

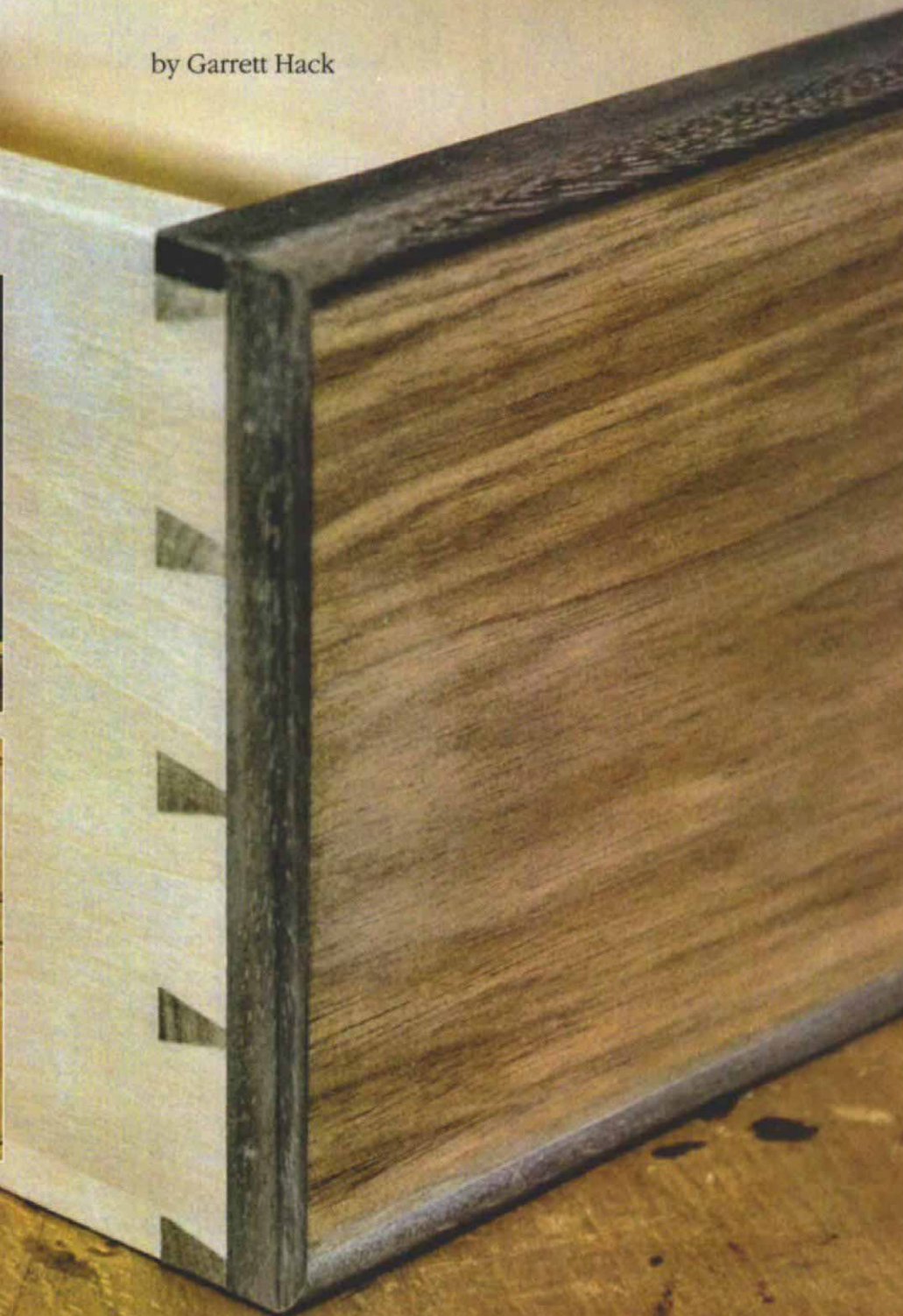
Cock Beads Dress Up a Drawer

A 17th-century detail stands the test of time

by Garrett Hack



Cock beads frame a drawer and give it a finished look (right). Incised beads, like those on the bathroom vanity (above), can be scratched all around a drawer front or just along the top and bottom edges.



