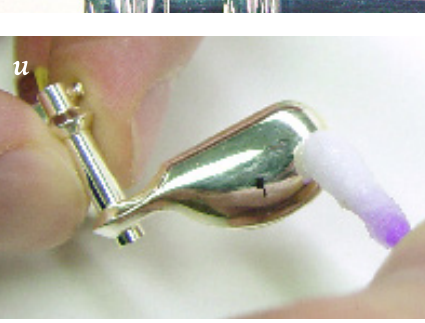
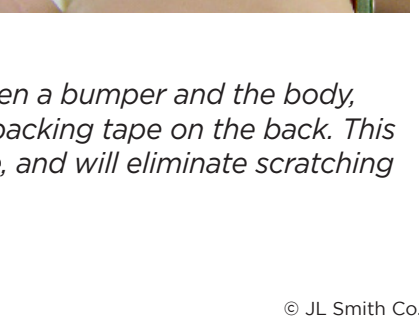
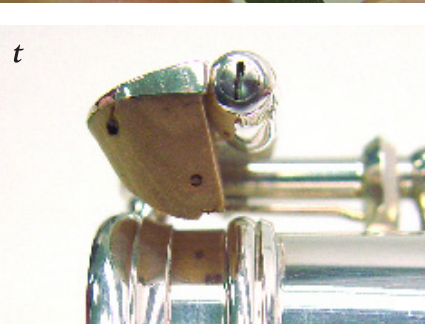
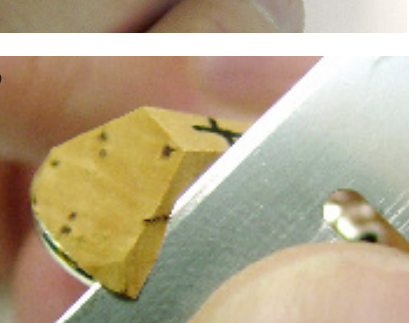
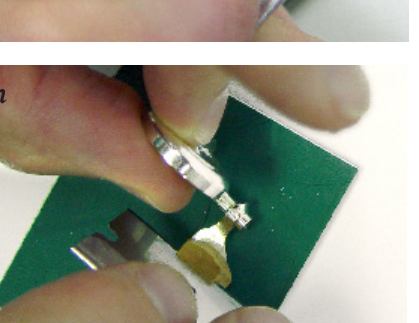
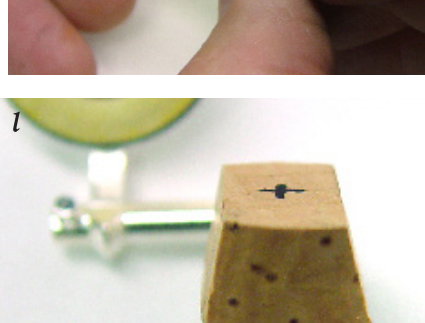
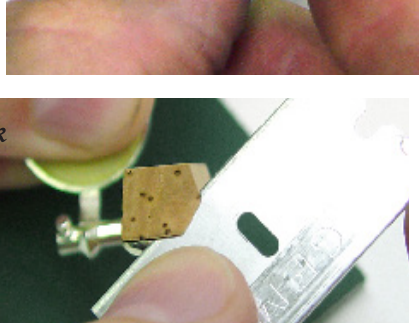
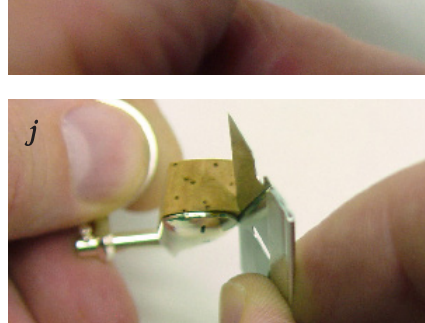
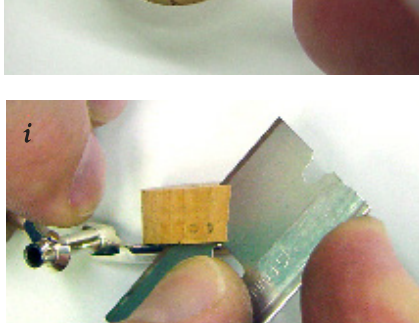
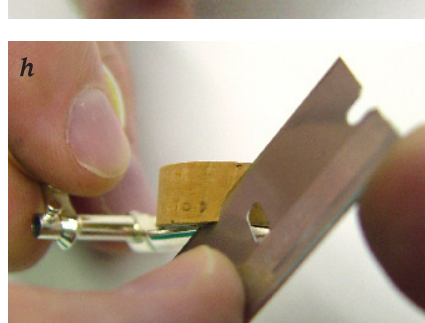
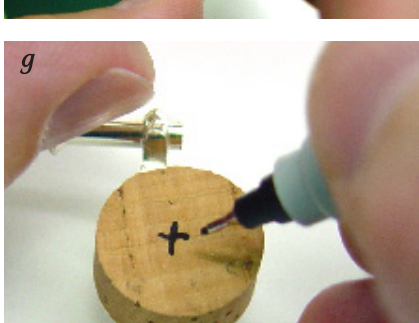


