

Turning Fawn Bleat Calls

This article will show you how I turn a Fawn Bleat Call. There are several ways to make Fawn Bleats. The simplest is to follow the directions in the Tutorial Closed Reed Predator Calls and change the reed to a Fawn Bleat Reed.

I prefer my Fawn Bleats to be two piece calls however.

The first step is to choose a piece of wood for the barrel and another for the mouthpiece.



For the call I am going to make in this article, I have chosen a piece of Stabilized Maple Burl for the barrel, about 3 1/2" long and a piece of Blackwood about 3" long for the mouthpiece.

I will drill the barrel blank with a 9/16" bit, but 1/2" to 5/8" will work just fine for these calls. I personally like a larger bore for a Fawn Bleat than 1/2". 9/16 seems to work best for me, but use what ever mandrel you have available..



After drilling, the call is placed on the mandrel ready to turn.



Turn your barrel to any shape you want. I like traditionally styled calls, and so have turned my barrel as such.



Once the barrel is turned, we need to make the mouthpiece. Again, the style of mouth piece is your choosing. I am going to turn this one in a traditional style and show you how to fit it to the barrel easily.

After finding the centers of the block of wood I will use for the mouth piece, I drill a starter hole in each end to line up the centers of my lathe on.

On my Jet Mini Lathe, I have mounted a Oneway Tallon Chuck with a set of step jaws.. This chuck never comes off the lathe. I have found that a dead center, mandrels, both blind and full can be held in the chuck for turning. In this picture you can see the dead center in the chuck,



The block is then placed between centers ready to turn.



After turning the blank to round, I cut a shoulder, or tennon in the end of the block with a parting tool. This tennon will be inserted in the chuck and will hold the blank while we shape and finish the mouthpiece.



As you can see in the picture below.



While there is no hard and fast rule that I know of, I think that the widest part of the mouthpiece should be equal to the widest part of the barrel. This gives a nice aesthetic look to the completed call.

It does not have to be exact, but I do like to get them close.



Here I am using a set of calipers to determine the width of the barrel.

As I turn the blank down, I constantly check the width with my calipers. Remember to turn your blank just a bit wider than you want it when finished because you will lose some wood in the sanding and finishing process.



Once I get my blank turned down, I use a parting tool to square up the end of the blank.



Now it's time to start rough turning our mouthpiece to shape. I use a spindle gauge to check the diameter of the end that will fit in the barrel. If your design uses a mouth piece that will fit flush on the barrel, you could use the Tennon Technique with a modified open end wrench to cut a perfect tennon. In this case, to keep with the traditional design of this call, the mouthpiece is going to taper into the barrel so I will have to fit it by hand as we go. The spindle gauge is important as it will allow me to cut a small section that will fit inside the barrel and be held in the chuck.



Continue shaping and turning until the spindle gauge shows your are at the diameter you need.



At this point, I switch to a Jacobs Chuck and a 9/32" drill bit and begin to drill the blank.



As you drill, back out the bit and clean it off. This too will keep your bit from wandering and giving you an off center hole. I use a small brass wire brush to clean my bit.



Jet Mini Lathes, because of the way they are made, are not known for being able to drill accurate holes. There is a workaround for this problem, and while it is not perfect will usually give you much better results.

Once I have drilled all the way through, I switch over to a large Step Drill.

The ram that hold the Jacobs Chuck is loose in the tail stock and can move when drilling. There is a small lever on the side of the tail stock that allows you to tighten down the ram in lathe operations. Use this handle to snug up the ram in your tail stock when drilling. You will get much better results.



In all drilling operations on the lathe, use the slowest speed, and back out the bit twice as many times as you think you should.

I like to drill about $\frac{3}{4}$ of the length of the bit in for my mouthpieces.



When you finish drilling out the mouthpiece, it will have ridges created by the step drill.

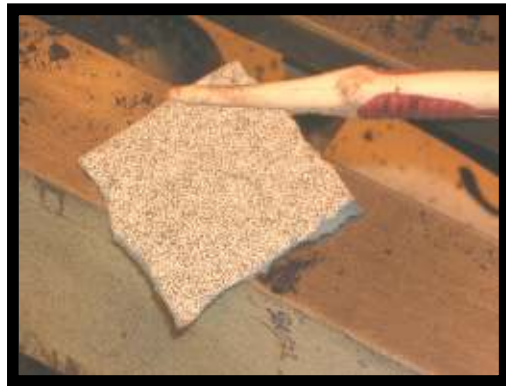


We need to remove these ridges and smooth out the inside of the mouthpiece

There are many ways to do this. I have taken an old tooth brush, cut the head off and then cut a slot in the end.



I place a small square of 60 grit sand paper in the slot I cut in the end.



Wrap the sandpaper around the end of the tooth brush tool.



With the lathe running at the slowest speed, the sand paper on the toothbrush is inserted into the mouth piece as is sanded as the lathe turns.



Once the ridges are all gone, it is time to start final shaping, fitting and finishing of the mouthpiece.



But before we can do that, we need to cut off the mouth piece. I use a small hobby saw to cut it off.



After cutting off the mouthpiece, an initial test fit is done to see where we are.



We have a ways to go.

When making the initial test fit, just a tiny bit of pressure while rotating the mouth piece in the barrel will leave a mark on the mouthpiece.



We are going to now seat the mouth piece in the chuck up to this line.



