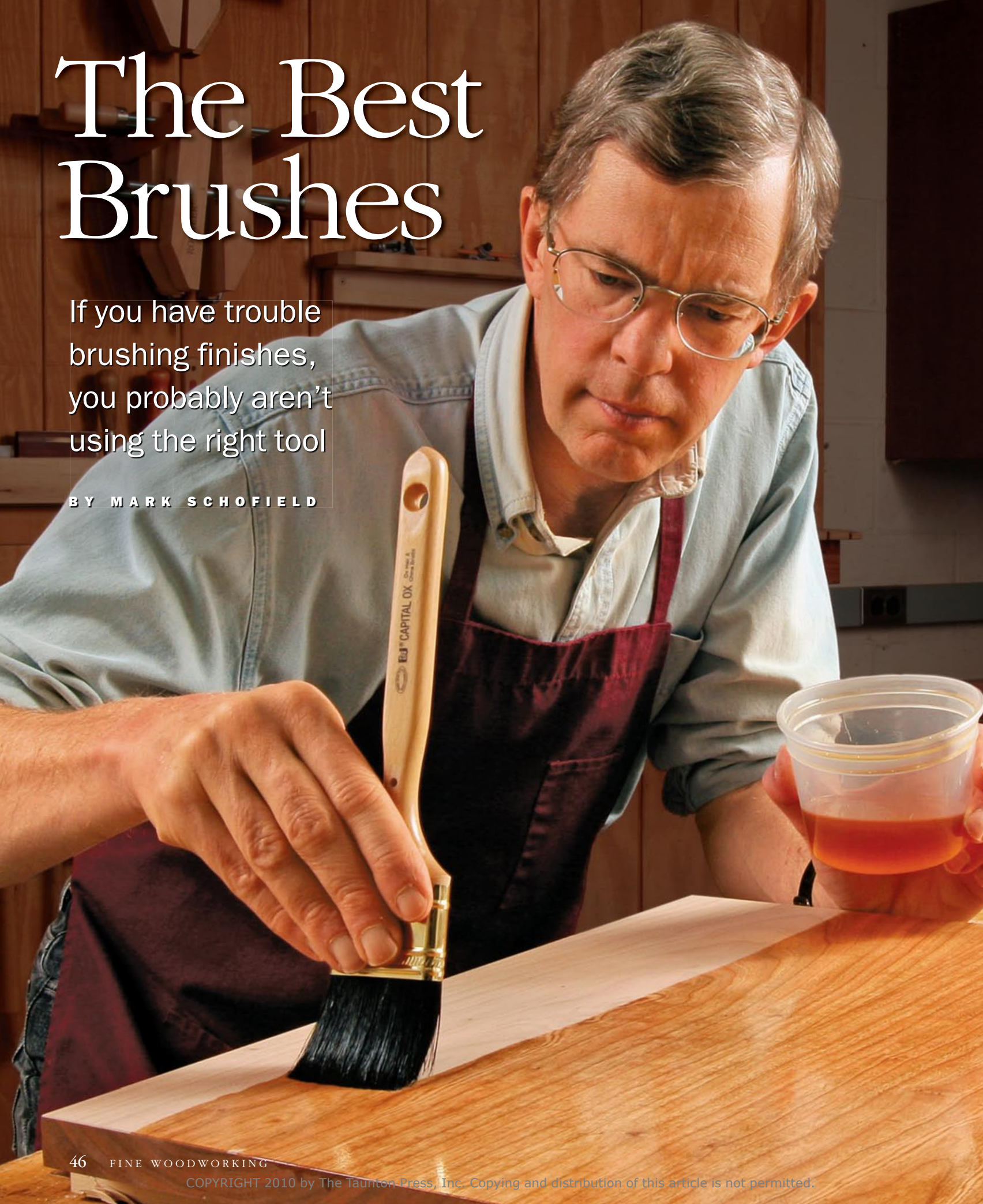
The Best Brushes

If you have trouble brushing finishes, you probably aren't using the right tool

BY MARK SCHOFIELD



Many woodworkers use only one finishing tool—a cloth. That is a shame, because applying a finish with a brush has many advantages: You build up a protective finish much faster; you can use waterborne finishes, which are very hard to wipe; and you waste far less finish than with a spray gun and don't need a special spray booth.

One obstacle to getting started, though, are the hundreds of brushes for sale in hardware stores, home centers, and online. They come in all sizes and shapes, at every point on the price scale, and with different types of bristles (some with no bristles at all). You want to apply a perfect finish to your just-completed project, but should you spend $50 on a brush or will a $10 one work just as well?

A brush is simply a tool for spreading finish on a surface. But like all tools, there are specialist versions for different products and situations, and to a great extent price does determine quality. I'll explain what to look for in a quality brush, why you will get better results using one, and how to keep your brushes working well for many years. I'll also tell you what brushes work best with different types of finish, and suggest a selection that won't break the budget. You'll be surprised at how easy brushing can be when you have the right brush.

