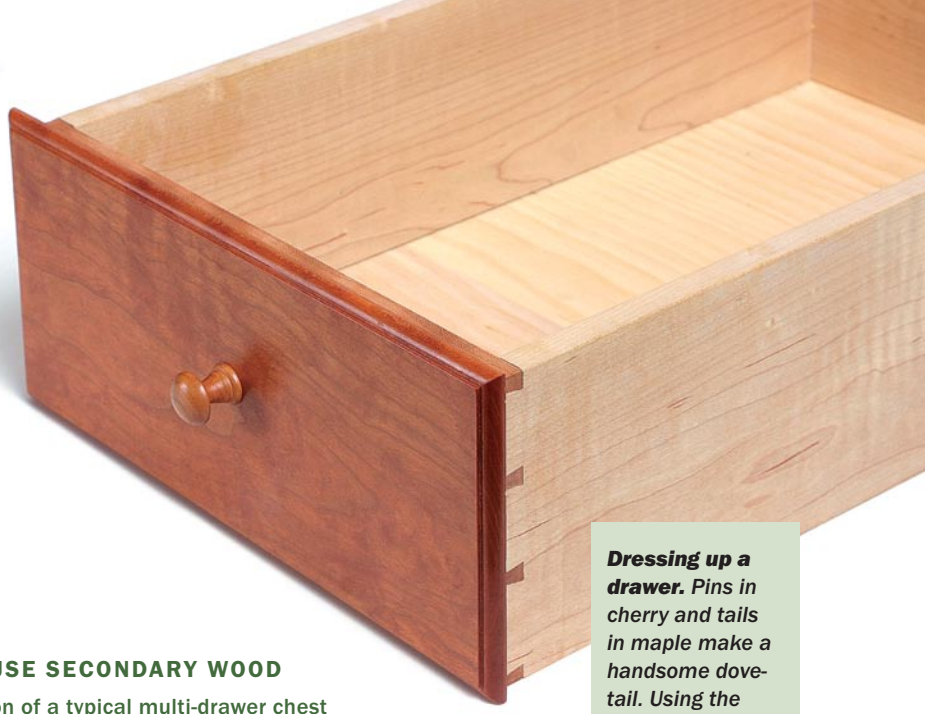
Secondary wood is not second best

BY MARIO RODRIGUEZ



Dressing up a drawer. *Pins in cherry and tails in maple make a handsome dovetail. Using the right secondary wood can make your work more attractive.*

If you examine a Shaker cupboard or a Queen Anne lowboy, you'll notice that the interior framework, drawer sides, and back panels are made of different wood from the exterior.

Even two centuries ago, furniture makers used lesser, plainer wood for hidden or rarely seen parts. These "secondary" woods were cheaper, and they sometimes made the piece function—and look—better.

The practice saved money by conserving expensive material. Mahogany, in particular, was rare and costly. But even walnut was prized and not to be wasted.

Today, furniture makers still struggle with the economics of their craft. With hardwoods sometimes more than triple the price of pine or poplar, using secondary wood can provide the same practical advantages it did 200 years ago.

Wise use of secondary wood can make you a more efficient furniture maker; one who considers the conservation of time and effort, as well as natural resources.