In the late 17th century, English tastes in furniture ran to surfaces veneered in burls and other wild-grained, exotic woods. The thin veneers were vulnerable to chipping unless they were protected by molding. Drawers were especially at risk. Edges were completely exposed when the drawer was open, and simply opening and closing the drawers could damage the veneer on the drawerfront. Then some innovative furnituremaker came up with the idea of attaching small, molded strips to the drawer edges. They protected the veneer and gave the drawer a distinctive border. A detail was born.



Rout the rabbet. Cut to full depth, but set the fence to slightly less than the thickness of the rabbet so that it can be trued up with a plane. To avoid tearout, rout the sides first and then the top and bottom edges.

Interest in cock beading survived into the Federal period, even on surfaces that were not veneered. Cock beads were used like string inlay—to create a line around a drawer face or along a table apron.

I use cock beads in many of my designs, both around drawers and at the bottom of aprons (see the photos on the facing page). Cock beads and imitation cock beads, called incised beads (see the box on p. 41), add visual interest to a range of furniture styles, from Federal to Shaker-inspired.

Cock beading a drawer is quite easy. There are three steps: cutting the rabbet for the bead around the drawer front; shaping

and sizing the bead to fit the rabbet; and mitering and securing the beads in place.

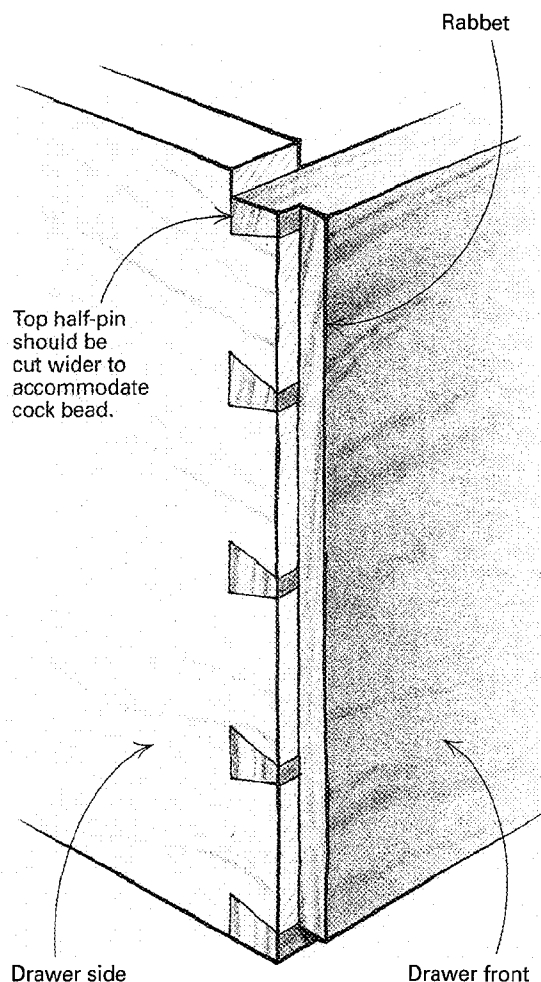
Rabbets are routed and then cleaned with a plane

I finish building and fitting a drawer to its opening before cutting the rabbets to house the cock beads. Anything more than the smallest amount of fitting done after the bead is glued in place will be noticeable. If you take a few shavings off the sides of a drawer that's too tight, all of a sudden, the cock beads on the drawer's sides may look thinner than the top and bottom beads.

In earlier days when dovetails were just

Rabbeting a drawer for a cock bead

The top edge of the drawer front is rabbeted all the way to the drawer side when a contrasting wood is used for the bead. This way, only one kind of wood is visible along the top edge when the drawer is open.



Clean up the back edge of the top rabbet. A knife or a chisel works well. Leaving this paper-thin buffer in place while routing prevents damage to the front edge of the drawer sides.



Bottom and side rabbets are cleaned up with a rabbet plane. The inside corners can be cleaned out with a chisel, if necessary.

construction joints rather than aesthetic focal points on a piece of furniture, cabinetmakers did not mind covering their dovetails with cock beads. Today, however, furnituremakers generally want their dovetails to be seen. So when I cock bead a drawer, I use half-blind dovetails and rabbet the sides of the drawer to the base of the dovetail pins—usually about $\frac{5}{16}$ in. (see the drawing above). A typical cock bead is about $\frac{1}{8}$ in. thick and extends beyond the drawer face about $\frac{1}{16}$ in.

