

NETTING

A few years ago, I was needing some flint for a primitive skills class I was teaching. Some friends who were going caving, told me they thought there was a flint seam at the mouth of the cave they were planning to explore. If I came along they would show me where it was, and I could also be the person who would notify rescue personnel in the event that they didn't come out of the cave when planned.

So, we drove back into the hills, parked the vehicle, and started hiking up a fairly steep mountainside. Because there was some doubt as to whether there would actually be any usable flint at the cave, and because I was thinking that the mouth of the cave would be closer to the vehicle, I only brought along my shoulder bag. It turned out that the flint was good, and the mouth of the cave was quite a ways up the mountain! How was I going to get any quantity of flint back down to the vehicle? So I explored the area around the mouth of the cave a bit while I thought out my options.



To keep the story short, I cut a walking stick from a thicket of young saplings, and carved a simple netting shuttle from another part of the same sapling. In about half an hour, I netted a simple carrying bag using the twine cordage I was carrying in my shoulder bag, and from another short section of the sapling, made a handle for the bag so it would be easier to carry. Then I gathered up the equivalent of a 3 gallon bucket of flint, and slowly worked my way down the mountain, getting back to the vehicle just a few minutes before my friends came around the corner having exited the cave from a lower entrance.

This story illustrates not only the value of netting, but also the value of carrying some cordage. This experience caused me to realize that knowing how to net is a valuable survival skill. Since cordage is fairly easily to make in the wilderness, being able to net would enable you to make useful containers for larger items, probably more quickly than any other method. Various native peoples have also made use of netting for this purpose. The natives of New Guinea are known for their 'billi-bags,' a sort of netted shoulder bag. And the California natives also made and used a carrying net similar to the 'ahuayo' of South and Central American. And of course many peoples have made various sizes and shapes of nets for catching fish and animals.

So, in a 'naked survival' situation, where you didn't have a pack to carry your gear, one option would be to make a carrying net. The instructions here will be for a simple California native style carrying net, using 'two-fingers' to gauge the holes. More sophisticated netting uses a flat smooth stick for a mesh gauge, but using your fingers to gauge the size of the loops works just fine for our purposes. For a full size carrying net, make a net about 4 ft / 1.2 m long with 24 loops in each row. For clarity however, the instructions here will only show making a net 4 loops wide. The only difference would be to make more loops in each row.

These basic instructions can also be easily adapted to make nets for other purposes. You will probably quickly notice that a carrying net is essentially a small hammock, so if you wanted to make a full sized hammock, just make it wider and longer. If you made a net using a smaller gauge, (and without the 'drawstrings' at each end), it could easily be made for fishing or other capture purposes. But, it is strongly recommended that you at least make a small carrying net to learn the netting process before you attempt a larger or more complicated project.