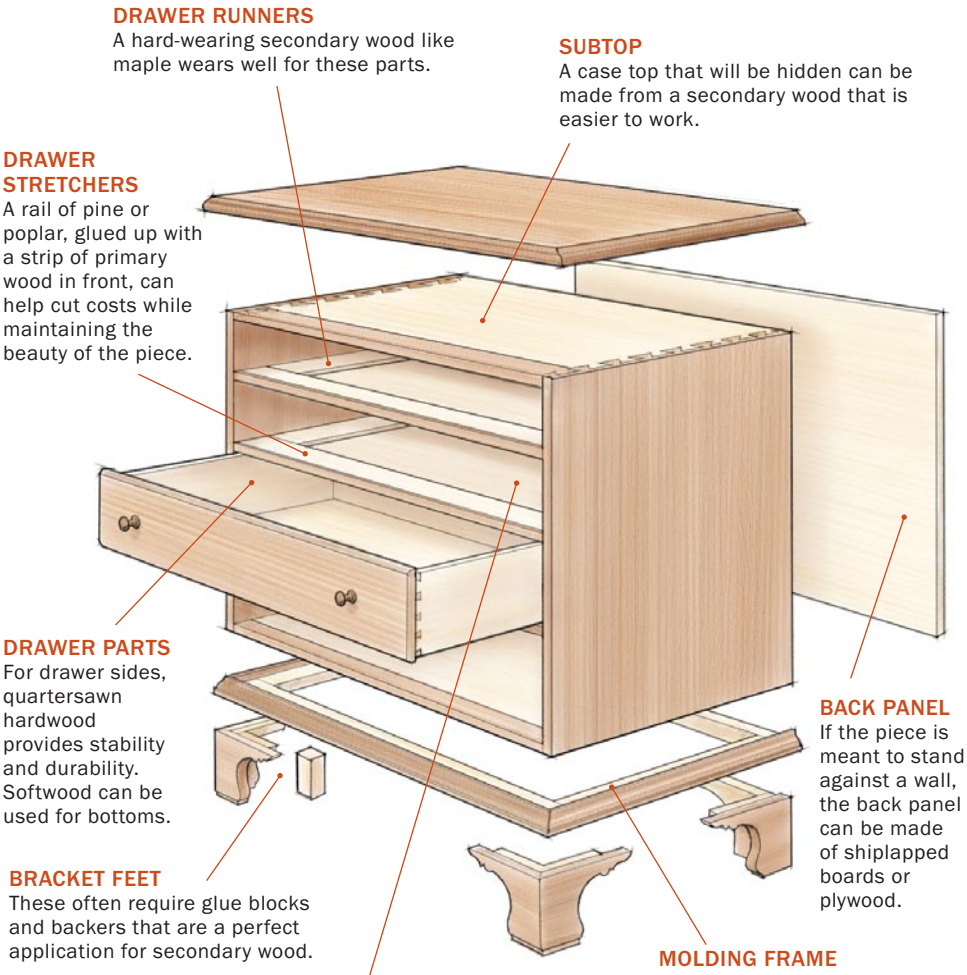
Many reasons to use secondary wood

In most cases, using secondary wood will reduce the cost of your project. In the Northeast, No. 2 pine sells for about $1.35 per board foot compared to about $7.50 for mahogany. There's no point in using an expensive material for interior parts if a cheaper substitute will do just as well.

But there's also no point in trying to save money by using inappropriate material. Determine which secondary wood is most suitable to the design and

WHERE TO USE SECONDARY WOOD

The construction of a typical multi-drawer chest features secondary wood in a variety of supporting roles. In the end, it takes the place of many board feet of expensive primary wood.



Photos: Steve Scott; drawings: Chuck Lockhart

function of the piece. As an example, plywood drawer bottoms would not be suitable on a painstakingly crafted Federal-period reproduction. Solid pine or poplar, however, would be.

In some cases, a secondary wood will work better than the primary wood. Drawer runners made of maple, for instance, are sturdier than those of pearwood. Moving parts, such as knuckle-jointed drop-leaf supports on a mahogany table, are better made of hard-wearing woods like maple or oak. On the other hand, it isn't always necessary to use the strongest material. A pine molding frame will do as well as one made of oak.

Often, using secondary wood can save time and reduce wear on your tools. I think everyone would agree that making drawer bottoms out of pine, instead of oak, would reduce the toll on your blades and cutters.

The time and effort saved lets the maker devote more attention to the visible parts of the piece.

In at least one instance, you'll want to pay close attention to how your secondary wood was sawn. Particularly for drawer parts, buying quartersawn stock for secondary wood might be worth any extra expense.

Michael Podmaniczky, senior conservator at the Winterthur museum in Delaware, said that in the 18th and 19th centuries, soft secondary woods often were quartersawn for dimensional stability. "Constructed of quartersawn material, drawers would fit better and operate smoothly," he said, "panels would be less prone to warping or splitting, and load-bearing parts could better survive any strain."

