

Knot



News

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When is a Mesh Knot not a Mesh Knot? Roy gets caught up in Knotting.

Roy Chapman

Here is how I came to reinvent the mesh knot for covering glass fishing floats.

I stopped in "Home Sweet Home Antiques" to look at the Japanese Fishing Floats (long-line floats). In the process, Bud (the owner), asked if I would put nets on some of his naked antiques (glass floats, that is). Sure, no problem. Oops.

It turns out the mesh knot used by the fisherman is not the same as the Gill Net Knot we all know and love (ABOK #402). While looking at Bud's original nets (some floats come ashore with the nets intact) I found that what I knew as a mesh knot was not what I was seeing. I made sketches and photographs. I went on the Internet (don't bother). Finally I got a copy of Amos Wood's fine book *Beachcombing for Japanese Fishing Floats*. After much fussing the knot shown here and a method for making it is what I learned.

I thought I might illustrate this article with photos but still found a drawing to be necessary so take a look at the sketch and then look at the 10 photographs. The trick of this mesh knot is that you need no spool and you need no netting needle. In photographs #1 to #4 you pass only bights. You pass the whole working coil (or a VW Bus full of line) down through the bight you formed in photo #4. From now until the finish you pass (one time per mesh) the working end (coil or ball or VW Bus) through a bight. I worked with a 110 foot coil for each sphere. It really goes quite fast from beginning to end since the "octopus" is just bights. The meshes are drawn down to size by eye and the whole coil is in your working hand almost all the time. As you go the coil gets smaller pretty fast so by the southern tropics you are really cracking along.

You need to increase the size of the meshes from the polar start to the "equator". By then you keep the mesh constant from the tropics to the equator and back to the tropics. Then you begin to close the size of meshes toward the pole.



Form round turns to be the base of your "octopus".



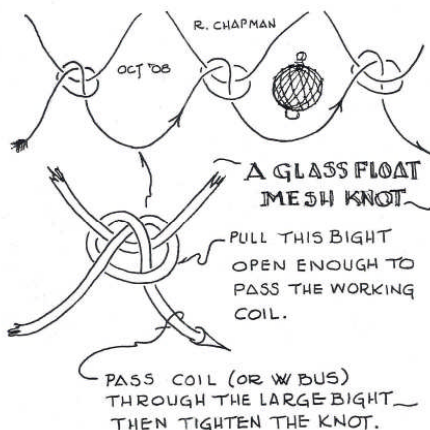
Hitch a small handle on the turns if you wish and thrust through the first bight.



Put a bight through the bight and a bight through the round turns and a bight through the bight in the sequence, building the "octopus".



Eight bights worked well with this line and these spheres so I started the first mesh after the eighth bight (hence calling it an "octopus"). You can see the first mesh under my left thumb and the first mesh knot will be tied in the first octopus bight.



This is where photographs fail me so take a look at the drawing. There you will see that from this point until done the pushing of a bight and the passing of a coil (working end coiled up) is the progression.



Now we have made meshes, in a continuous spiral, until we get to the equator.



Here I have inverted the net and pushed the float into it.



Keep making meshes (smaller near the pole) and then pass the end through each mesh to draw them together. You should be near the end of your working coil but if you worked off a huge coil you could estimate the "handle" requirements and cut your coil now. Secure the pucker with a half hitch.



Add two loops for the "handle".



Put the Scaffold Knot (ABOK #1120) around the "handle" portion.

I am very pleased to find my finished nets are nearly indistinguishable from the originals. We used retired 8mm long-line, which is worn almost smooth. The color and texture is a match for the old stuff (wash the salt out of your retired line before you start or the stiffness will get to you). Of course the long-line fisherman used retired line on their floats so why wouldn't these look good?

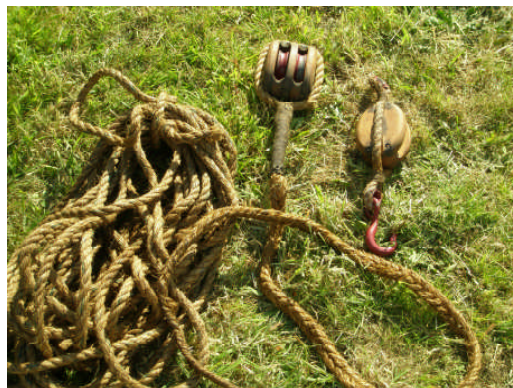
Bud has sold most of the ones I did for him, stating the authentication for the glass and the reproduction nets as modern enhancement. At a recent sale I thought I found one of mine. It turned out to be an heirloom. I was overjoyed to see that my work was identical to the original.

