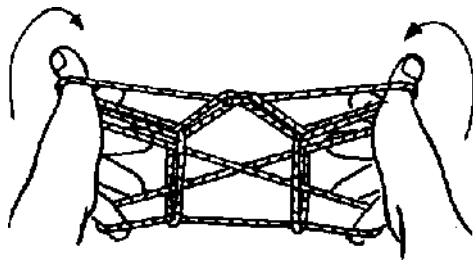
5. the far bottom back string.



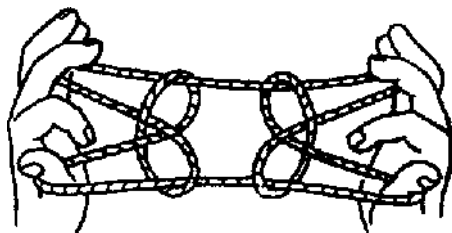
6. Pull your thumbs back towards yourself. Release the strings indicated by the arrows



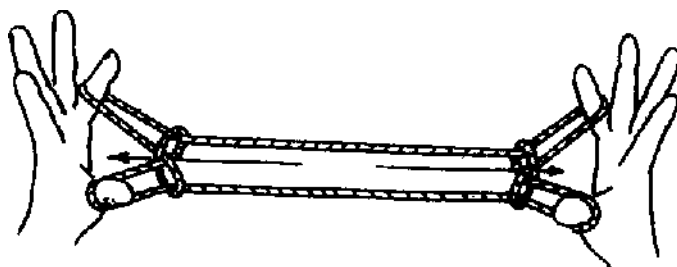
7. For releasing the arrow strings, use the thumb and the index finger of each hand. Afterwards, pull your hands apart.



8. When you twist your hands away from you, suddenly a house would appear.



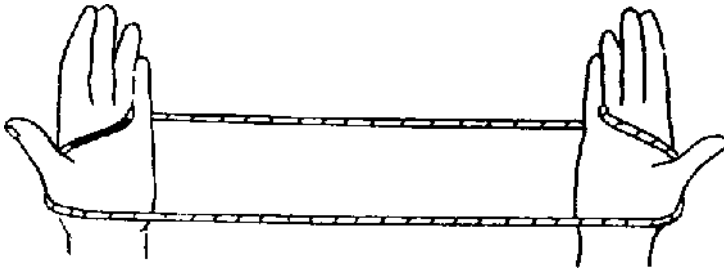
9. Now comes the earthquake. For rocking the house, release the strings from your index fingers.



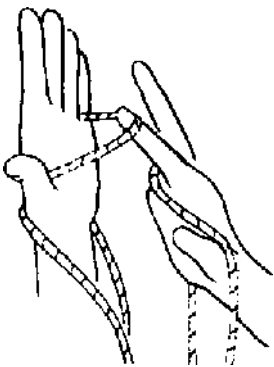
10. As you pull your hands apart, the house falls and two boys run in opposite direction to save their lives.

PALM TREE

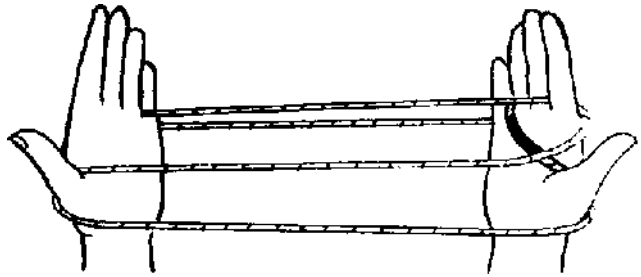
For making this gorgeous tree you will need to use both your hands and one foot.



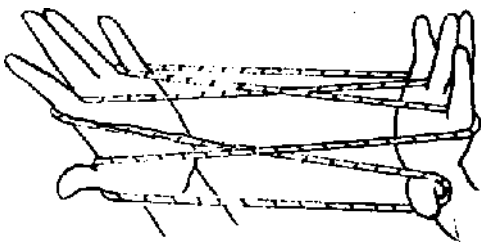
1. Loop the string across both your palms and behind your thumbs and the little fingers.



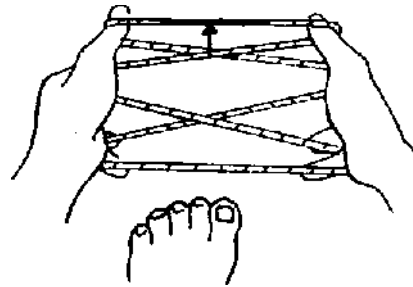
2. Pick up the left hand palm string with your right index finger and pull your hands apart.



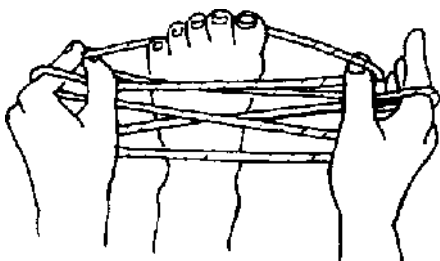
3. Now, in the same way, pick up the right hand palm string with your left index finger.



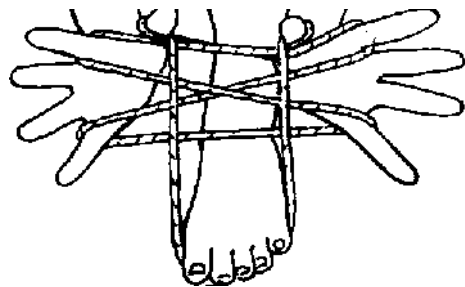
4. As you pull your hands apart you would have made the **Index Finger Base**.



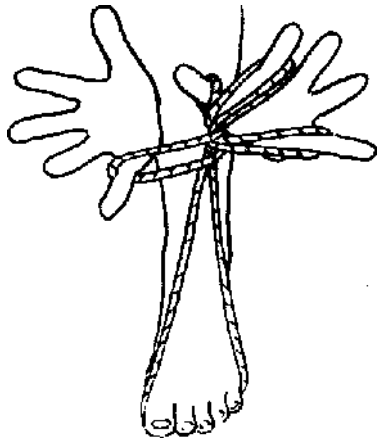
5. Now rest your fingertips straight down on the floor and find the string that runs straight across the outside of your thumbs. The string has been indicated with an arrow.



6. Put one foot under all the other strings and step on this one.



7. Keep your foot (and the string you are stepping on) on the ground and pull your hands up a bit, turning them so that your fingertips point away from you. When viewed from the front it will look like this.

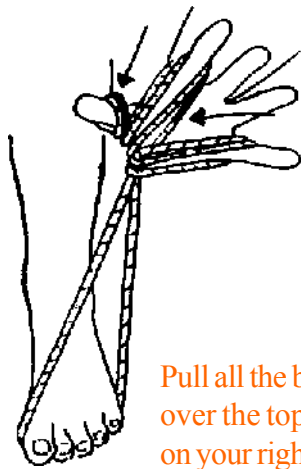


8. Now move all the loops on your right hand over to your left hand. Keep them closer to your fingertips than the loop already on your left hand.

Now the right thumb goes into your left thumb.

The loop on your right first goes on your left first finger.

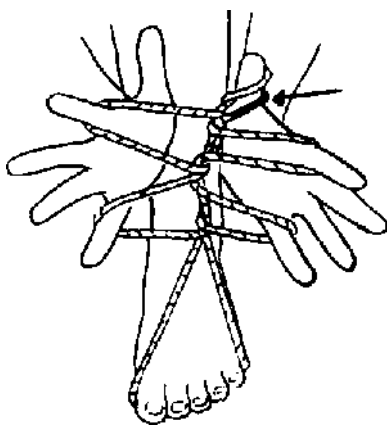
The right little finger loop goes on your left little finger.



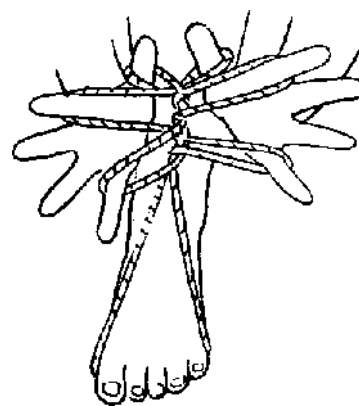
9. Now move the left finger loops (the bottom ones, marked with arrows) over the top loops and onto your right hand.

Start by moving the left little finger loop over to your right little finger.

Pull all the bottom loops over the top loops and put on your right hand.



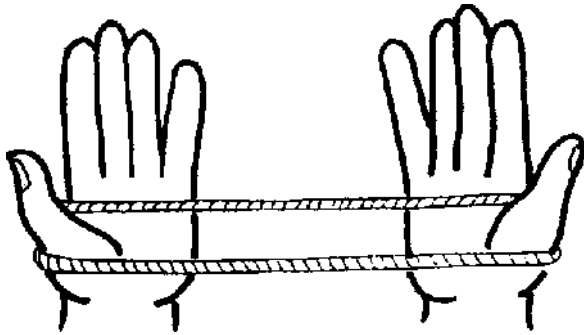
10. Then move the loops from your left index finger and your left thumb over to your right hand.



