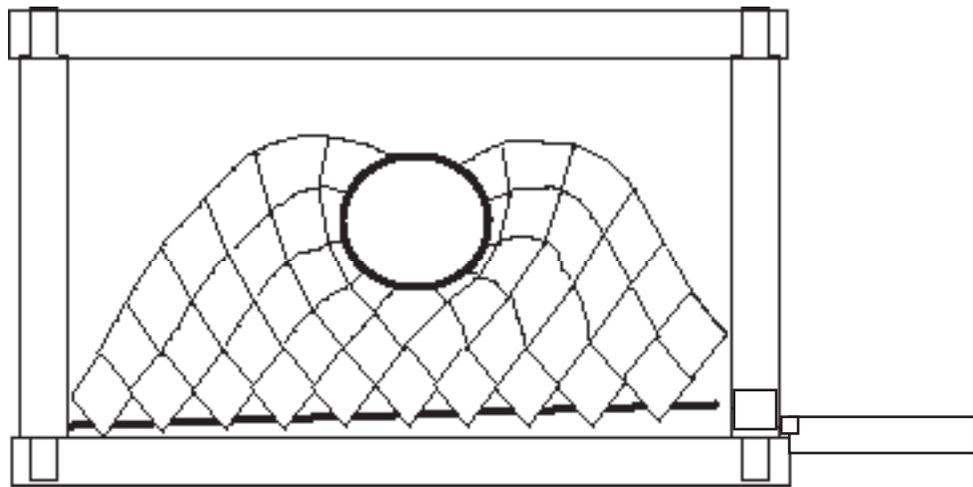


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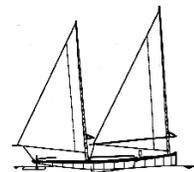
How To Knit
A Lobster Pot Funnel



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Forward

This reprint of “How to Knit Lobster Pot Funnels” is a revision of an earlier publication created in 1978 for the University of Sea Grant Marine Advisory Program. The 1978 publication was utilized in a Sea Grant workshop series for fishermen that lasted for ten years until 1988. I decided to update this publication in 1999 when it became apparent that the knowledge associated with hand made lobster pot funnels was disappearing in Connecticut. A middle school marine science and technology summer program was told that hand made lobster pot funnels were unavailable (part of the summer school program included building a lobster pot) and that it was a “lost art”.

My first experience in making mesh (netting) was around the sixth grade while living in Madison Connecticut. A neighbor who had been an instructor during the second world war on camouflage techniques taught me how to make a piece of mesh. What Mr. Bevans started, Mr. Beebe finished with how to make a lobster pot funnel. The “flag and then flag pole” was taught to me under an old grape arbor when I was 14 at Beebe Marine. Later these same skills would be utilized in making all types of fishing gear. I lobstered with my brother Raymond for 10 years - 1968-1978. During that time, I remember the many hours making lobster pot funnels (I thought it was fun) and that I obtained 20 cents a piece for them - a small fortune in 1968! We learned a lot about fishing, the fishing industry and life in general. It was very rewarding.

In reprinting this publication I wanted to double check what I had learned over 30 years ago. During the summer of 1999 I had the wonderful opportunity to visit some lobster pot manufactures in Maine. The first such visit was to Seaboard Manufacturing Company in Warren, Maine. I was then directed by Shawn to speak with Mrs. Harvey of Waldoborrow, Maine just a few miles to the west. Mrs. Harvey was very nice to see me that day and reviewed how she made lobster funnels or heads in her home. I spent some time with her and several of her daughters who were fascinated with my descriptions of Aquaculture schools being built in Connecticut. Mrs. Harvey showed me a knitting stand that had been in her family for several generations. The stand was a small rectangular table about 30 inches high. Four poles connect the wide base and extend above the table top. She uses it to make all her lobster pot funnels.

The design of this knitting stand can be seen at the Penobscot Marine Museum which has an entire net making exhibit and is well worth the visit. When Mrs. Harvey showed me how she made her funnels, it reminded me for just a moment of that grape arbor 30 years ago and I became a student again. I told Mrs. Harvey what I was going to do with the information and that she was helping my students. For that, I will always be grateful.