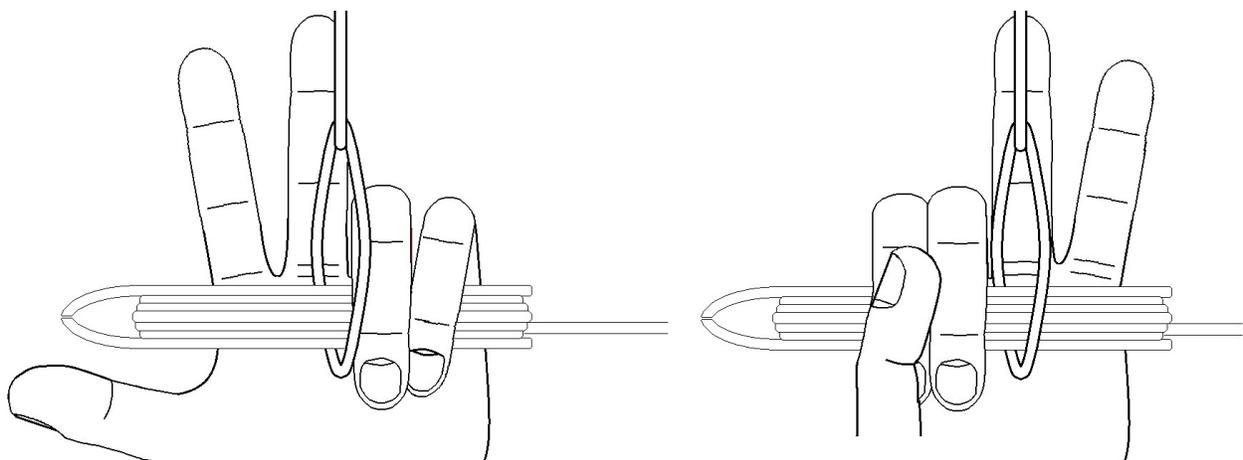
Shuttle

Although it is not absolutely necessary, a shuttle will make the netting process much easier, and things will go much more smoothly. A shuttle helps by holding a length of cordage so you don't have to keep tying on more, and it also keeps the cordage manageable. And by 'passing the shuttle,' it is much easier to make the 'netting knot.' The simplest shuttle is just a stick that has been notched on each end. However, shuttles can be made more efficient by flattening the stick, refining the notches, and possibly carving a point on one or both ends. Flattening the stick allows more cordage to be wrapped on the shuttle as less bulk is taken up by the wood. Refining the notches also allow more cordage to be warped on the shuttle, and really help to keep the cordage in place. And pointed ends help the shuttle go where you want it to go without catching on the net as it goes through the loops. A good shuttle should be long enough to hold a good quantity of twine, and narrow enough so it will easily go through the loops in the netting.



'Passing the Shuttle'

Learning to pass the shuttle makes the netting process go much more smoothly and quickly. Grasp the center of the shuttle with your hand. Lift off the thumb, index, and middle fingers, while still gripping the shuttle with the ring and little fingers. While holding the shuttle this way, pass it about half-way through the loop it needs to go through so that the loop is up against the ring finger. Then, re-grasp the front part of the shuttle on the other side of the loop with your thumb, index, and middle fingers, and

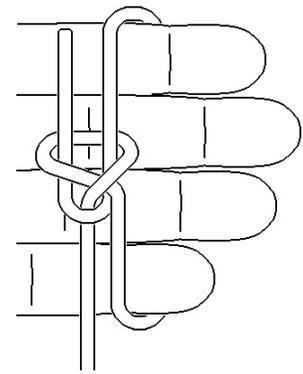


release the ring and little fingers to pull the shuttle the rest of the way through the loop. Learn to make these motions smoothly and quickly, almost as one continuous motion as you pass the shuttle and cordage through a loop. The drawings shows the palm view the hand so the finger movements can be easily seen. But when you pass the shuttle through a loop while netting, for the most part, you will be looking at the back of your hand.

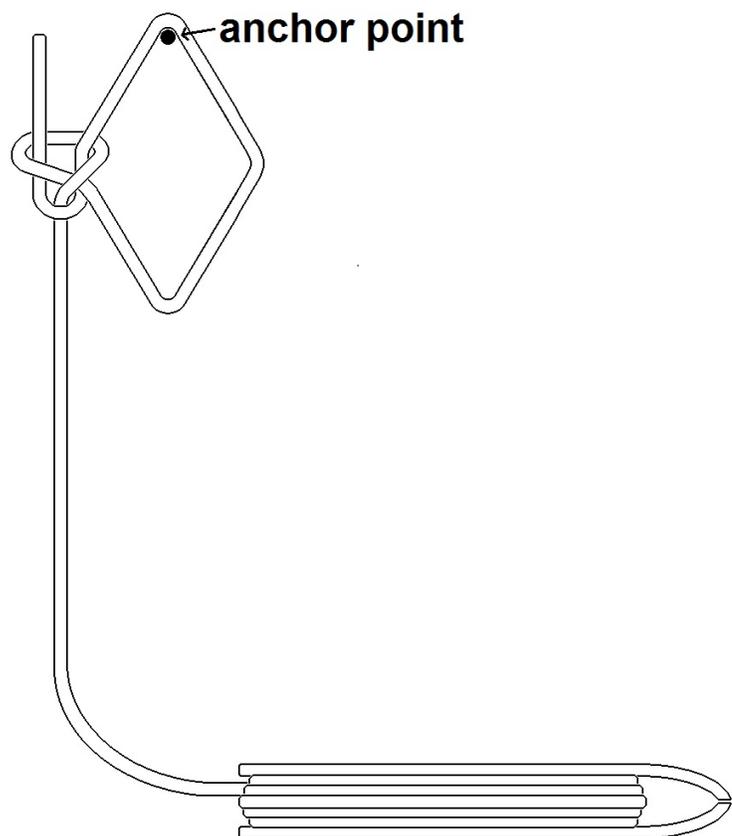
Getting Started:

