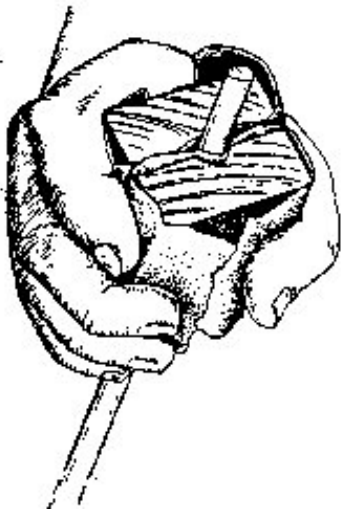


## MAKING PRIMITIVE ARROWS

The first step in making Indian arrows is to collect shoots for the shafts. The best time to collect them is in January or February, but they can be collected any time of year. Dogwood makes the best shafts, but any other straight hardwood shoots can be used. Cut them at least a couple of inches longer than the arrows you intend to make. The old Plains Indian arrow shafts averaged about 20 to 25 inches long while the Woodland shafts were 26 to 30 inches long.

To fast cure shafts, simply leave the bark on and roast them over the coals of a campfire for an hour or so. Make sure they don't burn and they can be straightened as they cook. If they do not split, scrape off the bark, straighten them more if they need it, then sand and cut in the nocks. Now they're ready for fletching and points.

Hardwood shafts are finished by cutting to length, and filing down or whittling of the prominent knots. Keeping the shafts round while sanding is a problem. Use two grooved wooden blocks covered in sandpaper. (See Figure 1)



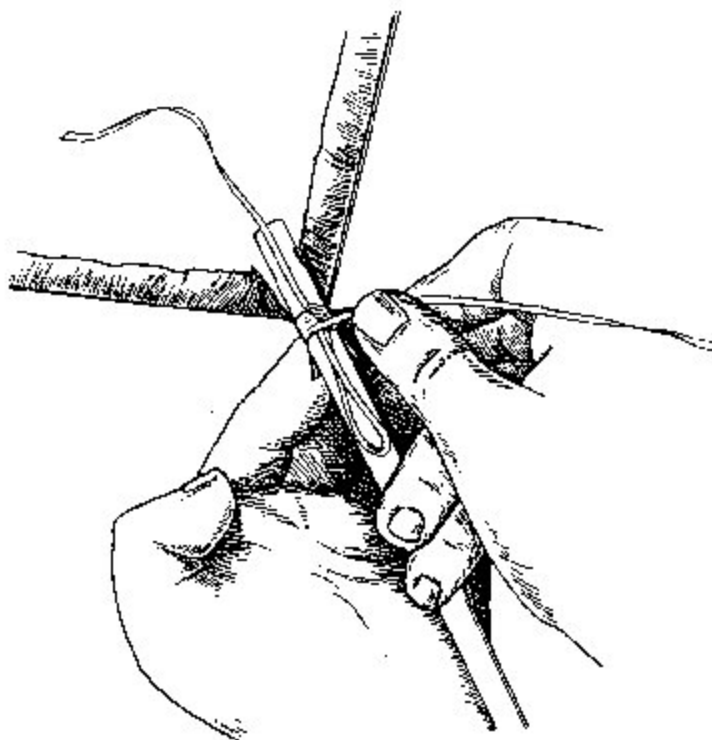
After a final finish, the nocks are sawn out and filed smooth. The Indian always put the nock in the large end of the shoot so he could narrow the shaft just below the nock.

For fletching use turkey wing or tail feathers. Wing feathers are curved and very thick and stiff. Wing pointers and primaries will only produce one vane while secondaries will usually make two. Tail feathers are straighter and have a finer quill, are easier to split, trim and apply by hand. It takes, at minimum, 18 feathers to make a dozen arrows if you can use both sides and don't mess one up.

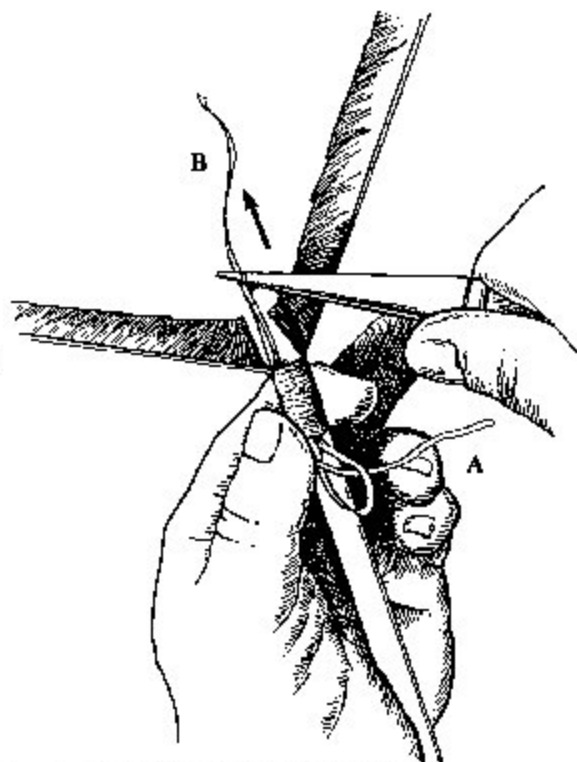
To split feathers use a very sharp X-acto knife, lay them down on a board while cutting the quills up the center. After splitting the feather, make one a template by cutting it to length (about seven inches) and trimming with scissors. Leave 1 inch of bare quill forward of the vane and 1 inch behind. Then trim the vane down to about ½ inch tall.