**Timothy Visel
December 1999
The Sound School
New Haven, Connecticut**

Introduction

Many inshore and off shore pots and traps utilize some type of graduated net entrance called a funnel or head. Fishermen can purchase finished funnels from a marine supplier or knit them to their individual design. Funnel designs and dimensions are determined both by the fishery and the size of the pot or trap. Mesh size, twine type will vary from fisherman to fisherman. Funnels are constructed from two strand or three strand twisted nylon twine or braided nylon twine. Most fishermen have preferred funnel design that works well for a given trap or pot and location. Finished funnels can also be treated with net preservative or dyed any color.

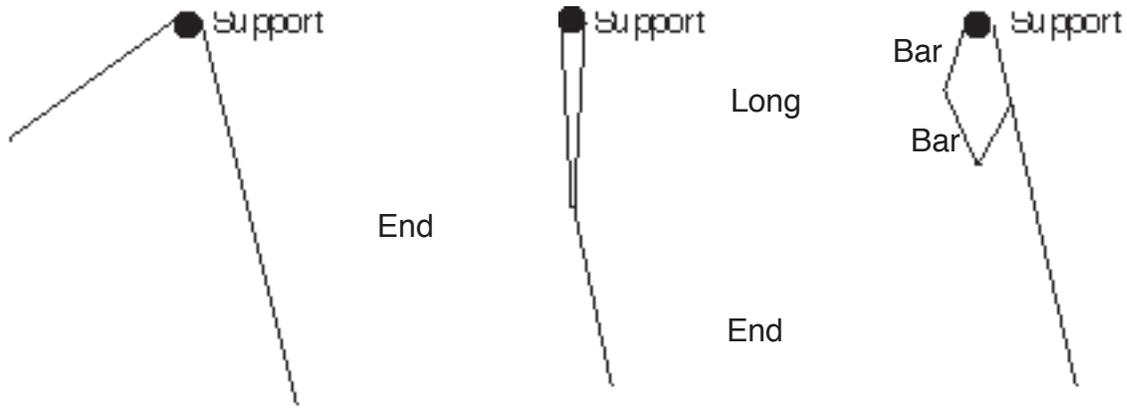
Funnel Construction

Most hand knit funnels are built using an old construction method called “chaining out”. In this method of making hand knit webbing a chain of meshes are knitted run of the twine and suspended cross twine. The funnel is then finished with the remaining meshes knit run of the twine.

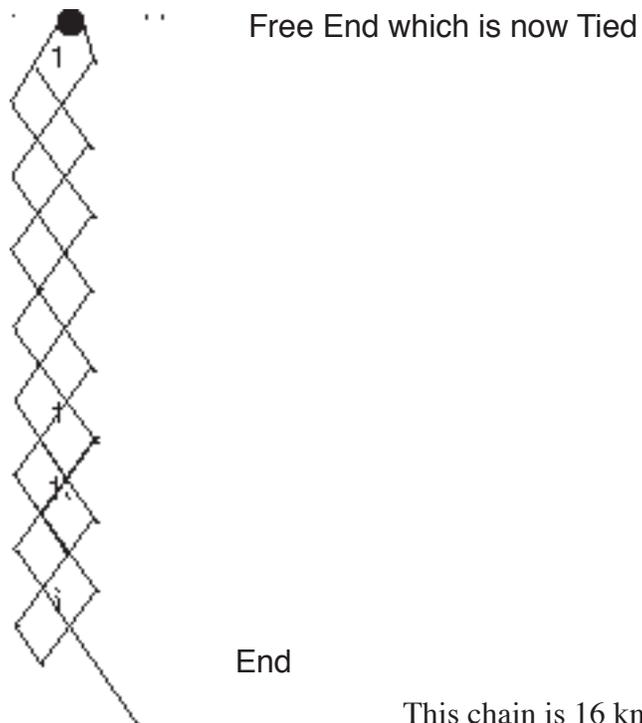
Forming the Chain

1. The chain is started by making a loop in the twine equal to the length of the two bars of the mesh size you desire.
2. Support the loop on a peg nail or hook placing the knot in the middle of the loop.
3. Taking the twine needle with the proper mesh scale make a mesh on the loop.
4. Continue this process until the chain is the proper length. (two knots will equal one mesh)
5. Suspend or hang the chain of meshes cross twine.