(1) Begin by filling the shuttle with cordage. Leave a 'tail' of cordage about 2 ft / 60 cm long that is not wrapped onto the shuttle.

(2) Make the original net loop at the end of the cordage with a bowline knot. 'Gauge,' or size, this loop so all four of your fingers held flat will *just fit* into the loop. Slide additional cordage through the knot to open up the loop, or make it smaller as necessary.

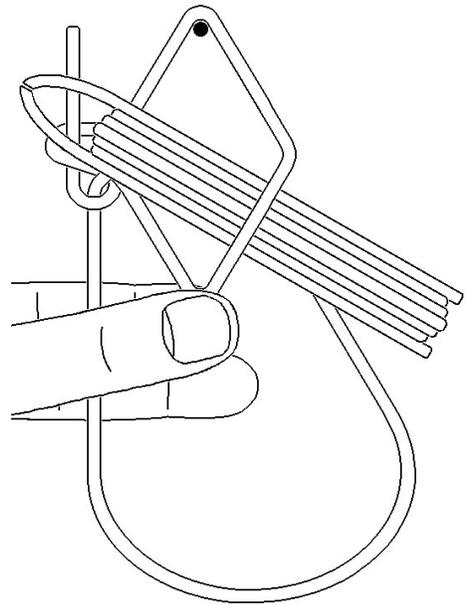


(3) Position the knot so it is half way along one side of the net loop as in the drawings. Anchor the 'top' of the loop to something solid, as you will need to tension against it. The loops in the drawings have been expanded side to side for clarity. In reality, both sides of the loop would be laying next to each other.

