

Introduction

Making oboe reeds is a difficult process that can take many years to master, yet it is essential for any aspiring oboist to do so. This guide will hopefully provide a starting place for those who wish to learn the skill of reed making. For more experienced reed makers, I hope this can provide helpful insight or a different perspective.

This guide is meant to provide a template and a simple process that can be repeated successfully. Each piece of cane is different, and the cane's individual qualities will require different scraping to achieve the desired results. Following this method does not guarantee a working reed, but will hopefully result in a reed which is nearly finished and can be adjusted to suit the player's needs.

Finally, reed making cannot be learned from text alone. Guides such as this one can be extremely helpful, but cannot replace the supervision and instruction given by a teacher.

Happy reed making!

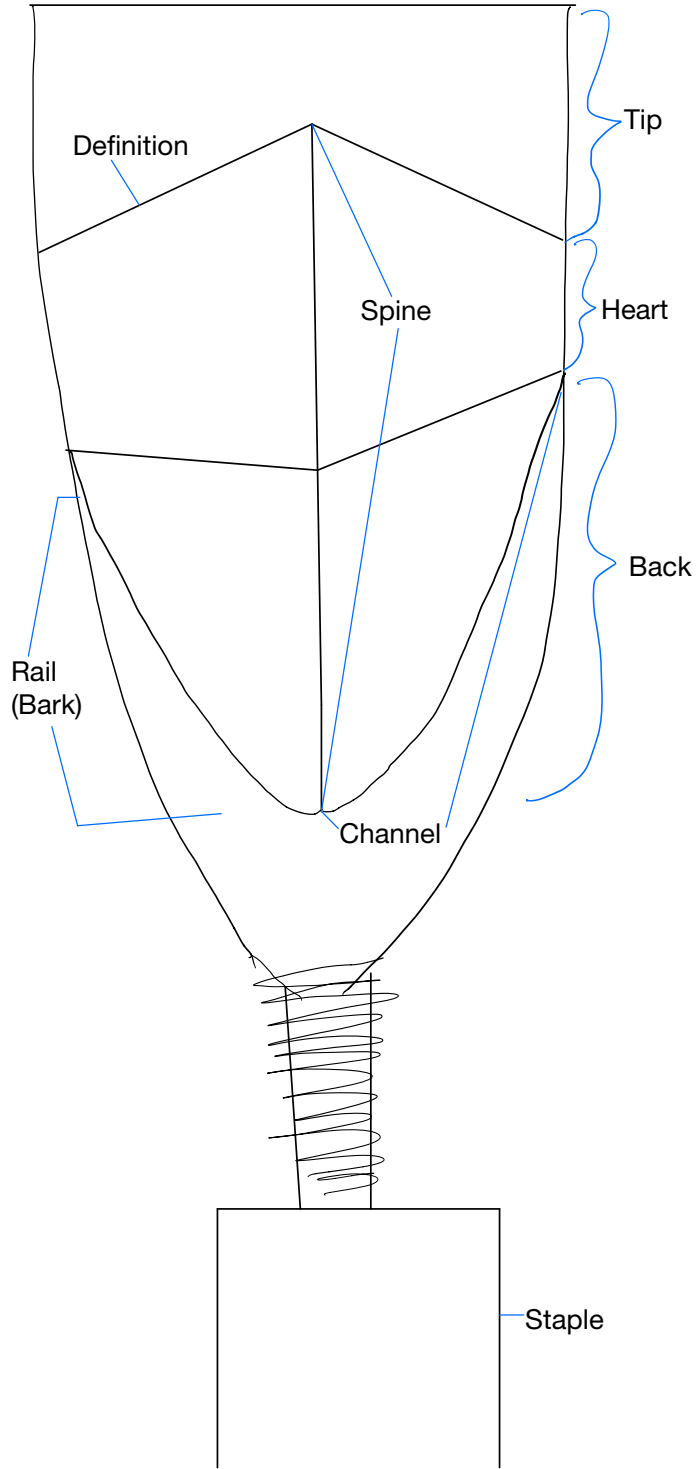
A handwritten signature in black ink that reads "Scott Erickson". The signature is written in a cursive style with a long horizontal flourish at the end.

