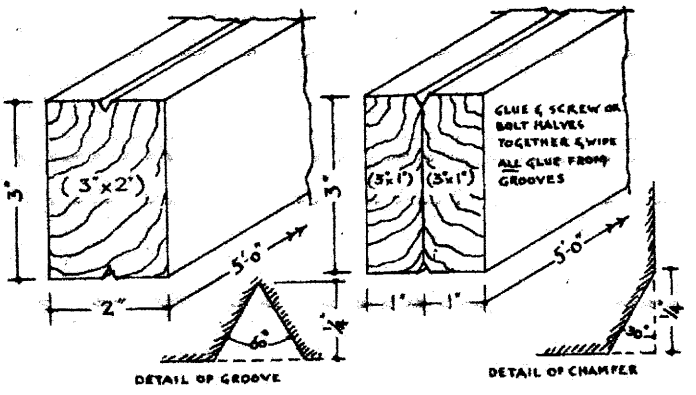
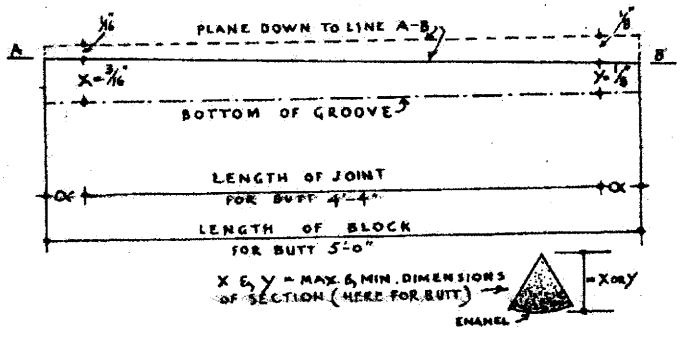


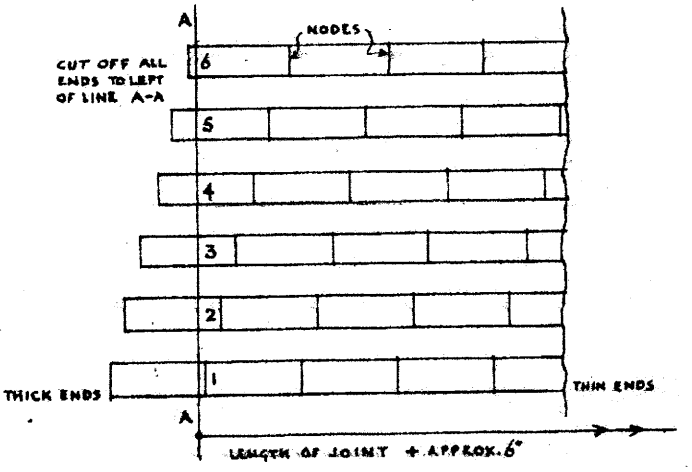
ALTERNATIVE CONSTRUCTION FOR ONE OR TWO PIECE V BLOCK

SKETCH "A"



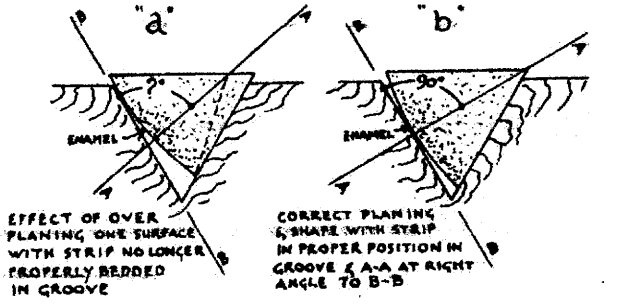
METHOD OF TAPERING GROOVE IN V BLOCK

SKETCH "B"



WHEN BUILDING ARRANGE THESE NUMBERED STRIPS OPPOSITE EACHOTHER: 1:4, 2:5, 3:6

SKETCH "C"



SKETCH "D"

SPLIT-CANE ROD BUILDING

The second of four articles by R. BARRAUD

It's to be a two-piece fly rod

FOR THE PURPOSE of this article I am assuming a general-purpose, two-piece fly rod, about nine feet long, is to be made, and without any refinements in the way of variable action along its length. You have to know the exact properties of your cane in a prototype anyway, before you can attempt to calculate for such features. So, it will have straight tapers along each joint (with a possible reverse one at the butt), and the following approximate dimensions across the flats: Butt joint — Finished cane length to be 4 ft. 4 in. Across flats: Thick end $\frac{3}{8}$ inch (.375 inch); thin end, $\frac{1}{4}$ inch (.250 inch). Top joint — Finished cane length to be 4 ft. 6 in. Across flats: Thick end, $\frac{1}{4}$ inch (.250 inch); thin end (tip), $\frac{3}{32}$ inch (.094 inch).

Ordinary joiner's tools and some sort of measuring gauge will do the job. A micrometer is worth having if you intend to make more than one or two rods but is rather expensive. A sliding caliper gauge will, on the other hand, do all that is necessary. Your plane is probably the most important tool you will use. It must have a metal sole because bamboo tears a wooden sole to shreds in no time. Also, the iron must be kept really sharp and should be stoned at least twice for every section planed. There should be mechanical adjustment for the depth of cut; having to re-set the cutting iron so often because of constant sharpening calls for something less laborious than knock-and-try-again methods of setting.

