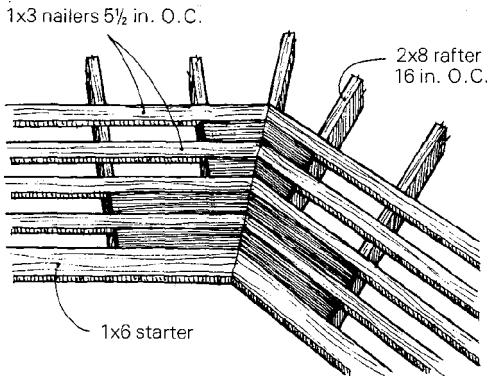


*Tips and Techniques is a forum for readers to exchange the methods, tools and jigs they've devised. We'll pay for any we publish. Send details, sketches and negatives with photographs to Tips and Techniques, Fine Homebuilding, Box 355, Newtown, CT 06470.*

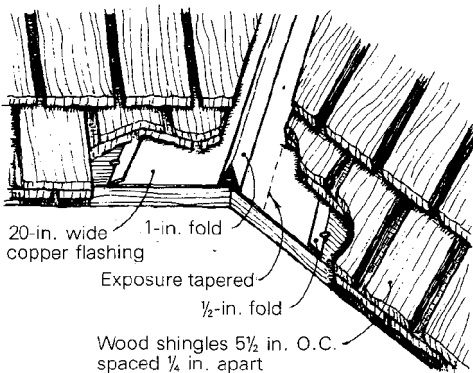
## Valley Flashing

Successful valley flashing is one of the fine points of making a wood-shingle roof weather-tight. I favor the old-fashioned method of nailing shingles into 1x3 horizontal stripping; fixing shingles to a solid sheathing such as plywood (even with a layer of felt paper between) doesn't allow air to circulate around shingles. Because most of the shingles I use have 5½ in. to the



weather, my 1x3s are also spaced 5½ in., except in the valleys, where I butt strips together to create a solid base for the flashing that follows.

I use 20-in. wide copper roll flashing, which I cut to 4-ft. lengths on a shear. I bend the copper on a brake as shown. The middle folds first and then the outside crimps. The 1-in. fold in the center acts as a kind of levee to keep water driven in a storm from sloshing up under shingles on the opposite side; the ½-in. crimps are back-up protection in case some water does make it up un-



derneath—the water can't jump the crimps so it runs back down the valley toward the gutter.

Placing and securing the flashing is another fine point. I overlap 4-ft. sheets about 6 in. to 8 in. for weathertightness. I fasten the sheets by snugging the heads of large-headed roofing nails tight enough against the outside of the crimp to

pinch the fold. This keeps the valley sound and waterproof. I put a nail at every point that the copper passes over a rafter. Be sure when putting the lowest course of shingles in the valley not to destroy the copper's integrity by punching through it with a shingle nail. Careful work forms a very functional and lasting valley.

When placing the first course of shingles around the valley, I vary the amount of exposed copper from 3½ in. at the upper end to 5 in. at the lower end, a 1½-in. taper from top to bottom on each side of the center fold. This wider exposure at the bottom allows ice and leaves to slip out much more easily.

—William C. Barthelmess, Woodbury, Conn.

## Smoking Out Air Currents

Air currents are thought to be too unpredictable to be individually described or engineered. For the past five years, however, I have been exploring the convection flow within houses. Though I've used chart recorders and thermocouples to study currents, one simple but effective indicator of air movement is a lighted cigarette. Drafts coming into a house are apparent because we can feel them, but air leaving the house is harder to detect and remedy. By lighting a cigarette and walking slowly around a room, you'll know immediately where you're losing heat by the direction of the smoke. You can also gauge the relative effectiveness of your window glazing this way. If the smoke drops sharply in front of the glass, you are witnessing sheeting, a downward convection or flow due to the cold your glazing is conducting. The faster the downward flow, the lower the R-value of the window. The smoke is also useful for determining the general circulation of heat throughout your house; by opening or shutting doors, you can get a good idea how most effectively to control the heat within it. Air is really very orderly, and we should consider its movements within buildings when designing them.

—Philip F. Henshaw, Denver, Colo.

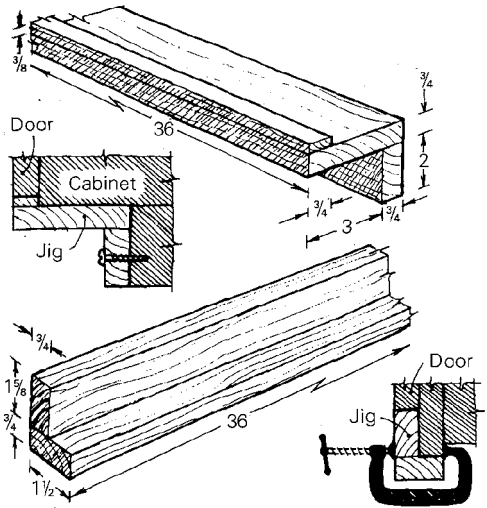
## Cabinet-Door Hanging Jigs

Hanging cabinet doors is easy for most three-handed craftsmen: One hand keeps the door plumb and flush to the cabinet frame, one keeps the bottom of the door at the right height above the bottom rail (so that there is no binding), and one screws the hinges in. For those of us with two hands, the jigs I use help; both work well for lipped or overlay doors.

I rarely hang cabinet doors before the units are installed on the site, although I do fasten the hinges to the door. It's common practice to pre-hang doors in the shop, remove them for transit, and then rescrew the hinges. I see little gain in

pre-hanging, for there are always adjustments to be made after the stress of moving racks the frames slightly. I prefer to do the job once.

The first jig shown supports the doors on the base cabinet. The dimensions given suit my purposes, but can be changed to suit your own needs. Using the jig is simple. Slide it into the



kickspace and push it tight against the underside of the cabinet edge. To hold the jig in place, screw its back edge to the plinth (the screw holes will be covered by a kick strip) or wedge the jig tight with scraps built up from the floor. With the bottoms of your doors resting on this level jig, you need worry only about the doors' left-right positioning; all their heights will be the same.

The jig for the upper cabinets can be held in place with C-clamps. The jig's vertical dimension is suited to the 2-in. thickness that I favor for the bottom rails of upper cabinets.

—J. E. Gier, Mesa, Ariz.

## Removing Fiberglass Slivers

In the course of various home maintenance and construction tasks, I sometimes have a brush with fiberglass when I'm not wearing gloves. Such encounters always leave microscopic slivers in my hands. These slivers are too small to see and to grab with tweezers, but definitely not too small to cause pain and irritation at the lightest touch.

For many years I have used a remedy that works nearly every time. I spread some white wood glue on the area where the slivers are hidden, allow it to dry, then peel it off in a smooth slow motion. The type of glue is important; it must form a tough yet flexible skin that holds together when it is peeled off. Most of the time the slivers are lifted off with it. On those occasions when they aren't all removed, a second peeling in the opposite direction will usually do the trick.

—Joseph Dawes, Big Springs, Tex.