On the bottom edge of the drawer front, the rabbet is the same depth as it is on the sides. But on the top edge, I rabbet the full thickness of the drawer front when I'm using a contrasting wood. When the drawer is open, you see only the cock bead, not the wood used for the drawer front. Be sure to make the top half-pin wide enough for the bead (see the drawing above).

If you intend to use the same wood for the cock bead and the drawer front, you can just cut the same size rabbet all around

the drawer front. By saving an offcut from the drawer face, you will get the best possible color and grain match, and the joint will be nearly invisible.

The rabbet can be cut with a tablesaw, router or hand tools. Because the rabbet's exact dimensions depend on the size of the bead, I either make up a sample piece of bead or use a piece saved from a previous project to make sure that the size of the rabbet will be right.

I think a router is the easiest tool to use for

large drawers. I clamp the drawer to my bench and use a hand-held router with a wooden fence to get a rabbet of consistent width. The rabbet's depth is set by adjusting the bit's depth of cut. Marking the outside edge of the rabbet with a knife, especially where the router will exit the cut, will prevent any splintering. Routing across the grain first (the sides of the drawer) and then with the grain also will eliminate tearout at the end of the cut. I cut the rabbets slightly undersize, so I can true and size them with a chisel and a small rabbet plane.

For small drawers, you can cut the rabbets on a router table (see the photo on p. 39). Set the bit height for the depth of the rabbet, and set the fence for the thickness of the bead. Cut the sides first, then the bottom and then the top. The bit height will need to be reset for the top rabbet. For the rabbet on the top edge of the drawer, set the bit so it cuts just shy of the drawer sides. Clean up the paper-thin strip that's left with a knife or a chisel (see the top photo on the facing page). Holding the router bit slightly away from the drawer sides eliminates the possibility of chipping or tearout.

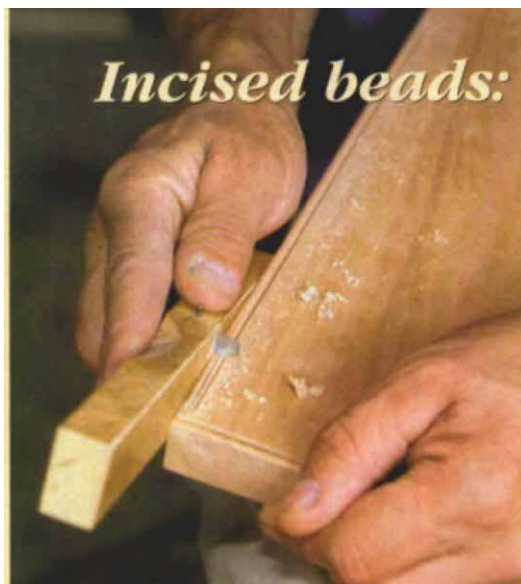
A few passes over the edges of the drawer with a finely set rabbet plane will give you a straight and true edge and produce a nearly invisible glue-line (see the bottom photo on the facing page). I check frequently along the length of each side of the drawer with a small square to be sure the rabbets are square to the face.

Beads can be shaped with a number of tools

I've cut beads with a router, beading planes, a Stanley No. 66 beading tool and homemade scratch badders. A router is the most consistent and easiest tool for making lots of beading, even though it's hard to find bits that will cut small beads.

Beading planes can be found in antique-tool shops, some as small as $\frac{1}{8}$ in. Also, many antique-tool dealers have the Stanley No. 66 (a reproduction of the Stanley is made by Lie-Nielsen Toolworks). Quite often, I use a homemade scratch badder. With the Stanley No. 66 and the scratch badder, there are no restrictions on the size of bead I can make because I can grind my own cutters. Because of the time involved, these hand-tool methods are better for cutting beading for just a few drawers. Although the resulting bead is slightly inconsistent, it has a wonderful, handmade feel.

I cut strips of beading from a board a few inches longer than the drawer width and



Incised beads:

the cock bead's country cousin

Shape a bead by hand—A homemade scratch badder is the author's preferred tool. A scratch badder can be both pushed and pulled.

Beads cut into and flush with the face of the drawer are known as incised beads. They're just scratched into the surface of the drawer front, but when they run all around the drawer, they look as though they were mitered. Sometimes they're just cut into the top and bottom edges of a drawer front. They're found more often on country furniture and were meant to imitate high-style applied cock beads. Incised beads don't create the same shadow lines, but they are an interesting detail on an otherwise plain drawer face. The bead isn't very deep. Just the faintest suggestion is all that's necessary. If you cut it too deep or make the bead too narrow, the short-grain beads at the sides of the face will be vulnerable to chipping.