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Formers: The triangular block upon the flattened edges of which cane strips are temporarily glued while being planed is a hopeless contrivance although it often crops up in books and articles on amateur rod making. The professional, when not using a mechanical milling cutter for shaping, still produces accurate sections from a V groove by means of plane and gauge.

For this particular rod you will need only two grooves — one for the butt sections and one for the top sections. The angle of the groove (for a six-section rod as this is to be) should be exactly 60 degrees and because of the importance of this accuracy I suggest that you get the grooving done on a spindler at a first-class, wood-working shop doing fine joinery.

Any tolerance at all must be on the + side but not greater than 60 + $\frac{1}{2}^{0}$. No minus tolerance can be allowed because, if it were, the sections would not meet exactly at the surface of the rod; there would be a visible glueline and less strength. Sketch A shows one- and two-piece V blocks. The two-piece is the better proposition if the angle of the 60-degree cutter cannot be guaranteed, whereas it is always possible to tilt the bed of the machine to produce a dead accurate chamfer angle.

Make the V blocks from well-

seasoned beech and take great care of them, for they are vital to good workmanship. For this rod have the grooves cut a quarter-inch deep. To produce the required taper in the grooves plane off the flats as shown (much exaggerated) in sketch B. You will appreciate that the additional length of groove beyond each end of the length of section to be made will give you quite a bit of latitude when planing and will make shaping to quite small tolerances comparatively easy.

Straighten out all strips before shaping by heating the bent parts over a gas ring or other suitable source of heat until as hot as possible without scorching, then bend back a little beyond straight and hold or jig in position until quite cold. Repeat the process with the necessary adjustments until the strips are perfectly straight and true. Any twists should also be taken out at this stage in the same way. It will be found that cane becomes really soft and pliable when the right heat is reached and this is some way below scorching point — but be careful.

Next, sand or scrape off the enamels (there are two layers), which average a total thickness of .005 inch. This is quite easy to do but be careful not to go any deeper than the enamels, which are quite distinct because they are not fibrous. At the same time, go over the outside nodes again so that the enamel side of the strip is as smooth as possible over its full length.

The nodes, whether filed or pressed, are the weakest points in the cane so they must be staggered and the strongest way to do this is to spiral them along the joint so that no two nodes are together or opposite each other. The following applies equally to both butt and top-joint sections.

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Lay the six strips alongside each other, enamel sides up, and heavy ends together. Now follow sketch C and, keeping strip 1 stationary, move the other strips so that the nodes of each consecutively-numbered strip move over to the right, evenly spaced as shown. From the heavy end of the furthest-right strip measure the length of the joint, plus about six inches to give working latitude in shaping, and mark each strip on the enamel side with their numbers in Indian ink or with little notches near one end. This marking must be permanent. Saw the strips to the length marked and dip the thick ends in ink. All this marking may appear a little fussy, but it is, I assure you, the easiest thing to get strips mixed up and this must not happen because their final arrangement in a joint is of the utmost importance.

Your skill will be called for in the shaping. Proceed slowly and do not take any short cuts. The procedure with butt and top sections is exactly the same, but start with the butt section. The strips are bigger, easier to manipulate, and therefore better to practice on. Your first purpose is not to try to obtain any particular taper but to produce a triangular section with the apex exactly opposite the centre of the enamel side. It is a hundred to one that your first effort will be like "a" in sketch D which must be corrected to the profile at "b".

Always keep the enamel side flat against one side or the other of the groove in the V block. Take off only one or two strokes at a time from each side, then turn over and repeat. Hold the strip in the groove with your gloved hand, first about 18 inches or so from the near end and plane from the near end towards the gloved hand. Stop the plane but do not lift it, then bring the gloved hand back to hold down the near end and continue the plane stroke to the far end. As soon as you have planed the section to the correct triangular shape you can proceed to taper it but first you need your gauge and some dimensions.

As an example, the two dimensions you want for a butt-section strip are $\frac{3}{16}$ inch (.188 inch) and $\frac{1}{8}$ inch (.125 inch), which are half the dimensions across the flat of the finished rod and consequently the dimensions from

R. BARRAUD (continued from previous page)

apex to base (on the perpendicular) of the finished section strips (the base being the enamel). So just go on, very carefully, planing a shaving or two from one side, then from the other, until your check measuring with micrometer or gauge shows that the strip is just oversize.

At this stage it is a bit dangerous to go on planing because it is very easy to take off some V block with the cane, so hold the cane in the groove and use a wide, fine, flat file instead of the plane to finish to exact size. File along the grain as much as possible, never across because this will splinter the fibres. You have some six inches of extra length to play with so make the thick end accurate, if possible, first. Then run the taper on beyond the final length of the section, measuring at the correct distance, of course, from the thick end for the smaller dimension.

(To be continued)

gently reciprocate with the back and forecasts. This movement should not be resisted, but developed in a controlled manner. Transfer of weight, particularly with long double handed salmon rods, plays a major role in eliminating casting fatigue. It is also one of the less obvious attributes of those who cast with a "polished style". Care should be taken to ensure that the movement is essentially one of reciprocation and not a body turn. If excessive body turning is introduced a circular motion is imparted to the rod