Making bassoon reed blanks from GSP cane David Granger

1 Before soaking.

- Smooth and seal gouge with wet/dry sandpaper gently before soaking.
- 2. Soak cane for at least 4 hours.

3. Fold.

• Usually folding over the dull side of your knife will result in an even split.

4. Seal sides.

• Smooth and seal sides of reed with wet/dry sandpaper, but do not alter shape while doing so.

5. Score the throat.

- Score from halfway between first and second wire locations to butt end making sure the scores are progressively closer together as they near the edges
- At first, leave center strip unscored to prevent cracking (as you get more experienced with making blanks, you can score across all of blank).

6. Put on first wire.

- Holding the reed so the fold is up (pointing away from you) slip the blade slightly to the right (counterclockwise) if right-handed; to the left if left-handed; this may mean the throat will be slipped more to accommodate the right amount in the blade.
- You are right handed if, when you cross the ends of the wire after wrapping around the blank, the top wire crosses from the right and you twist the wires counterclockwise.
- Put on top/first wire 34mm, measuring from the fold to the middle of the first wire, knot must be in center of blank.
- Tighten the wire down to the bark, then make up to an additional 1/4 turn; wire should be "snug" but not visibly pinching.

7. Form the blank.

- Wrap with moistened butcher's twine (soak twine in reed water and squeeze out excess water before wrapping), starting halfway up the blade, wrapping tightly to the first wire and then gradually looser until the butt end, and then double wrap back, starting looser and gradually getting tighter toward the blade end.
- Grip with pliers toward the butt end (B.E.), opening back end enough to insert forming mandrel. Insert forming mandrel by twisting back and forth as you slowly push it in. Move the pliers up the reed toward the second wire if insertion of the mandrel becomes too resistant. Remove butcher's twine.

8. Put on second wire.

- 8.5 9 mm from the middle of the first wire to the middle of the second wire.
- Tighten just enough to hold in place.

9. Put on third wire.

- 5-6 mm from B.E. measuring the middle of the wire.
- Tighten just enough to hold in place.

10. Place blanks on a drying rack and allow to dry for at least 7 days.

- 11. Tightening the first and second wires on the, now, dry blank.
 - Tap the reed onto the forming mandrel. Do not push it down on the mandrel. Tapping once or twice is sufficient. The mandrel will not go to its original insertion point. Forcing it in may crack the reed.
 - First wire measure to make sure the wire is in the original position, then tighten the "twist" down to the bark, then an additional 1/4 turn; the wire should be "snug" but should not pinch.
 - Second wire measure to make sure the wire is in the original position, then tighten the "twist" down to the bark, then an additional 1/4 turn, the wire should be "snug" but should not pinch.
- 12. Tightening the third wire on the, now, dry blank.
 - Measure to make sure the wire is in the original position, then tighten the "twist" down to the bark.
 - Crush cane behind wire with pliers and OVER-tighten the third wire; repeat until satisfied that the B.E. is round.(Vibrations stop at the third wire.) Cut off excess wire just above the knot, leaving a small stub that can be wrapped under the string below.
- 13. Cross-scoring/notches.
 - Use three-square file to create four equally spaced scores on all four sides of the blank in between the second and third wires.

NOTE: This weakens the bark, so the wires will stay rounded or flattened when altered on the finished reed. If notching is not done, the bark will push the wires (during re-soaking after drying) back to their previous position. (This is the theory.)

- 14. Wrapping the blank.
 - Coat with Revlon Clear Fingernail polish #771 from second wire back (polish may touch and even overlap 2nd wire, but must not go past second wire onto the bark between the 1st and 2nd wires).
 - While polish is still wet, wrap the blank.
 - Coat wrapping with another coat of fingernail polish (including butt end-capillary effect will soak polish up into the throat to make it stronger and more solid).
 - After drying overnight, coat string with fingernail polish one more time. This coat may take more than overnight to dry, perhaps even several days.