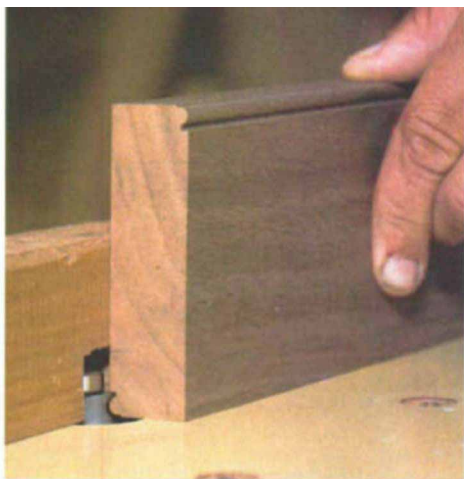
Incised beads can be cut in nearly as many ways as cock beading. I like to use a homemade scratch badder (see the photo above) along with a chisel, a marking knife and a block plane. To make my scratch badder, I ground a profile on a piece of heavy-duty hacksaw blade with a thin grinding wheel mounted in a drill. The grinding wheel is the kind you find in a hardware store, with an arbor already on it. I find it easier to bring the steel to the grinding wheel, so I pinch the drill in my bench vise. Then I hone both sides of my cutter on benchstones and use a slip stone to hone the profile. The cutter is driven into a sawkerf in a hardwood block and is held in place with a finishing nail. The profile is adjusted by extending or retracting the blade from the side of the block, which acts as a fence.

The trick to a good incised bead is to take your time and work carefully—especially around the corners. It's very easy to overshoot a corner and cut through the adjoining bead. I creep up on a corner from both directions using light cuts. The scratch badder can be both pushed and pulled. And it shapes wood across the grain nearly as well as it does with the grain.

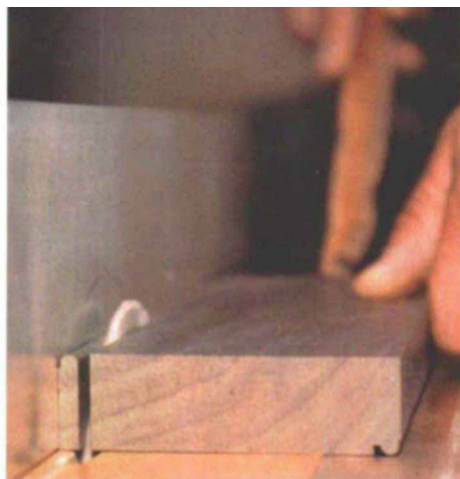
After I've done all I can with the scratch badder, I use a chisel and marking knife to clean up the inside corners and a block plane to refine the shape of the outside edge of the bead all around.—G.H.

Complete the corners. Use a chisel and knife to clean up the corners. The corners should be sharp and appear to be mitered.





Router cuts beads quickly and consistently. When he has a lot of beading to cut, the author chooses the router. The only drawback is the limited availability of router bits with small profiles.



Beads are sawn off both sides. The author leaves a little extra material next to the bead and then planes the bead to a precise thickness. A push stick is used to move the bead past the blade.



Plane strips of beading to thickness. A fixture consisting of three pieces of softwood glued and tacked to a piece of plywood holds the bead in place.

somewhat thicker than the width of the widest finished bead. I start by planing the two long edges of the board smooth, flat and square. I work from both edges of a board at the same time, shaping two beads on a router table (see the far left photo). It saves time.

After cutting the beads, I rip the strips off the board on the tablesaw, keeping them slightly thicker than the depth of the rabbets (see the near left photo). Then I plane them to thickness, using a caliper to check my progress as I go. When planing, I place the strips of beading jointed side down to remove sawmarks.

