

# How to Make a Blank

By Brittany Harrington



## **Materials Needed**

- Drill tap (or some other cutting device such as an exacto knife, razor blades, etc)
- Easel (this can be a wooden dowel rod or a store bought easel)
- 22 gauge brass wire
- long forming mandrel or mandrel tips
- pliers
- cotton thread
- ruler
- pencil
- sandpaper (preferably 100 grit)
- some kind of wrap for finishing the blank, whether hot glue, thread and duco cement, shrink-wrap, etc.

## Making a Blank

### *Forming the Reed*

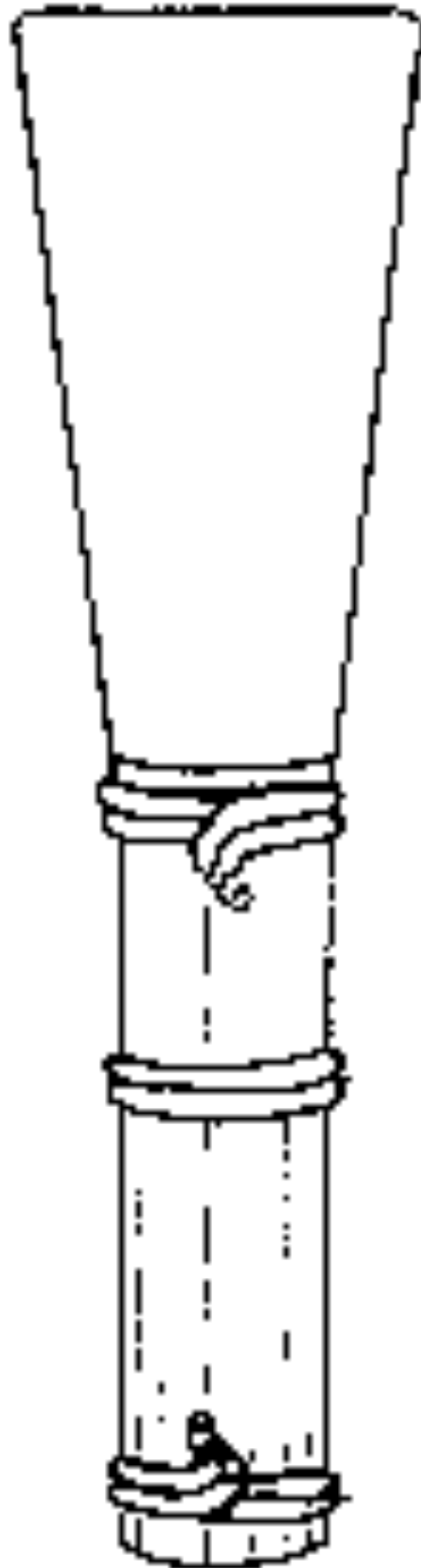
1. Start with a piece of cane that is gouged, shaped, and profiled (aka GSP cane) and has been soaked in water for at least 3 hours.
2. Fold the cane in half and take a ruler and measure from the tip or fold to the back. Make a mark at 1 and 5/16<sup>ths</sup>, and another mark at 2 and 5/16<sup>ths</sup>.
3. At the 2 and 5/16<sup>ths</sup> mark, take a pair of garden shears and clip the excess off. (Make sure you are accurate in ALL of your measurements!)
4. Now that the cane is down to size, we are going to score the cane. The reason we score is so when we start forming the tube of the reed, the cane will break up easier and make a nice round tube and fit on the bocal.
5. To score, take an easel and either a drill tap or a sharp cutting object such as a razor blade, exacto knife, etc. Starting a little bit behind the collar of the reed (aka where the bark and the blade of the reed meet), make cuts to the back of the reed. Repeat this on the opposite end.
6. Once you are done scoring, take the cane and fold it in half. Cut a piece of wire about 1.5-2 inches long. Wrap this wire where you put the 1 and 5/16<sup>ths</sup> mark. (Again, make sure this is accurately marked and placed!). Make sure the wire is secure but not overly tight or choking the reed.
7. Take a piece of cotton thread and start at the back of the reed and wrap up. Wrap securely but do not choke the cane. As you get closer to the first wire, start wrapping tighter. You want to wrap above the wire a bit and then finish by going back down. Make sure the thread is *very* secure around the wire and blade because this is where a lot of cracks happen when forming the tube and the thread helps prevent this.
8. Drop the entire “mummy” reed in water and let it sit for a couple minutes. Once the thread is thoroughly soaked, you are ready to begin the forming process.
9. Using a pair of pliers, slightly open the back of the reed and place it on a long forming mandrel. Hold the reed securely on the sides and literally push it down the mandrel with only vertical force. Do NOT twist the reed or turn it in any way. (Twisting can cause the blades to slip and causes a number of problems when you actually start scraping the reed.)
10. Take the pliers and “crimp” the bottom of the reed, meaning that you will crush the cane all around the mandrel and try to make it as round as you can. DO NOT crimp the cane on the top third of the tube (so right under the first wire). You can crush the cane vertically, but not side to side as this will create a huge and unmanageable tip opening.

11. After you crimp, push the reed down on the mandrel again. Repeat the crimping process and push on the mandrel until the back is perfectly round and/or will not go down the mandrel anymore.
12. Now you have formed the reed and you want it to sit and dry out for a couple days before finishing the process. Leave the reed on the long forming mandrel as it dries out so it will maintain the round tube.

### ***Finishing the Blank***

1. Once the reed has dried out, it is time to put on all the wires and finish the blank.
2. Take the thread and the wire off. Measure from the *back* of the reed/tube upwards to  $3/8^{\text{th}}$ s of an inch. This is going to mark where you bevel. Beveling is essentially taking cane off the back of the tube so when we put the wires on and seal the reed, the tip opening will pop.
3. Lay very rough sandpaper (about 100 grit) on a flat surface. Place the back of the tube on the sandpaper and rub back and forth to the  $3/8^{\text{th}}$ s of an inch mark to the back about 8 times. Repeat this on the other side. Now, when you put the tube together and push on the back, you should see the blades wanting to open up.
4. You now need to mark the rest of your measurements for all three wire placements. The first wire is going to be where you marked before at 1 and  $5/16^{\text{th}}$ s (so re-measure this and mark it). The second wire is placed  $5/16^{\text{th}}$ s from the first wire (again, mark this). And the third wire is going to be right in the middle of your bevel so measure halfway from the back to the top of your bevel mark.
5. Starting from the bottom, place the third wire and move your way up to the first wire. The third and second wires should be placed *very* securely around the tube but the first wire can be a bit looser.
6. Once the wires are on, you can seal the reed using either thread and then gluing it, shrink-wrap, hot glue, etc. I advocate hot glue as it is non-toxic, cheap, and it dries quickly.
7. Now you have a blank!

*Fold- (measure  $2 \frac{5}{16}$ ths from here & cut off the excess tube)*



*1<sup>st</sup> wire-  $1 \frac{5}{16}$ ths from the fold*

*2<sup>nd</sup> wire-  $5/16$ ths from the 1<sup>st</sup> wire*

*Bevel-  $3/8$ ths from the bottom of the tube.*

*3<sup>rd</sup> wire- halfway from bottom of the tube to the bevel mark.*