From Blank to Reed

Essential Tools

- Reed knife
- Mandrel
- Plaque
- Cutting block
- Pencil
- Ruler (mm)
- Dial indicator to measure 0.01 mm thickness
- Razor blade
- Tuner



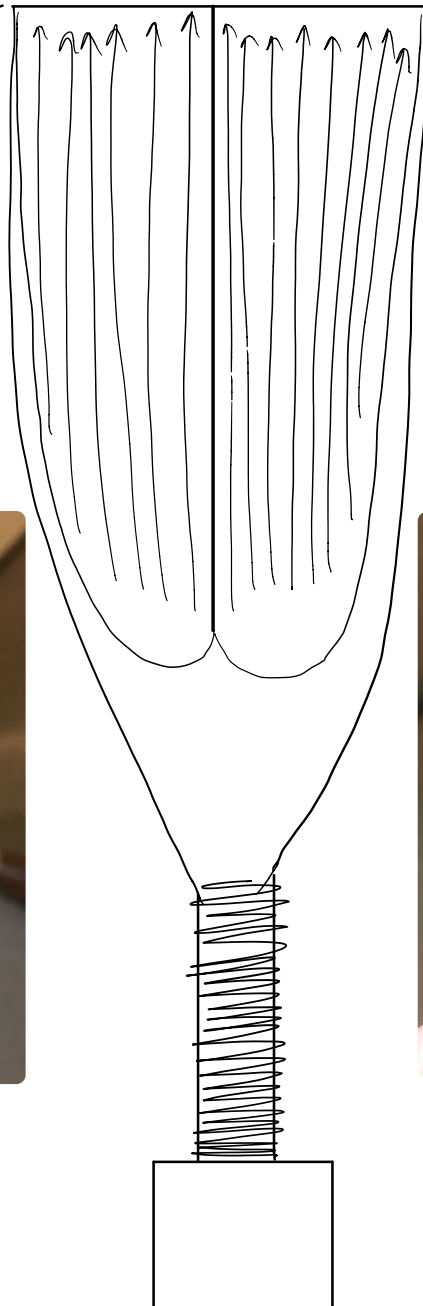


DAY 1

- With the blank still closed, draw a vertical line up the center of the reed to denote the spine.

- Begin long scrapes from 4-5mm above the string, and scrape all the way off the end of the reed. Be careful to leave the spine and rails intact.

- Scrape these channels just enough to remove the bark, revealing the softer fibers underneath. Generally speaking, 15-20 scrapes will do.



Blank with drawn spine.



Blank with one channel scraped.



Blank with both channels scraped.

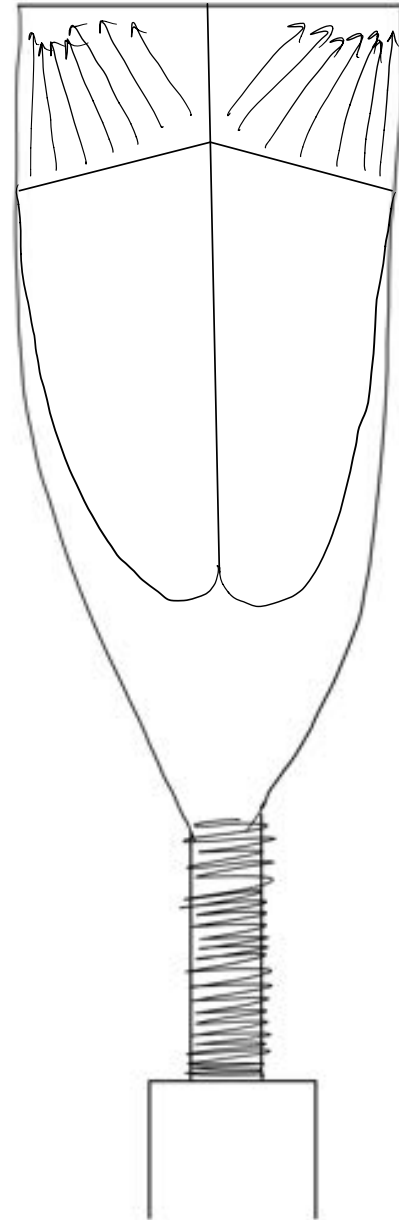
- Draw a horizontal line 65mm from the bottom of the staple, then draw a diagonal line up from each side of the reed, meeting at the spine. This will be the tip definition.

