



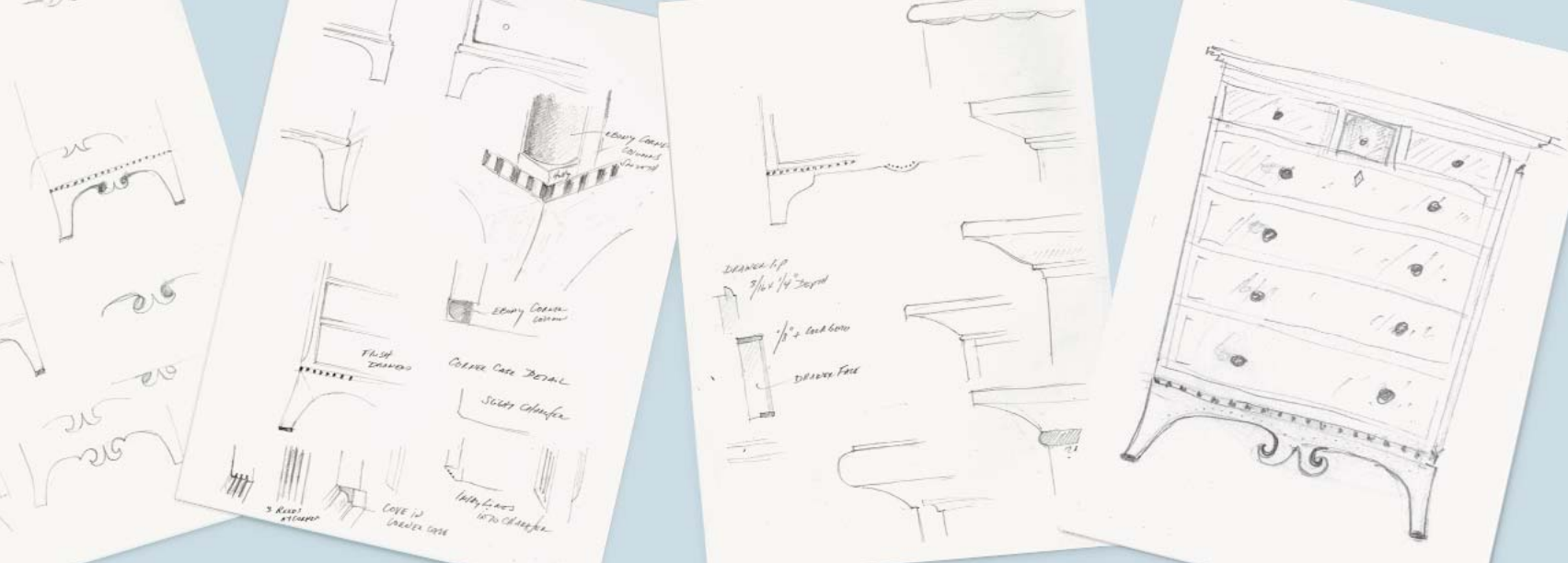
Designing a Chest of Drawers

Borrow form and detail from the past to help develop new ideas

BY GARRETT HACK

The chest form has been around at least 3,000 years, so it's hard to imagine designing something original today. I don't even pretend to. Instead, I freely borrow from this wealth of past ideas. Generations of craftsmen before me have played with chests in every way imaginable. They have refined everything from the sensuous sweep of certain curves to the basics of drawer joinery and case construction. Chests of drawers—from simple country chests to sophisticated highboys—are rich with ideas and lessons.





For me, originality comes not from trying to invent some new form or detail, but from some fresh and intriguing combination of ideas I've picked up along the way. I've been building and studying chests for years, and I've learned that knowledge builds on knowledge; you have to learn certain basics—about both design and construction—before you can understand more complex ideas. I can look at all sorts of furniture and absorb ideas, but only by actually building a piece that incorporates those ideas do they become part of my design vocabulary. And more importantly, I begin to understand new directions in which I can push those ideas next time. When thinking about a design problem, I often start by evaluating similar (and dissimilar) pieces I've built in the past.

The most exciting designs are those with the fewest restrictions. For example, a man recently gave me a commission for a chest of drawers. He didn't have any fixed ideas of what he wanted. He favored cherry, but he was open to other light-colored native woods. He also liked the dimensions of another chest he owned, about 4 ft. high and a little less than 3 ft. wide.

Find a starting point

Designing a chest of drawers shouldn't be all that complicated, considering that it's basically a series of boxes that slide into a larger box. Thinking about wood choices is often a good place to begin the design process. Dark woods can make a large chest seem heavier, just as light woods have the opposite effect. Chests have a lot of surfaces—the sides, top and drawers—that show off a wood differently than, say, the linear parts of a chair. Lots of heavy grain can dominate and distract from the quieter details. Fine-grained hardwoods take and hold small details that time would deface in a softer wood like white pine. With its quiet grain and rich color, cherry would have been a good choice for the client's chest of drawers, but I was a little tired of seeing it everywhere.

Butternut, another native species, soon came to mind. Commonly called white walnut, butternut has a warm amber color, subtle grain and works nicely with hand tools, although it's a little soft. I also had three exceptional wide boards stashed away—just enough to make single-board case sides and the top.

