

Bending the Ribs

Over the centuries different types of bending-irons have been used (see Tool Chapter). Some are heated in a stove or by a torch, and others are heated by electricity. Today, most bending-irons are electric, with an integrated thermostat.

The correct heat can be tested in a very simple way: as soon as drops of water dropped onto the hot iron start dancing, the temperature is correct. At this temperature the lignin in the wood will soften.

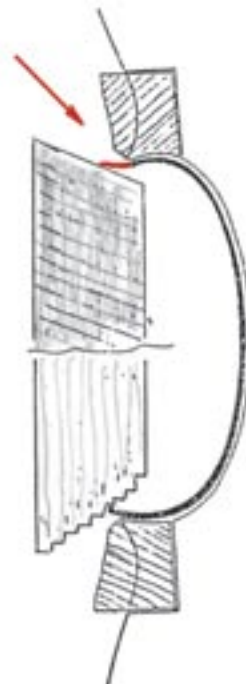
The bending-iron must be clamped very tightly to the bench because bending requires a lot of force. If there is even just a little bit of space between the iron and the rib during the bending process, a crack is inevitable.

Ribs (especially center bouts) should be moistened before bending. A piece of white paper is placed between the iron and the rib to keep the wood clean.

N.B. The more often the ribs are moistened, the easier they crack! The smaller and harder the flame of the wood, the less water should be used. If the ribs are too wet, the flames will stick out from the surface of the wood and a smooth curve can never be formed. Ribs with deep figure or watermarks (see Wood Chapter) should be bent as dry as possible.

The center bout, being the most drastically curved, requires special attention. The center-bout must be bent to the very end. If the last part extends beyond the block too much or stays straight the rib will break while setting and fastening the clamp.

The rib is too long and will bend if the clamp is fastened too tight.



This rib has the correct length

The bending must be done rather slowly so that the wood is heated all the way through. Otherwise cracks will result.

When bending ribs for double basses, the iron should be clamped horizontally. This will allow more force to be used.