Lash the rear tails on backwards one inch below the nock with artificial sinew, then fold the feathers over and lash down their forward ends. (See Figures 1 through 6 on next page) .There is no need to glue the feathers.

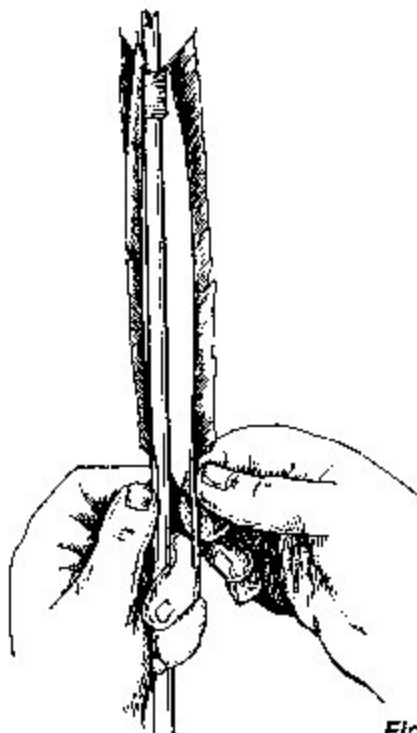
The only problem is the feathers are unattached in the middle and can expand and contract with temperature and humidity, slowly pulling themselves loose in two or three years time. This was no problem for the Indians because the arrows were usually lost or damaged before this could happen.



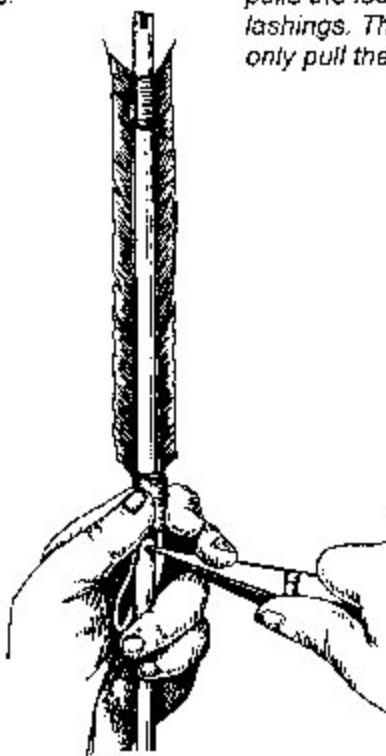
**Fig. 2.** Lashing on feathers the South American way. First lay them on backwards. Put down a loop, then lash around the shaft while holding the feathers in place with the fingers.



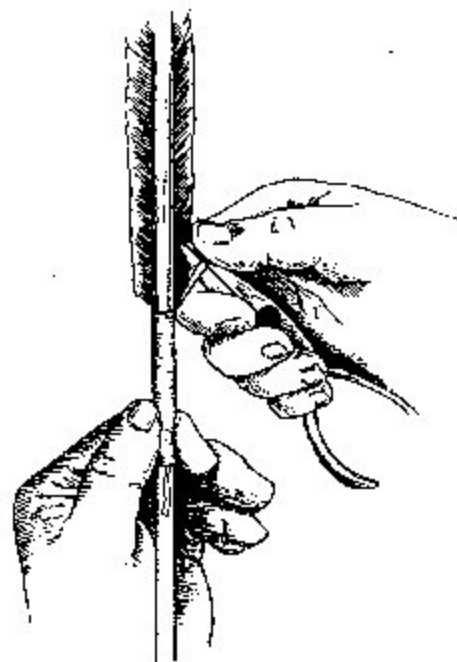
**Fig. 3.** After lashing, the tail (A) is put through the loop, then using pliers to grasp the other tail (B), it is pulled upward. This pulls the loop and other tail under the lashings. Then they are cut off. Be careful to only pull the loop under and not through.



**Fig. 4.** The feathers are folded over. Lay down a loop as you did above.



**Fig. 5.** After a few wraps, use the pliers to pull the feathers down tight. You can also readjust the position of the feathers at this time.



**Fig. 6.** Since you have used the same loop method for the bottom as you did for the top, just pull the tails under and cut off, same as before.

## MAKING PRIMITIVE ARROWS

The first feather should be placed at a right angle to the nock; this is called the **cock feather**. The two other feathers are set at equal distances from each other in such a way that they lay at a low angle to the side of the bow. This is done to reduce the wear and lessen arrow drift.

As far as heads go, if you are going to shoot your arrows a lot for plinking or target practice, you should use field points or target tips purchased from an archery shop. For hunting or display, flint points and steel broadheads are fine. The metal heads can be cut from scraps of sheet steel with a hacksaw and a file. They can also be purchased. Small arrow points of obsidian, bottle glass or chert flakes are not hard to make once you get the hang of it. These can also be purchased at trading posts. Both stone and steel broadheads are set in grooves cut with the hacksaw, in line with the nocks, then glued with superglue. The now stable heads can be lashed down with artificial sinew.

The figure in the next column shows the different variations of fletching and tips.

I Hope these pointers (no pun intended) were helpful to you. For more detailed information on making bows and arrows and arrow points, be sure to read *The Art of Making Primitive Bows and Arrows* and *The Art of Flint Knapping* by D.C. Waldorf or the *Bowyer's Bible* volume 1 through 3 by Jim Hamm.