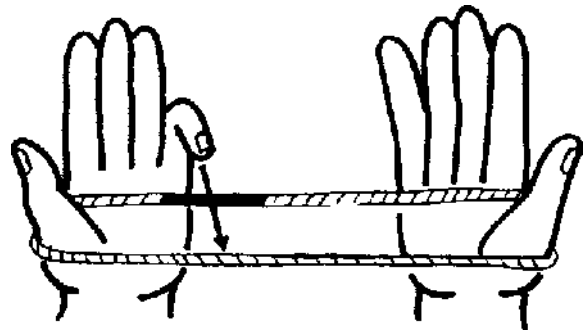
11. Pull your hands up a bit more and you will see an elegant palm tree. Wave your hands from side to side to make it sway in the breeze!

BUTTERFLY

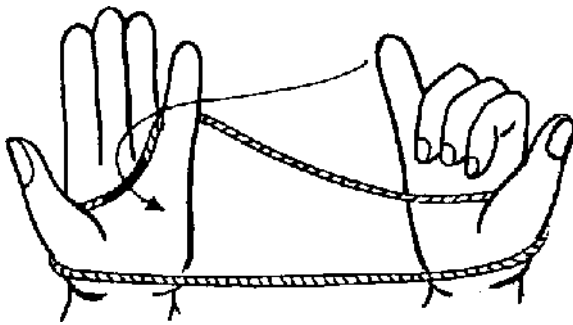
This pretty little string butterfly comes from Japan.
It has some unusual moves, so follow the instructions very carefully.



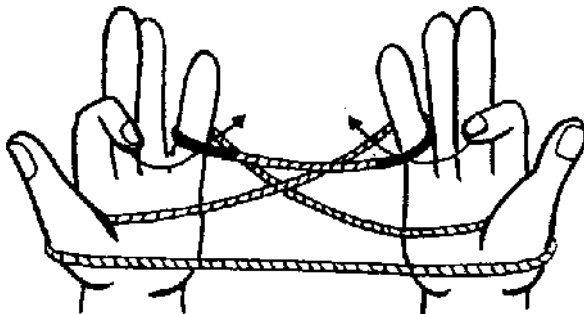
1. Pull the string around your thumbs as shown.



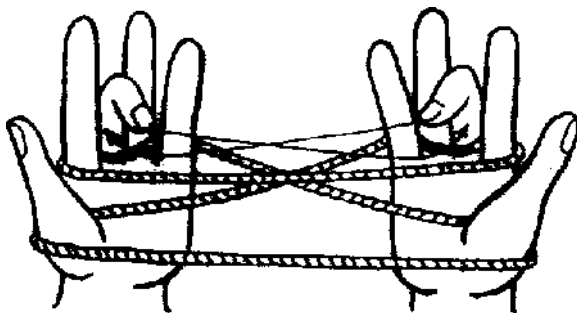
2. Pick up the far thumb string with your left little finger.



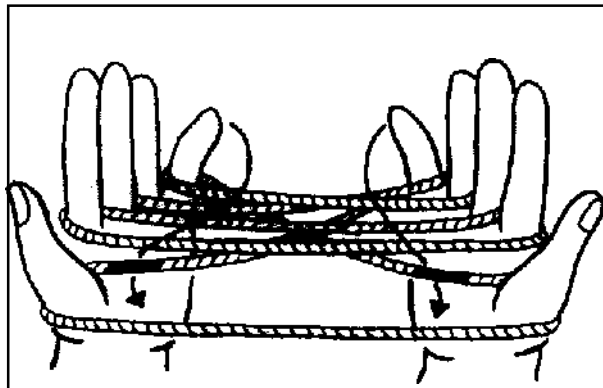
3. Except for the little finger, bend all the other right fingers down. Put your right little finger down behind the left palm string. Check to make sure that the string looks as shown in the drawing.



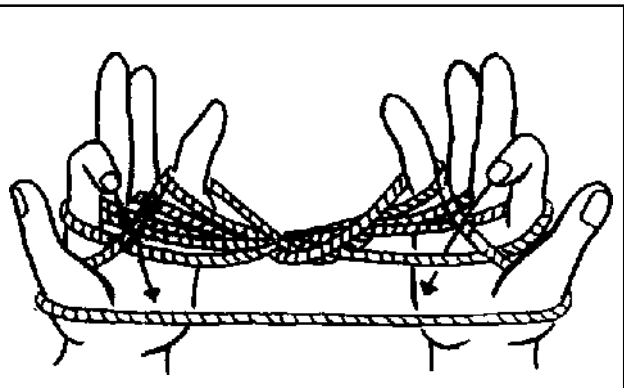
4. Pick up the near little finger string with your index fingers.



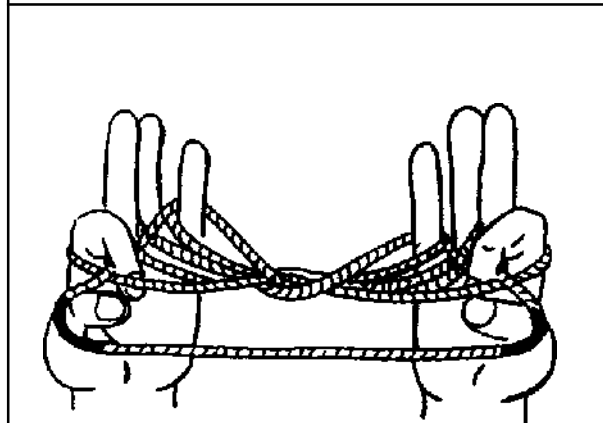
5. Do "Opening A" with your middle fingers and the short palmar strings in front of each middle and ring finger.



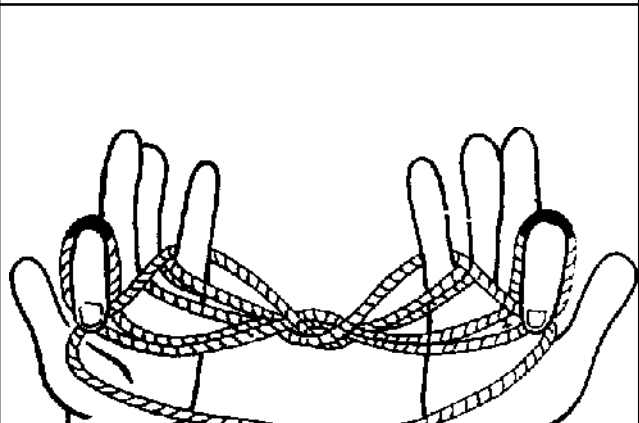
6. With your little fingers, pick up the far thumb strings and return to the “Basic Position”



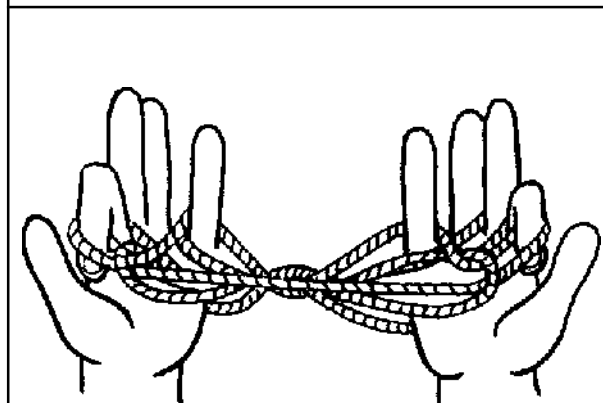
7. Put your index fingers down into the index loops over the palmar strings.



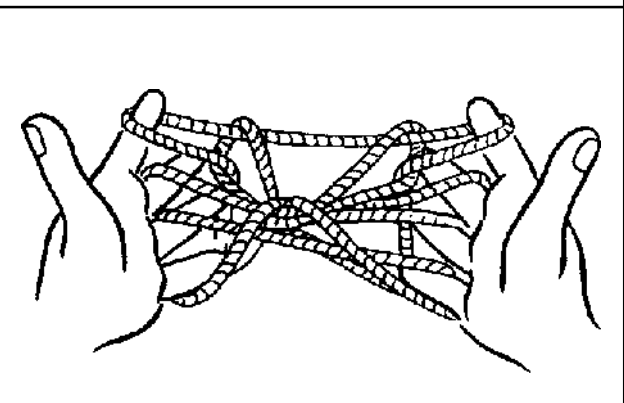
8. Holding tight to these palmar strings with your index finger, drop your thumb loops.



9. Face your palms towards yourself and let the old index loops slide off your index fingers.



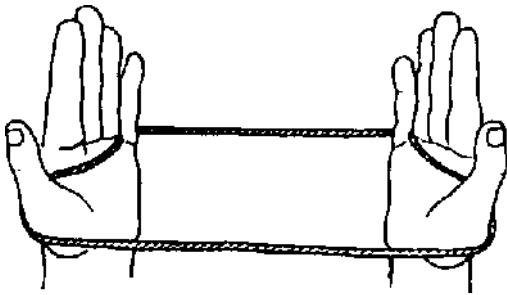
10. As you straighten your index fingers, the strings under them become the new index loops.



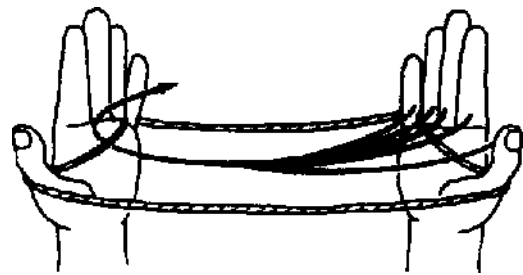
11. Face your palms towards each other again, and turn your hands so that the thumbs are up and the fingers are pointing away from you. You will see a pretty butterfly hiding in it.

