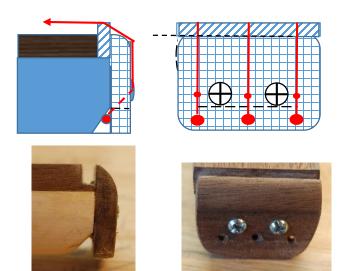
DELTA GROOVE GUITARS

Headless Head Stocks

I recently developed a proto type a headless CBG. I published notes on my tuner block design. But the Tuner Block was not the only design issue I had. I also had the issue of how to secure the strings on the end of the neck. The process led me through several designs. I could have purchased a milled retainer from a supplier, but I was trying to use things that I had, and not spend extra money. Here are a few design that I came up with. YOU MAY HAVE YOUR OWN, and if you do, perhaps you could comment and send the community, a picture.

These designs are not copyrighted. They may be floating around out there, and belong to someone else. They are designs from my sketches that I made in the steps to my final design.

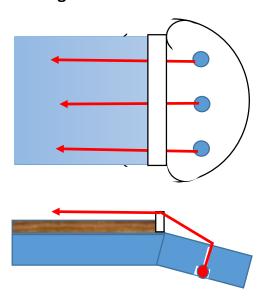
My Final Design



I settled on this design because it was simple, no moving parts, and I was working to keep the overall length to a minimum. You will see this in the following designs.

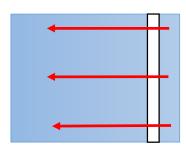
The end piece (head stock) not only secures the strings, but provided additional support for the nut. The graphic does not show shaping, but the photo below the graphic shows the contour of the end piece. The nut is also shaped.

Design #1



This head stock design is built on a scarf joint design. It incorporates an indentation on the bottom to accommodate the string ball. This provides a "snag free" option. It can be shaped on the top (like an ovation head stock), which is very attractive. It additionally can also be shaped on the bottom. A lot of flexibility in this design. It does add an additional 1.25".

Design #2



simplicity. It allows for the string ball to be indented into the body as described above. This keeps the ball from getting hung up. The over all impact on length is only $\frac{1}{2}$ ".

This round-over design has a nice flow and

