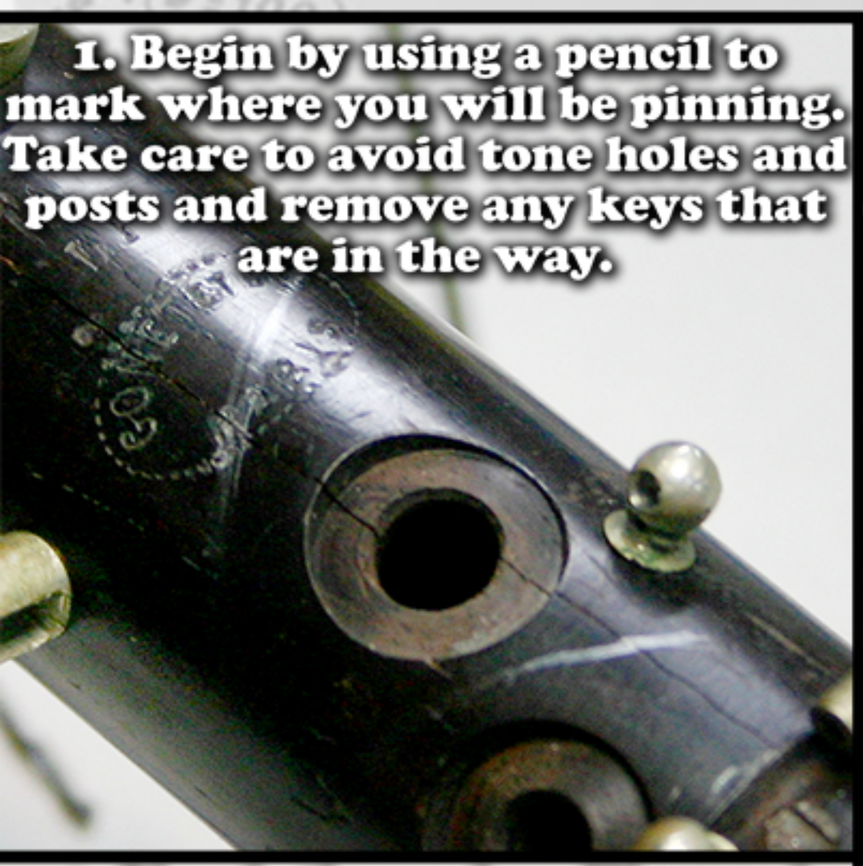
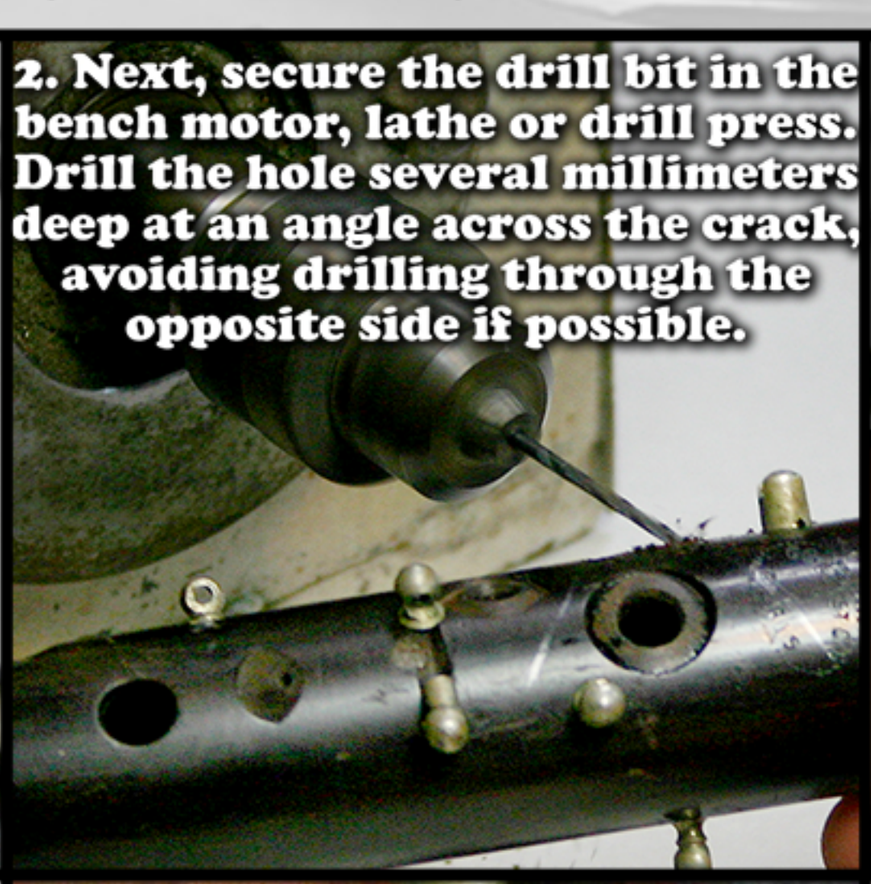
Clarinet Crack Pinning Instructions

