

Arrowmaking

Making arrows is not hard. It has many steps, and requires visual aids far beyond my illustration capability. If you can actually watch someone go through this process, then these instructions should be usable.

You will need:

Shafts, usually cedar, available in either 11/30" or 23/64" diameter

Fine sandpaper

Boiled linseed oil

Either a dipping tube or a rag to apply oil

Clothesline and clothespins, paper clips, or other clip

Dremel or hacksaw to cut nocks or purchased plastic nocks of the correct size

Linen or silk thread and Needle

Points to fit your shaft- 125 grain weight in the correct diameter for the shaft

Sharpener appropriate to shaft diameter

Ferr-L-Tite or other cement

Rubbing Alcohol

Q-tips

Heat source

Pliers - 2 pair unless you are heat-resistant

Piece of scrap wood for work surface

Cup of water and a rag

Fletching jig, with clamp appropriate for mounting feathers of your preference

(i.e. straight or helically (spirally) to the right or left)

Feathers with appropriate vane direction (right wing or left wing, if mounting helically)

Fletch-tite glue

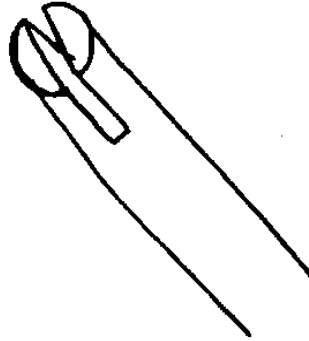
Timer

Prepare Shafts

1. Sharpen one end for point
2. Cut nock in other end (I'll tell you how in a minute; settle down!)
3. Sand lightly
4. Holding by point, apply linseed oil by dipping into tube almost filled with oil
or rubbing with oiled rag
5. Hang by point to dry at least a half-hour or overnight, depending on how heavily oil is applied
6. When dry, repeat steps 3, 4, and 5

Nocks

1. Find the direction of the grain of the wood, frequently by looking at the length of the shaft
2. Across the diameter of the end to be nocked, draw a line PERPENDICULAR to (across) the grain
3. Cut slot for nock. It should be about 1/4" deep and wide enough for your bowstring to fit into snugly, though not tightly enough to impede release. KEEP SIDES OF SLOT PARALLEL AND CENTERED. (see picture below)



4. After you have completed the fletching (see below), you will want to finish the nocks by wrapping thread around the base of the slot to help prevent splitting. Secure with a dot of Fletch-tite glue if needed

Note: While not as nifty-looking, you may also choose to use purchased plastic nocks instead of self-nocking the arrow. Follow the directions that come with your nocks.

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Points

(These directions are for the use of Ferr-L-Tite hot melt glue. If you use something else, adapt according to the directions for that adhesive.)

1. Clean inside of point with alcohol and q-tip
2. Hold the point in one set of pliers (pointy end down) and the stick of glue in the other.
3. Hold glue over heat source long enough to begin melting.
- 4.. Drip 4-8 drops of glue INTO the point. I like to hold the point partially over the heat to keep glue from setting or dripping between heat and point.
5. Place tip of point on wood work-surface and hold firmly and PERFECTLY (!) vertical.
6. Holding shaft upright, put pointy end into glue-filled point, also PERFECTLY vertical. Glue may ooze out - don't panic!
7. Use wet rag to grasp the point and hold more firmly, and to cool it down.
8. Check to make sure tip is on straight. If not, reheat to remove and try again.

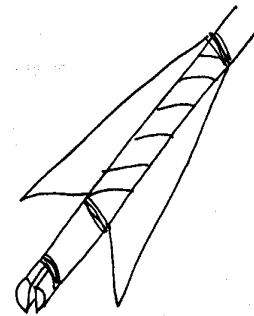
9. Let it cool completely. You may need to chip off extra glue that oozed out. The serrated part of a pliers works well for this. Experiment with the correct quantity of glue to reduce ooze as much as possible.

Fletching

Fletching is the term for attaching the flights made of feathers to your arrows.

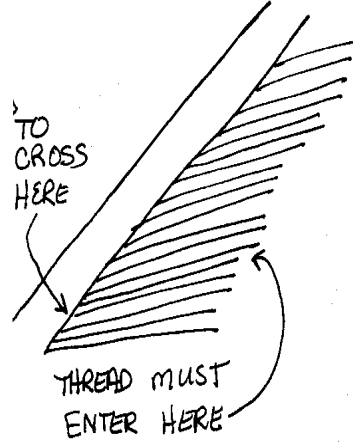
1. Set up jig with:
 - > correct clamp for the feathers: right-helical for right-vaned feathers in a spiral, left-helical for left-vaned, or straight (either side vaning works)
 - > correct spacing disc for the number of flights you will use (3 flights benefits from an identifiable cock-feather; 4 does not need differentiation)
 - > desired distance from the end of the flight to the nock - most jigs are set for about 3/4", and I have found I need more space for my fingers since I do not add the length of a plastic nock. At least one period source has indicated a 2" distance from the nock end of the shaft to the feather. Mark the clamp if necessary to show where the end of the flight should go.
2. Select feathers. Trim to length and shape desired. I like to trim about 1/8" of vanes off each end of the shaft part of the feather, to create "tabs" to wrap with thread.
3. Position shaft in jig - nock should fit securely towards you over the little bar in the base.
4. Position feather in clamp. Make sure the shaft of the feather is flush to the entire edge of the clamp.
5. Apply a thin line of Fletch-tite glue to shaft of feather. Try not to apply so much that it drips onto the clamp when it gets pressed tight.
6. Put clamp in jig. Press tightly to shaft.
7. Set timer for 15 minutes. Wait. Do other stuff.
8. Carefully open and remove clamp, mindful not to pull feather off of arrow shaft.
9. Turn the spacing disc in jig for the position of the next flight.
10. Repeat steps 4 - 9 until all flights are glued in place.
11. Optional: Wrap the feathers to look really cool:

Starting at the end of the feather away from the nock, wrap enough thread to cover and secure the end of the feather (here's where the "tab" I mentioned earlier is used.) Apply a dot of glue if desired. Decide where the thread should cross the next feather (see illustration on the next page) and follow the vanes to find where the thread should go through the vaning to end up where you want it. This will give you an odd up and down weaving motion as you go up the feather. Try to keep wrapping parallel and equidistant all the way up the feather. (This significantly increases the "cool" factor!) When you reach the end



of the feather, wrap tread to cover any “tab” at this end of the feather. Secure the thread by winding back through wrapping with the needle, and a dot of glue, if desired.

How to determine thread placement:



Resources

The Medieval Archer by Jim Bradbury, ISBN 0851156754

The English Longbowman Osprey Warrior Series, ISBN 1855324911

Arms and Uniforms: The Age of Chivalry Part 1 by Liliane and Fred Funcken

(Published 1980 in the USA by Prentice-Hall; tr. from French. Out of Print. Try your local library, Amazon.com or campusi.com) ISBN: 0130462764