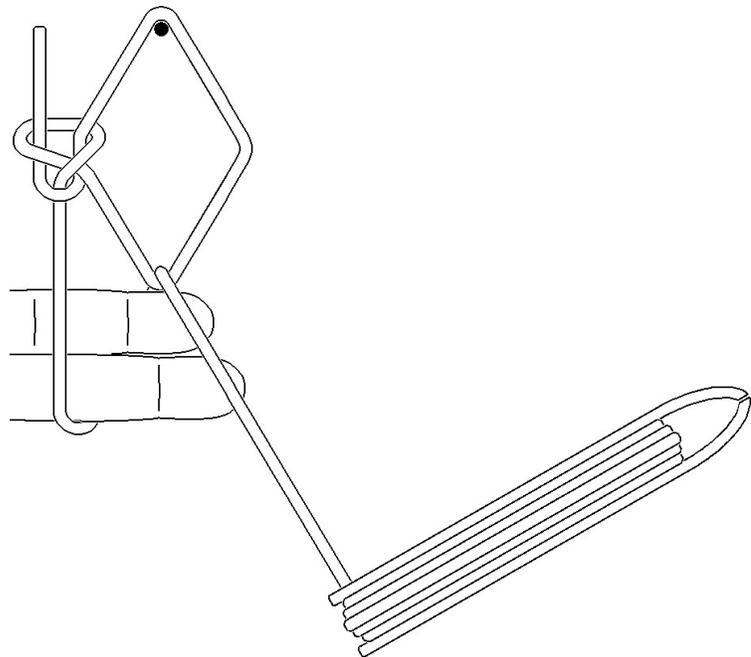


The Netting Knot

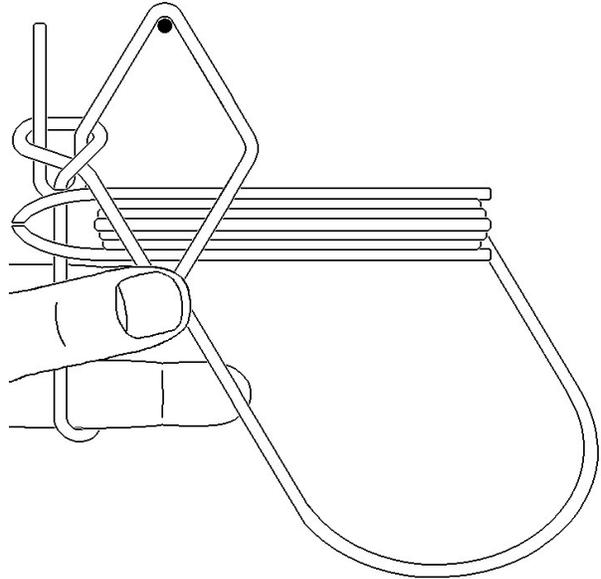
(1) Reach behind the cordage coming down from the bowline knot with the index and middle finger to grasp the bottom of the original net loop with the thumb and index finger. Keep the middle finger next to the index finger, as it will be needed in this position in a moment. Pass the shuttle through the original net loop from back to front.



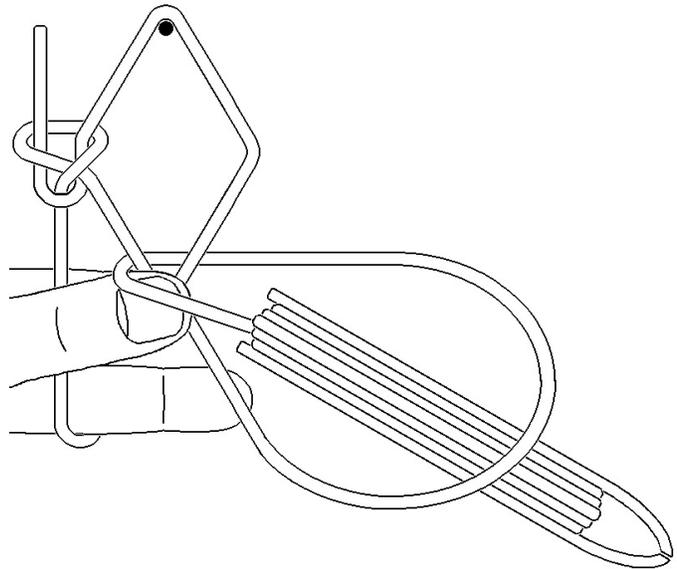
(2) As you are pulling the shuttle cord through the original net loop, the cord coming from the bowline knot needs to end up going around the index and middle fingers as in the drawing. This loop around these fingers will make the new net loop. As it *begins* to tighten around the index and middle fingers, because of the shuttle cord being pulled through the original net loop, let go with your thumb. Continue pulling the shuttle cord down/toward you, (tensioning against the anchor point), until the cord going around the middle and index fingers is *just snug*, with the original net loop resting against the upper edge of your index finger as in the drawing. This step 'gauges' the new net loop, and determines the size of the new loop. For these instructions we are using 'two fingers gauging.' Other gauging, both larger and smaller are possible to make different size net meshes. (Remember that the loops in the drawings here have been expanded side to side for clarity. In reality they would be more bunched together.)