- Scrape the tip section toward the corners of the reed, creating the definition between the tip and the heart. Do more scraping near the top edge of the tip so that the tip slopes from the heart to the top edge. The tip need not be thin enough to play yet, only thin enough to easily clip open with a razor blade.

- Once both blades of the reed have two channels and a tip definition, draw a horizontal line 71mm from the bottom of the staple.

- Place the tip of the reed on a cutting block and clip open the tip of the reed with a razor blade at the 71mm line.

- Put the reed away for at least one night.



Blank with drawn tip definition.



Blank with scraped tip.



Profile view of tip.

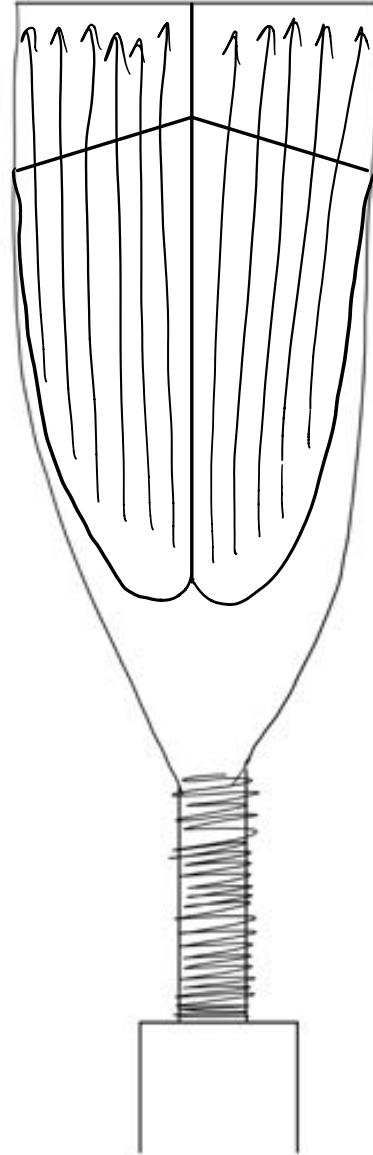


Reed after being clipped open.

DAY 2

- Measure the channels with a dial indicator. The final measurement should be between .41 and .45mm throughout the length of each channel (I prefer mine at .42). Whichever measurement you use, continue with the long scrapes as before so that all four channels (two on each blade) of the reed have equal measurements. Be careful to leave the spine and the rails intact.

- Measure the spine using a dial indicator. The final measurement should be between .48 and .50mm throughout the length of the spine (I prefer mine at .49). Use long scrapes on the spine until the spine on each blade matches the desired measurement. Note: this will obscure the visible definition of the spine, so be careful not to inadvertently thin the spine too much.



Channel measured at .42mm.



Spine measured at .49mm.



Clearly defined spine.



More obscured spine.

- Draw a horizontal line between 60 and 61mm from the bottom of the staple (I prefer 60.5). This is the boundary between the heart and the back.

