Mortised Rods, the12 strip butt

A short history, a story and a how to

By Jeffrey L.Hatton

A mortised 12 strip butt by the Author and the Cuttbow that was its first fish

A short History,

Long held to be one of the secrets of the rod maker's art; the 12 strip butt section or the mortised rod is one area of rod making that has not been fully explored. The inclusion of the six additional strips of hard or medium to soft woods changes the action of the rod and it changes the appearance. This style of build can be traced back to the 1870s.

Makers of the earliest mortised rods include such notable names as Hiram L. Leonard and George I Varney, Conroy, Bissett&Malleson, Conroy & Bissett, Fred D. Divine, Thomas H. Chubb, Charles E. Wheeler and also the Bartlett brothers who where the later founders of the Montague Rod Co. In England the Hardy Brothers also made mortised rods. The mortised rods where primarily made between 1870 and 1920. At the end of that period known makers were Chubb/Montague, Montague, Horrocks&Ibbotson and the rods were known as cheap and poorly made. The mortise was used as a cosmetic feature only but it did have an unintended side effect and that is the speeding up of the butt section due to the radical swell caused by the inclusion of the six additional strips.

The rarest of the early mortised rods are by H.L.Leonard and Charles E. Wheeler and the firms of Conroy, Bissett & Malleson and Conroy & Bissett and are rarely seen outside of museums. They are magnificent examples of our rod making heritage.

Please read from left to right, 1 Conroy, Bissett&Malleson12' fly rod circa 1876-1881, 2 Conroy&Bissett 12' fly rod circa 1882-1883,3 Bartlett 10' fly rod circa 1876-1890, 4 Bartlett casting rod circa 1876-1890, 5 Charles E. Wheeler Trolling Fly rod circa 1875-1900, 6 George Burtis 9'6" fly rod circa 1880-1900, 7 Montague trolling rod circa 1890-1920, 8 Montague Fly rod circa 1890-1920, 9 Chubb/Montague "Read&Sons" Fly rod circa 1895 1920.

The Story

The way I became involved with making the mortised rods is a funny story and it goes thusly; A few years back I was bidding on a rod on eBay and it was an unmarked John Conroy "Porters General Rod", I was high bidder on the rod and even had padded my bid substantially and in the last 20 seconds of the auction I was sniped and lost the rod. Whereupon I immediately e-mailed the winner with a very short and terse "I wanted that rod, I owe you one" letter. He e-mailed back saying he hoped that I was just jesting and I replied with, "Of course; how can I fault you for having great taste in old rods".

Tom Kerr is now the best friend I have that I have never met personally and one day I spouted off and told Tom that I was just going to make him an offer for the Conroy that he could not refuse.

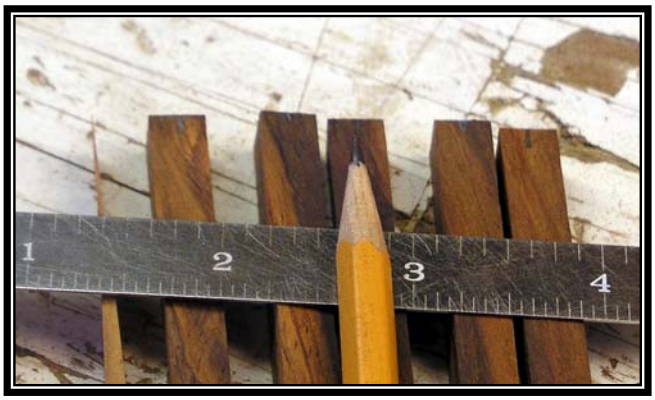
His response was “well what is it”? I replied quite flippantly that I was going to make him a mortised copy of my 10’ KOSMIC and that I would mortise it with Purple Heart knowing full well that Tom was not going to let the Conroy go. His reply was well can you have it done by Christmas? And I said yes as I was trying to get my smelly old foot out of my mouth again! After our conversation ended, I sat there thinking O.K. How in the bloody heck do I build this style of rod? It leads me to several months of thought and I even pulled the reel seat off of one of my old mortised rods thinking it would tell me how the rod was made. No such luck; the rod had a pine dowel inserted into the mortise section which is covered by the sheet cork grip AARRGGHH still at first base. One morning my dad and I were out in the shop playing with strips trying to figure out how to cut them and what is the proper angle and were getting no where until I took a loose bundle of butt strips and stuck my finger down inside of them and caused them to flare out. Dad immediately responded with “Jeff the strips are square”. And I will admit that I left the expletive deleted out of Dads statement. For a straight mortise the only angle is in the taper to the point of the mortise strip. With what I call a compound mortise your mortise strips can have as many as 5 or more changes in the taper of the strip.