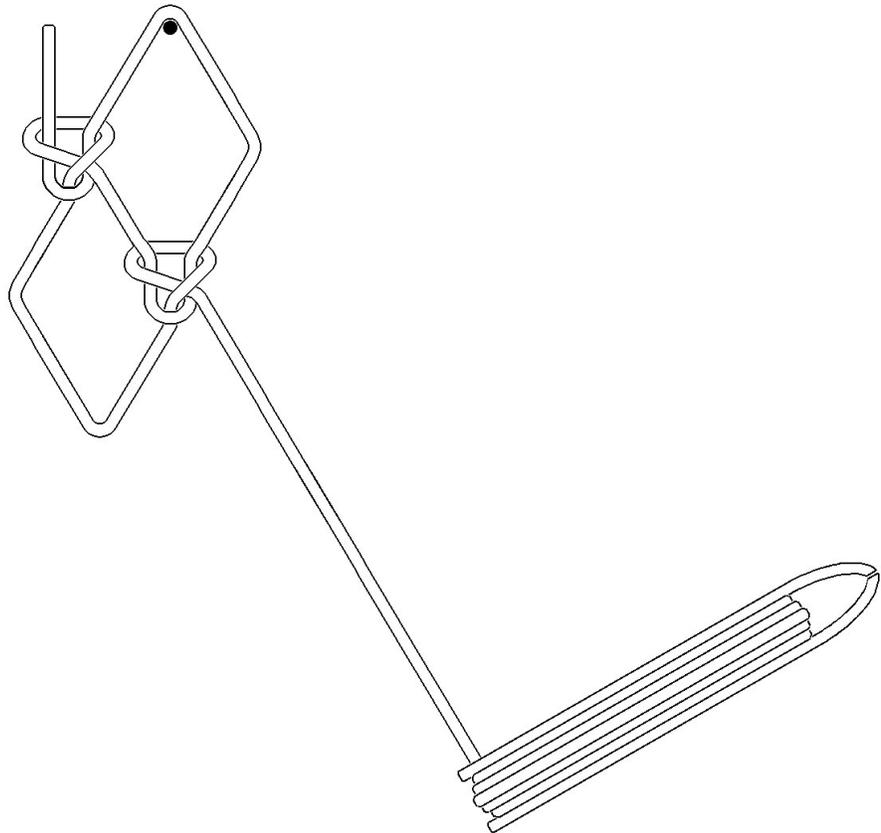
(3) By maintaining tension against the anchor point with both your middle finger and the shuttle cord, it is possible to open up the new loop slightly and remove your index finger without the cord moving from its position at the bottom of the original loop. Balancing the tension between the middle finger and the shuttle cord is the key here. Re-grasp the spot where the cords cross each other with your thumb and index finger to keep them from slipping out of position while making the rest of the knot. Once the cord position has been grasped by the thumb and index fingers, release the tension of the middle finger and shuttle cord. Then pass the shuttle through the new net loop from behind the original net loop, but don't pull the shuttle cord all the way through quite yet.



