

Carving the Basswood Eagle Head Cane

Introduction

While this outline covers one specific method of carving the Eagle Head Cane and detailing the feathers it can be used as a general outline for assembling the Eagle Head Presentation Canes when used in conjunction with the cane plans section.

The Shaft

The Cane plans call for a 1 ¾ inch shaft, and a 1 ¾ inch eagle head, however, for a more realistic eagle, the head width should be increased to 2 or 2 1/8 th inches and the shaft should be turned with a 2 or 2 1/8 inch connector at the top of the shaft.(Figure 1) To keep from making the cane too heavy, round the bottom of the connector to 1 ¾ inches about 1 ½ inches below the dowel then continue the taper to 1 inch near the bottom. I make the shaft 36 inches long and that includes the 2 inch dowel at the top (Figure 2) and the 1 1/8 th inch dowel at the bottom, both dowels being ¾ inches around.

An alternative to the turned shaft connector can be to just taper the feather line of the Eagle Head to meet whatever shaft size you choose.

A deeper head block can be used if you wish a longer neck like the one Pat Moore uses (see her plans in Woodcarving Illustrated).

Using a natural shaft works well if you plan ahead and make a nice taper on the Eagle Head neck, I have seen several and they look fine.



Figure 1



Figure 2

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The Eagle Head

If the head block is to be fitted to a turned shaft connector it must be carefully milled to insure that the top and bottom are perpendicular to the sides so when you attach the head to the shaft the matching surfaces are parallel, this is especially important if you plan to carve the feathers down the connector a ways. (Figures 3,4,5) If on initial fit-up you notice a space on one side of the shaft it is most likely a problem with the head blank. This can be fixed in most cases. I use a square of 80 grit sticky backed paper cut larger than the connector, cut a $\frac{3}{4}$ inch hole (from the sticky side) in the paper square, fit it over the dowel grit side up and then slide the head onto the dowel and when it contacts the sandpaper rotate the head and or shaft to “lap” the joint, being careful not to crimp the paper or you may cut into the head edge farther than you wish.

A good idea is to mark the bottom of the head blank where the head meets the connector prior to working on the head or starting to shape the head, I just slip the blank onto the shaft and with a scribe or pencil mark the diameter of the connector onto the bottom of the head. This mark is the cut line on the bottom of the head, always cut up away from the joint or you may break a piece from the bottom of the head.

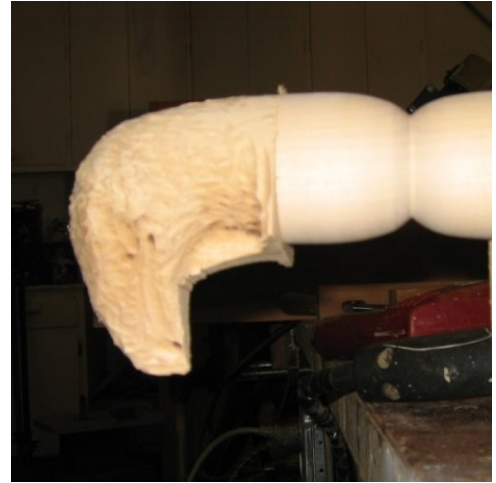


Figure 3



Figure 4



Figure 5

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Using the mark made on the bottom of the head blank as a guide, start shaping the eagle head from either the rough out or band sawed blank you have chosen. Refer frequently to any reference material you may have to establish the head shape. (Figure 6) After the head is rough shaped to satisfaction, I sand it smooth then establish the eye location, beak shape, and start drawing in the feather pattern. (Figure 7) Start the feather pattern at the bottom of the head feather line, this can be on the connector or starting at the bottom of the head blank connection. (Figure 8) The largest feathers are drawn in at the bottom and become increasingly smaller as you approach the top of the head. It is a good idea to refer to reference material to establish in your mind the feather flow and feather clumping

Placing the feathers on the underside of the beak is perhaps the most difficult part of making the head and the question always comes up as to whether it is better to glue the head on prior to or after placing the feathers. Well, it is tough both ways but I prefer to glue the head on first – simply because it is easier for me to hold that way whether I am using power, a knife or gouge.



Figure 6



Figure 7



Figure 8

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Carving the Feathers

A lot of tools, hand and power, can be used to carve the feathers, if I am tired of sawdust – even with the collector going – I carve the feathers with a sharp V tool, I use two : a ¼ inch and a smaller one. (Figure 9) As I carve in the outside shape of the feather I slant the V tool to make a mound of the feather (Figure 10) and taper the feather at the top so it appears to go under those above. Continue to shape each feather using the flat of the V tool as a chisel until each is mounded or a clump is molded into the pattern.

Even though I detail almost all of the feathers with the small V tool or a small bit in a power carver, or in some cases with a wood burner, the detail is softened with a large flap sander, and a lot of the detail is lost on the top of the cane. The reason I do this is to make the handle user friendly, a cane handle with sharp edges may look great but if used will feel terrible very soon.

Note: even though these are presentation canes someone is going to use it - sometime.



