

How to make pierced panels

BY BRIAN NEWELL



Wall-mounted cabinets did not figure prominently in the household of my Michigan childhood. But an introduction to the genre came through the books of James Krenov. By the end of my one-year stay at College of the Redwoods (now The Krenov School), I had made several, and the form has become a constant in my woodworking. Like most of the cabinets I made at the school and in my subsequent 30 years of making, they held very little. More akin to sculpture than furniture, in a pinch they could contain a small collection of teacups or a handful of hard candies. For that reason, I found them irresistible and perfect.

My first wall-mounted cabinets were vertical affairs that sported small pierce-carved panels. These latest horizontal cabinets also have pierce-carved panels. In fact, there's very little unadorned surface, mostly just see-through, chisel-enhanced wood and a flat area which may generously be called a shelf. I often design cabinets that curve away from the wall letting light pass behind them. Light passes through the carved front and back panel, too, and the difference between them makes for an interesting play from different viewpoints.

Each of the cabinets in this article features a slightly different approach to piercing the panel, but they share many techniques.

DRAW IT OUT

It's much easier to see pencil lines on white paper than it is to see them on dark wood, so Newell draws the pattern on paper. He makes photocopies if he needs multiples, and then uses spray adhesive to attach the drawing to the wood. He cuts and carves right through the paper.



Fine
Woodworking

SHOP TALK LIVE®

Listen in on FineWoodworking.com

DUKE OF PEARL

EXOTIC INLAY MATERIALS

CHUCK ERIKSON



BLANKS



SHEETS



DOTS



STRIPS

Mother of Pearl • Paua • Green Abalone • Awabi • And More



DUKE OF PEARL

dukeofpearl.com

410.231.2641

dukeofpearl11c@gmail.com



Books for Woodworkers

Inspiration from our
workshop to yours.

Available at TauntonStore.com
and wherever books are sold

 Taunton



© The Taunton Press

A solid, flat panel

For this pierced panel, the most straightforward of the three, Newell breaks down his process this way: "Take a piece of rosewood, draw some flowers, drill some holes, scroll away, then sit down and carve while listening to music."



Drill starter holes. If you use a $\frac{3}{8}$ -in. bit it will be easy to fit and secure the scrollsaw blade. But if you have to go to a smaller bit to match the carved area, as long as you can fit the blade through the opening, it will work.



Scrollsaw away. Once you have all the background holes drilled, you can start to saw. You'll have to disengage and reset the blade in every new area. Newell uses a precision-ground, skip-tooth #7 blade for almost all of his background cutting.

A general look at material, tools, sawing, and carving

Some of the best woods to carve are Swiss pearwood and walnut. Walnut is forgiving and easy to carve. The secret advantage to Swiss pear is that it does not split easily, and therefore it lends itself perfectly to the short grain that any pierce-carved panel produces. When I want a darker, more exotic wood, I often use ebony or rosewood, the former being extremely hard but quite strong, the latter being extremely hard and prone to splitting. Beautiful woods, but not user friendly.

With pierced panels, the idea is to create the illusion of depth; for example, that one flower petal is in front of another, and one stem is under it all. This is achieved by carving after piercing, a technique that requires not only an eye for illusion, but a fair amount of material thickness to work with. Compared with full relief carving, the advantage of pierced carving is that you remove the background completely, not to mention almost effortlessly, with a scrollsaw, leaving no background surface to be painstakingly cleaned or undercut. The entire depth of the wood can be used for sculpting, making it less necessary to be as skilled in the art of illusion. But the main advantage of the pierced panel is that it lets the light through.

After decades of carving I have accumulated a wall of carving tools behind my bench, but you can gather a starter kit of tools that will enable you to do almost everything. I recommend: a #1 carving chisel, an 8mm V-tool, and three gouges: #5 sweep, 25mm; #5 sweep, 12mm; and #2 sweep, 30mm.

