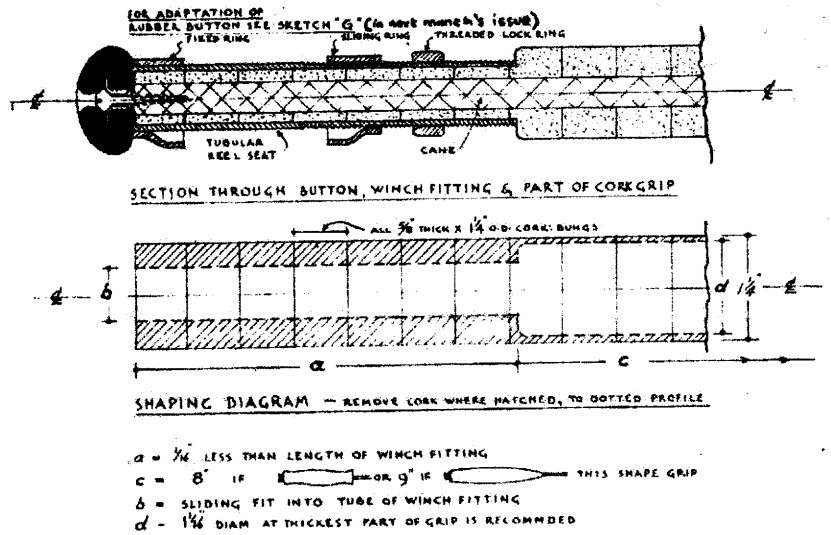


Sketch "E"



Sketch "F"

SPLIT-CANE ROD BUILDING

— the third of four articles by R. BARRAUD

Modern glues and techniques

LET ME warn you that you will find some of my procedures quite unorthodox but they are deliberately chosen either because they are easier for the amateur to carry out for better results or because, making full use of modern glues and techniques, they give better results whether easier or not. For example, the method of fixing ferrules will probably make the traditional di-hards squirm, but it works. You will never have ferrules getting loose on the rod as so often happens with the old close-fit-and-drive-on-tight way. And your rod will be dead straight.

Adhesives: For joining the cane sections and fixing corks to the handle use Aerolite 306 and Hardener GBP.X. For fixing ferrules and fixing reel fitting to handle use Araldite. Both can be quite easily obtained from ironmongers or hobbies shops.

Araldite comes in two small tubes and the contents must be mixed together in equal quantities immediately before use. Aerolite 306 is a fine white powder; the hardener is a water-clear, thin, acid liquid. Both are in the same carton in separate containers.

The normal instructions for using Aerolite are to mix the powder with cold water to a thick syrup (you will find you will need less water than you would suppose), to coat one surface to be glued with this syrup, to brush the other surface with the hardener, and to bring both surfaces together to set. Instead of following those instructions you should mix the powder to the

thick syrup at least 24 hours before intending to use it (the syrup will keep for a week or more in an airtight jar in a cool place), then, immediately before use, stir into a known quantity of the syrup one tenth of its volume of the hardener.

Thereafter you have to work fast and in a cool place because the mixture begins to set almost at once, though not noticeably. Fifteen to 20 minutes is the maximum time to allow between mixing and having everything glued and laid aside to set. You will find that quite easy to attain if you carefully follow these instructions for preparing the sections for gluing.



When starting the gluing do the butt sections first. Operations for the top section are exactly the same but the thicker sections of the butt are easier to handle and one gains experience.

Put all six sections together as they will eventually be when built and bind them tightly together with strips of Sellotape, beginning at the thick end and using three or four bindings in the length of the section. Sketch "E" plainly shows the end binding and sequence of sections. Now, with a razor blade or very sharp knife, cut through the bindings in line all on the same angle and you will find that the sections will open up as shown in Sketch "E".

Lay them out like this on a sheet of

polythene on a flat table (the glue will not stick to the polythene) and mix the hardener into the glue syrup. Mix it well with a stirring stick. With a stiff, flat paint brush liberally coat all the upper surfaces of the cane with the mixed glue. Roll them up again and bind, at the thick end only this time, with another piece of Sellotape over the old one.

Have a long piece of thin string ready and start binding very tightly and spirally along from the thick end. Do this as tightly as you can to squeeze out as much glue as possible and, when you come to the thin end, reverse the process and bind back to the thick end. The string need not be wound on closer than about a half to three-quarters of an inch spacing. Tie the end to stop the string unwinding. This binding will probably put a spiral twist into the cane, so twist it back by hand carefully, but quite firmly.

To straighten the bound section, take the thick end in the hand and slap the whole section on the table top as if you were caning it. Do this on four sides of the section. It will come remarkably straight but finishing touches should be carried out by any necessary hand bending here and there until the joint is quite true. (Don't use any heat at this stage, of course.)

