banjo-tabs.com/laughingpick.html
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# Procedure for installing 5th string spikes using the "SpikeTyke" drill jig

Demo video: video.banjo-tabs.com

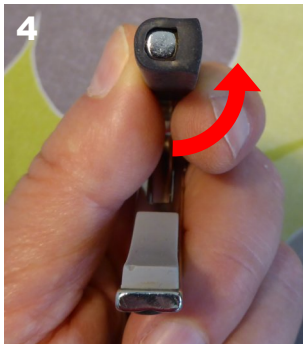
## Tools needed:

- capo
- snipe-nose pliers
- electric or hand-powered drill
- small hammer
- feeler gauge or flashlight

**Please note that the photos below show an earlier version of the jig.**

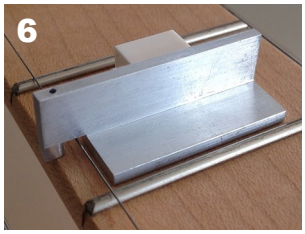
## Preparation:

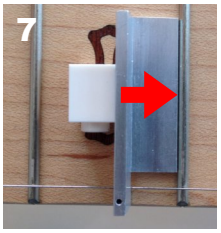
1. Make sure the banjo bridge is centered with respect to the fretboard.
2. Remove the inner strings 2, 3, and 4 from the fretboard, all the while paying attention that the bridge doesn't move. Do **not** slacken strings 1 and 5. This way, sideways forces are cancelled out, but the string tension prevents the bridge from moving.
3. For ebony, use the drill bit marked black (0.8 mm); for other types of wood, use the one that is marked blue (0.75 mm). Insert the drill bit in the drill chuck and turn the sleeve until tight. Insert the drill bit in the drill chuck and turn the sleeve until tight.
4. The capo is used to secure the jig to the neck. If your banjo capo is a Shubb capo, turn the rubber sleeve by 90° counterclockwise, so that the capo can accommodate the combined thickness of the neck and the jig. Banjo capos of the Paige type cannot be used as they are too narrow for the neck above the 4th fret. However, guitar capos of the Paige type and also spring-loaded guitar capos can be used.
5. Lay the banjo on a flat surface. Use something to support the banjo neck. A piece of high-density foam will do fine.

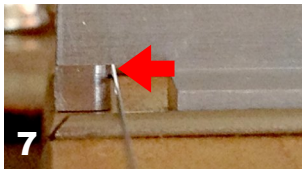


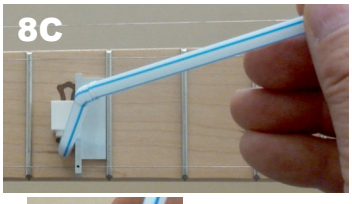

**Repeat steps 6 - 19 for every spike you install.**

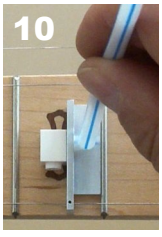
6. Place the jig on the fretboard, with the 5th string passing through the string notch.
7. In the correct position of the jig, its base fits against the next fret on the right, and the string merely touches the inside of the jig foot that contains the guide hole. Make sure the string is not bent.
8. There are a couple of ways to achieve this
   A - Raise the banjo neck a little, tilt the banjo and let the jig slide into position by its own weight;
   B - Position the jig using your hands, which may be a little awkward if you have shaky hands;
   C - Use a straw to draw or push the jig into position.
9. During the following 4 steps, pay utmost attention that the jig does not move. If it does, remove it and restart at step 6.
10. Press the straw to the jig base with your right hand.
11. With your **left** thumb, press the jig's left foot down.

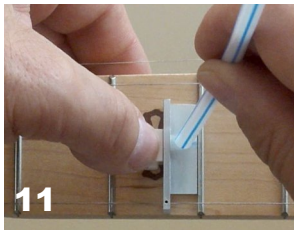


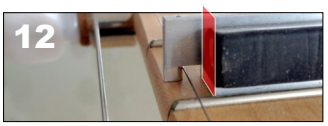



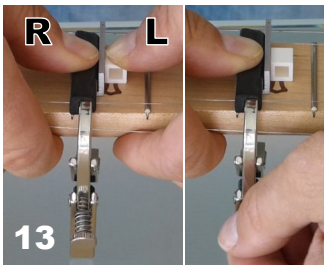



12. Position the Shubb banjo capo on the right foot of the jig so that its end is flush with the edge of the base facing you. This position prevents the capo from pulling the jig sideways on the fretboard when you lock it.




13. (View from other side of the neck) Firmly press the capo down with your **right** thumb. Release the left thumb. Close the lever of the capo tentatively and adjust the capo screw until the capo locks the jig down tight.



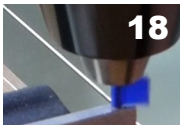

14. (View from other side of the neck) Alternatively, you may use a screw-on guitar capo, or a spring-loaded guitar capo.
If the jig moves during this procedure, revert to step 6.


15. Make sure the marker on the drill bit is still set off 16 mm or about 5/8” from the tip.

16. Insert the drill bit into the guide hole and align the drill with the hole.


17. Maintain the orientation of the drill, rev up the drill to medium speed and drill the hole, repeatedly advancing and pulling it back to clean out the wood dust.

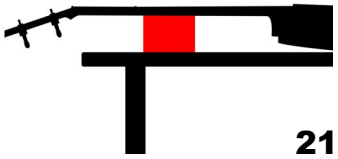
18. Drill until the marker touches the jig.




19. Keep the drill running, and while **holding the neck of the banjo down**, withdraw the drill and remove the jig.

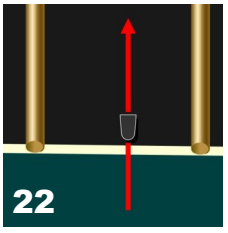
20. Slacken the 5th string and put it out of the way of the fretboard.

21. For installing the spikes you need to support the respective section of the banjo neck. Most banjo cases provide enough support in that the neck rests solidly on the two supports and possibly on the lid of the accessories compartment. If not, you will have to add the support lacking in your case or, alternatively, leave the banjo on the working surface and place the support under the part of the neck you are working on.

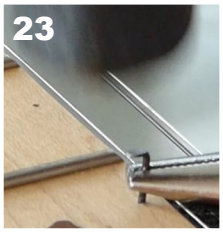



**Repeat steps 22 - 27 for every spike you install.**

22. Insert the point of the spike into the hole. Check if the spike is perpendicular to the fretboard. Also, make sure the spike head is oriented inward and parallel to the frets.


23. With a small hammer, drive the spike into the hole, paying attention to its orientation. Avoid tilting the hammer. If you haven’t paid attention and the head ends up pointing down a little, use a tool to correct it, such as the pliers, or a screw-driver if the spike is already close to the fretboard.




24. While driving the spike, the spike may turn a little, so you need to check if it does and correct it with the pliers.

25. When the head has come close to the fingerboard, check again if the spike head is parallel to the frets. If it isn’t, correct it with the pliers.


26. If you don’t have a feeler gauge…… Hook the still slack 5th string under the spike and use a flashlight to watch the shadow of the string and continue to hammer until the shadow just about touches the string. Another way of checking if the height of the spike head is correct is looking at it in the plane of the fretboard, with the string hooked under. If you see a distinct gap between the string and the fretboard, you may drive the spike a tiny bit further.



27. Check if the string can be slid smoothly under the spike. Check again if the head is correctly oriented and, if necessary, correct it.

28. At your discretion, paint the spike heads with a permanent marker.