The How To.

Butt section planed and ready to glue

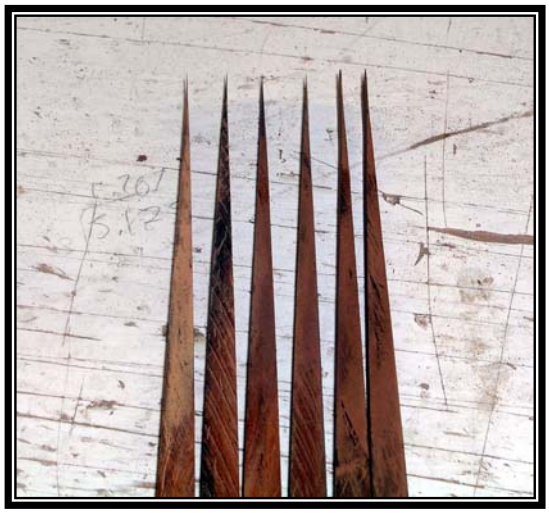
Coco-Bolo cut into 3/8” squares and cut to length

The hardest part of making a mortised rod is tapering your squares into points that are evenly tapered and all matching. And this is actually not that hard if you set up a disc sander with a fence. You mark the center of your mortise strips top and bottom and you will use this as your reference point to sand to. See the following two pictures.



Strips center marked; top and bottom with one tapered. The fence on the disc sander.

Strip being sanded on the disc sander.



Strips tapered on the disc sander and ready to be feathered.

Notes up to this point; 3/8” is large enough for a mortise strip. They will be too big in most instances unless you are building an exposed cork less grip and then it is about right. 12” to 15” will cover most mortise lengths. Hand sand the front of the taper with a sanding block to feather the edge and to reduce or remove any glue line right above the point of the mortise strips. As you are sanding your strips on the disc sander remember to hold them square against the fence behind where the taper starts.

Also mark them as to position in the butt section to assure proper matching of the grain in your wood. I carry my cane in a straight triangle from 1" above where the mortise will start. You must allow for the type of wood you are using and the type of weight and flex rate that it has. This will affect the action of your rod. The height of the mortise strip must be slightly larger than the face of the cane that you will be adding it too. 1/1000 or a little more allows you to fit the wood flush to the cane after gluing.

Three things about gluing up mortised rods, first and foremost you must and I repeat you must open up the cradle on your binder otherwise the blank will wedge up tight against the arms of the cradle, and always bind from the bottom of the butt not from the ferrule end. And lastly I use a balsa wood dowel turned to approximately 1 5/10000 over the I.D. of the hollow formed by adding in the mortise strips, this gives you something to bind to and keep everything from collapsing while gluing the butt section.

To the left is the butt section of the rod pictured in the opening photo of this article ready to be fitted for its balsa wood dowel which is the final step before gluing up the blank.

The rod will have no cork and thus the shaft is the grip itself which makes the rod slightly slicker when fishing but it also makes it much more responsive due to the lack of the insulating and dampening features of cork. Above right is the rod after glue up and sanding and several coats of hand rubbed finish.

Some of the woods that I have mortised with are Purple Heart, Shedua (African Olivewood), flamed cane, Coco-Bolo, Black Limba, snakewood and cedar. One warning though about the use of exotic hardwoods and that is some types can be very toxic and dangerous to work with.

I am horribly allergic to Bolivian Rose wood and also am almost as allergic to Coco-Bolo and I am just about through a six month bout of dermatitis caused by using that wood on a shadow box project. If you have any question do a skin test with scotch tape and some sanding dust and shavings, this will tell you if you can work with it or not. The gnome peeled three times in a two week period and it was not pretty!!!

To recap in a nut shell

The strips are square; the primary taper is only at the point.
Hand sand the taper with a hand block to a paper thin edge at the point.
Open up the cradle on your binder to avoid wedging, it should able to accommodate a shaft at least 1" in diameter.
You must take into account the fact that the type of wood will affect your butt section. You must allow for weight and flexibility of the wood you use. Some oily types of wood pose problems when gluing.
Do not forget your balsa wood dowel for the center.

The rod pictured in this article has been well tested to this point and has landed one brown out of the Gunnison that was 19" and gave a great fight. The rod is based upon the Dickerson 6611 taper and is mortised with Coco-Bolo. It has been cast by some truly knowledgeable casters and all have liked the performance and the cosmetics of "the Beast of Bolo".

Pictured to the left is Ernie Schweibert putting the Beast through its paces at the FFF conclave in Livingstone Mt. in august of 2005 and to the right is the beast in its Coco-Bolo form fit case.