I would also like to credit Ron Edwards for documenting the same project from a somewhat different perspective (*Knots for Beachcombers and Mariners*; Ram Skull Press, 2003). His knot is an inversion of the one I found. That is to say I pass the bight down and the working end down while he passes the bight up and the working end up. I found floats each way and worked my job on a majority decision.

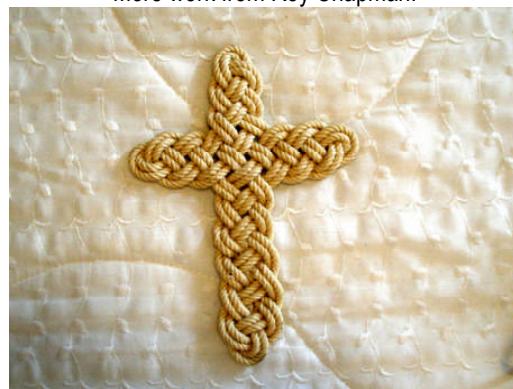
Here is your finished float net!



Sit back and admire your work.



More work from Roy Chapman.



The Sailor's Sea Chest and its Beckets

Gabriel Richir

Translated by Charles Hamel

(Adapted from the feature published in *Sac de Nœuds* and
reprinted here by kind permission)

My passionate interest for traditional ornamental marlinspike knot work dates back from the day when one of my friends helped me discover *The Ashley Book of Knots* (ABOK) in its original American language version, before it was published in French at the end of 1979.

This edition had some photographic plates showing chest becketts, sailor's bags and their lanyards, sheathed knives, life preservers, needle cases, cat o' nine tails... which plates, unfortunately, were not included in the French translation.

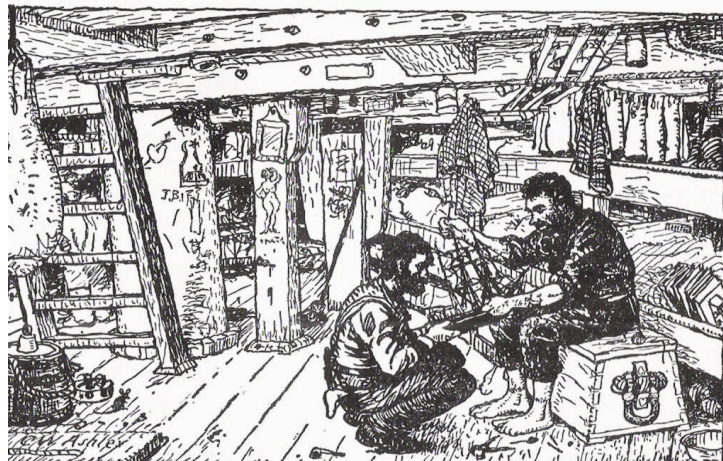
I was fascinated by those items. To me they represented the culmination of years of learning in marlinspike. This unique style of craft, these enigmatic techniques, this know-how so resolutely maritime in character bewitched me.

I bought a copy of *Le Grand Livre Des Nœuds*, as ABOK was translated, a few years later and 'made tracks' from one chapter to the next, all the while making knots, I made my first attempts, determined to be able one day to make the items that where so pleasing to me. Today, after a lot of personal work and research, this is a done thing.

Of all that I studied and made, sea chest becketts seemed to me the most complex; they are also regarded as the pinnacle of the art of seamanship, the so-called 'ornamental marlinspike'. Crafting those becketts involve several techniques and demand astuteness, imagination and a know-how that cannot be acquired in one day.



Before going any further in the description of the becketts, let us talk a little about this famous sea chest itself.



The sailor's sea chest was not in use in all marine situations – only sailors embarking on *long courriers* (i.e. long haul navigation), on whalers, and on the *terre-neuvas* fishing on the Newfoundland banks would have owned one.