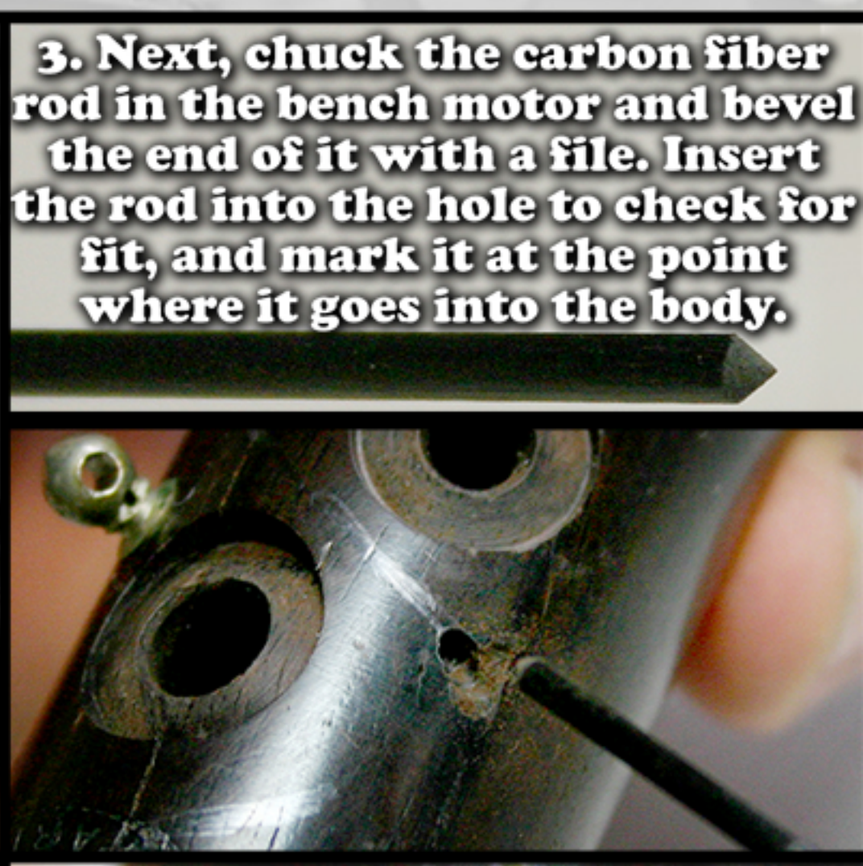
Wooden instruments naturally expand and contract, and occasionally will develop cracks. In order to keep the crack from spreading, the technician must pin the crack or put a band around the body. This kit will allow you to pin cracks with the strength and resonant properties of carbon fiber. You'll need the contents of the kit, a bench motor or lathe, some files, sandpaper, and ideally, a junk clarinet for practicing your technique. The best way to pin a crack is by inserting several rods at opposing angles down the length of the crack. In the below diagram, you can see the horizontal crack has 4 pins going through it at different angles for added strength.