The V-tool is used to help separate the background parts from the foreground parts. It may not be ideal in a starter kit because it's difficult to sharpen, but I'm including it. You can use this tool to carve a V-trench just outside the line where two



Get your carve on. Use a carving chisel to mark out and cut down to the depths of the different elements. Cut just outside the line and tap straight down. Then create hollows and round edges, and watch as petals take shape.



CLASSIFIED

The Classified rate is \$9.50 per word, 15 word min. Orders must be accompanied by payment, ads are non-commissionable. The WOOD & TOOL EXCHANGE is for private use by individuals only; the rate is \$15/line, min. 3 lines. Send to: Fine Woodworking Classified Ad Dept., 63 South Main St., Newtown, CT 06470. FAX 203-426-3434, Ph. (866) 505-4687. Deadline for the July/August 2020 issue is April 10, 2020.

Business Opportunities

WOODWORKING SHOP. Turnkey. Machinery, tools and inventory. 4000 sq. ft. shop. Property for lease or purchase. Owner retiring. Reasonable. Lexington, Kentucky. (859) 699-8835

Hand Tools

USED AND ANTIQUE HAND TOOLS wholesale, retail, authentic parts also (415) 924-8403, pniederber@aol.com always buying.

DIEFENBACHER TOOLS – Fine imported and domestic hand tools for woodworkers. www.diefenbacher.com (720) 502-6687 or ron@diefenbacher.com

Instruction

MAINECOASTWORKSHOP.COM Woodworking and carving classes in Camden Maine: Alf Sharp, Ray Journigan, Graham Blackburn, Matt Kenney, Alexander Grabovetskiy, more. (434) 907-5427.

PENLAND SCHOOL OF CRAFTS, in the spectacular North Carolina mountains, offers one-, two-, and eight-week workshops in woodworking and other media. (828) 765-2359. www.penland.org

Wood

EISENBRAND EXOTIC HARDWOODS. Over 100 species. Highest quality. Volume discounts. Brochure. (310) 200-2054. eisenbrandhardwoods.com

RARE WOODS. Ebony, boxwood, rosewood, satinwood, ivory wood, tulipwood + 120 others. (207) 364-1520. www.rarewoodsusa.com

WOOD AND TOOL EXCHANGE

Limited to use by individuals only.

For Sale

Fine Woodworking -- issues; Winter 1975 thru 200, perfect condition. \$350.00 plus shipping. wanda2050@hotmail.com (HI)



2020 U.S. Bodgers Ball and Green Wood Festival

June 26 - 28, 2020, Mt. Horeb, WI

Pre-ball classes:
Welsh Chair Making
with Don Weber
Spoon Carving Master Class
with Jarrod Dahl

Instagram: @usbodgersball
www.usbodgersball.us
usbodgersball@gmail.com
608 239 4326

WOODWORKERS MART

Precision Tools for Discerning Craftsmen



V.V.P. Vacuum Pressing

Veneering ~ Laminating

Vacuum Pumps
Air-Powered & Electric

Vacuum Bags
Poly & Vinyl

Frame Presses

Veneering Accessories

800 547-5484 - www.qualityvak.com

The Beall

Wood Buffing System

Get Buffed

Check out our demos on You Tube

THE BEALL TOOL CO.
541 Swans Road N.E. Newark Ohio
1-800-331-4718 www.bealltool.com Dpt. FW

insidepassage.ca
1.877.943.9663

"If I were starting my life today as a craftsman, and needed to learn what matters the most; my choice would be Inside Passage School."
— James Krenov

PECK TOOL
CELEBRATING
90 YEARS
Hand Tools for Woodworking from Germany
SINCE 1929
Shop at: www.pecktool.com

Shellac.net
Wood Finish Supply

MOHAWK

Authorized Mohawk Distributor
MohawkFinishSupply.com
Napa CA 94559 - 877-245-5611

The Furniture Institute of Massachusetts

Study with award winning instructor
Phil Lowe
1 to 3 year Fulltime Programs
Fulltime Programs Approved for Veterans
Summer Workshops, Weekend & Night Classes
See our class schedule at:
www.furnituremakingclasses.com
978-922-0615

BEST DOVETAILS

It's the truth.
Order your Keller Dovetail System now!
(800) 995-2456
Made in the USA since 1976 • DVD/Video \$8.95 + \$2 p/h
www.bestdovetails.com



A solid curved panel

The curved, solid ebony panels are thick to allow for deep sculpting. The carved panels wrap around the front, back, and sides of the wall cabinet.