Forming the First Loop

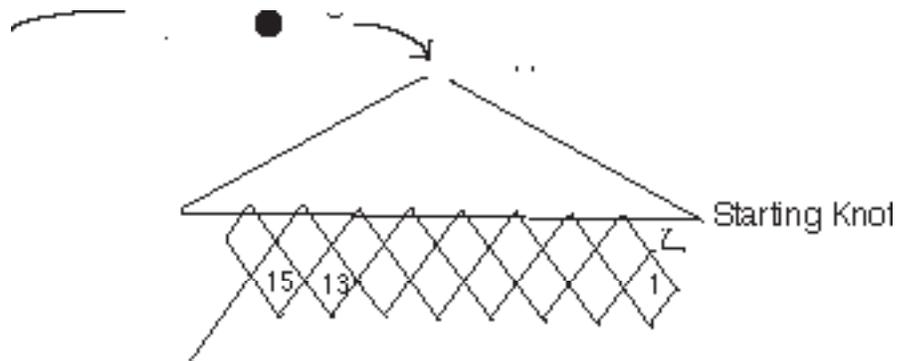


Building the Chain (Run of the Twine)

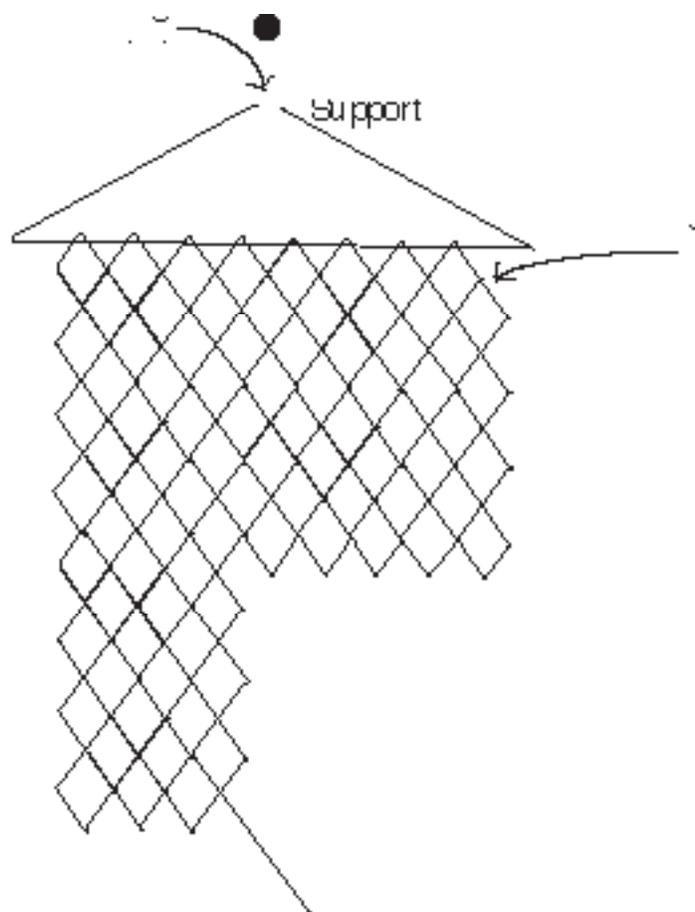


This chain is 16 knots long
or 8 meshes across when
hung cross twine.