Mark Schofield is the managing editor.

Your first brush

Start with a 2-in. brush. This is small enough to learn on but large enough to finish most surfaces up to small tabletops. Because most brushes are designed to apply paint, they are stiffer than is ideal for applying most clear finishes. Look for a brush that feels relatively flexible and has filaments around ½ in. longer than the brush is wide. Shorter filaments don't have enough flexibility. Buy a natural-bristle brush for solvent-based finish, or a synthetic-filament brush for water-based finish.

A GOOD PLACE TO START

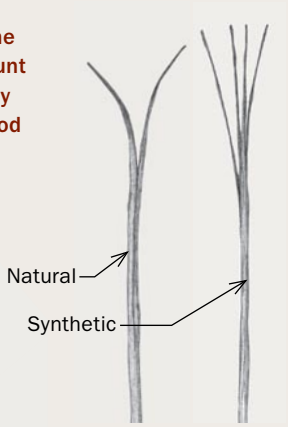
A 2-in.-wide flat brush with a square end will let you develop your brushing skills.

TWO OTHER SHAPES TO CONSIDER

An angled-sash brush is designed to handle areas of different widths as well as corners and tight spots. Get a size between 1½ in. and 2½ in. Once you're comfortable brushing and you're ready to tackle a large surface, buy a round or oval brush. Their extra capacity means fewer trips to reload the brush.

Buy quality, not quantity

A starter pack of brushes is usually a false economy. The quality will be so-so and you'll probably use only one size regularly. Spend the same amount on one quality brush from a company that specializes in making them. Good choices include Elder & Jenks, Purdy, and Wooster.



SPLIT ENDS ARE GOOD

Brush-makers split, or flag, the tips of both natural and manmade filaments to combine stiffness with the ability to leave a smooth finish.

TWO WAYS TO CREATE A CHISEL PROFILE

Brushes work better with a pointed end, but there is a good way and a bad way to form it.

Match the brush to the finish

NATURAL HAIR OR BRISTLES FOR SOLVENT-BASED FINISHES

Despite some manufacturer's claims, brushes with synthetic filaments can't match a natural-filament brush when applying a solvent-based finish. Most woodworkers refer to a brush's bristles rather than its filaments, but that is rather like calling all cheese cheddar. Bristle refers only to hog bristle, also known as China bristle because that is where nearly all of it comes from. Sold to brush-makers for $8 to $12 per pound, bristle is the workhorse among natural-filament brushes.

The other natural filament you're likely to find in brushes is European ox hair, which comes from these animals' ears. Slightly less stiff than hog bristle, it is also softer and at $80 per pound, much more expensive. You can buy ox hair/bristle blend brushes such as Elder & Jenks' Capital Ox ($20), or you can buy a pure ox-hair brush from Tools for Working Wood ($40). Once you get the feel for brushing a finish, either type of brush is well worth buying if you are using solvent-based varnish.

Your grandfather may have sworn by his badger-hair brush and some catalogs offer "badger-style" brushes. However, genuine badger hair costs around $400 per pound, so it is likely that the brush is really hog bristle with a black streak painted on the bristles to resemble badger hair. Read the fine print closely.

A GOOD START

Your first brush should be made from hog (China) bristle. The black or beige color of the bristle makes no difference, and you can get a fine 2-in. brush for under $15.

TOP OF THE LINE

The Cadillac of solvent brushes is made from pure ox hair. Very fine and soft, it will lay down a coat of varnish with almost no brush marks, but costs at least $40 for a 2-in. brush.

NICE COMPROMISE

An ox hair/bristle blend works very well. It can't quite match the surface left by pure ox hair, but this won't matter if you are rubbing out the finish. Expect to pay $20 to $25 for a 2-in. brush.

Taklon is the exception to the rule

One synthetic filament, Taklon, works for both solvent- and water-based finishes. The filaments are extremely fine and leave virtually no brush marks, but their flexibility makes them suitable only for thinned finishes and they can't deliver as much finish per stroke. A good way to get a really smooth final coat for fast-drying finishes like lacquer or shellac is to thin them by at least 50% and use a Taklon brush to lay down a coat almost devoid of brush marks. You can expect to pay around $30 for a Taklon brush.

PERFECTLY SMOOTH FINAL COAT

Taklon does an incredible job laying down a thin, smooth coat of solvent-based finish.

SYNTHETIC FILAMENTS FOR WATER-BASED FINISHES

When hair and bristle hit water, they swell and go limp. This makes them unsuitable for water-based finishes.