Making a D# cork

by Jeff Smith

1. Mark the top of the spatula along the centerline. This will help you to see where the angles need to be cut (fig a).
 2. Remove the old cork and adhesive with a scraper (fig. b and c).
 3. Heat the key with the butane torch and melt on a bit of the George's glue stick (fig. d). Attach the cork and press (but don't touch the hot back of the key) (fig. e and f).
 4. Use your marker to make a mark on the cork at the center point of the area that will touch the body (fig. g). Use the previous cork to judge this, or mount the key to determine. Some corks need to touch the body between two rings, and some don't have this restriction. In general, the facets that you cut below will be the same angle. This will vary according to the instrument.
 5. Cut your first facet along the long S side of key. Make this cut with an angle inwards towards (but not to) the center point mark. This will be a straight cut from 6:00 to 12:00 (fig h and i).
 6. Now, Do the same on the N side. Again, bevel this inward towards the center mark. As your previous facet, this is a straight cut, which should parallel the first cut (fig j).
 7. Now we cut the front face. Again a straight cut, again beveled inwards towards the center mark (fig. k and l).
 8. Now the backside. This angle often varies from all others. Often it is a greater angle. The build of the flute will guide you here (fig. m).
 9. Your cork should look similar to (fig. n).
 10. Now make several small facets blending the front corners to more or less mimic the radius of the key (fig. o). You may need to do this on back radiuses depending on the keys' structure. Don't hesitate to use a fresh blade if yours starts to dull.
 11. Blend the facets smooth, being careful not to scratch the key (fig. p). Start with 320-paper, finish up with 400.
 12. Mount the key and cut back the bottom of the cork so the cork sits close to flat against the body (fig. q).
 13. Using prepared strips of 320-paper,* sand the cork's touch area (fig. r). Gently pressing the key, and pulling the strip of paper between cork and body will do this. Keep the paper moving with the curve of the body. The resulting look should be a contour that matches the body where it touches. Do not be concerned yet about opening the key to its full height, just get a working height.
- Note: a "working key height" is opening enough that one can work with feelers and padding and general adjustments. Later we open keys to full height. This keeps us from accidentally opening things too far before we are doing final set up.*
14. Take the key off the instrument and use a drop of oil or cork grease (or similar) on a fingertip and rub the cork. The resulting cork should look like it is growing out of the key and that it was made only for that key on that flute. The D# and trill corks are an area for you to apply a "signature" to your work (fig. s and t).
 15. Use rubbing alcohol and a swab to remove the centering marks you made earlier (fig. u).



**Tip: When using abrasive papers between a bumper and the body, prepare the paper by putting thin, clear packing tape on the back. This will make the paper stronger for best use, and will eliminate scratching of the body from the paper.*