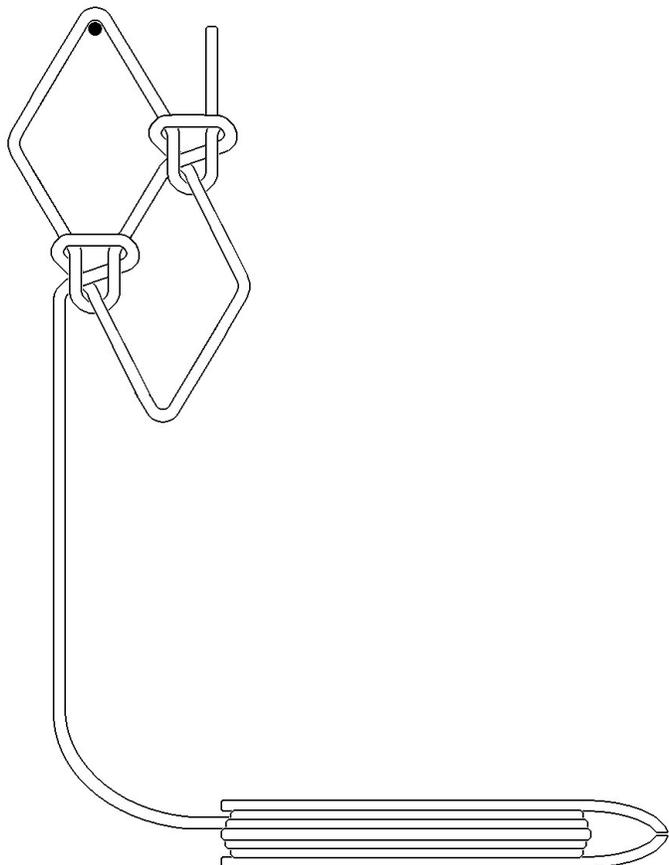
(4) Pass the shuttle 'down' through the loop of shuttle cord, and pull against the anchor point to tighten the knot. Be sure the knot forms above the thumb and index fingers, around the lower part of the original net loop, or it won't come together right. It might be helpful to let the tightening knot 'squeeze' the thumb and index fingers out of position.



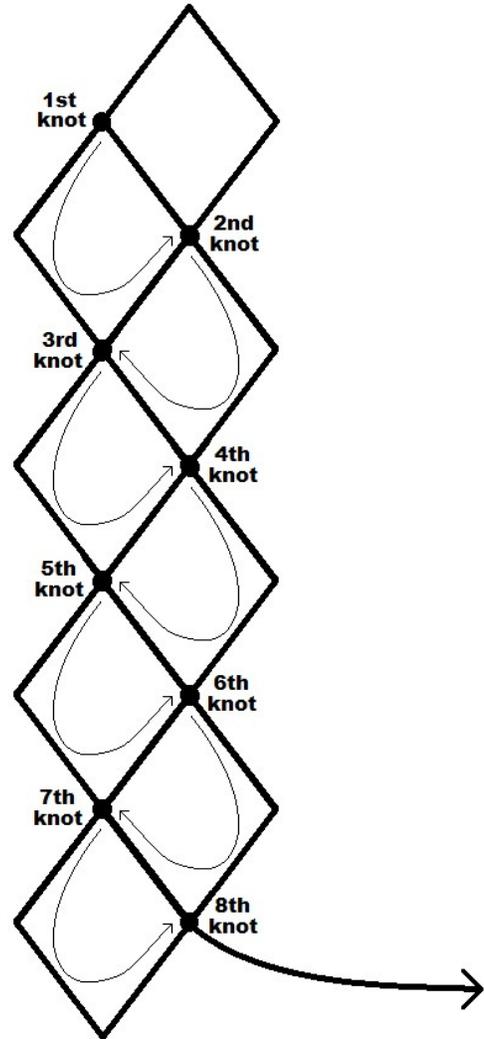
After making this first netting knot there should be two loops in the growing net that should look similar to the drawing, (except the knots would be tight). Notice the diagonal alignment of the loops to each other.



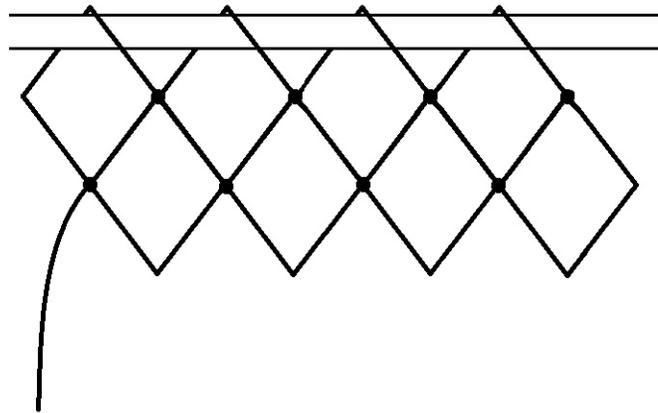
To continue netting, flip the net over at the anchor point, and make a new knot at the bottom of the second loop following the same procedure of gauging, and knotting described earlier. You can learn to net both from left to right, (as has been shown here), or from right to left, (with the motions shown just reversed), and then you wouldn't have to flip the net over between each knot. But when learning to net, it is probably easiest to just learn to net going one direction, and flip the net over.