Wipe off the greater part of the squeezed-out glue but do not take too much care about that. Your hands will by now be in a frightful mess so wash them at once in cold water before the

glue sets. Also wash the brush out well in *cold* water until it is quite clean (if this glue sets in a brush there is just nothing you can do about it).

You can either lay the joint down on a flat polythene surface to set or hang it up by the tip with a good weight on the bottom end. I prefer the flat surface, having first drawn a straight pencil line below the polythene along which to adjust the length to absolute straightness. Twelve hours in an ordinary room will see the setting complete.

When set, take off the binding, which often brings off a lot of the unwanted surface glue with it, but remove all that is left by careful scraping or fine sandpapering. Your two joints (I will presume you have done both) are now ready for further treatment.

Ferrules: "Swiss", "follow-through" and "follow-on" are just different terms for the same type of ferrule which allows the full diameter of the rod to run from one joint to another, unlike the traditional ferrule whose male and female internal diameters were different so that the end of one joint had to be reduced in section and weakened; the traditional ferrule should never be used. Through the efforts of *Trout and Salmon*, Swiss-type ferrules are now easily obtained from most good tacklists.

Before the advent of modern synthetic resin glues that can bond metal and wood together without shrinkage of glue by evaporation of solvents, the drive-on method of ferrule fixing was essential even though it inevitably resulted in many ferrules becoming loose in time; the fitting, too, had to be very skilfully done to ensure a dead-straight rod through the joint.

The following method of fixing is not only much easier to carry out but practically guarantees lifetime tightness and a perfectly straight rod through the joints in exchange for moderate skill and care. Round off the ends of sections to the diameters of the flats and buy ferrules which will just slip over the rounded end. It does not require to be a tight-push fit, but an easy, close one.

Heat the end of the male to remove the soldered-in stop at the spigot end or bore a very small hole through the stop. If you do not do either you cannot get the cane or glue down to the bottom because of the air cushion that forms in the airtight cylinder. Fit the male into the female sufficiently far to be firm and straight, liberally coat the cane (ends as well) with Araldite and slide the cane into the ferrules which are, of course, still mated together, having first found out by measurement and marked in pencil on the cane how far they should go.

Do not push the ferrule on beyond

the mark and pull it back again to the right position because this would leave glue inside it to set and interfere with the full fit of the male spigot. Temporarily bind the serrations tightly down to the rod flats with pieces of wire.

Lay the whole rod down on a flat surface along a straight pencil line and, if necessary, gently ease it at the ferrules until it lies dead true both with the flat surface and the pencil line. Once that has been attained leave everything alone for at least 36 hours to set hard. If you make the cane and ferrules too good a fit you cannot adjust the straightness of the rod. If, on the other hand, you think things are a bit too slack do not worry. So long as you have every space filled up with Araldite the whole thing, cane, metal, and glue, will become a solid mass that will never move or shrink.

At the stage you have now reached you can make very slight adjustment to the action of your rod. Try it out for casting with about ten yards or a little less of, say, AFTM 7 line tied to the tip. Go easy but cast quite deliberately with it. If you are not familiar with casting get an experienced friend to do it. Should you want a little more butt action, take off a little from the flats at the butt with very fine sandpaper backed with a flat piece of wood; only two strokes on each flat, starting about 18 inches from the butt and working towards the thick end of it. Try the feel after each two strokes all round until you have it just right. The same can be done at the tip.



The thing is to take off very little cane at a time and keep testing. Do not worry too much about taking off the "power fibres". They are not all in a very thin skin just under the enamel but go down into the centre, getting weaker as they go.

Get the best cork bungs you can for the grip. Get them with holes that are a tight sliding fit over the cane. Mix up some Aerolite as for the cane, smear the cane with it and push the first bung into position. Smear the face of this cork well and the cane near it. Push on the next bung and, holding the first one from moving, twist the new one up to it so that the surplus glue squeezes out all round. Continue like that until you have all the bungs on right down to the end. Wipe off surplus glue and allow to set overnight.

Sketch "F" shows all sizes and details that you will require for fixing cork handles of two shapes. One of the best ways of shaping the cork is to

put a long wood screw into the centre at the butt end, cut off the head and hold the screw in a hand drill which itself is held horizontally in a bench vice. To keep the other end of the joint from whipping about, fix to the bench, near the ferrule end, an upright piece of wood with a hole in it a little bigger than the rod section. Wrap a piece of Sellotape round the section where it goes through this guide hole to prevent rubbing damaging the cane.

Wrap a piece of No. 1 sandpaper round a length of broom handle for small hollows and round a jam jar for bigger ones. Then, by turning the drill with one hand, sand off the cork, as it turns, to the required shapes. The parallel length for the seating of the reel fitting should, of course, be done with sandpaper backed by a flat surface. Reverse rotation occasionally and finish to a silky smooth surface with light longitudinal strokes.

(To be concluded)