Resaw and sand. Starting with a solid piece of wood, Newell bandsawed the curve on both faces of the blank. Then he sanded each side prior to roughing out the carving.



parts intersect. One is then made lower and one left high. The shallow-sweep gouges work well to round over corners. I often turn them upside down for this task. The carving chisel is used to round corners, and to stab down on a line to set its depth.

Start at the drawing table

When drawing the design, I keep in mind the type of wood I am going to use. If the cabinet is to be made of ebony, I try to keep the panels as thin as possible to make the scrollsawing easier. An inch of ebony resists sawing with even the most aggressive blade, while 1¼ in. just will not saw. If I really want thick panels and very deep sculpting, then I might choose walnut instead. Likewise, the finer the elements in the panel, the more I am inclined to use pearwood to minimize splitting.

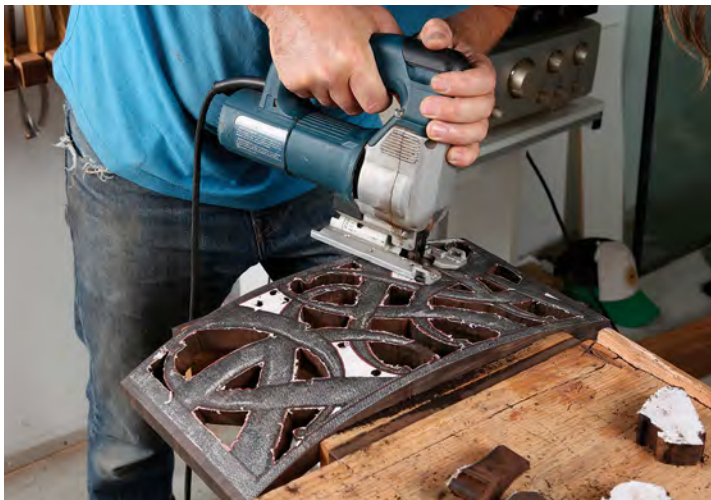
Leave a wide enough border around the edges of the panel to hold the panel together. I sketch out the pattern on plain white

paper. I then glue the paper directly to the wood blank. It is so much easier to see black lines on white paper than it is to see pencil marks on ebony.

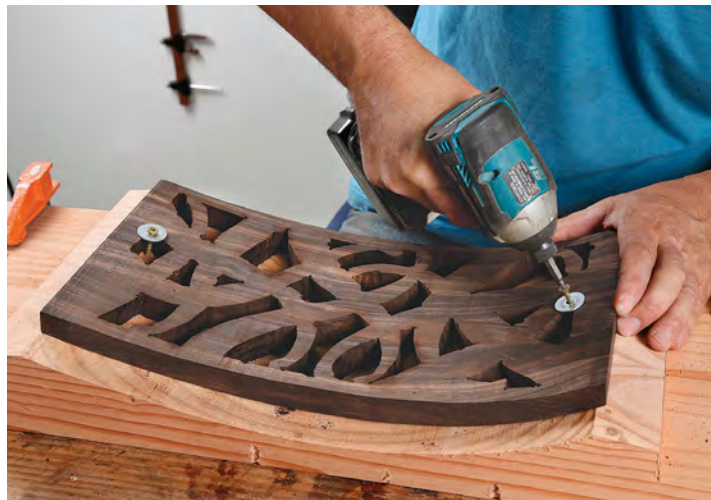
Drilling and cutting

The next step is at the drill press. Here, I drill holes in the workpiece to allow an opening for the scrollsaw blade. I often use a 3⁄8-in. drill bit for the background holes, as it is much easier to feed the blade through. In any corners or tiny openings, I use the largest bit that will fit. As long as the blade can make it through, the hole is big enough.