Suspend Chain Cross Twine



Finish Funnel "L" Run of the Twine



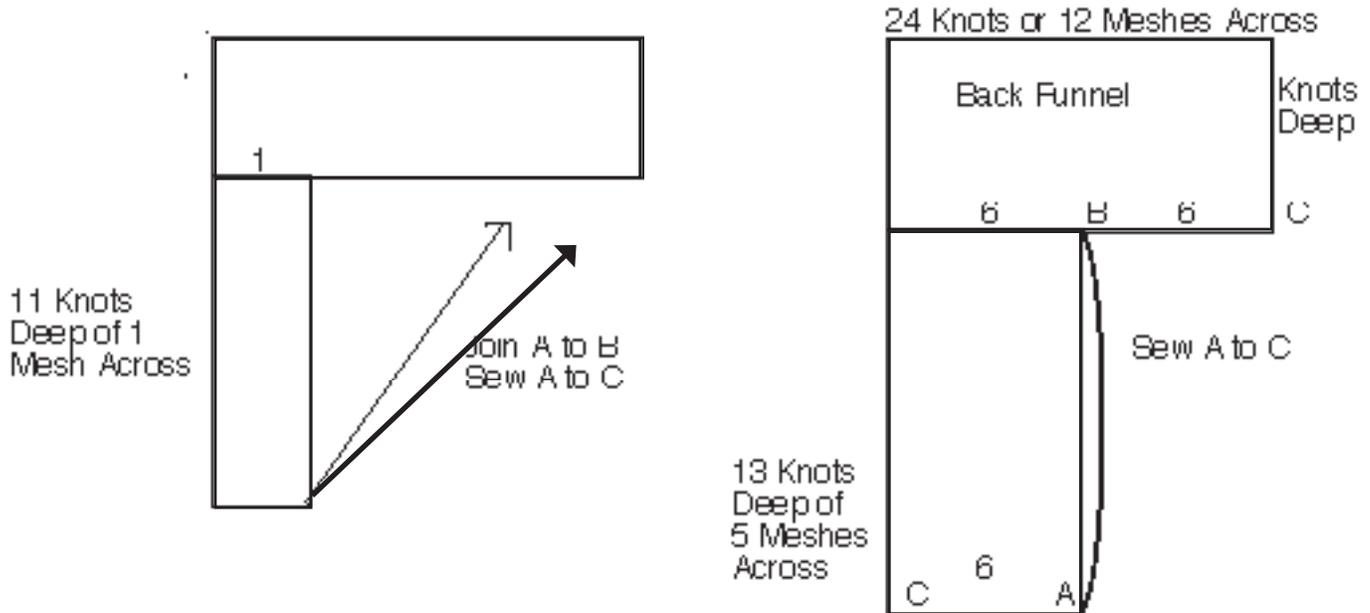
Example Lobster Pot Funnel Plans

(2.5 inch mesh or 1.25 inch bar)

•Note - Many funnel plans are given in meshes across and knots or rows deep.

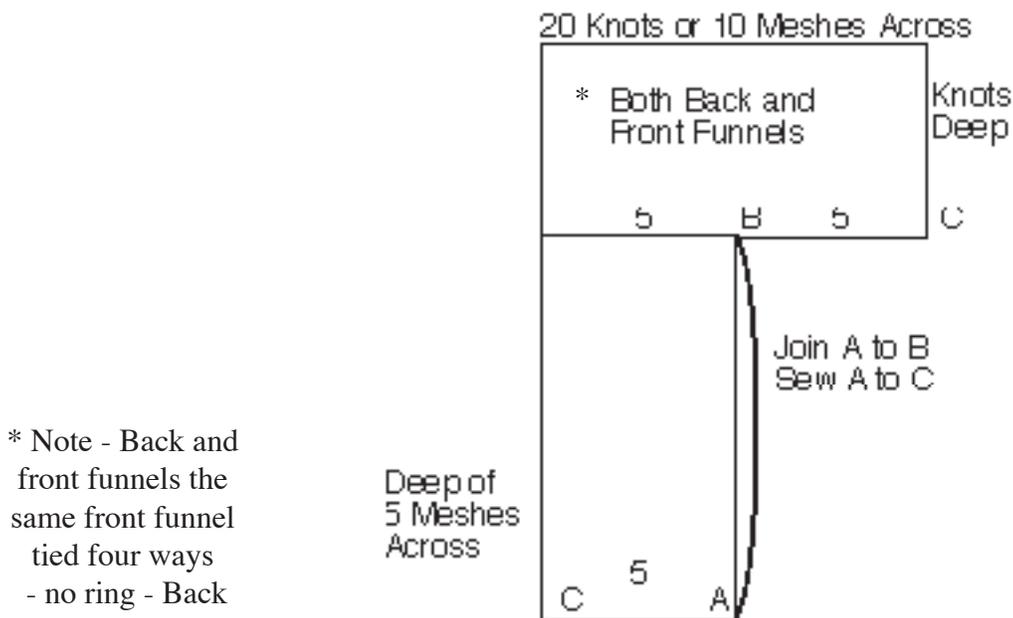
Charles Beebe Design - 1975, Madison CT

Double Side Entry Trapezoidal (angle) Pot 24" Wide bottom, 12" high and 20" wide top



Vincent Clark Design, Clark Lobster Pots - 1970 Guilford, CT

Single Front In Line Entry Rectangular (square) Pot 18" wide top and bottom by 12" high



* Note - Back and front funnels the same front funnel tied four ways - no ring - Back funnel tied two ways, typical Rear entry design.