The widest case sides I could get out of the butternut boards were about 20 in., and the width of the top was limited to about

22 in. That size would allow drawers of a good usable depth. Defects in the boards limited the sides to 47 in. long. This would allow for a stack of five ample drawers. Four feet is also a nice height to stand at to see and use the top of the chest. Remembering that my client liked a chest of similar height, I used it as a starting point, drawing front and side views to proportion the drawers.

The smallest practical clothes drawer is about 4½ in. deep. Drawers deeper than 9 in. to 10 in. are prone to being overloaded and are not that efficient (imagine trying to find a particular shirt in a drawer with shirts stacked five high). I don't use any magic proportioning system for drawers; I just sketch out ideas. Sometimes it's as simple as increasing each successive drawer by an inch. Arranging larger drawers at the bottom and smaller drawers at the top is not only practical but also balances the composition. To give interest to the facade of this chest, I tried breaking up the top tier of drawers. First I tried two and then three smaller drawers. This

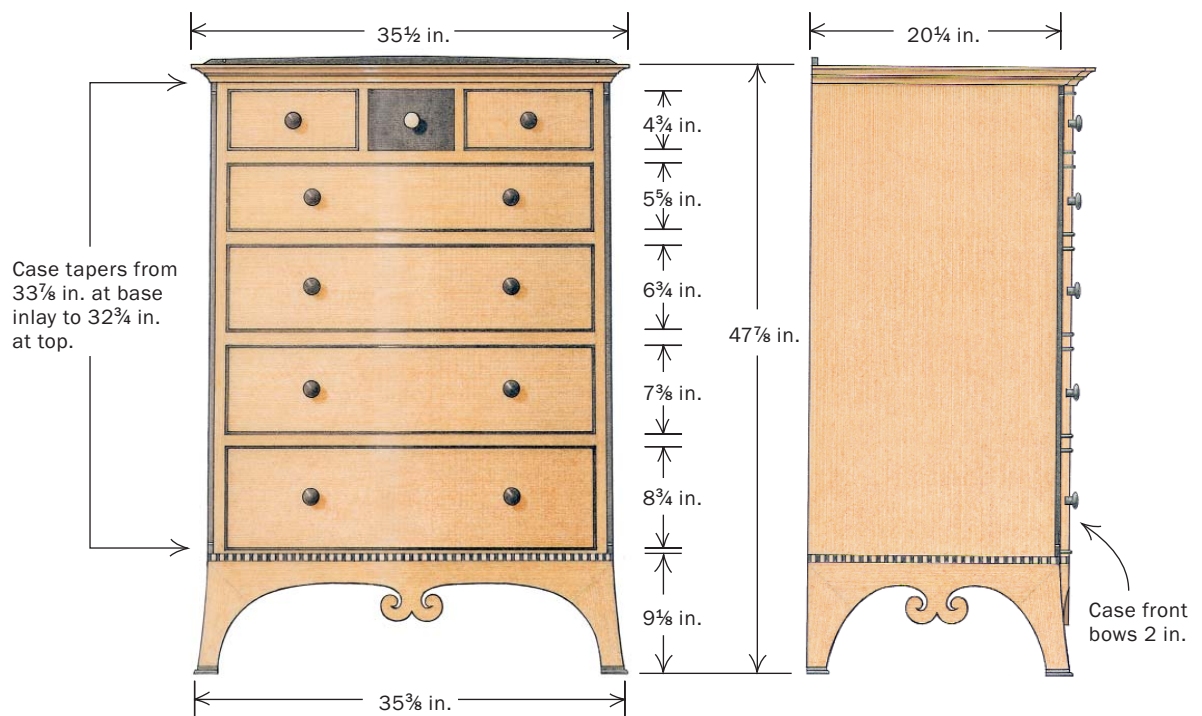
INSPIRATION IS EVERYWHERE

The richest source of inspiring forms and details is the furniture of the past, in museums, books, in *Antiques* magazine and in high-end auction catalogs. But design ideas can come from architecture, old farm implements, nature or even looking critically at your earlier work.



TRAIN YOUR EYE TO FIND THE RIGHT PROPORTIONS

The visual balance of the parts can sometimes be so subtle—they just feel right. Awkward proportions are often more obvious. There are a few guides to help you find pleasing proportions, but it is best to train your eye by looking critically at good design of all kinds.



seemed more flexible in terms of storage and created a small drawer perfect for small treasures. Should the facade of drawers be flush, lipped, flat or shaped into a gentle bow front? As I developed other parts of the design, I would have a better idea about this.

The next problem was figuring out which base to use. I wanted a base that gave the massiveness of this chest a lift, maybe even to the point of exaggerating it a little. Too low a base would have given the chest a squat and heavy feel. Drawers close to the floor are also less comfortable to use. A high base cuts into the storage volume, but the visual lift it gives to the design more than makes up for this.