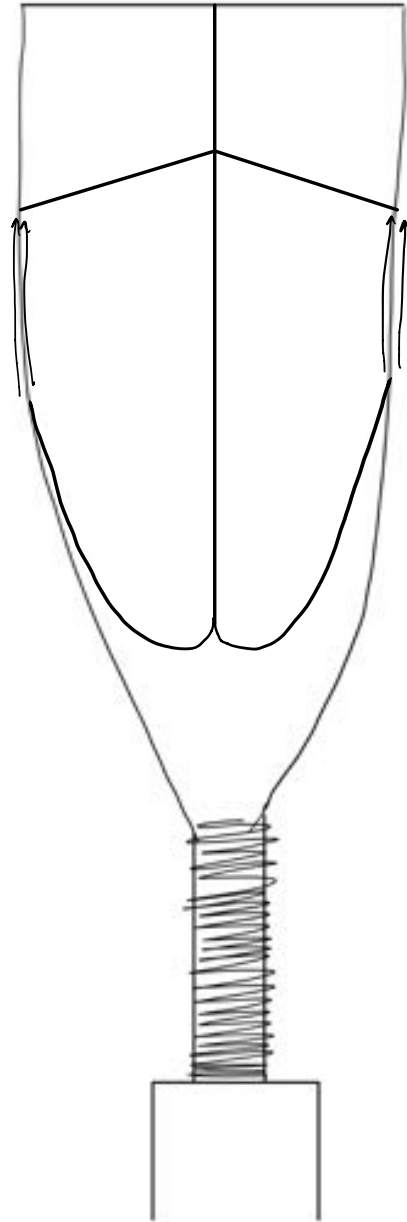
- Gently scrape the rails in the heart, removing the bark and tapering them into the tip area. Be very careful and precise with the knife. It is easy to scrape too far towards the center of the reed, which will make the channel too thin in the heart.



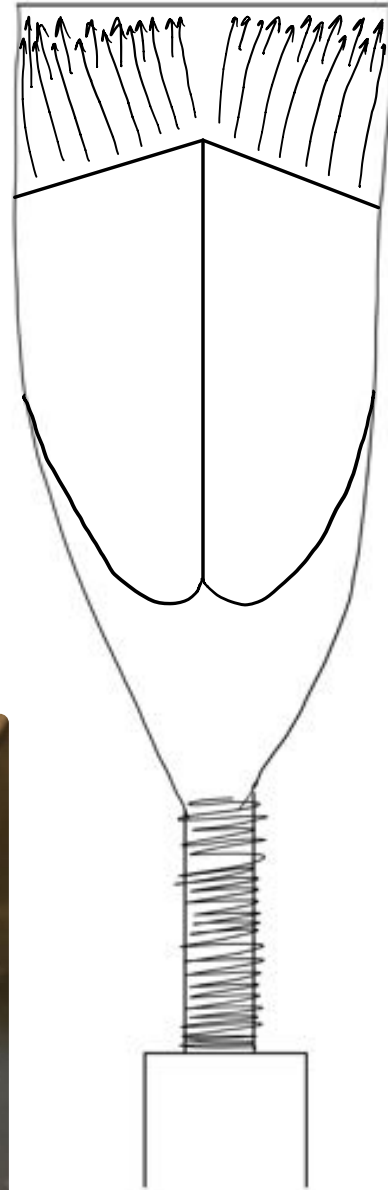
Pencil line drawn at 60.5mm.



Rail of the heart removed.



- Redraw the tip definition as before at 65mm.
- Thin the tip, starting with the top half of the tip area and gradually lengthening the scrapes towards the definition. Make sure each scrape brings the knife all the way off the top edge of the reed to avoid a build-up of cane on the edge.
- Avoid scraping the center of the tip. The tip should be thinnest in the corners and along the sides, and it should be thickest at the definition of the heart.
- The definition between the tip and the heart should be very clear. It is useful to turn the reed upside-down to see the definition from a different angle. The definition should be a straight line from the spine to the side.
- Continue thinning and defining the tip until it is thin enough to vibrate easily. At that point, a darker-colored plaque should be visible through the thinnest parts of the tip when gently pressed.
- The reed should now vibrate wildly, easily, and flat when crowded. Clip the reed up to a "C" in pitch. It likely will not vibrate as easily after being clipped to pitch. Put the reed away for at least one night.