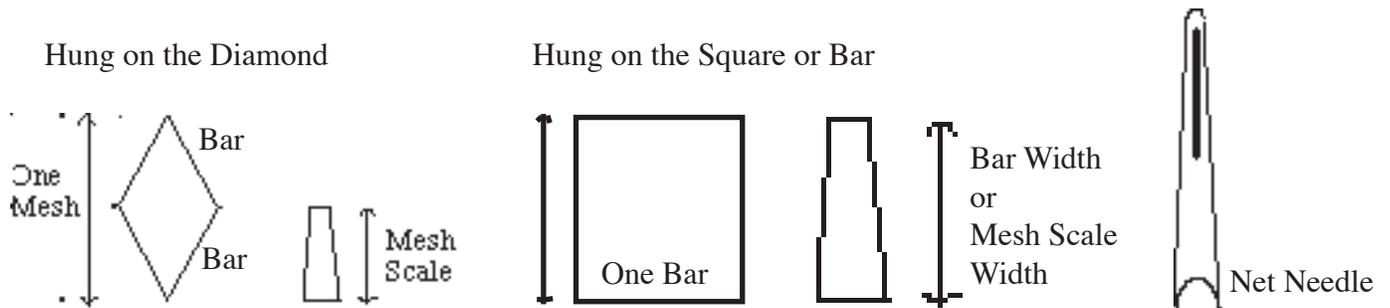
Addendum September 1999

I visited Mrs. Cheryl Harvey during the summer of 1999. She was very informative and willing to share her knowledge about lobster pot head making.

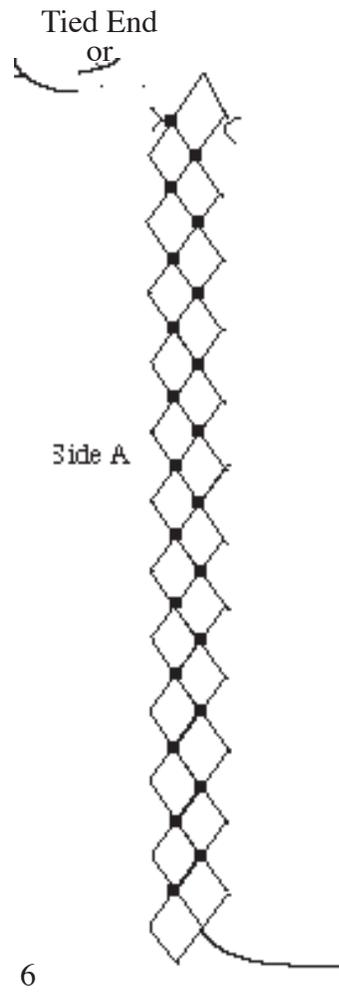
The Maine Mid-Coast Lobster Pot Funnel *Harvey Design Waldoborrow, Maine - 1999*

“I learned how to make a lobster head when I was young. The knitting stand I use has been in my family a long time. I make the funnels mostly in the winter. People who order the funnels give an example head for me to