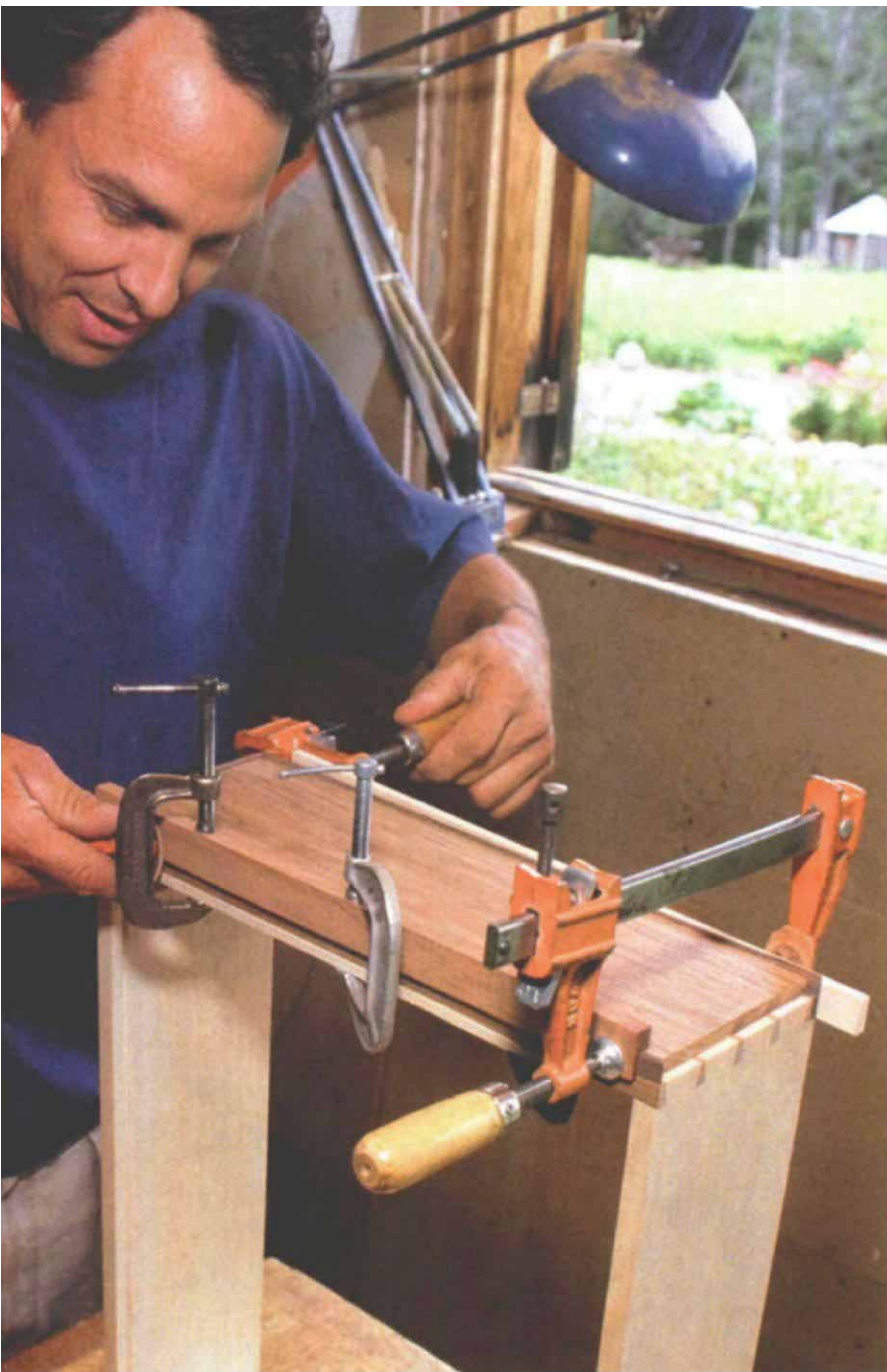
To hold the beads in place when I'm planing, I put them in a very simple fixture, a thickness gauge of sorts (see the bottom photo at left). The strips of wood holding the bead in place are approximately the desired thickness of the bead and are glued and tacked to a piece of plywood. Make sure the brads are set well below the surface so that you don't nick a plane iron.

Jointing new edges on the board, cutting two beads, ripping them off and planing them to thickness eventually yields enough strips for what I need and some extras, just in case. Depending on how many drawers I'm cock beading, I'll make between 20% and 50% extra—the fewer the drawers, the higher the percentage.

The final step is to rip each strip to the width of the rabbet plus the amount the bead projects from the surface. I find this more accurate than cutting the strips from a board that's only as thick as the final beaded strips are wide. It's easier to keep the wider strips a consistent thickness across their width as I'm planing them. Also, I can cut the wider top beads with the same setup. I measure for the top bead by setting one of the thinner beads in place at the side of the drawer and using a caliper to measure from the front of the bead to the back of the drawer front. This ensures that the top bead will project beyond the drawer front the same amount as the cock beading around the sides and bottom.

