

# Anchors

The kit provides the basic components but this is an area where extra detail can be added at no extra cost. To make a more complete job, though, it will be necessary to buy the parts for another anchor or two.

A cutter would officially carry four anchors, a bower and sheet anchor of about 20cwt, a stream anchor of about 6cwt and a kedge anchor of 3cwt. However, there appeared to have been some considerable variation and a captain would often get what he could. The two anchors supplied in the kit are both 12cwt and about the right size for an average anchor, they could represent the larger bower and sheet or the smaller stream anchor. Jotika make two other sizes of anchor which are of the right period, one 21cwt and one a 3.5cwt kedge anchor. My initial plan was to use three anchors on my model, a 21cwt lashed to one side, a 12cwt hanging from the cathead on the other side with a 3.5cwt tied astern of it. I made the anchors and then changed my mind because the 21cwt looks too big. Plan B is to use the two kit anchors, one lashed to the side and one hanging from a cathead, and the kedge anchor also lashed to the side. If anyone asks then the fourth anchor has either been lost or stowed in the hull. The photos and description here include the 21cwt anchors even though they are not on the model.



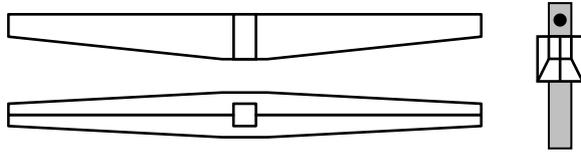
*Anchors. The three sizes here are 21cwt, 12cwt and 3.5cwt*

The white metal castings needed to be smoothed with a needle file and the holes for the rings drilled, while the flukes (or palms) of the 3.5cwt were separate parts which were glued to the arms. The square section at the top of the shank on the 12cwt anchor was too narrow and I built up the section with plastic card. The finished parts were primed and then painted matt black, followed by a thin rust coloured wash which was a mixture of red, black and yellow ochre acrylic.

## Stock

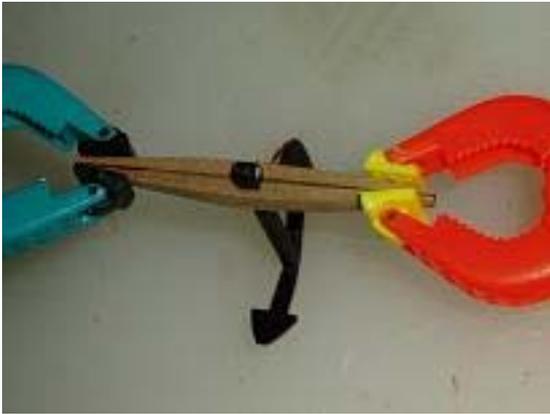
The wooden stocks needed more work. The two pieces should clamp onto the square of the shank, leaving a slight gap between them at the centre while the ends are joined together. This results in there always being a clamping force onto the shank. The width of one of the stock pieces is half of the height, the taper brings the height and width at

the ends to one half of that at the centre. When the stock is assembled the two parts give a square cross-section. All this means that the kit parts need to be thinned and tapered, a job made slightly more difficult by the cut out for the square which was often far too deep.



*Anchor stock*

After the stock components have been finished they are assembled to the metal body. A drop of cyano acrylate holds one half of the stock to the shank, being careful to set the angle to 90°. A drop of cyano acrylate is put at each end of the stock and onto the square of the shank and the second half of the stock is put in place. A couple of pegs hold the ends together while the glue cures fully. The final touch is to cut thin strips of black paper and apply the iron straps around the stock. I overlapped the paper on the lower face of the stock so that each end of the strip was at a corner.



*Anchor and pegs. The metal body is painted before the two parts of the stock are clamped and glued in place. There is a small gap between the two halves of the stock near the centre*