Basic Tools To Build A Lobster Pot Head

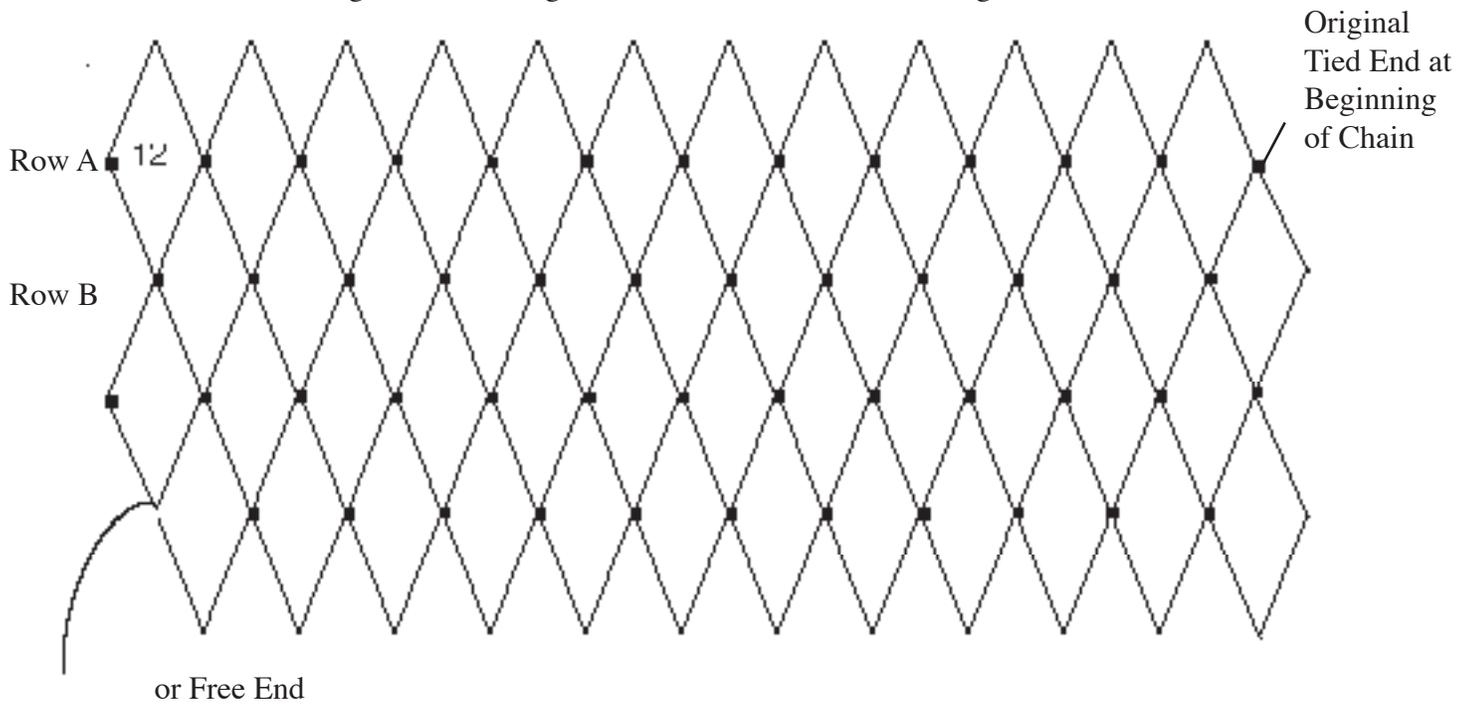


“The funnel is built with a starting chain and a count of knots. The number of knots deep determines the size, many lobstermen use different sizes. I start the chain with a large mesh which is tied on a loop of twine to a hook on the stand. I make an overhand knot the length of one mesh measured knot to knot. The funnel I’m making now has 3 inch mesh so the first loop is also 3 inches. A series of meshes is built on the first loop. The mesh board scale (a piece of wood half the width of one mesh) and a net needle is all I use. To start the funnel I knot 24 knots (the method I learned was exactly the same) and them hang the meshes on a hook which will be 12. I then knit mesh on the 12 loops for 10 knots deeper 5 meshes.”

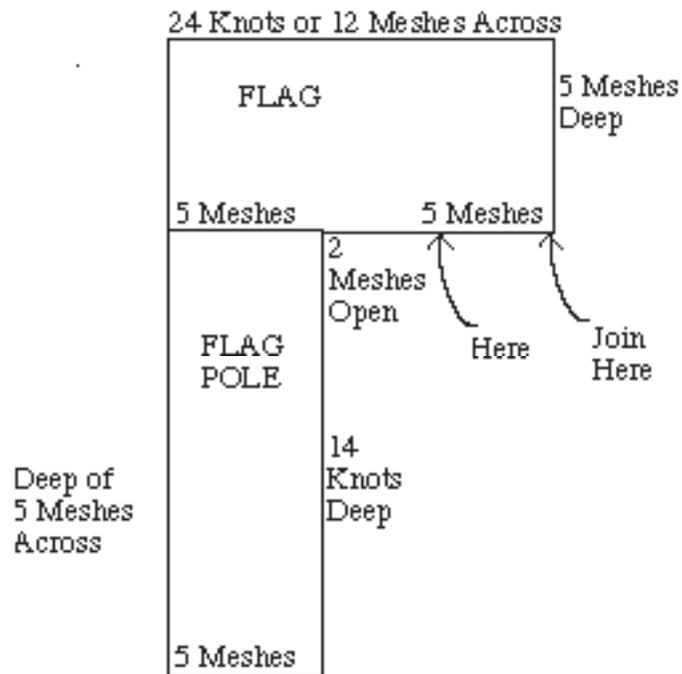


A chain 24 knots deep will provide 12 loops hung cross twine from a loop or hook. When building the funnels depth the width of the funnel remains 12 meshes across.