The military sailors in *La Royale* (the old-time nickname for the French Navy) were too numerous aboard with little available room, they were only allowed to own a big sail canvas 'soft' bag to hold their possessions. Those possessions are put in this bag according to a set order codified by the 'Sailor Manual', and can be accessed only at times determined by naval regulations.

The average dimensions of a sailor's chest vary from 70 to 90 cm in length, 45 to 50 cm in width, 40 to 45 cm in height [27 to 35 inches in length, 17 to 20 inches in width, and 15 to 18 inches in height].

Two chests aligned side by side were not allowed to exceed the length of *la bannette* (the bunk) that was time-shared by 2 men, one *bâbordais* (starboard watch) the other *tribordais* (portside watch).

The sea chest, beyond its primary container function, also served as a table, bench, and stepping board to access the couch.

Officers' chests are often larger – rank does have its privileges!

Its **shape** is rectangular, sometimes as a truncated pyramid (the base is wider than the top – sloped) to get a better stability in a rolling ship and to save shins in heavy seas, an old surviving Viking trick and to me those are the most typical.

The **lid** is flat, sometimes slightly curved. The sides are screwed, nailed or dovetailed. It was made by the sailor himself when on land or by the village carpenter.

The **bottom** is made to rest on strips of wood to avoid excessive contact with moisture.

Looking **inside** a little box with a lid can be found, this box is characteristic of a genuine sea chest. In it the sailor stored knife, scissors, bobbins of thread, needles, pipe, razor, etc. The remaining available volume is for vestments, personal objects or mementoes (this being the only remaining link with home and taking while on board the allure of a treasure), and personal crafted works in the making. The inside of the lid is sometimes painted with a portrait of the ship.

The chest **exterior** and the beackets are usually painted. The crafting of the beackets was the work of the owner.

The *terre-neuvas* sailor, whose primary function was intensive commercial fishing, usually did not bother with the aesthetics of the chest 'handles', their knowledge in marlinspike was often at the strict minimal utility level and, anyway, on board of a commercial fishing ship there is no leisure time allowing to do any handicraft.

As 'handle' they made a simple basic spliced grommet (#2861) or a common grommet (#2864, #2865). Eventually they may have wormed, parceled and served it (#3337, #3339, #3342) or else just kept it simple, practical and functional.

It is mainly in the 19th century, aboard of *long courriers* and whalers that the art of ornamental seamanship was developed. It is from this period that can be found, among other items, marvelous beackets, masterpieces of sophistication, patience, and knowledge acquired among all nationalities by oral transmission from one sailor to another.

Most chest beackets have the shape of a shackle, or of a curved handle, and have two eyes through which passes the 'bolt', they are made with materials found on board: cordage, sail canvas and leather.

The handle is either a selvage (#3147, #3622) or a length of cordage with a spliced eye at each extremity (#3624), sometimes thickened with a coil of twine or cloth (mousing).

The handle and its eyes are sheathed in a structure called a 'serving', made with one or several strands, they are often made in different ways, (#3542, #3544, #3553) for the handle and (#3544, #3605) for the 'eyes'.

The already serviced handle sometimes get an additional servicing at its lowest part, where it is gripped by the hand, usually a 6 or 8 strand sennit, in cordage, leather or canvas. All junctions between two padding coverings are hidden under a square Turk's Head Knot (THK).

The 'bolt' is a piece of thick cordage, 3 or 4 strand, sleeved in leather or cloth, with a long nail taken from the ship's carpenter running through its center and along the length, to provide a greater rigidity during the actual transport of the chest. At each end is a Manrope Knot the strands of which have been canvas covered prior to knotting (#123).

A Star Knot (#727) or a Matthew Walker knot (#678) is also commonly used.

The becket is often painted or tarred to extend its lifetime.



I made my first beackets with only the help of the ABOK indications (#3622, #3628) without ever having seen any authentic pieces. I first saw authentic items at the last IGKT meeting held in Tatihou, then at Saint Malo with thanks to our friend, Des Pawson, and to the Internet.

If you have 100 meters of rope available in different diameters (1 and 2 mm), have about 20 hours of free time and a lot of patience, here is a description of the steps necessary to make a beacket like the one in the photo above.

In 8 mm sisal cordage I make 2 eye splices, one at each end, the total being 50 to 60 cm in length. Each eye is covered with half-hitching made with the appropriately sized needles (#3544).