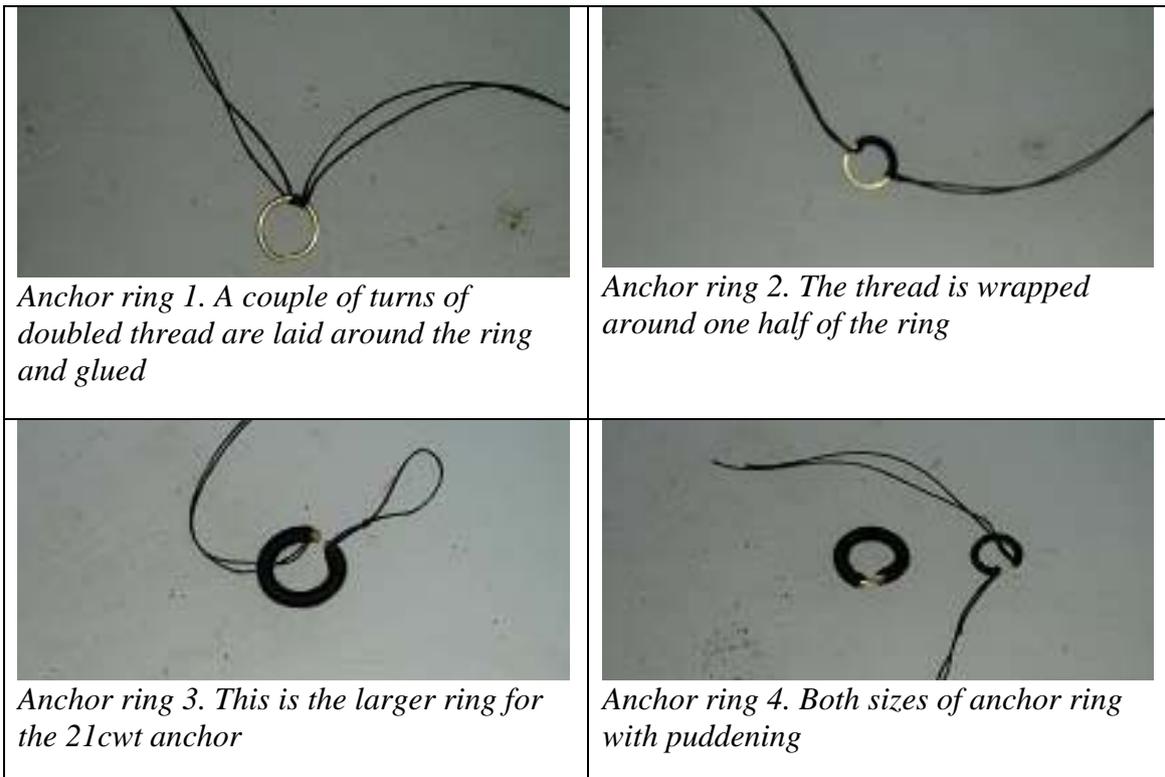
*Anchor 12cwt. The iron bands have been wrapped around the stock and the ring has its puddening of thread*

## Ring

The anchor rings are made by winding brass wire around a suitable former and I used 4mm dowel. Sections from the coil can be cut with wire. The anchor rings were covered with rope puddening to protect them and the cables. The original method is described in detail by Darcy Lever and I tried it for one ring but decided afterwards that it is too complicated and the results are not visible in this scale. For the remaining rings I used a simplified method:

1. Double up a length of black sewing thread and take a couple of turns around the centre of the ring, grip the ends tightly and with your third hand apply a tiny drop of cyano acrylate to the thread
2. Wrap one of the thread pairs around the ring, keeping it tight and pushing the loops together as you go, ensuring that the threads do not cross over each other
3. Apply a drop of cyano acrylate after each spell of winding so that it does not all come loose when you let go by mistake
4. Continue until you reach the end of the ring and finish off with cyano acrylate
5. Perform the same manoeuvres for the other end of the threads on the other half of the ring

The ends of the ring can be opened up with a screwdriver so that it fits over the anchor and into the hole. The ring is then closed up again by gentle pressure from pliers, not too much or the ring will no longer be round.



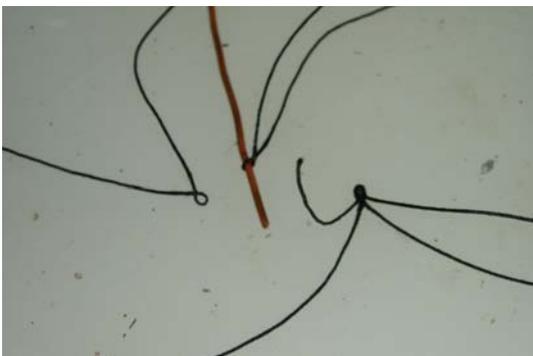
## Nun buoy

The nun buoy was attached to an anchor and floated above it to show its position in the water. It also allowed the anchor to be retrieved if the main cable was cut or broken. A bit of judgement about sizes is needed.