When latex paints were introduced, brush manufacturers had to create suitable brushes, and now the majority of brushes in stores are designed for latex paint. They have synthetic filaments: nylon, polyester, or a blend of the two. Brand names include Chinex and Tynex, both nylon, and Orel, made from polyester. Polyester is the stiffer of the two filaments and is probably better just for paint, but even most nylon brushes are too coarse to be able to lay down an even coat of clear finish. Instead, focus on the thinness of the filaments.

LOOK FOR FINE FILAMENTS

Two good choices are Purdy's Syntox brushes and Wooster's Alpha line.

PURDEY SYNTOX

WOOSTER ALPHA

ALL-PURPOSE? NOT REALLY

Most synthetic-filament brushes are designed to apply latex paint and are too stiff and coarse to be ideal for clear finishes.

Brushing the last coat. *Taklon brushes are ideal for the last, thinned coat of finish. But there is a specially made Taklon brush (right) for water-based finishes that can't be thinned as much.*

Water-based finishes also dry fast but can't be thinned as much as shellac and lacquer. To get around this problem, you can buy slightly stiffer Taklon brushes made especially for these finishes. Homestead Finishing sells one for $25. Some Taklon brushes have a glue size applied that keeps the bristles stiff for packaging and transport. Before first use, submerge them in warm water or alcohol to remove the size.

THICKER VERSION FOR WATER-BASED FINISHES

The double row of filaments can handle thicker water-based finishes.

Photos and drawings: Kelly J. Dunton

Protect your investment

A 75¢ foam brush is disposable, a $40 ox-hair brush is not. Take time to clean a good brush thoroughly each time you are done with it and you'll be rewarded with many years of flawless service.

CLEANING STARTS BEFORE YOU BEGIN

Wet the brush first. *Before dipping the brush in finish, wet the filaments in a solvent compatible with the finish. This will coat the filaments in solvent and make cleaning the brush easier after you've finished with it.*

So you're anxious to see how your new brush works. Before you dip it in the finish, though, there are a couple of steps to take. First, even the best brush may have one or two loose filaments (cheap brushes will have many), so rather than pick hairs out of a wet finish, bend the filaments back and forth with your hand a few times, pulling gently on them. Hold the tip up to the light and remove any filaments protruding above the rest. Now dip the brush into a solvent that matches the finish you'll be using and then squeeze out the solvent onto a paper towel. This coats the filaments with solvent and makes cleaning the brush much easier when you've finished using it.

In use, don't overload the brush with finish. If you are brushing vertical surfaces, periodically squeeze out as much finish as possible back into the can. These steps will prevent finish pooling around the base of the filaments and flowing all over the ferrule or running down the handle.

Dip a toe in. *Only submerge about a third of the filaments in finish. If you go deeper, it is harder to apply an even coat. Also, finish will tend to pool in the bottom of the brush and then run down the ferrule when brushing vertical surfaces.*

SHELLAC, LACQUER, AND WATER-BASED FINISHES CLEAN UP EASILY

SHELLAC AND LACQUER: LET IT DRY

Brushes used for lacquer and shellac don't need to be cleaned thoroughly. Give it a swish in lacquer thinner or denatured alcohol, shake it out, and let it dry hard. When you need it again, just stand it in solvent. It will be soft and ready to use within 30 minutes.

USE SOAP AND WATER FOR WATER-SOLUBLE FINISHES

Use hot water and dish soap to remove water-based finishes from brushes. Lather, rinse, and repeat two or three times.

OIL-BASED FINISHES ARE HARDEST TO CLEAN

Let's start with the good news: You don't need to clean the brush if you plan to use it again within 24 hours. Instead, suspend the brush in mineral spirits that have previously been used for cleaning a brush. Keep the tips of the filaments off the bottom of the container so they don't get bent or contaminated with residue.

When you're done with the brush, rinse it a couple of times in used mineral spirits, then pure mineral spirits, removing the bulk of the solvent on newspaper each time. Now rinse the brush in hot soapy water several times before giving it a final cleaning using either citrus cleaner or household ammonia. If you can't smell any mineral spirits on the filaments, the brush is clean and can be wrapped in paper and put away.

LET IT SOAK BETWEEN COATS

If they are going to be reused within 24 hours, brushes containing an oil-based finish can be suspended in mineral spirits. Use a kebab skewer through the handle to avoid bending the bristles.

Solvent, then soap. *Rinse the brush two or three times in mineral spirits, then remove the solvent on newspaper before cleaning the brush with hot water and soap.*

Final cleaning. *To remove any last traces of mineral spirits, rinse the brush in either a citrus cleaner or household ammonia.*

Ready for next time. *To let any moisture escape and at the same time keep out dust, wrap the brush in brown paper or the original cardboard wrapper.*

TIP Reuse your mineral spirits

Don't toss it. *After you have cleaned a brush, pour the contaminated mineral spirits into a sealable container.*

Clearly better. *After a few weeks, the residue will sink to the bottom of the container and you can pour off clean mineral spirits for reuse.*