

File joints for a perfect fit

FINESSE PARTS AFTER HANDPLANING
TO CREATE SNUG JOINERY

BY CHRIS GOCHNOUR

Fitting a joint is best done with hand tools, because they remove wood slowly and with great precision. This is why so many furniture makers have a shoulder plane or two in their tool cabinet. Chisels are another popular tool for fitting joinery.

However, there are times when you've trimmed to your layout lines and the joint still won't go together. At this point, a plane or chisel shaving would remove too much wood, leaving the joint gappy or loose. When the fitting gets that fine, I reach for a file to delicately trim the joint so that it slides together with hand pressure and closes up with no gaps.

Files are the perfect tool for this job because they remove material more slowly than planes and chisels, affording you a great deal of control. You can target problem areas without turning a close fit into a bad one.

To hit the problem spots with the file, you must know where they are. Identify them with an old woodworking trick: Mark one side of the joint (tails, mortise) with pencil and then bring the joint together as far as you can with hand pressure. Take it apart. Look at the side that needs trimming (pins, tenon). Some areas will be marked with pencil where they rubbed against the mating part. This is where you file. If the joint still doesn't go together all the way, repeat the process until it does.

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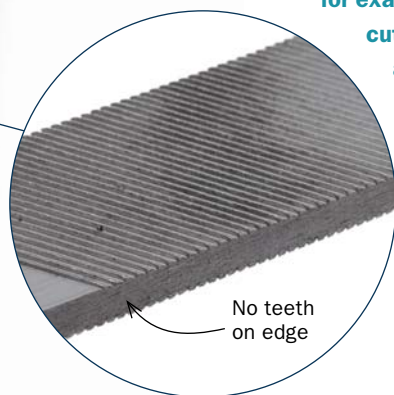
Pick the right file

Gochmour prefers an 8- to 10-in.-long flat file with at least one safe edge (see below). The cut of the file isn't critical, as long as it removes material with moderate speed and is easy to control. An 8-in. mill file (found at home centers as part of a set) is a good low-cost option. Gochmour's favorite joinery file is handmade in Japan (\$103, japanwoodworker.com, No. 156394).

THE SAFE-EDGE ADVANTAGE

To trim a dovetail pin or tenon, you must remove material from one part of the joint (the cheek, for example) without cutting into an adjacent surface (the shoulder).

A safe edge makes this possible, because it has no teeth.



No teeth on edge



Perfect for tenons. When a turned tenon is just a bit too big, a file with a safe edge is the best tool for trimming without damaging the shoulder.

Gap-free dovetails

Pencil lead scribbled on the tails reveals where the pins need trimming. Use the file like an eraser, carefully removing the lead with a light touch. Repeat as needed until the joint comes together without gaps.

Spread the lead.

Line both sides of every tail with pencil. Several lines across the face are enough to get the job done. Knock the joint together, stopping when it begins to resist. Then pull the joint apart. High spots on the pins, which are keeping the joint from seating completely, will be marked with pencil lead.



Hit the high spots. Extending your index finger over the handle helps the file to cut in a straight line so that you don't round over the pin. Pinch the other end of the file between your fingers.

Friction-fit tenons

A mortise-and-tenon joint should go together with hand pressure, and should not fall apart when one side of the joint hangs freely beneath the other. The controlled, fine cutting of a file is the perfect way to create this perfect fit.

Spread the pressure. To prevent the file from tapering or rounding tenon cheeks, use your fingers to hold the file squarely against the cheek.



The best tool for double tenons. Two fingers on the file about 1½ in. from the leading edge keep it flat on the tenon.