Figure 9

Joining the head to the shaft

Almost any of the waterproof glues can be used to make the joint of the head and shaft, however I prefer an epoxy glue, especially if the fit is the least bit loose or if the head to shaft joint is a bit off. Be sure that the dowel to head block fit is not too tight, it is a good idea to carve in a groove or slot in the dowel to allow excess glue to escape, if not it could prevent a fit up. If you are in doubt about the head to shaft joint, mix some wood flour into the epoxy of the same color as the wood you are using. If you choose to use the “5 minute epoxy” be sure every thing is ready to go together and your clamp is set and ready before mixing. The epoxy mixed with wood flour will make a nearly invisible joint even with a few small problems with the joint, a wood burner, however, will melt the epoxy so be careful. (Figure 11)



Figure 10



Figure 11

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Placing the Eyes and Mouth opening

At the front of the beak on the centerline of the head and about even with where the eyes should go make a mark. (Figure 12) This mark will be the reference point for setting the eyes back from the beak. The distance back from the beak to the eye depends on the size head you use but will be almost half way to the back of the head at that elevation. Mark a vertical pencil line on both sides equidistant from the reference point. (Figure 13, 14) Then, using the bottom edge of the head mark up from the bottom edge a point where the bottom of the eye should be. (Figure 15)



Figure 12



Figure 16



Figure 13



Figure 14



Figure 15

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You now have two marks on both sides of the head for the front and bottom of the eye. Using a # 9 sweep gouge 10 mm wide, lightly scribe a half moon using the front and bottom lines as edge guides. (Figure 17, 18) Across the top of the eye but slightly down, draw a slightly slanted straight line from the back of the eye mark sloping towards the beak. (Figure 19) Take a good hard look at what you are doing at this point, this is critical, both sides must be the same distance from the front and bottom. A lot of reference material is of great value in establishing in your mind how this should look. (Figure 16, 20) Then take a short sharp knife and cut the top eyeball line from front to back then draw the shape of the eyebrow from the front of the eye to the top of the beak and from the back of the eye curving around the side of the blank. I use a v tool at this point to carve this line in but not over the eye itself. Next, back to the #9 gouge, press it into your original mark and rotate as necessary to meet the straight brow cut. The eye ball itself needs to be rounded – remember this is a predator and it is looking forward so the eye must be given that shape . A 45 degree slant will work to establish the forward look. After I remove some of the wood around the eyeball I use a V tool and get rid of wood around the eyeball except for the brow which should be starting to stand proud as you round the eye and carve it back into the head itself. View the frontal pictures of the eagle head, notice how the eyes set into the head and do not hang on the outside.(Figure 16) Continue shaping the eye until it is fairly round, tilted down a bit and looking to the front. A wood burner can be used to finish rounding the eyeball.



Figure 17



Figure 18



Figure 19



Figure 20

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Shaping the Beak

The beak should be sanded smooth at this point so you can draw the outline of the beak onto the wood. (Figure 21) I prefer the open beak (Figure 21A), joined at the front to increase strength. This is not quite realistic but far better than having the normal overhang break at the first bump – which it will!

Draw in the mouth shape with the open profile, the back of the mouth ends just below a line about parallel with the back of the eye. Note the curve of the mouth opening and try to duplicate that prior to any cuts. When you are satisfied with the position of one side of the mouth, take measurements from the front to the back and from the bottom of the blank to the back centerline of the mouth opening. (Figure 22) Both sides must be the same before starting any cuts.

Using a sharp short bladed knife, cut in “stop cuts” into the mouth lines you have just drawn in. (Figure 23) To clean out the inside of the mouth opening I use the “dog leg” “Dockyard” tools, and have filed one down to a very narrow size to fit in the mouth opening without tearing out side wood. (Figure 24) Note the lip at the back end of the mouth opening and make a note as to where the “lip” fares into the upper and lower mandible, draw this on the blank and with a V tool carve the separation between the lip and beak.



Figure 21



Figure 22



Figure 23



Figure 24

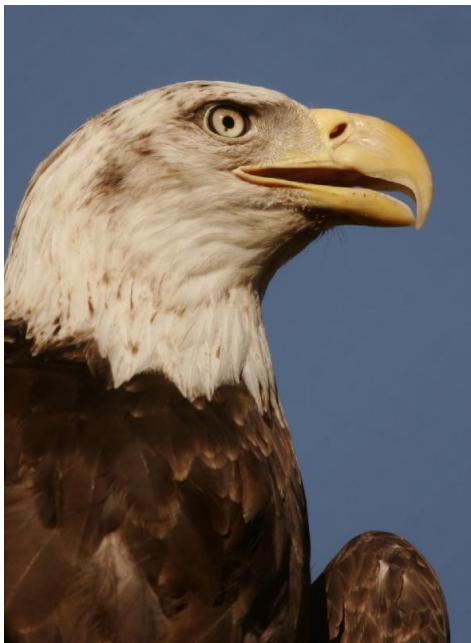


Figure 21A

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Note the nostril opening on both sides of the beak, also make note of the slight groove that curves around the beak just in front of the nostril and draw these onto the wood. Using the sharp short blade knife, make a shallow stop cut over the lines you have drawn and ease the wood away from the front of the stop cut so you have a slight bump on the back part of the upper mandible.(Figure 25)
Note that the nasal opening goes back into the beak, that can be hinted at with a slight under cut on the back of the opening. Also note that the nostril opening is slightly raised from the back part of the beak, to get that look you must remove a small amount of wood from around the back of the nostril .(Figure 26)



Figure 25

As with all carving, observation is your best tool for getting a feel of how an object really looks, from this you can go to an artistic representation (stylized), caricature or realistic carving.(Figure 27)



Figure 26



Figure 27

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Reference material see: **Birds Of Prey** by Floyd Scholz

The Illustrated Bald Eagle by Denny Rogers

www.Pbase.com search for “eagle”

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