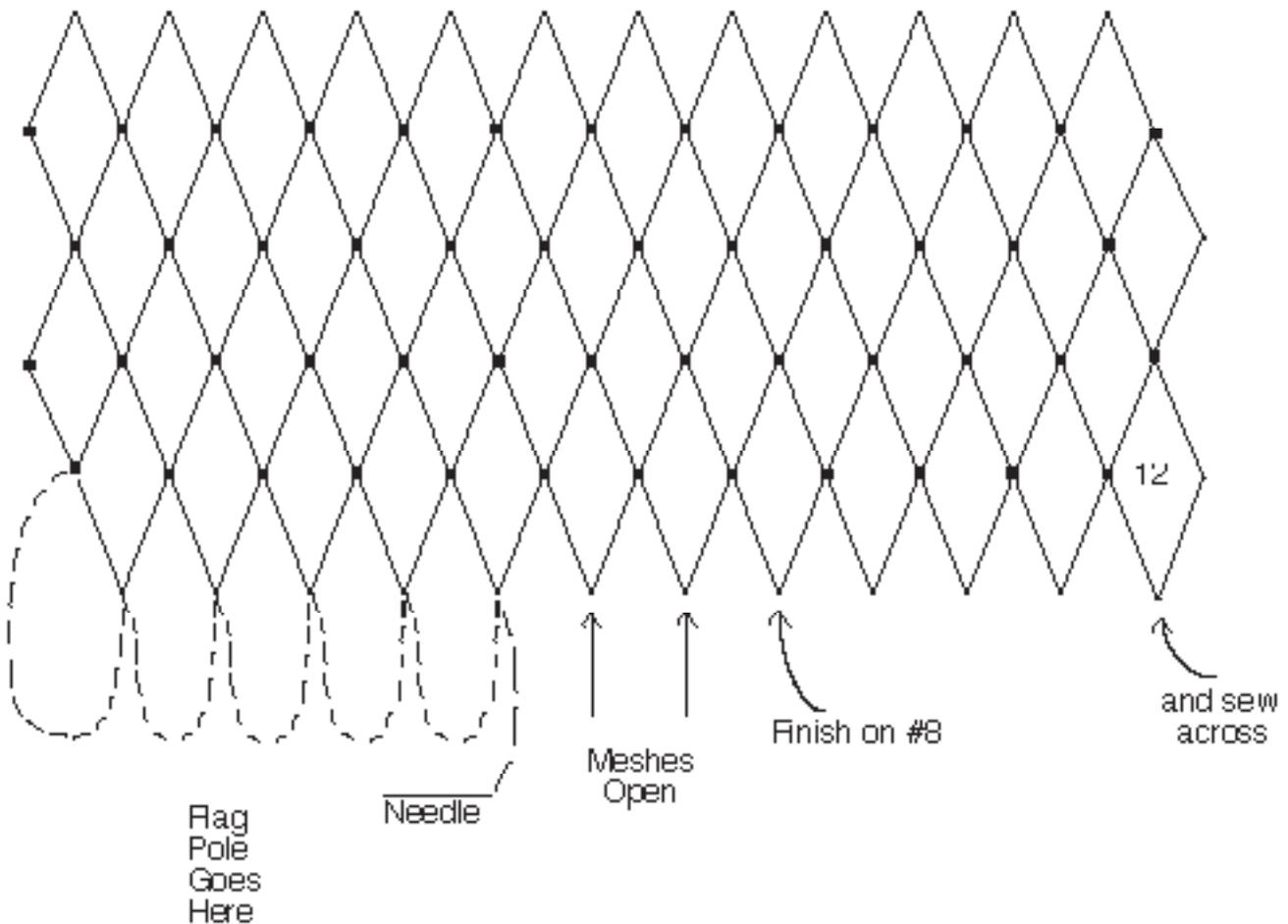
Row A+B is the original chain hung on it's side , count the 24 starting knots.



Once you have the body of the funnel created you finish the sides by joining them together”



The funnel resembles the flag pole design Mr. Charles Beebe showed me 30 years ago with 3 distinct differences. The funnels Mr. Beebe gave me to copy always had an even number of knots in the flag and an odd number of knots deep in the pole. Mrs. harvey's design was similar but went down an even number of knots and joined on the side and finished in the center. Two meshes were left in the funnel mouth unattached.



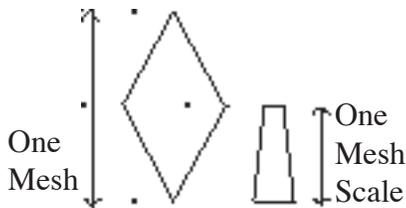
If you go down an odd number of knots you can join in the middle and end on the outside. In sewing the bottom of the flag pole to the bottom of the flag you create a row of connecting knots or half mesh. The knot used in building the funnel is a sheet bend or weaver's knot. It is often described in books about knots or net making. It is the knot used to build almost all nets for dip nets to tennis nets. The process of building a chain of meshes, the foundation in making lobster pot funnels is an old one. Pieces of mesh chains have been found in the great pyramids in Egypt. A newer method of making meshes was developed in the middle ages in Europe. It is a series of loops on a bight of twine. Many believe it evolved from an early form of macrame.