Sixteen lengths of polished flax (3x the full length of the becket for each) are affixed on the perimeter of the cordage (warp) using a seizing such as a Constrictor Knot (#1249) keeping one of the ends of it uncut and coming from the bobbin. The thread used to make the seizing is of a diameter inferior to the diameter of the sixteen lengths serving as warp and will serve as filler for the next sheathing – overhand round-turn grafting made from front to back (#3553). Once the handle has been so covered I put on a second seizing and then I cut off the excess length.

A tripled (or doubled double) 5Lx4B THK hides the junctions.

To thicken the handle (mouse), I use an extended (n)Lx4B THK around it of 5 passes, (turn 3 times around the handle on the first free run to make it) taking care that the two sides are kept symmetrical. Count on needing about 15m!

The junctions are hidden by tripled 6Lx5B THK.

At this point the becket is finished. It is time to tackle the 'bolt'.

After some pondering I opted for another system (a novelty) that will allow me, on my future chest, to change the becket as desired.

A length of threaded rod and two nuts, all three being clad in cordage will do the trick. The rod is covered with needle half-hitching (#3544), and the nuts receive each a 5 pass 3Lx4B THK.

Four leather roundels are cut with notches scissors (pinked washers) then pierced in their center complete and finish the becket.

It remains only to cut a cleat adapted to the dimensions of the bolt, then to eventually sculpt this cleat, and then... to build the chest.

Ah! I almost forgot – a chest needs two becket!!!

Bon courage.

[Translators note – sea chest plans can be had at:

http://www.marlinespike.com/sea_chests.html

And a pleasure for the eyes at:

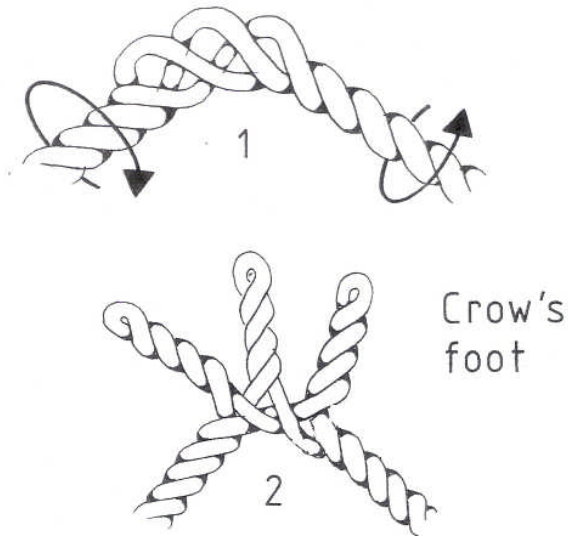
<http://www.sailorchest.com/inventory.htm>]



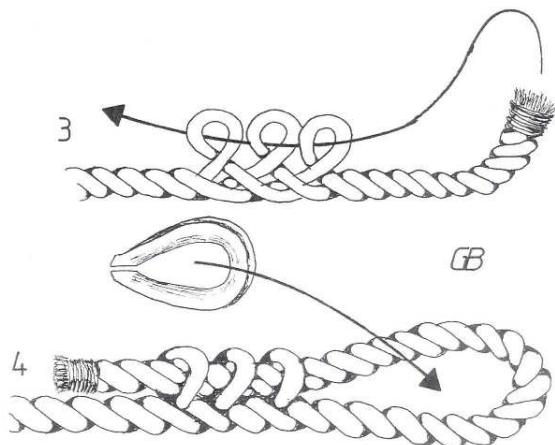
The Crow's Foot

Geoffrey Budworth

This little used technique was frowned upon years ago in the era of natural fiber ropes because it was cruel to them. It still is, and a hawser-laid line that has been distorted this way will never be quite the same again, but today's synthetic monofilaments cope better with it than did shorter vegetable fibers.



Grasp a 3-strand rope in both hands and twist them in opposite directions so as to open up the lay (Fig 1). Continue until the trio of spiraling strands emerge (Fig 2). This is called – for obvious reasons – a crow's foot. It was used primarily by sailmakers to affix reefing points to canvas sails (ABOK #3530).