INDIAN COT

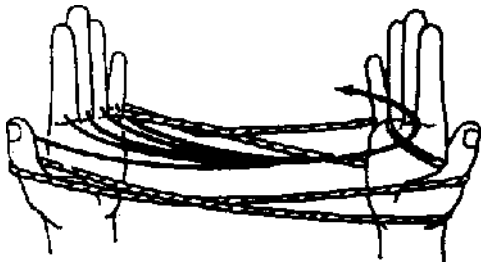
This string figure represents a decorated Apache door.
To us, it looks more like the traditional Indian cot (a charpoy)



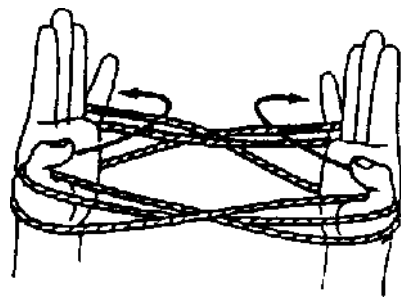
1. Bring the string in **Position 1**.



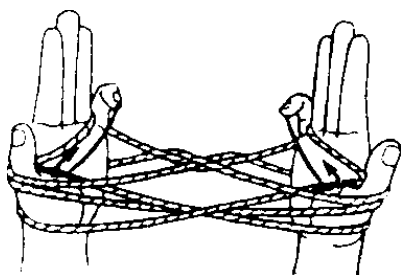
2. Put your whole right hand under the left palm string and as you pull it out, let the string loop slide down around your right wrist.



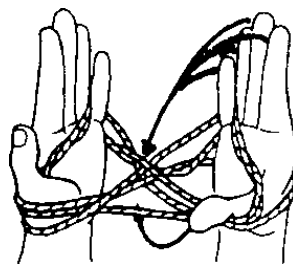
3. Repeat by putting your whole left hand, including the thumb, under the right palm string and as you pull it out, let the string loop slide down around your left wrist.



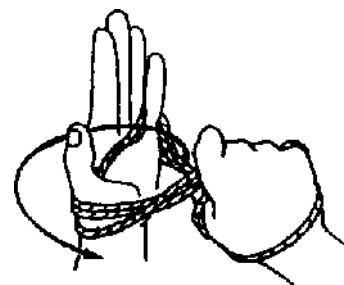
4. With your thumbs pick the near little finger strings and return.



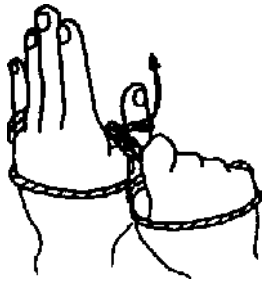
5. Now the little fingers pick the far thumb strings and return.



6. With your whole right hand take hold of all the strings in the middle of the figure.



7. Put all these strings between your left index finger and thumb. Don't cover up the thumb loops. Now let go the strings which you are holding with your right hand.



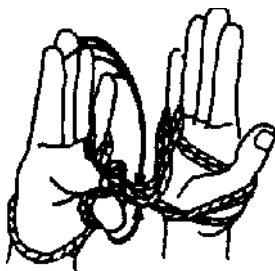
8. Now use your right index finger and thumb to take hold of the two left thumb loops and hang on to them. Don't move the right hand at all.



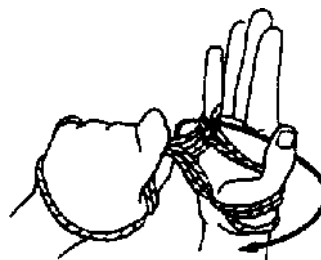
9. Take your left thumb out of these two thumb loops and out of the strings you have just wrapped around it.



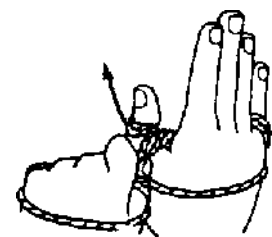
10. From below, slide your left thumb back into the two loops that your right index finger and thumb have been holding.



11. Repeat this for your right hand. So, with your left hand, take hold of all the strings in the middle of the figure.



12. Put all these strings between your right index finger and thumb.



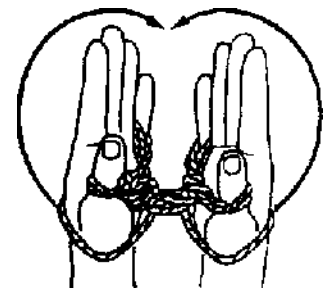
13. With your left index finger and thumb, take hold of the two right thumb loops and hang on to them. Do not move your left hand.



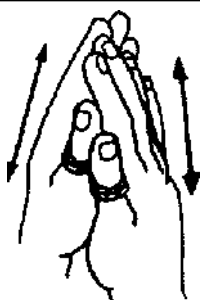
14. Take your right thumb out of these two thumb loops. From below, slide your right thumb back into the loops held by your left index and thumb.



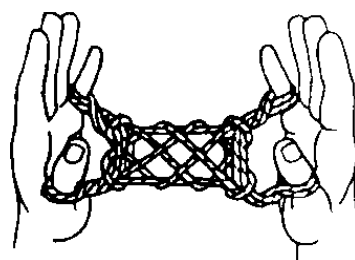
15. With your right index finger and thumb, take the left wrist loop right off your left hand and let it lie in the middle of the figure.



16. With your left index finger and thumb, take the right wrist loop right off your right hand and let it lie in the middle of the figure.



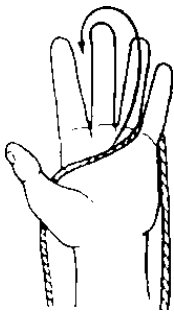
17. Now comes the fun part. Bring your hands together and chant some mantra!



18. Pull your hands apart to extend the figure. And you will see a beautiful four legged, woven cot in the middle.

PARACHUTE OR A BUNCH OF KEYS

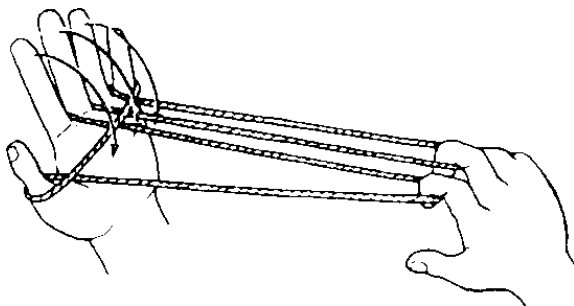
This string figure has a lot of steps, but let it not discourage you.
It is not as hard as it looks.



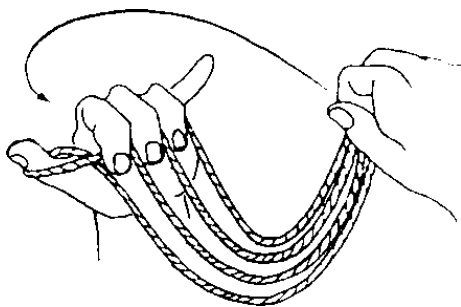
1. First lay the string between the little finger and thumb of the left hand as shown. Then put the string across your palm behind your middle finger.



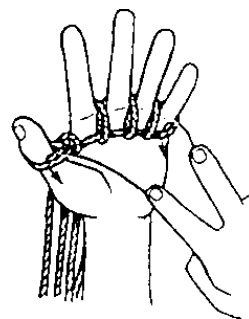
2. Put your right hand through the hanging loop and use your right index finger like a hook to take hold of the left front index loop. Use your right middle finger like a hook to take hold of the front ring finger loop. Pull these loops out as far as they will go, letting the long loop of string slide off your wrist. There will be space between the loops of the right hand.



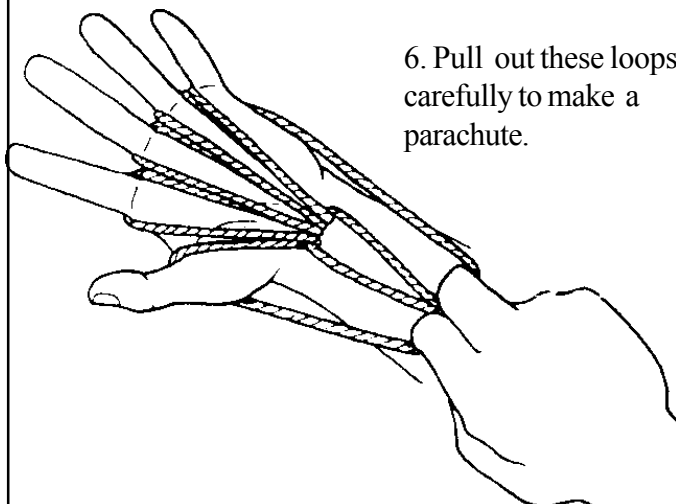
3. Now lower your left index finger into the loop held by your right index finger. The left middle finger will go into the space between the loops. Finally the left ring finger will go down into the loop held by your right middle finger.



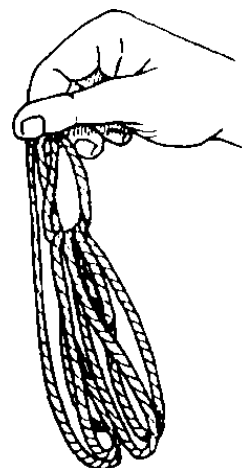
4. Hang these back of your loops over the left hand and let go off the strings.