Work your way around the drawer

The beads are mitered on all four corners. If you are setting the top bead in a rabbet the same depth as the other three, rather than the full depth of the face, then the mitering is straightforward. If the top edge bead is full width, then it's mitered only to where the side beads meet it. This stopped

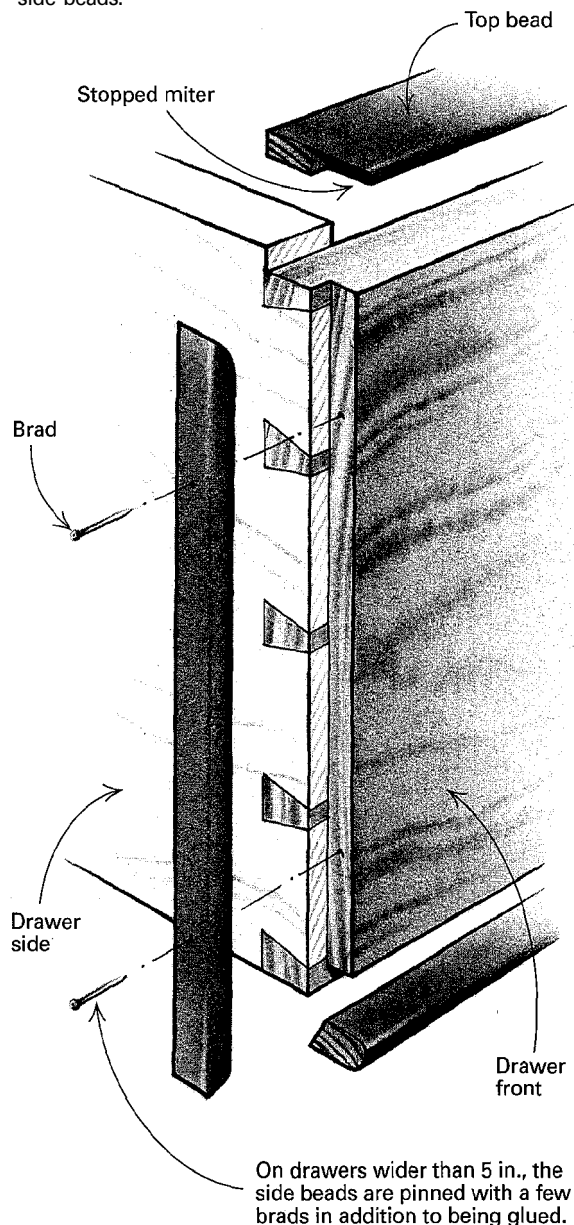


Clamp the bottom and sides in two directions. A rabbeted caul allows you to damp the cock bead firmly into the drawer face in both planes, producing the least visible gluelines. A flat caul protects the top bead.

Attaching a cock bead to a drawer

After the door has been rabbeted, strips of beading are glued into place. Each corner is mitered.

When the top bead is the full width of the drawer front, it is stop mitered at the corners where it meets the side beads.



miter is not terribly difficult to cut; however, it is the part of this process that requires the most attention.

I start with the bead along the top edge. I mark and cut it to length and mark out the depth of the stopped miters at either end. Holding the strip against a simple miter block, I saw the miter close with a dovetail saw, and then I pare it so that it fits perfectly. Before attaching the beads, I smooth-plane the face of the drawer front one last time. Then I glue and clamp the

top bead in place, using softwood cauls to protect the bead and the rabbet at the drawer bottom.

I work my way around the drawer face. There are two minor differences in dealing with the three remaining sides. The side and bottom beads need to be clamped in two directions, tight against both faces of the rabbet, so you don't end up with a visible glueline. I use a rabbeted caul to exert pressure both down and in (see the photo above). Because of cross-grain movement,

the side beads on drawers wider than about 5 in. are best secured with a few small brads in addition to glue. Drawers wider than 8 in. or so should not be cock beaded. By setting the brads and filling the holes with a wax pencil of the same color as the cock bead, the holes are nearly invisible.

Garrett Hack trained as an architect before turning to furniture making in 1975. He designs and builds furniture and farms about a dozen acres in Thetford Center, Vt.