

Insight



Reuben's cluster burr oak top with a brown oak inlay and mitred lippings around

Making mitres

Peter Sefton shows us how there is more than one way to shoot a mitre joint

At first glance, the mitre is one of the easiest joints to make but getting it right and well fitting can be a little trickier than expected. Two of my students have just been working on some constructional mitres that can make or break their projects.

English oak sideboard

Reuben is making a sideboard in English oak (*Quercus robur*) with a cluster burr oak top surrounded by a 70 x 30mm mitred oak lipping with a brown oak inlay between. These lippings have been located with biscuit joints to the MDF substrate and



Using a WoodRiver No.7 plane on a 45° shooting board

with one biscuit in the mitre to add a little strength, but mainly to resist the mitres twisting while gluing up. These mitres were cut on the sliding carriage of my tablesaw and then shot in on a flat shooting board with a very sharp No.7 plane, ground and honed with a flat blade. Getting the mitres clean and crisp on all four corners while maintaining the correct internal lengths is the hardest part to achieve. We managed to get the mitres spot on, but a little short. This was soon remedied by planing with the No.7 to clean up the inside face of the lippings to lengthen them a little bit. This top was glued up with sash cramps and Cascamite UF glue. This gives us a longer open time than would have been achieved if using a general PVA adhesive.

Birdseye maple console table

Then on to Sam's project, which is a birdseye maple (*Acer saccharum*) console table. The mitres here are produced in the opposite orientation and this changes both the tablesaw setup and type of shooting board. For this, we used a donkey's ear, which is a



Peter Sefton

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Using a pair of sash cramps to pull the mitres together

traditional shooting board for box-style mitres rather than Reuben's picture frame variety. Sam's mitres are a little easier as they do not have to fit around a panel, but being made in maple leaves no room for error as the clean light timber is very unforgiving of poor craftsmanship – this wasn't a worry for Sam, as they were very clean indeed. When gluing up mitred box-style frames, we use ratchet cramps to apply equal pressure to the mitres and then glue the panels in as a second stage. ■