5. Use your right index finger like a hook to take hold of the left front thumb loop. Use your right middle finger like a hook to take hold of the left front little finger.



6. Pull out these loops carefully to make a parachute.



7. If you upturn the parachute and remove the fingers of your left hand then the string figure looks like a **Bunch of Keys**.

BUNCH OF BANANAS

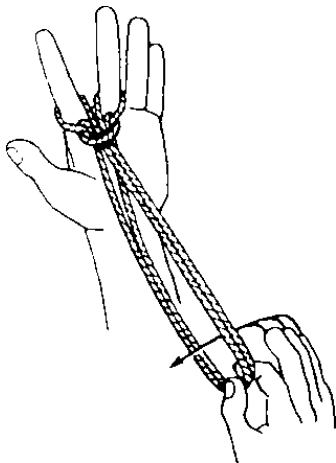
With a loop of string you can make a bunch of bananas. But can you munch them?



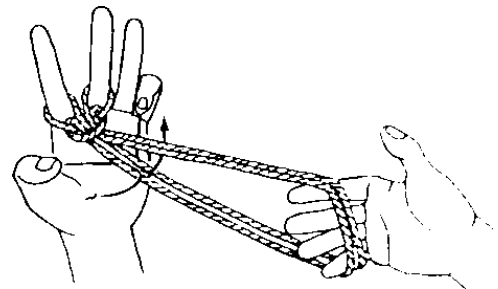
1. Hang the string loop around the back of the index and middle fingers of your left hand. The long loop will hang down across your palm. Put your right index finger into the hanging loop from behind, then between your left index and middle finger. Use it like a hook to take hold of the string that goes behind your left index and middle fingers. Pull this loop as far as possible, letting the string loop slide off your wrist.



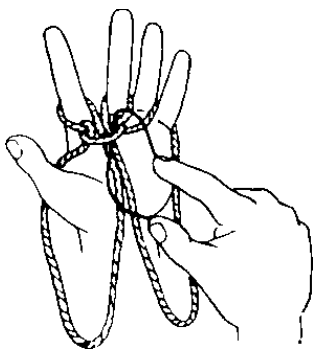
2. Put your right hand into the long hanging loop from below. With your right thumb and index finger catch the strings which go between your left index and middle finger. Make sure you pick them up above the single front loop.



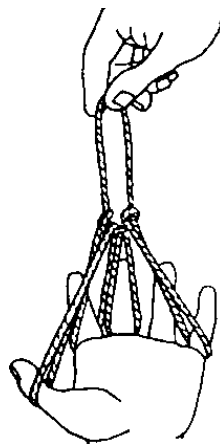
3. Now pull out these strings as far as they will go, letting the wrist loop slide off your right hand as you pull. Hold the loop with your right thumb and index finger. Do not twist the loop. Now put the other fingers of your right hand into the loop.



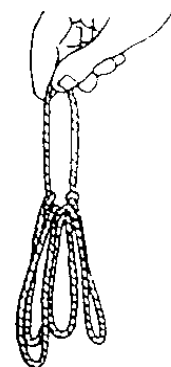
4. With your left thumb and little finger pick up from below, one of the bottom strings. Drop the strings of the right hand.



5. You will see a small loop that goes around the loops on your left index and middle fingers. With your right thumb and index finger, gently pull out this small loop. Don't pull too far otherwise the figure will fall apart.



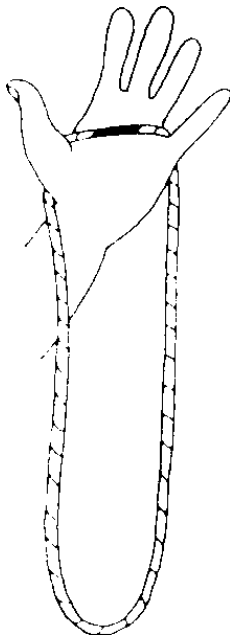
6. This is the native Indian tent (tipi)



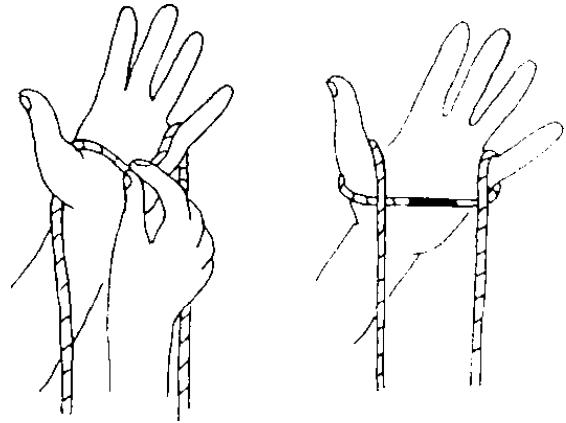
7. Now if you remove the string loops from your left hand fingers then you will have a Bunch of Bananas.

FLYING BIRD

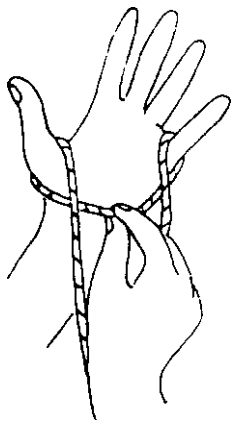
You can really make a bird fly by pulling your hands apart in this dynamic string figure!



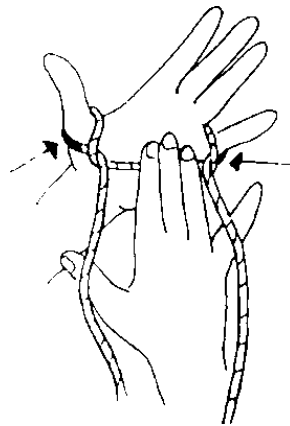
1. Place the loop of string on your left hand, between the thumb and the little finger, so that it runs across your palm. The right hand should be free.



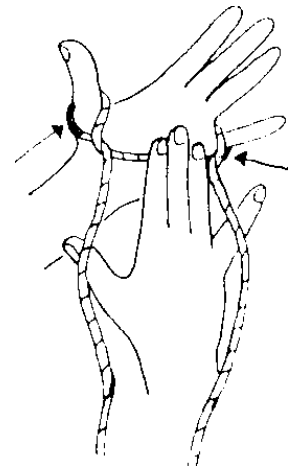
2. Hold the left palm string with your right thumb and index finger, and pull it all the way down. The finished result look like this



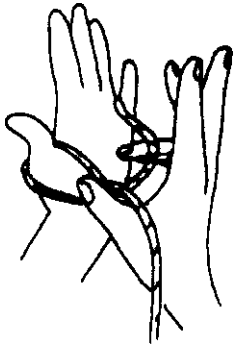
3. Again pick the new palm string and pull it all the way down.



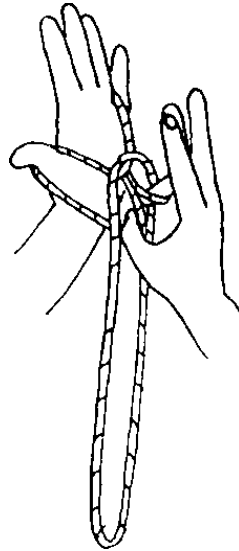
4. Rest the finger of your right hand against your left palm. Your right thumb and little finger should go under the hanging string and...



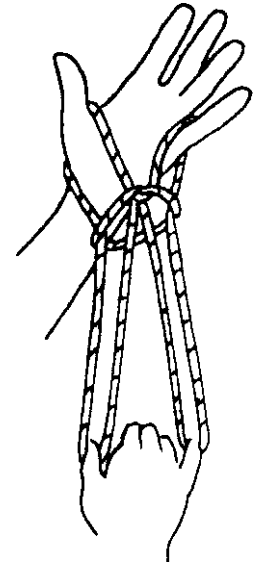
5. find the loops that run around the thumb and little finger of the left hand (marked with arrows).



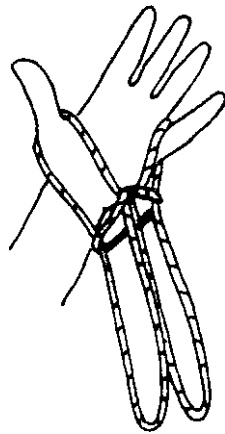
6. Put your right thumb and finger into these loops and ...



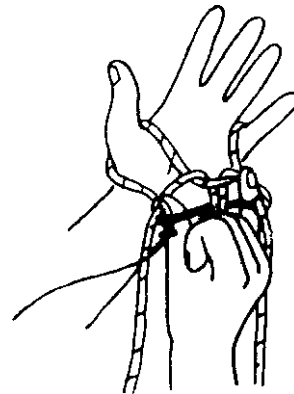
7. pull these loops through the big hanging loop...



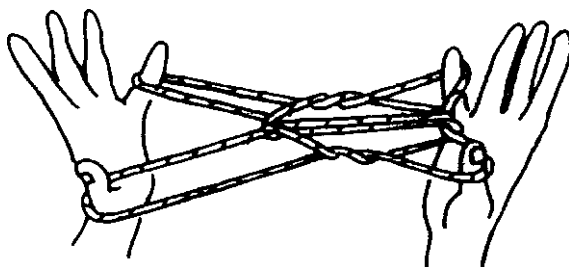
8. all the way down.