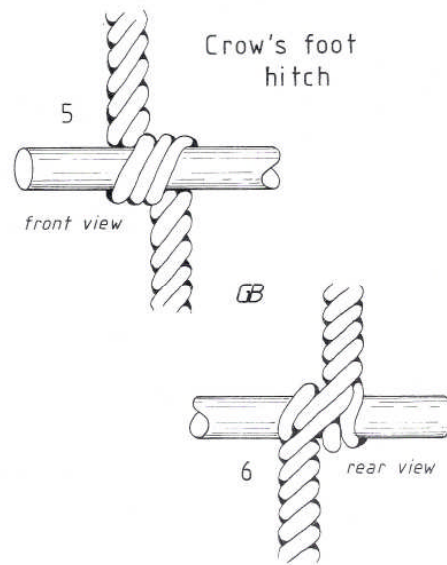


Witches' knot or loop

Limit the disruption to a trio of single kinks, align them (Fig 3), and tuck the nearest end of the rope through all three (as shown) to create a quick eye splice (Fig 4). It will not withstand heavy loads, although it can be reinforced with a thimble and the end seized or taped to the standing part. Otherwise it makes an usual tie-back for curtains and other drapes, dog lead loop, or whatever else you can contrive.

This loop knot is periodically rediscovered. In 1986 the sailing writer, David Seidman, found it for himself; but then, looking through a book on witch's knots, he learned that the knot dated back to 1741. I have written to him in an effort to confirm this tantalizing bit of provenance and await his reply.

In 2001 a Dutch woman, Beatrijs van Westerop, recreated the knot; but she went one step further by inserting a rod and so adapting it to form a hitch (Fig 5 & 6). Don't you just love it when someone enlarges the repertoire? Well done, Beatrijs!



A knot is never 'nearly right'; it is either exactly right or it is hopelessly wrong, one or the other; there is nothing in between. This is not the impossibly high standard of the idealist; it is a mere fact for the realist to face. There are very few knots, possibly less than a dozen, that may be drawn up properly merely by pulling or jerking at the two ends. There are few more important things to keep in mind than this while knotting."

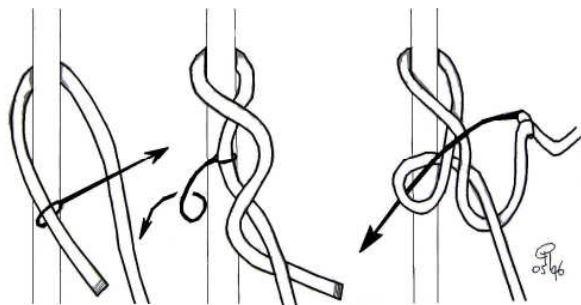
Clifford Ashley
The Ashley Book of Knots

Knot Thoughts

Pieter van de Griend

Speir Knot

Farmers are like fisherman when it comes to shortcutting knots. They also have an incredible knack for finding the weirdest of operational structures. Actually they just do not care how the thing looks as long as it gets the job done. A Dutch farmer taught me how he moored his cows with the loop shown below – also known as the Speir Knot in the Anglo-Saxon knotting literature. Note that it can also be tied on the bight.



I have been assured the Speir Knot is safe enough to teather a cow for any reasonable amount of time. However, being blissfully ignorant about cows, their psychology and farmer life in general, I take those words for granted.

Topologically, though, the most amazing part of this loop knot is its Slipped What Knot base. As is well-known that particular structure blessed a stable (ABOK #1406) as well as an unstable (#1407) version. Try to explain what caused my farmer friend's method to strike the stable version and identify which conditions could have ensured its propagation in the (Dutch) farming community.

Knot Puzzle

Knotters love structures and puzzles. Hers is one which may keep you busy.

The Reef Knot's "merits" are often contrasted against the despicable Granny Knots unreliability. In the same breath the Thief Knot story is told and finally the Surgeon's Knot is tabled as being a good bend-alternative to the Reef Knot.

In the image alongside I positioned the Reef Knot in the remotest corner of a cube [R]. The cube's ribs link the Reef to the Granny [G], Thief [T] and Surgeon [S]. Other ribs link immediate and newly identifiable relationships [1], [2], and [3]. Notoriously missing is the cube's missing corner [4]. Any clue how this Thieving Surgeon's Granny knot would look like?