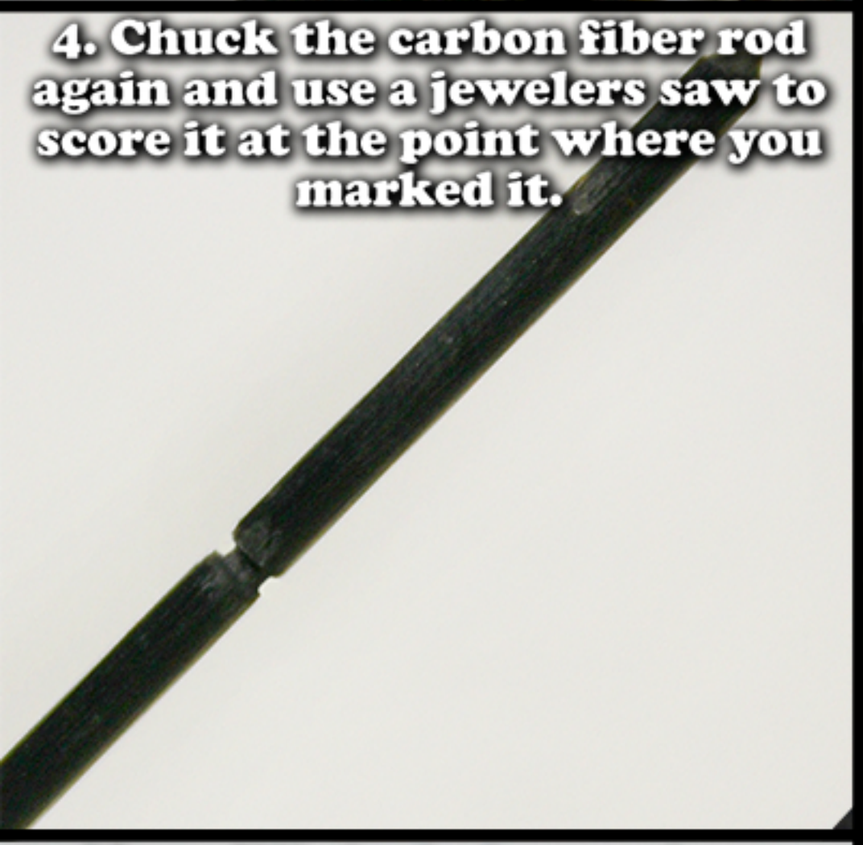
1. Begin by using a pencil to mark where you will be pinning. Take care to avoid tone holes and posts and remove any keys that are in the way.



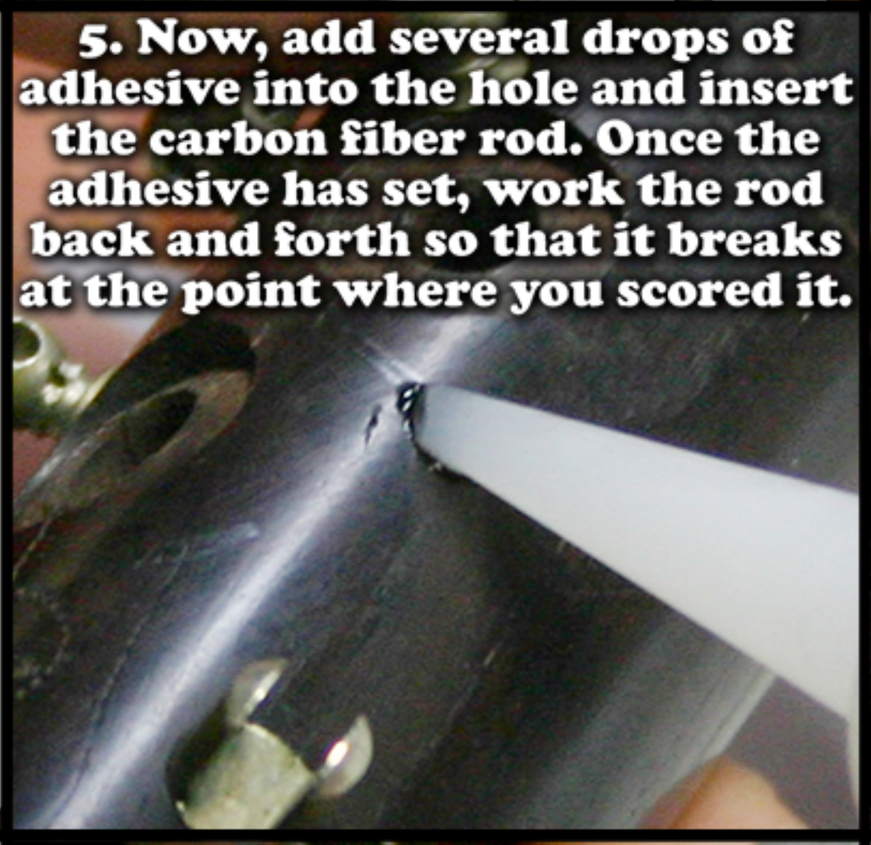
2. Next, secure the drill bit in the bench motor, lathe or drill press. Drill the hole several millimeters deep at an angle across the crack, avoiding drilling through the opposite side if possible.