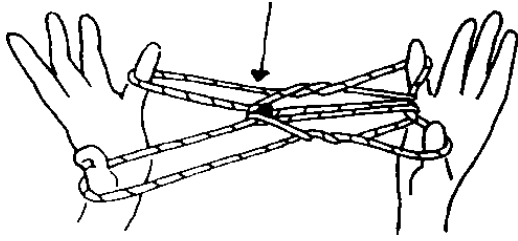
9. Once the loops have been pulled all the way down, drop the right hand strings. You will see two little triangles hanging near the palm of the left hand.



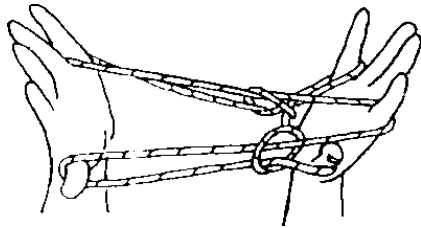
10. Hook your right thumb and little finger behind the bottom string of the two triangles (marked with arrows).



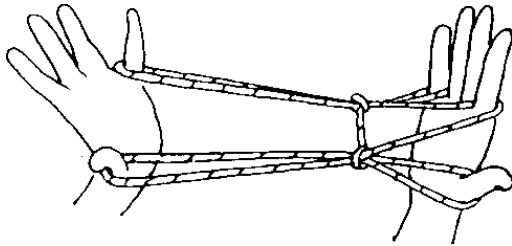
11. Pull these strings away from your left hand. Keep holding on to the strings. Don't let them go. You will see two diamonds between your hands.



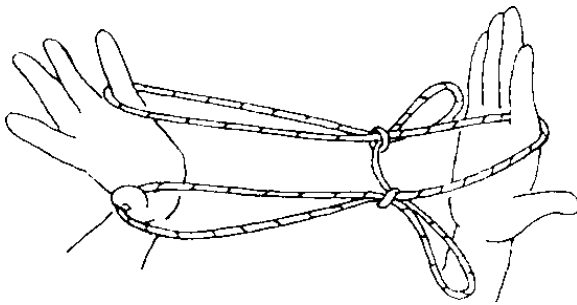
12. With the right index finger pick up the loop that holds the left point of the diamond (marked with an arrow).



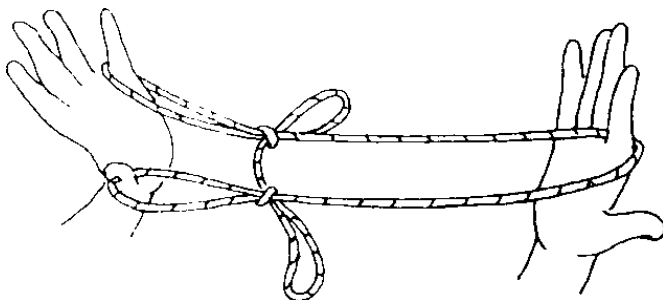
13. This is how the string figure should appear at this stage.



14. As you pull your hands apart the two loops will tighten into knots



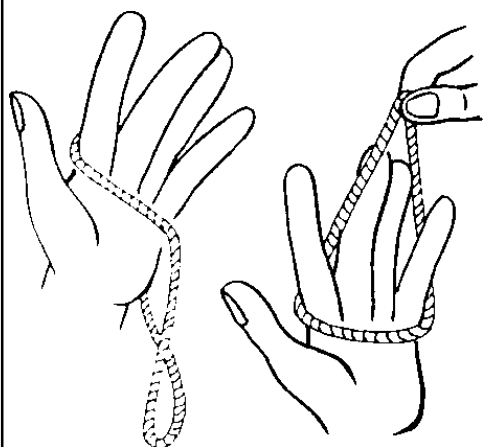
15. Carefully, drop the loops off the right thumb and little finger to make the bird's wings.



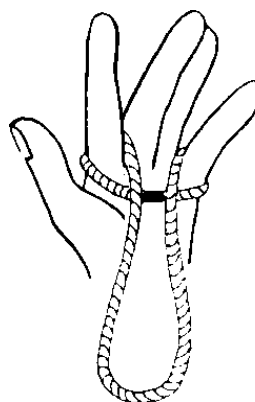
16. As you pull your hands apart the bird will appear to fly towards the left.

CANDLE STICKS

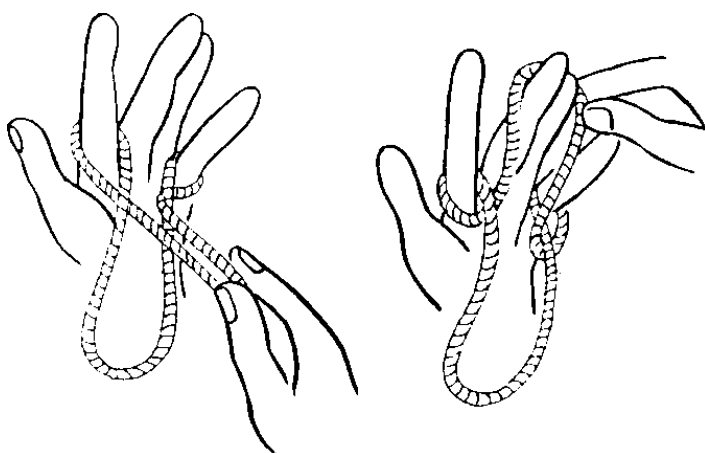
This string game describes the candle making process.
The wick is dipped into hot wax many times until the candle becomes thick enough.
These string figures also contain an interesting story.



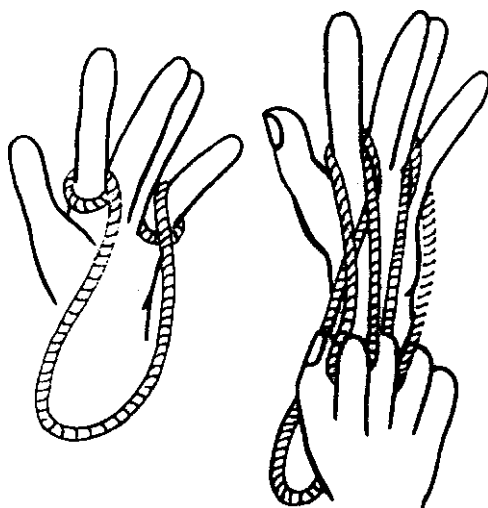
1. Lay the string across on the left palm, leaving out the thumb. Using the right index finger and thumb, pick up the two hanging strings behind the left hand.



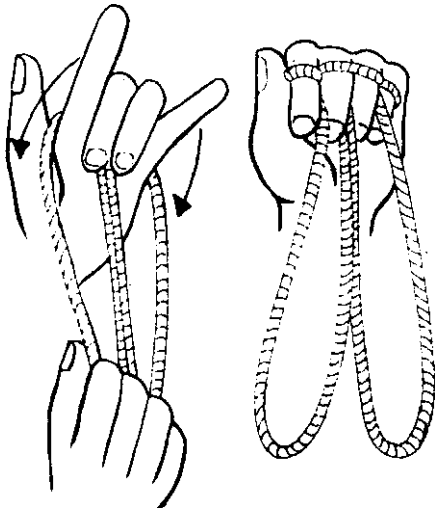
2. Bring these string up and over the finger as shown. The loop of string must hang flat over the palmar string.



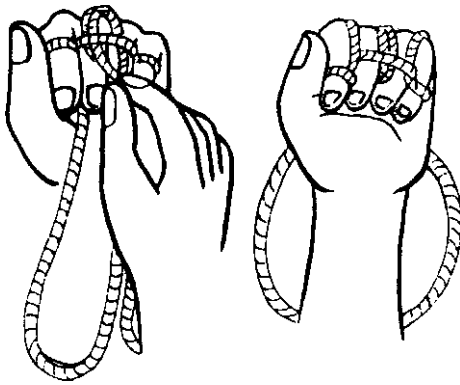
3. With the right index finger and thumb, pick up the left palmar string between the two hanging strings. Pull this string out far enough to make a loop that will fit over the left middle and ring fingers. There should still be a loop hanging down over the palm. Tighten this loop by pulling.



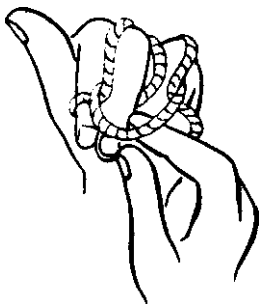
4. Put the right middle finger down into loop around the left little finger, and put the right index finger down into the loop, around the left index finger. Pull these out as far as they will go.



5. Close the left hand fingers into the palm putting the left index finger over the left near index string, the middle finger into the left index loop, the left ring finger into the left little finger loop, and the left little finger over the left far little finger string.

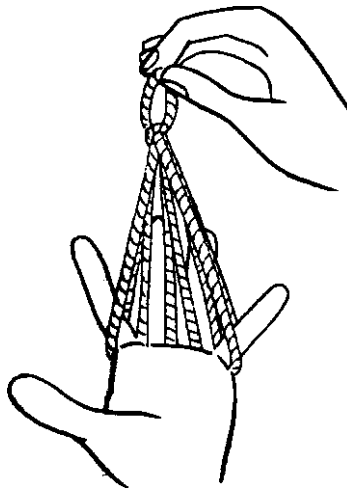


6. Using your right thumb and index finger take the two hanging loops and thread them through the loop over the back of the left middle and ring fingers. Pull them so that they hang down the back to the left hand.