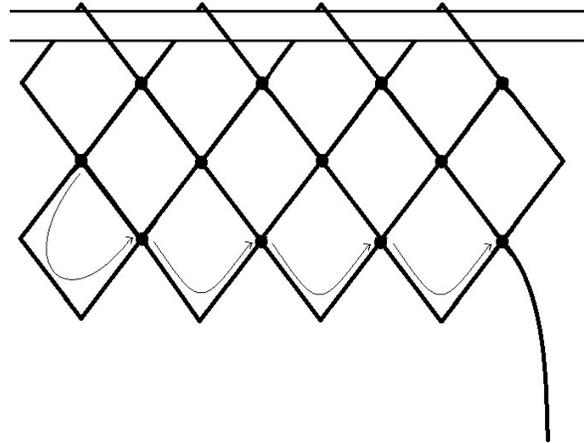
After making the third loop, flip the net over to make a fourth, etc until you have a 'double chain' of loops with twice as many loops as you want for the *width* of the net. As you use up cord, simply unwind the shuttle a bit. This double chain is sometimes called the 'foundation' of the net. For the twenty-four loop wide carrying net, you will need to make forty-eight loops in this initial chain. But for clarity, in the example drawings here, we will only be making eight loops in this chain to show the process.



When the double chain foundation has the right amount of loops—be sure to count carefully—turn the net 90 degrees. Lay the net so that the cord going to the shuttle is on the left, and the net is aligned top-to-bottom as in the drawing. Insert a bar through the upper loops for anchor points, and attach this bar to something solid so things don't slip around while you are pulling against it when tensioning and tightening the knots. It is OK for things to bunch up a bit along the bar, so it does not need to be long enough to spread the net out evenly along it. It is even possible to insert a piece of cordage through the upper loops and attach it to a single anchor point, but in that case everything will be bunched together, so while learning, it may be less confusing to use a bar and just spread out the section of net that is being knotted.



Continue netting all across the bottom of the foundation until you reach the other side. Then flip the net over and continue. Keep netting across the bottom of the net, flipping the net over at the end of each row, until the net is as long as you want it. For the carrying net, make the net about 48 in / 130 cm long.



Splicing On More Cord

As you use up cord, keep unwinding the shuttle. When there isn't enough cord to stay on the shuttle, keep netting by going through the same motions with the end of the cord as you did with the shuttle, until there is only a couple inches / a few centimeters of cord left. Rewind the shuttle with more cord, leaving a tail of cord unwound on the shuttle as before. Tie the end of the shuttle cord together with the end of the cord remaining on the net with a sheet bend. Note that the 'netting knot' is the same knot as a 'sheet bend.' Tie this knot as close to the last knot on the net as possible so it won't be in the way when you continue netting. Trim off the ends of the cord coming out of the knot and continue netting.

Finishing and Using the Carrying Net

When the net mesh is the size you want, make two heavier cords about 12 in / 30 cm long. Run these cords through the first and last rows of loops on the net, like a drawstring, and tie their ends together. (See the picture of a carrying net at the beginning of the section on Netting.)

To use the carrying net, lay it out on the ground, and place your gear on the net. Pick up the net by the heavy cord loops on each end, (sort of like a hammock). Bring one end up and over your head, so the upper end of the net is resting over your shoulder. Bring the other end of the net around the other side of your body, and then up to connect the two heavier cord loops at about the center of your chest. You can make a simple toggle with a short stick to connect the loops.