In choosing a secondary wood, it is also worth considering whether a given species will enhance your project's appearance. A secondary material can create a pleasing contrast in color, figure, and surface texture. For instance, the contrast of a rich walnut drawer front against a light-colored pine drawer side is attractive and can help to highlight the joinery.

Many woods to choose from

When considering choices for secondary woods, remember that their application, prominence, and dimensions will be subordinate to the primary wood, and to the design of the piece. Joinery can be more difficult to execute with certain coarse woods like oak or ash, so I prefer to use smoother, tight-grained woods such as poplar, pine, and soft maple.

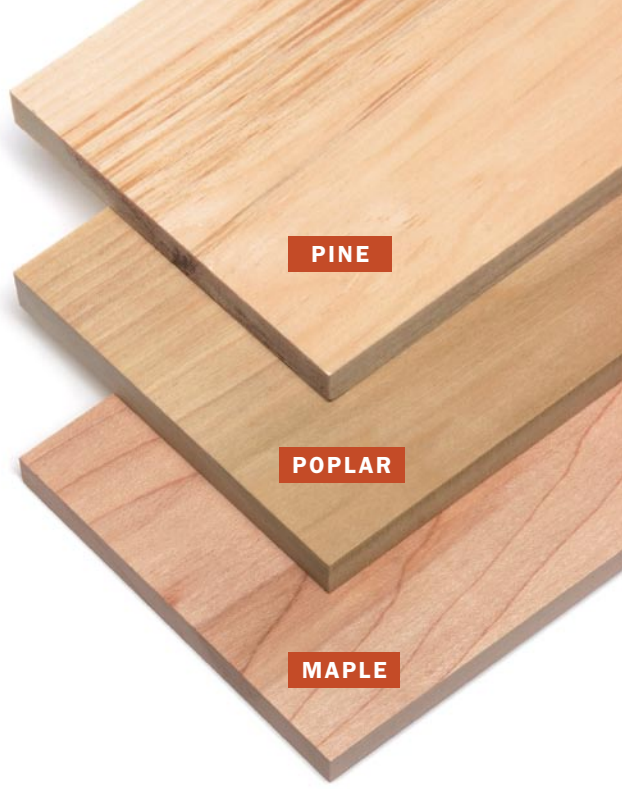
Each of these plentiful woods provides a few of the following advantages: appearance, stability, hardness, and good working properties.

Pine is the overwhelming favorite. It's easy to work both by hand and with machine tools. It looks good and it finishes well. Poplar rivals pine for all the same reasons.

Maple also performs nicely as a secondary wood. It is smooth and tight grained, good for joinery. The subtle grain patterns and muted colors of maple can enhance the intimate quality of a small piece.

Another intriguing choice, especially for drawer boxes, is butternut. It has a pleasing figure and warm color like its expensive cousin, walnut.

Alder, which is popular with Pacific Coast cabinetmakers, is lightweight and works easily. It is straight-grained, has a uniform texture, and is almost as soft as white pine. □



A trio of secondary woods. *Pine and poplar are the most popular for interior parts and panels. They are inexpensive and easy to work. Maple also works well, particularly for parts like drawer runners that have to stand up to more wear and tear.*

PLYWOOD AND MDF AS SECONDARY WOODS: MODERN MATERIALS FOR A TRADITIONAL PRACTICE

One material not available to 18th-century furniture makers was plywood. I would rate the invention of plywood right up there with the tablesaw. I couldn't imagine building furniture without it. Plywood offers a relatively flat and very stable material, available in an amazing range of veneers, with thicknesses from ⅛ in. to 1½ in. With the availability and selection of plywood, a furniture maker doesn't have to glue up and flatten an armful of 6-in. boards to get a 24-in.-wide panel.

Another useful material is MDF (medium-density fiberboard). Because it is homogeneous and uniform throughout, MDF machines and finishes more easily than solid wood or plywood. It makes an excellent substrate for veneering. It has no layers to disguise, no voids to fill, and no grain to telegraph through a finish. If the structural demands of the job are modest, MDF could be a great choice.