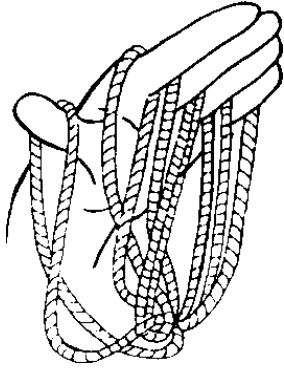


7. Using the right index finger and thumb, pull the loop that crosses the back of the left middle and ring fingers over the knuckles of these two fingers towards the palm.

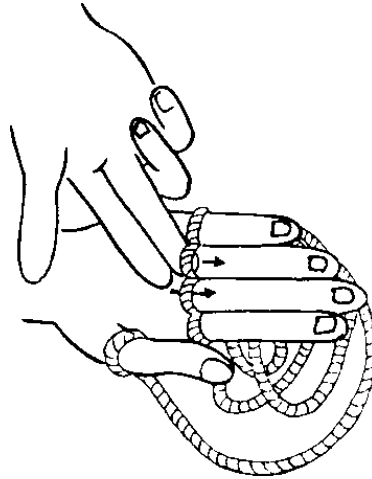
Story: Once there was a man who stole a lot of candles. He took them home and hung them from a nail.



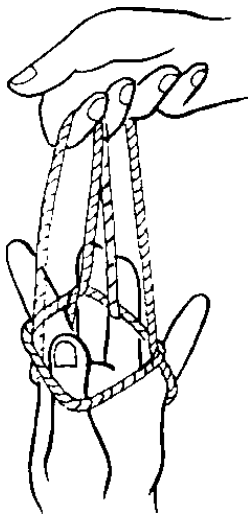
8. Carefully and slowly pull this loop away from the left hand while opening the left fingers out. Holding the left hand palm up and pulling up with the right hand, you will see four candles.



9. Put the loop held by the right index finger and thumb over the left thumb without twisting any strings.



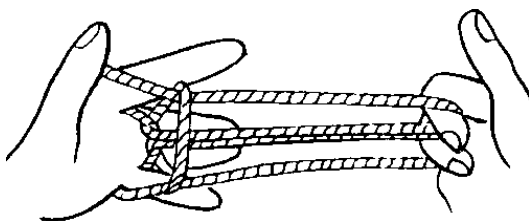
10. Hold the left hand with the palm facing down and fingers pointing right. Using the right index finger and middle finger, hook the loops on the back of the left middle finger and ring finger. The back of the right hand fingers should face the back of the left hand's fingers.



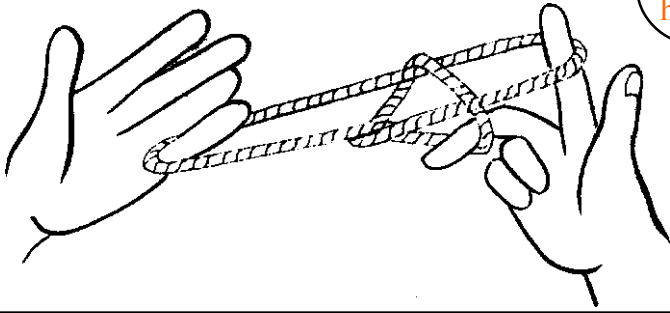
11. With the right hand pull these two loops up as far as possible. At the same time, turn the left palm inwards. This forms the chair the man sat on.

The man was very tired so he sat down on a chair and went to sleep.

When the man woke up, it was dark. He got a pair of scissors to cut the candles, to separate them apart, so that he could light one.

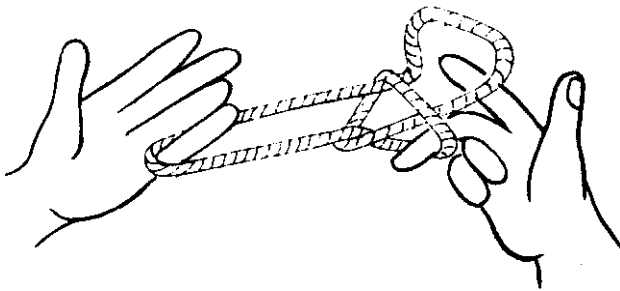


12. Drop the left thumb loop to form the scissors. Move right index and middle fingers up and down to show the scissors in the cutting motion.



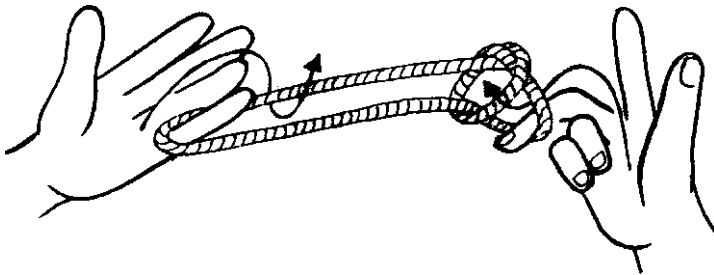
When the man was cutting off the candles, a policeman came with a stick and arrested him for stealing the candles.

13. Drop the left index finger loop, and pull the hands apart as far as possible to see the policeman's long stick.

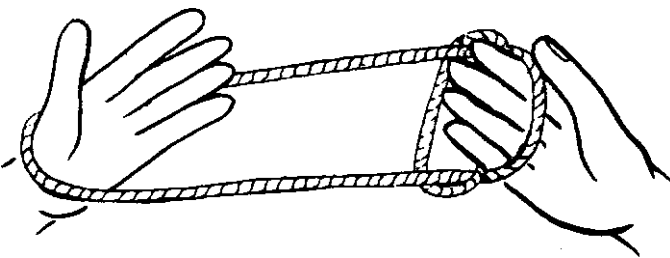


The policeman put handcuffs on the wrists of the thief and took him away to the jail.

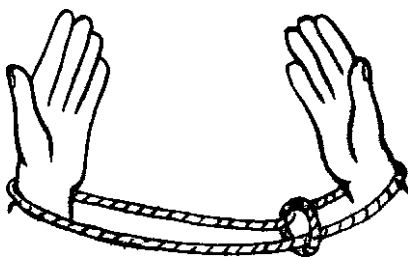
14. Drop the right index loop.



15. Put the left hand through the left little finger loop and put the right hand through the loop on the right middle finger.



16. Gently pull your hands apart.



17. You now have handcuffs around your wrists, just like a thief!

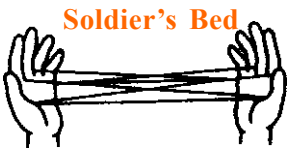
CAT'S CRADLE

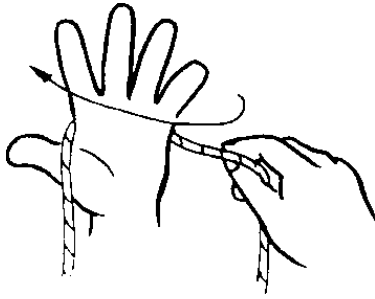
This most popular string game is played by two people. The game of **Cat's Cradle** probably travelled from Asia to Europe with the ten trade. Children in England certainly played the Cat's Cradle as early as 1782. We know about this because the famous writer Charles Lamb wrote about weaving "cat-cradle's" with his friends in school.

Two people are needed to play this game. In most of the Cat's Cradle figures, you can see X's and straight strings. One person holds the figure while the other picks up the 'X's and takes them over, under or between the straight strings. The players take turns holding the figure and picking up the X's to move to the next step.

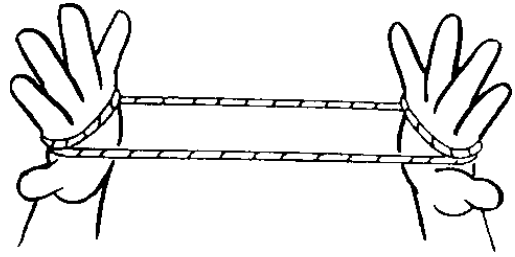
This game can go on forever, but if you want to stop it, you can choose one of the several different endings. There are several different ways in which the X strings can be picked up. So keep experimenting and trying and have fun!

The sequence of making figures is as follows:

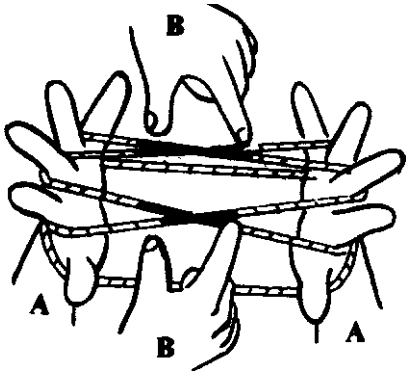




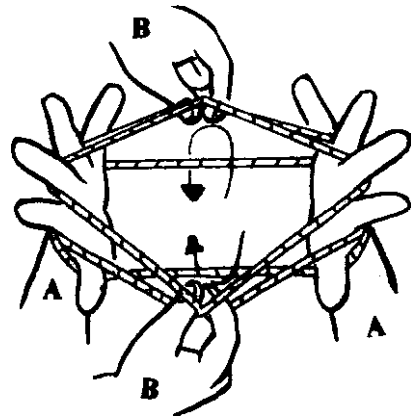
1. You need a partner to play **Cat's Cradle**. The one who makes the moves is named **A** and his partner is named **B**. First **A** places the loop of string over the first four fingers of his left hand.