Later machines would be developed to make net webbing. Today, many lobster pot funnels are made by cutting them out from machine made netting. It is almost always cheaper, which may eventually replace the market for hand make funnels. I hope not.

Some Other Notes on Making Funnels or Nets

Materials

The twine should be braided 550 or 750 size - it can be gold colored, green or white. Twisted twine can be used but should be tamed #21 or 34 thread. The net needle should be in the medium range 8 inches high and about one inch wide. The mesh scale should be about half the width of the mesh (a little less actually to account for the knot). To build a mesh scale use a piece of lobster pot lath 3 inches long and shaped narrow at the top wider at the base but any hard wood will do.



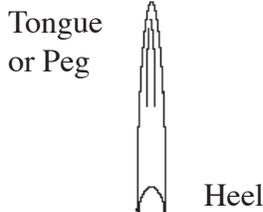
Making a Mesh

When making mesh by hand it is important to put constant tension on the knot. Knots are made without stain will loosen almost immediately. Twine and net needles can be purchased at most marine stores that make fishing nets.



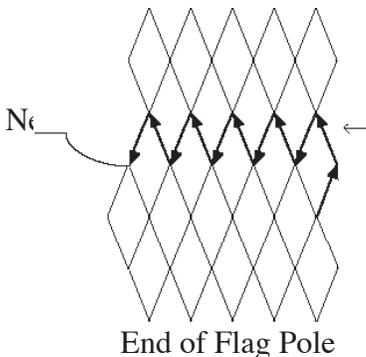
Weaver's Knot

The weavers knot or sheet bond is described in most books on knots and net making.



Loading the Needle

Start by placing the twine under the tongue or peg and wrap the twine between heel and tongue. No twine should be over the needle sides. When a loaded needle runs out, reload and tie the two twine ends together.



A Sewing the Flag Pole to the Flag & Joining Net Sections

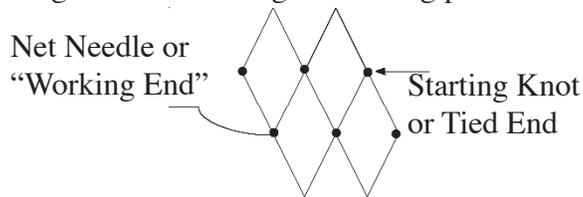
- B Many beginners tell me the best purchase when learning how to make nets is a piece of graph paper. A sheet of graph paper turned on a corner resembles the diamond shaped meshes in a piece of netting. Colored pencils can be used to show sections and joining sections together. Everything described in a lobster pot funnel can be displayed on a piece of graph paper.

Helpful Hints

After over a decade of holding fishing gear construction workshops at night on various types of gear three general items should be mentioned as “Helpful Hints”

1) If you are unfamiliar with making the weaver’s knot (sheet bend) it is usually a good idea to start with a larger “practice mesh size”. It is easier to learn how to make a large mesh and then a smaller than the other way around.

2) To quote my then Fishing gear Technology Teacher Albert Hillier at the University of Rhode Island, “A piece of graph paper is cheaper than twine.” A pad of 1/4 graph paper is a wise investment, sketch the meshes out using the diamond pattern described earlier. The starting and end point will look at this and leave a mesh with 3 strands radiating from it. Starting and ending points will always look like this.



3) Lastly, for the sake of a clear presentation the funnel shown are full dimension horizontally. In the actual construction process the meshes are gathered from a single support. This will cause the meshes to group together. Thus, it is important that new meshes are built in the proper order, skipping a mesh or doubling will cause holes in the funnel and alter the funnels designed shape. Meshes must be built in the proper order in each row. When a row is finished remove the half meshes from the net scale and start another row underneath it. Again refer to items 1 and 2 and buy that pad of graph paper!

Good Luck and Have Fun!

P. S. Once you have built two or three funnels from a design plan you can copy any funnel by separating the flag from the flag pole and counting all meshes

This same technique can be used to build dip nets, plant net holders, basketball nets, crab nets etc. Taking two meshes as one will allow a taper or gradual reduction in the width. The two side edges can be joined to form a cylinder. Perhaps a future project?