We are now going to start a process of sanding in small increments, and test fitting several times to get the mouth piece to fit in the barrel the way we want it to..

You can see that the tail stock has been fit with a live center to give support to the mouthpiece.

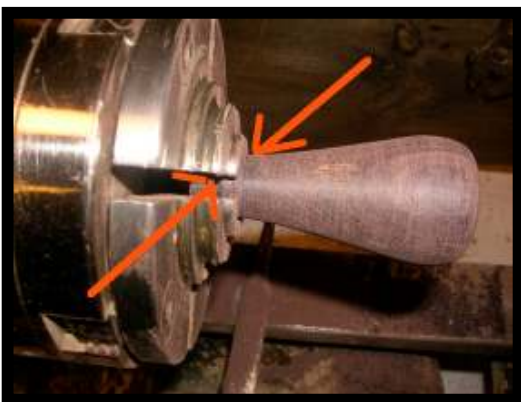
Sanding the mouthpiece in this manner is slow going, but provides for a very good snug fit.



With each test fit, you will see that your indicator line moves up the mouth piece.



Insert the mouthpiece back into the chuck up to the new indicator line.



During the sanding, we are using a very coarse grit of sandpaper. Once we get close to where we think we want the mouthpiece to fit into the call, it is time

to start using finer grits of sand paper to finish the mouthpiece.

If you wait until the mouthpiece fits exactly, as you sand the mouthpiece with the finer grits, it will end up too small for your barrel. With each finer grit, sand the inside of the mouthpiece too.



When you have the mouth piece sanded to about 800 grit and the fit is correct, take it out of the chuck.

The next step is something you should do with all of your mouthpieces to give your calls a professional look.

I have taken a 1/4" 4 " long bolt and cut the head off. Then I wrapped it with masking tape in a taper. I then wrap a small piece of soft paper towel around it all. The paper towel will protect the inside of the mouth piece in the next step



It is then inserted into the drill press chuck.



Slide the mouthpiece on the bolt



With a piece of 150 or so grit sandpaper, sand the bottom of the mouth piece.



Roll the sand paper into tube and sand a bit inside the exhaust hole also. I normally sand to about 320 or 400 grit.

Keep your drill press at the slowest speed possible.

This extra step just gives your call a finished look on the inside of the barrel.



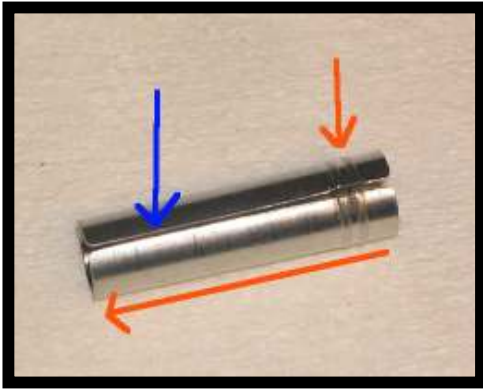
Next we want to chuck up the mouth piece one more time. I put a piece of paper towel in between the mouthpiece and the live center to keep from marring the finish, and then cut in a couple of glue grooves.



These grooves give the glue a place to grip, and are just an added bit of insurance when you are gluing up a mouthpiece to a barrel.

Once we have the mouthpiece finished and glued into the barrel, it is time to seat the reed assembly.

You will need a metal reed sleeve.



Look closely at the reed sleeve. You will see that it has a slight taper, The wide end is the end with the two raised bands on it (red arrow)

You will also see that the sleeve is split down the middle.

When we drilled the mouthpiece, we drilled a 9/32" hole.

The sleeve fits in a 9/32 hole, but to ensure a good snug fit, we want to open up that slit down the middle just a bit.

Wipe the sleeve down with some Acetone or other degreaser, and then apply a bit of Devcon 2 Ton Epoxy to the sleeve. The small end goes in first.

Push the sleeve into the mouthpiece. A disposable pen works well to seat the reed in the mouthpiece. Take care to wipe any epoxy that spills over off the inside of the mouthpiece. Give it a few hours to dry.

It should look like this when fully seated.



Once the sleeve is glued in, it is time to seat our reed.

The reed we use to make a Fawn Bleat, is an LV 002 by JC Products.



We need to make two modifications to the reed before we can use it.

First, the base of the reed needs to be widened. If you look at the base of the reed you will see that it has a slit in it. We want to widen this just a bit to ensure a tight fit in the reed sleeve.

Second, we need to tune the reed to make sure it sounds like a Fawn Bleat when played.

To tune the reed, we are going to “Blade” it. This means we are going to use a single edge razor blade to lift the thin reed away from the base. This will deepen the sound a bit.



Once the reed is “bladed” a bit, drop it into the mouth piece base down as shown. It will not fit inside at this point, and if it does drop into the sleeve with no effort, you need to take it back out and open up the base just a bit more. If you don't do this, the reed could fall out in the field.



To seat the reed in the sleeve, I use a disposable pen and press on the very top of the reed. Push it down until it is snug and then give it just a tad more to fully seat it.



Test your call by blowing it. If the sound is good, you are finished. If you need to retune it, you will have to remove the reed by pushing it out from the barrel.

A small wooden or plastic dowel works well for this. Just be careful and do it gently.



Re blade your reed and remember to once again, open the base up so you get a good snug fit when you reinsert it.

Once you are happy with the sound, your call is ready to be buffed out and waxed.

And now you have a beautiful great sounding Fawn Bleat.



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