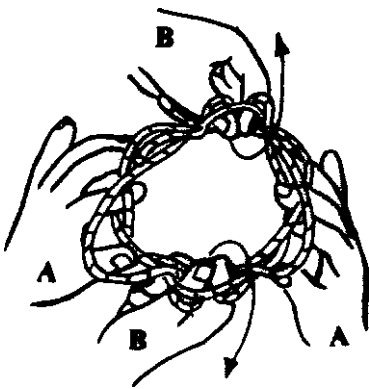
2. Then **A** holds the string and loops it around his left hand as shown. Then **A** pulls his hands apart and makes the **middle finger base**...



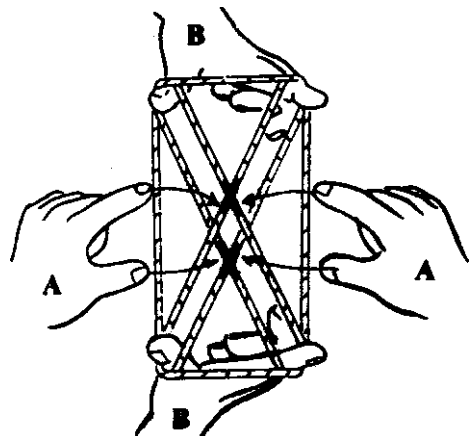
3. to make The Cradle. **A** holds the cradle between his fingers. Then **B**, with thumbs and index fingers of both hands, pinches the crossed **X** strings together, from the sides of the cradle.



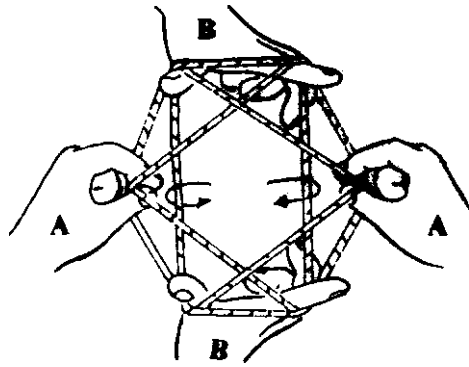
4. **B** pulls the **X** strings out, and under to scoop them up the two straight strings.



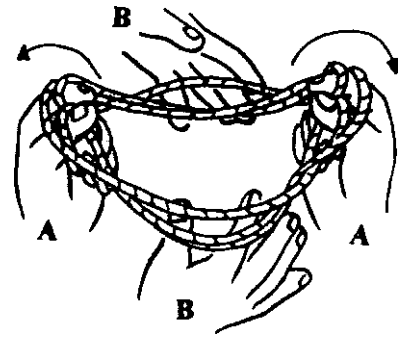
5. Once **B** has scooped up the straight strings, **A** releases all the strings.



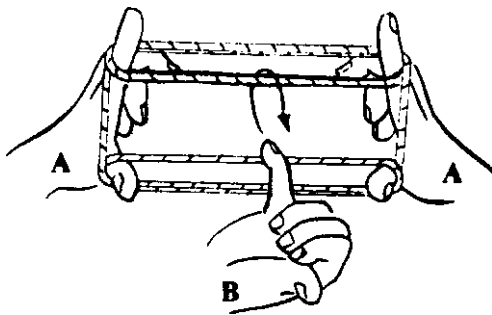
6. Then **B** pulls his fingers apart and makes the second cat's cradle shape called the **Soldier's Bed**. With his thumbs and index fingers **A** pinches the crossed strings together, from the top of the **Soldier's Bed**.



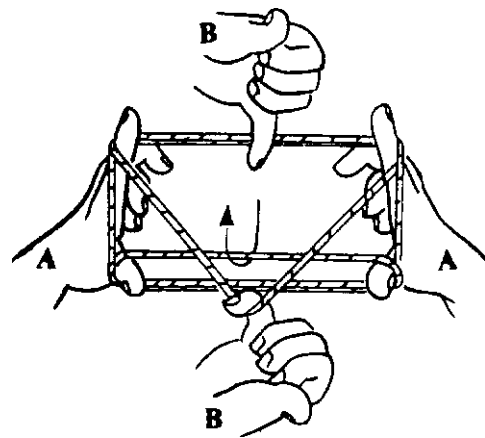
7. **A** then pulls the crossed strings out and scoops up the two straight strings.



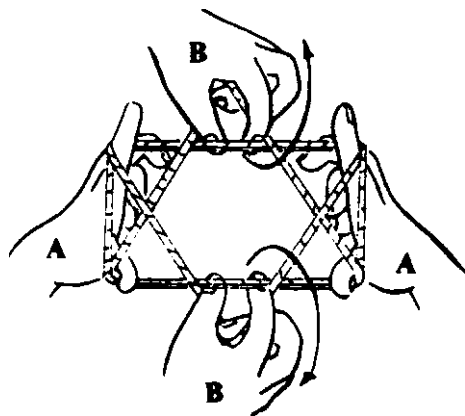
8. **B** releases all the strings from his hand.



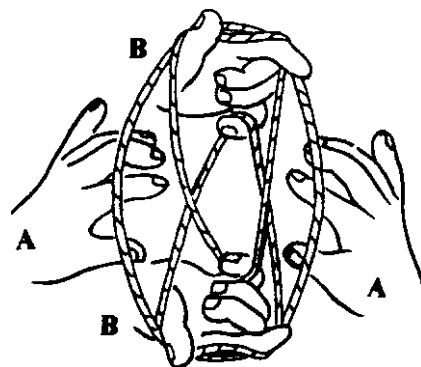
9. **A** pulls his fingers apart and makes the third cat's cradle shape called the **Candles**. **B** now hooks the left single string, from the toy of the candles with his right little finger and pulls it to the right.



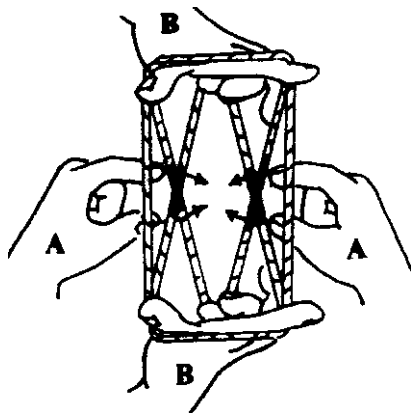
10. Again **B** hooks the right single string from the top of the candles with his left little finger and pulls to the left.



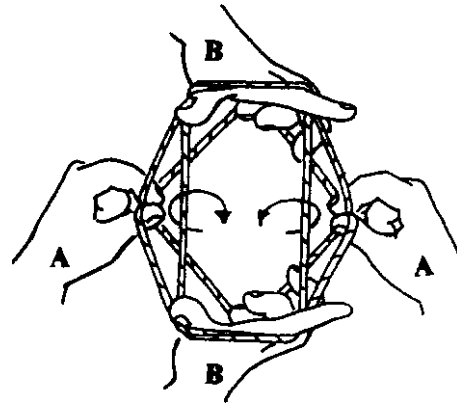
11. **B** keeps holding the little finger strings and scoops up the straight double strings with his thumbs and index fingers.



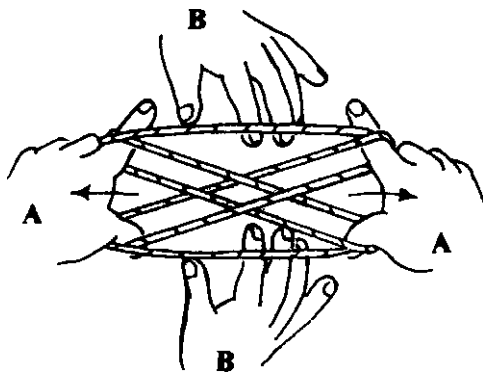
12. Now **A** releases all his strings. **B** pulls his fingers apart, while still holding on to the little finger strings...



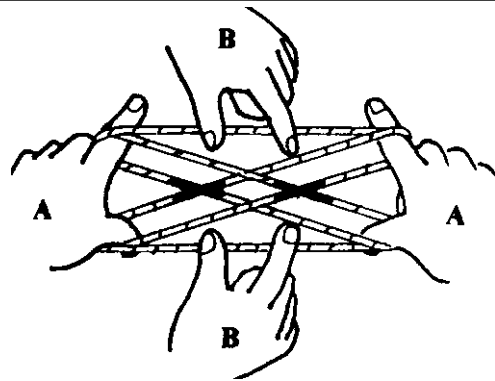
13, to make the fourth cat's cradle shape called the **Boat**. **A** then pinches the crossed strings together, from the sides of the boat, with his thumbs and index fingers.



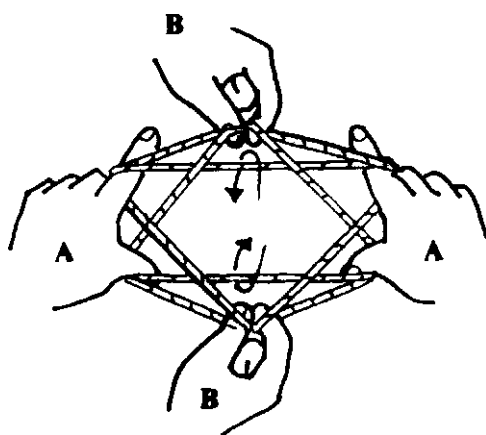
14. **A** pulls the **X** strings out and over the two straight strings.