An idea that immediately appealed to me was four gently splayed feet known as French feet. Sometimes they splay to the side, and other times they splay forward as well. French feet create a sense of spring or tension, lifting the case. Flowing in an uninterrupted curve from the case, they would nicely complement the simplicity of the single-board sides. Quite foolishly (because I did not think about how much extra work this would be), I had the idea of emphasizing that upward curving energy by tapering the chest slightly, narrowing it at the top. In the drawings, I played with an inch or more taper, just on the edge of perception.

Why French feet rather than a more traditional design of a molded bottom edge of the case with bracket feet? Adding on the base in this way would have solved some of my problems with the defects at the ends of the case side boards and allowed me to build a higher chest. But such a base interrupts the smooth, upward sweep of the case, something my evolving design was emphasizing. I was also beginning to think about bowing out the drawers slightly, a curve echoing the out-swept feet.

APRON ACCENTS

Embellishing the apron with a whale's tail similar to ones used by the 18th-century Dunlap family of furniture makers connects this chest with its traditional roots. It adds interest to a part of the chest well below eye level, draws your eye up to the center and balances the ebony center drawer. The inlaid black-and-white banding helps extend the curved lines of the whale's tail around the base.

Get down to specifics

At this point I had the beginnings of a design: a primary wood, rough dimensions of the case and drawers, curving French feet and possibly bow-front drawers. I had a good idea of how I might build the chest using single-board parts. Nothing was cast in stone. I could only imagine how differently a Shaker brother or an 18th-century Boston cabinetmaker would have worked within similar parameters and



SUBTLE COVE

To balance the splayed base, the top needs some overhang and mass, but not necessarily the mass of a thick top. The top is thick; but by covering its underside and adding another small cove molding, its profile is more elegant and interesting. The main cove is subtle and far enough below eye level that the author hopes it might be discovered as much by feel as it would by sight.

the vastly different chests they might have created. While there may be obvious differences, such as the shape of the case, drawers and base, the most likely differences would be in the details.

While the larger elements of form and proportion might catch your attention, the details keep you interested. Edge shapes, moldings, inlays, touches of color and even the feel of surfaces can encourage your eyes and hands to play over a piece of furniture and come to know it more intimately. The details can often be a starting place for a design, or in this chest, a way to draw the various elements together. The challenge is to provide plenty of details to explore while maintaining a harmony among those details. Similar to a musical fugue, they should be variations of a theme.

The base illustrates the movement details can create. The drawback to the French feet was that your eye could follow the curve of the side and foot right to the floor and dead end there. Little ebony pads on the bottom of each foot catch your attention before this happens. The vibrant black and the tiny bead cut along the bottom edge of the toes relate them to the cockbeads around each drawer and the ebony corner columns. Moving your gaze back up, the inlay band at the bottom of the case draws your eye horizontally around the two sides and facade. To draw more attention to the base and to relate this chest to earlier chests built in the area where my client lived, I carved the whale's tail details. They express some of the same curving energy as the feet and bow fronts, and perhaps propel your eye upward.

Practical reasons behind details

The details that keep you exploring the forms can evolve for very practical reasons. Cockbeads, proud beads around drawer edges, originated as a way to protect the fragile veneered facade of the drawer. Using them meant flush, not lipped, drawers. Because I had only one other board from the same tree as the sides and top and I wanted good color and grain match, a solution was to laminate the drawer faces. I could then use any butternut for the backing laminates. Adding a cockbead allowed me to hide the lamination lines and nicely define the edges of each drawer. The cockbead also helps hide the necessary gap around the drawer in its opening and some of the slight variation of how the bow-front

drawer aligns with the facade. Laminating the drawer faces into a bow front was only slightly more work and makes for a more interesting design.

By the time I had envisioned a pattern of ebony contrasted with holly and butternut, the rest of the details followed. Ebony corner columns give those edges definition and the case more verticality. The small ebony center drawer with a holly knob attracts your eye to the center of the facade and to the curved top. The top's modest overhang draws a minimum of attention; under-beveling the edge presents a thin and elegant profile. The coved under-bevel repeats the similar curves of the legs and bow fronts. The small cove molding under the top smooths the transition from top to case. Ebony knobs are practical and add interesting dots of color.

I like to add details so subtle that they will be discovered only by a casual sweep of your hand someday. The ebony backsplash has such details—it balances the ebony feet and echoes the overall color

pattern with the noticeable holly dots at the ends. Almost hidden between the dots is a very fine groove and bead cut along the top edge. Whoever finds the bead might find the small tapering chamfer defining the back edge of the backplash as well.

Every furniture design is an experiment of sorts. You have to define the problem and pursue solutions that give you hints at a direction to keep going. Trusting your decisions is part of maturing as a designer. But what keeps it all interesting is the serendipity of furniture making. You can't foresee everything. I didn't plan the slight cant of the knobs down the front, but I like them. □

Garrett Hack is a frequent contributor to Fine Woodworking.

DETAILS UNIFY THE DESIGN

More exciting than chamfering or rounding the corners of the case, quarter-round ebony and holly columns boldly define these edges. They also help emphasize the verticality of the case and lead your eye to the upwardly sweeping French feet. Rounded columns echo the beads around the drawers and the ebony pads on the feet.