3. Next, chuck the carbon fiber rod in the bench motor and bevel the end of it with a file. Insert the rod into the hole to check for fit, and mark it at the point where it goes into the body.

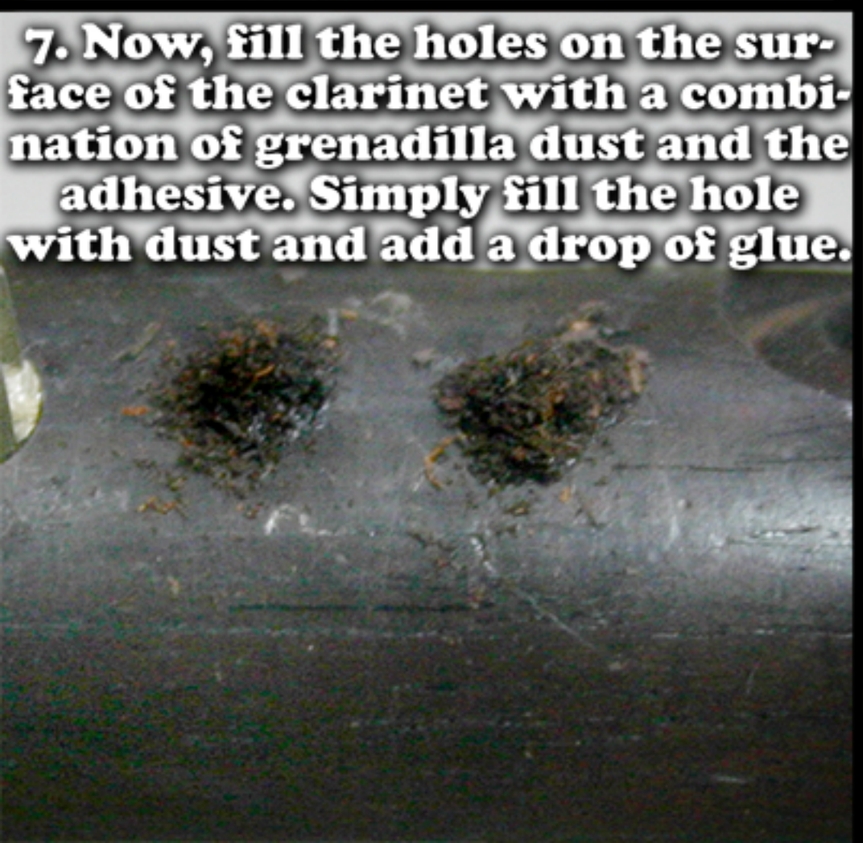


4. Chuck the carbon fiber rod again and use a jewelers saw to score it at the point where you marked it.

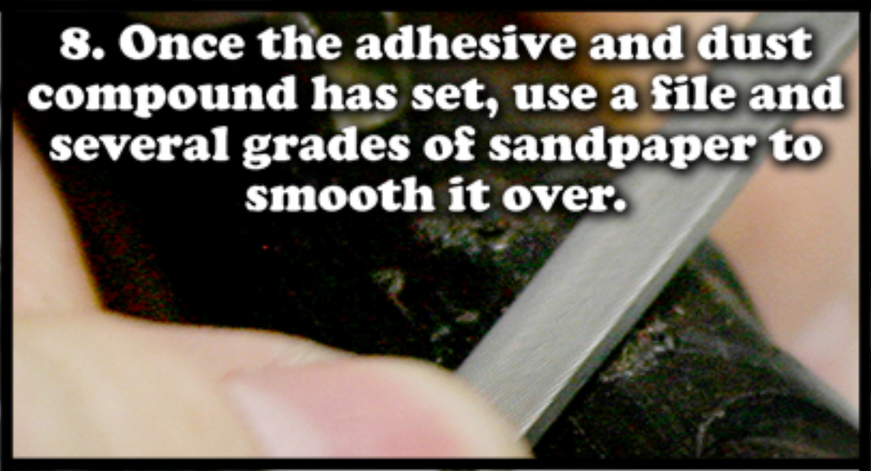


5. Now, add several drops of adhesive into the hole and insert the carbon fiber rod. Once the adhesive has set, work the rod back and forth so that it breaks at the point where you scored it.