Reed with redrawn tip definition.



Reed with thin tip.

Additional photographs on next page.



Reed with plaque pressed against tip.



Reed upside-down for viewing tip.



Reed viewed in profile.



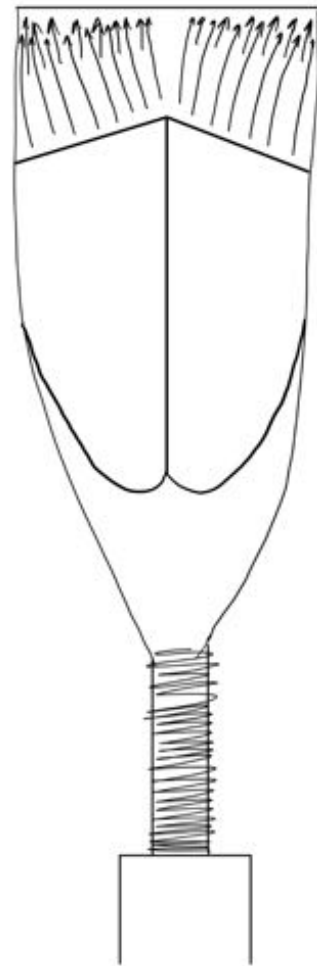
Reed after being clipped to pitch.



Clipped reed viewed in profile.

DAY 3

- Crow the reed. It likely will be stiffer and less vibrant than before.
- Thin the tip, following all of the same guidance as before. Look for any irregularities in the scraping - thin spots, thick spots, etc. Smooth these out until the tip looks even and symmetrical.
- Crow the reed again. It likely will be vibrant and flat. Clip it until it crows a "C."
- Continue repeating this process - thinning the tip until it vibrates easily and then clipping it up to pitch. Eventually it will reach a point where the tip is thin enough to vibrate easily and short enough to crow a "C" in pitch. The reed should play in the oboe now.
- While in this process, it is important to make the tip appear symmetrical left to right and identical front to back. The reed will vibrate best if both blades match perfectly.
- Pay special attention to the top half of the tip. The top edge of the reed must be the thinnest part, so it is helpful to spend extra time taking care of the top half of the tip.
- When scraping the tip, use a very tight touch with the knife. Be in control so that you can remove as much or as little cane as you desire.



- Redraw the line for the boundary between the heart and the back.
- Gently scrape from the bottom of each channel up to that boundary line, avoiding the spine. This will re-define the spine in the back.
- Be careful not to scrape too much in this area. Typically, when the pitch of the crow drops just a little bit, the back has been scraped enough. If the back is scraped too thin, the reed may collapse and lose vibrancy.
- If necessary, clip the reed up to pitch and repeat the tip scraping process as before.



Reed with redrawn line.



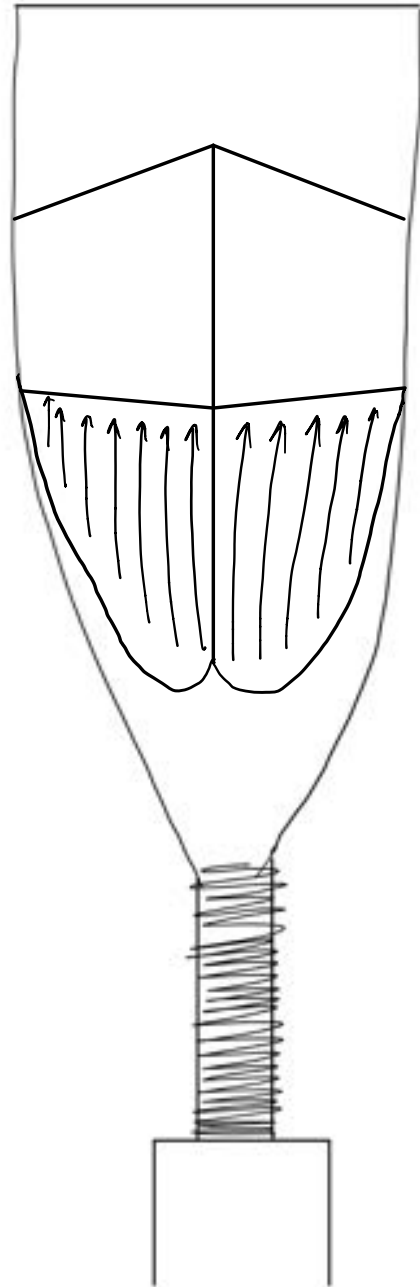
Reed with back scraped.