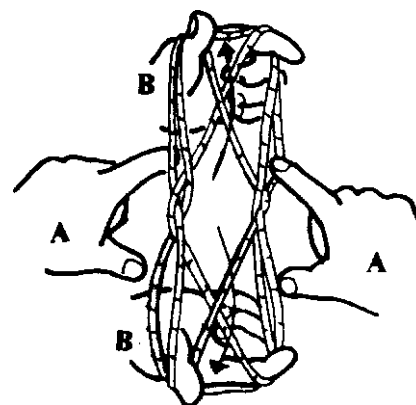
15. Then **A** pulls his finger down and apart. **B** releases all the strings, thus returning **A** again to the **Soldier's Bed**.



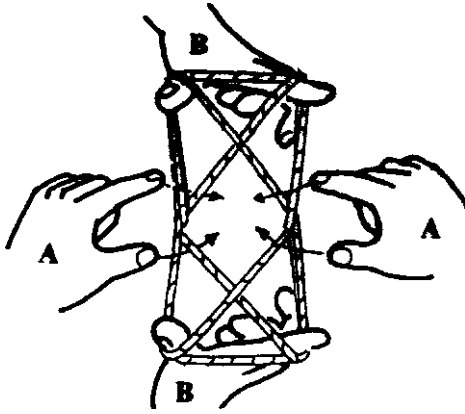
16. Now **B**, using both his thumbs and index fingers, pinches the crossed strings together from the top of the **Soldier's Bed**.



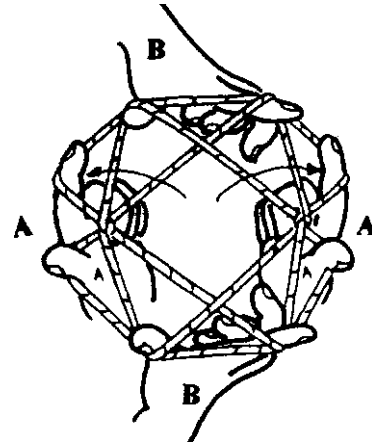
17. **B** pulls the **X** strings out and scoops them up the two straight strings.



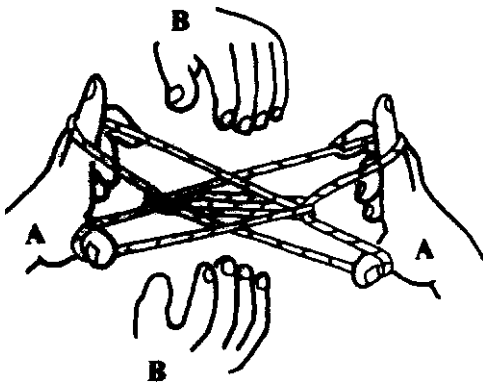
18. Now **A** releases all the strings. **B** pulls his fingers apart to make the fifth cat's cradle shape called the **Cat's Eye**.



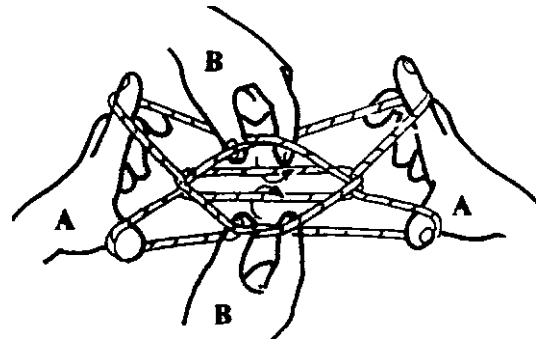
19. From the top of the cat's eyes, **A** puts his thumbs and index fingers into the triangles and swings upwards.



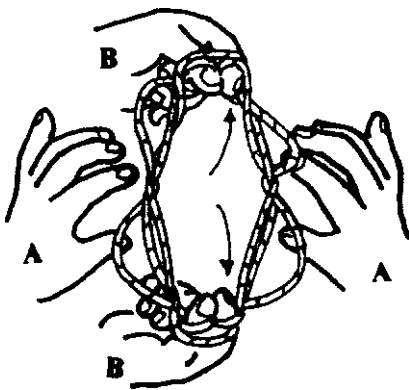
20. Here the swinging action is shown in detail.



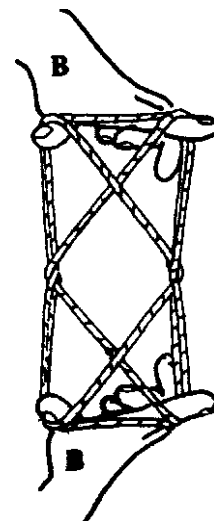
21. **B** releases all the strings from his hands. **A** pulls his fingers apart to make the sixth cat's cradle shape called **Fish in a Dish**.



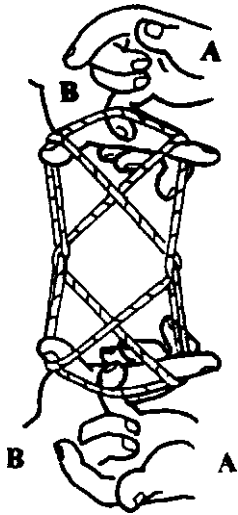
22. **B** with his thumbs and index fingers, pinches the crossed strings together from the top of the fish in a dish, and then swings the tips of his thumbs and index fingers up between the centre strings of the figure.



23. **A** releases all the strings. **B** pulls his fingers apart and returns back to...



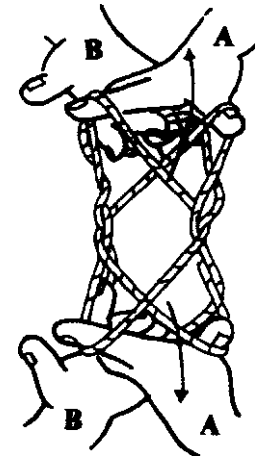
24. the **cat's eye**.



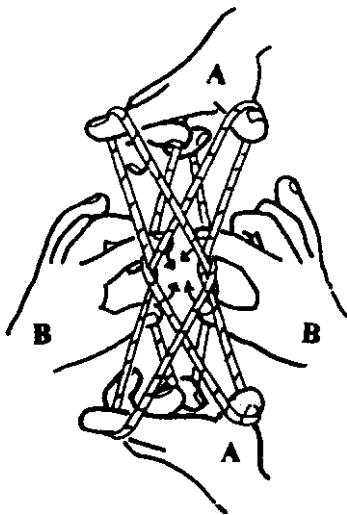
25. **A** with his little fingers hooks the straight strings from the back of **B**'s hands.



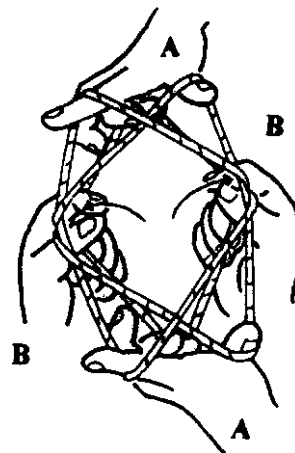
26. **A** keeps holding the little finger strings from the top of the cat's eye and pinches the **X** strings together with the thumbs and index fingers of both his hands.



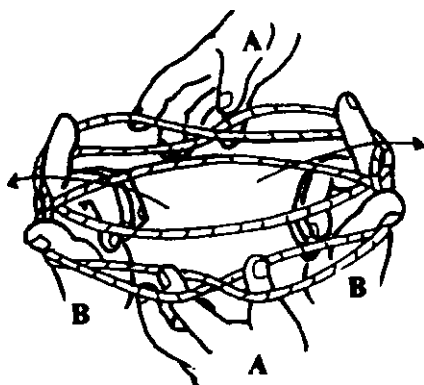
27. **B** releases all his strings. **A** pulls his fingers apart, while still holding on to the little finger strings, to make...



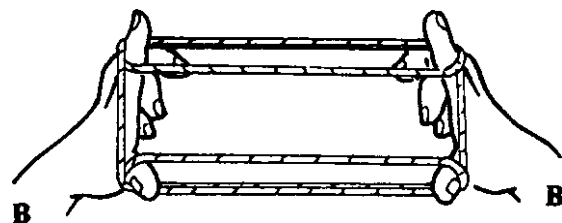
28. the seventh cat's cradle shape which is called **The Hand Drum**. **B** pinches the crossed strings together, from the sides of the hand drum, with his thumbs and index fingers.



29. Then **B** swings the tips of his thumbs and index fingers up into the Centre of the hand drum.



30. **A** releases all his strings. **B** pulls his fingers apart and returns to...



31. **the candles**. Both **A** and **B** can keep playing and experimenting with the cat's cradle. Soon they will discover several surprising shapes which have not been described.

REFERENCES

1. **String Games for Beginners** - Kathleen Haddon (Heffer, U.K., 1934)
2. **Fun with String Figures** - W.W. Rouse Ball (Dover Publications, NY, 1971)
3. **Fun with String** - Joseph Leeming (Dover Publications, New York, 1974)
4. **Cat's Cradle String Games** - Camilla Gryski (Beech Tree Paperback, NY, 1983)
5. **Magical String** - Steve and Megumi Biddle (Beaver Books, U.K, 1990)
6. **The World's Best Strings Games** - Joanmarie Kalter (Sterling, New York, 1989)
7. **String Games** - Anne Akers Johnson (Klutz, California, USA, 1995)