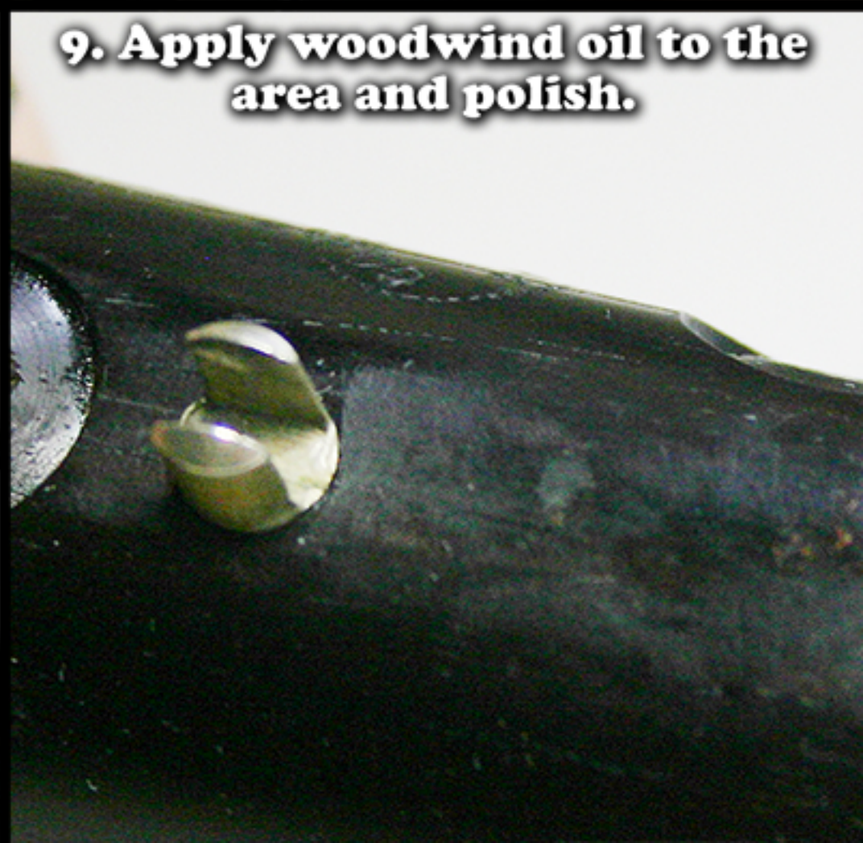
6. Repeat steps 1-5 to add more pins to the crack, rotating the angle of each pin.



7. Now, fill the holes on the surface of the clarinet with a combination of grenadilla dust and the adhesive. Simply fill the hole with dust and add a drop of glue.



8. Once the adhesive and dust compound has set, use a file and several grades of sandpaper to smooth it over.



9. Apply woodwind oil to the area and polish.