Silhouette with defined spine.



Finished reed in profile.



Finishing Ideas

- When finishing the reed, adjust for function rather than tone. Work to make the response, pitch, and resistance exactly as you'd like them before trying to adjust the tone quality.
- Knowing how to fine-tune your reed in the final stages requires a good amount of experience. With each reed, take a few seconds to think about how it looks, how it crowds, and how it plays. Adjust the reed, and then evaluate those three criteria again. You will soon develop your own mental database of causes and effects.
- When finishing the tip, try to apply no pressure at all with the knife to achieve the lightest scrape possible. This will require an extremely sharp knife.
- It can be beneficial to leave the reed a little harder than is comfortable at first. Over the course of several days, a combination of practicing on the reed and making fine adjustments will help the reed settle into an ideal state.
- When adjusting the reed, check the tip first. Any unevenness in either blade of the tip can cause many seemingly unrelated problems. Taking the time to be sure the definition is perfectly even on both blades, the tip slopes down smoothly from the heart to the edge, and removing any thinner or thicker spots will often dramatically improve the vibration of the entire reed.

General Thoughts

- Rarely (if ever) do I consider a reed to be fully finished. More than likely, each day I will want to lightly adjust the reed in some way.
- Practice before you work on reeds. The music is more important than the reed. Being properly warmed up will also give you a better understanding of how you want your reeds to feel.
- Make many, many reeds. The good reeds never last as long as we want them to, so it's best to have a continual "assembly line" of reeds.
- Sharpen your knife often. If you let yourself scrape with a dull knife, not only will your scraping be less effective, but once you do re-sharpen your knife, it becomes very easy to quickly scrape too much cane, ruining the reed. Therefore, keep your knife consistently sharp all the time.
- There are many different ways to achieve the same result – most oboists have developed their own individual ways of making a reed that suits their needs. Experiment with different ideas and different processes to find what works best for you.
- Take your time with reed making, especially at first. As you improve, you will naturally begin making reeds faster. Try to make the reed appear perfect before crowing it, then try to make the crow sound just right before putting it in the oboe.



Born in Denver, Colorado, oboist Scott Erickson has performed throughout the Americas. While pursuing his doctorate at Florida State University, he was appointed Principal Oboe of the Orquesta Sinfónica Nacional de Bolivia, and he taught at the National Conservatory in La Paz. His unique experiences have given him an adventurous musical personality, and his pursuits for newer sounds and ideas manifested themselves in performances of both written and improvised music with the Bold City Contemporary Ensemble in Jacksonville, Florida.

Erickson is a frequent performer in orchestras throughout the United States, with performances in the Jacksonville Symphony Orchestra, Coastal Symphony of Georgia, Pensacola Symphony, Ocala Symphony, Panama City Pops, Wyoming Symphony Orchestra, and the Albany (Georgia) Symphony. Additionally, he has given concerto performances in the United States, Canada, and Bolivia.

In 2018, Erickson joined the faculty at Central Washington University in Ellensburg, WA. He was awarded his doctorate in oboe performance at Florida State University, where he also earned his master's degree, studying with Dr. Eric Ohlsson. He received his bachelor of music degree from the University of Wyoming with a dual emphasis on oboe and flute, studying with Dr. Lindsey Bird-Reynolds and Dr. Nicole Riner, respectively. He is an active performer and educator, and he maintains a reed making business in Ellensburg (www.ericksonreeds.com).