I use a precision ground skip-tooth #7 blade for almost all my background cutting. The wood I use is often very dense, so I need as few teeth as possible to make the sawing easy. The idea is to end up with a clean cut while making sure that resistance is kept to a minimum. Practice spinning around in



Cut it out. The thick panels of dense hardwoods like ebony make using a scrollsaw impossible. Even the most aggressive scrollsaw blade won't make much progress in that. Instead, use a jigsaw to cut out the background. It makes a mess, but it removes the waste quickly and establishes the design.



Creative clamping. The curved panels are a nuisance to clamp down, so Newell devised this holddown to do the job. He clamps a cradle to the bench and screws the panel to the cradle using washers to straddle open spaces rather than screwing into the workpiece.



Refining the shape. After sawing, gouges and chisels bring you to the line. First, establish what's above and below. Bring down the lower areas, and then go back and round everything.

tight corners without widening the cut. I often pull back the panel, putting slight pressure on the back of the blade while I spin the panel. It can be hard to avoid making the hole larger, especially with a #7 blade. But most of the time, after the carving begins, these minor blemishes disappear.

Carve what remains

When the last of the background has been cut out, it is time to make yourself comfortable at the bench with a few basic chisels

and carving gouges. The first step is to decide which parts of the pattern are low and which ones are high. In a move that is called stabbing down, place a #1 carving chisel just outside the line to be cut and tap it straight down. Remove the waste and tap down again. This will produce the depth needed to create the illusion of one element behind another.

After all the depths are established, round the corners. Suddenly a branch will look like a branch, a worm like a worm. Use a #1 chisel, bevel up, for most rounding, and if the

A laminated curved panel

Made of Japanese persimmon, this one has a curved, carved back. An opening in the front doors gives a glimpse at the carving behind.



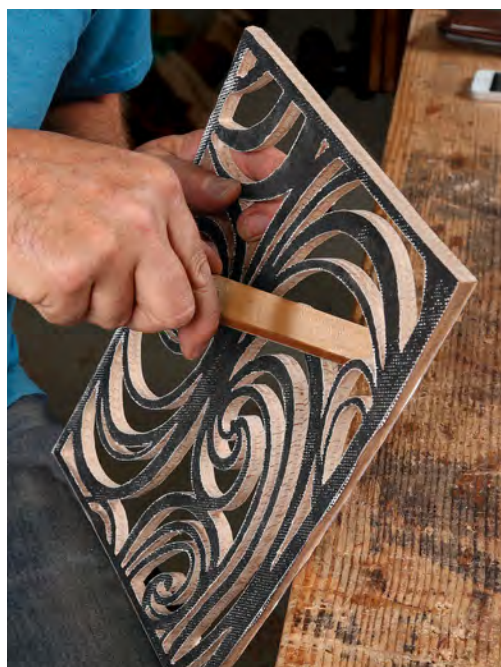
Homemade plywood. For this delicate pattern where short grain abounds, Newell made his own crossgrain plywood so that, when carved, the panels would hold together. There are three layers, and the middle one is about $\frac{1}{16}$ in. thick, with the grain running vertically, opposite that of the outer layers.



space to be carved is tight, turn the bevel down. The difference between a #1 carving chisel and a cabinet chisel is that the carving chisel has a very slight bevel on its back. The depth of cut can be regulated with this bevel, unlike a cabinet chisel with a completely flat back, which cuts only in a straight line.

Remember, just log as much time as you can with the tools on practice boards. Get a feel for doing a lot of different things on a variety of materials. The more you carve the more natural it feels, and the more you'll want to incorporate carving into your work.

Brian Newell is a woodworker in Fort Bragg, Calif.



Skip the carving. Visually, this pattern with its thin, sweeping curves did not need carving. That, combined with the fact that the panel is plywood and would be difficult to carve, led Newell simply to cut out the pattern with a scrollsaw and sand the edges with a thin scrap of wood with sandpaper glued to it.