The basic structure is a cylinder which tapers to a point at each end. Construction could be tarred wickerwork or a wooden barrel, while the museum at Toulon has one made from large cork disks. I used a plastic barrel from a railway kit and added pointed ends but there are many alternatives such as aircraft drop tanks or bombs or propeller spinners which can be adapted. The caps from pens or the ends of biro's are also possible. I did not worry too much about a smooth and even shape, assuming that the real thing would be somewhat battered, and finished with a buoy which was about 15mm long and half that in diameter. A coat of matt black gives the tarred finish.

The rope work on the buoy is complicated. At each end there is an eye from which four ropes extend along the body and are then tied to a rope hoop about 3/4 of the way along. The ropes pass under the nearer hoop which holds the ropes from the further end.

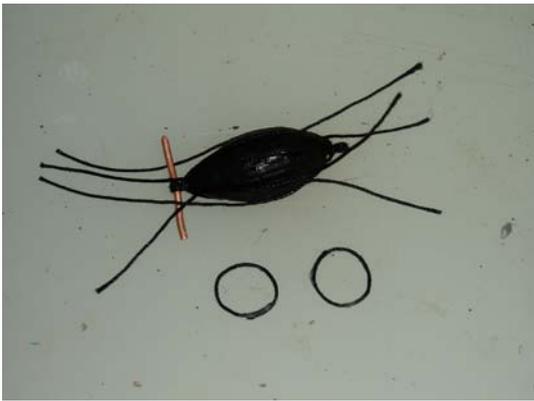
I used 0.5mm black thread for the ropes. An eye is formed by holding the thread over a wire former about 1mm diameter and using invisible mending thread to tie the ends together. The ends of the black thread are not knotted together. Two of these eyes are then slid together on the wire and joined with more invisible mending thread which is secured with a drop of cyano acrylate. The resulting spider (4-legged) is splayed out so it fits over one end of the buoy. I found it useful to leave a short length of wire in the eye of the spider to make handling simpler.



*Buoy spiders. One is complete, the other is still in two parts*

One spider is held over an end of the buoy and the threads are pulled together with finger and thumb from one hand. The positions of the threads are then adjusted so that they are equally spaced around the buoy and the eye still remains symmetrically at the point. Holding everything carefully together a few small drops of cyano acrylate attach the ropes to the body of the buoy. The process is then repeated for the second spider.

A couple of rope hoops are made by gluing the ends of black thread together, the diameter makes the hoops sit about a quarter of the length of the buoy from each end. One hoop is passed over the threads on the buoy and the threads are then pulled back until they are roughly in place. A small elastic band holds them so that the hoop is pulled tight onto the buoy and fine adjustments to the positions can be made. The threads are then fixed to the hoop with cyano acrylate.



*Buoy with spiders. The rope spiders are centred at each tip and tacked in place with cyano acrylate. The thread hoops are then passed over the legs*



*Buoy with hoop. One set of legs has been pulled back over the hoop and they are held in place with an elastic band while the location of the hoop is adjusted. A small drop of cyano acrylate holds them in place*

The elastic band can now be released and the ends of the threads are threaded back under the hoop, pulled taut, glued and cut to length. The same is then done for the other end and the result is a nun buoy which is ready for use.

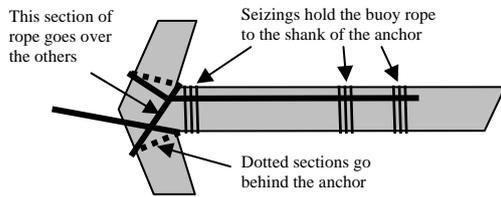


*Buoy. The finished nun buoy with a rope tied to the eye at one end*

One end of the buoy has a short length of rope attached, I used about 15cm of 0.5mm natural thread and tied it on with a bowline hitch.

The other end of the buoy is attached to the anchor with, according to Darcy Lever, about 17 to 18 fathoms of rope. This is a bit too long for a model and I used about 30cm of 0.25mm natural thread. A dummy coil of rope can be added later when the anchor and buoy are stowed. The rope should be spliced to the buoy but I made do with another bowline hitch. At the anchor end the rope is finished with a complex knot, called a Buoy Rope Knot, which I omitted since it is impossible to do in this scale and would not be visible. The knot would sit between the two seizings on the shank.

The attachment of the rope to the anchor is easy to make properly and looks the part. I used 0.1mm natural thread to bind the end of the rope to the shaft of the anchor and secured the lengths with cyano acrylate. The rope was then tied to the anchor with a clove hitch as shown on the drawing and photos.



*Attaching the buoy rope to the anchor*



*Anchor buoy rope front*



*Anchor buoy rope back*