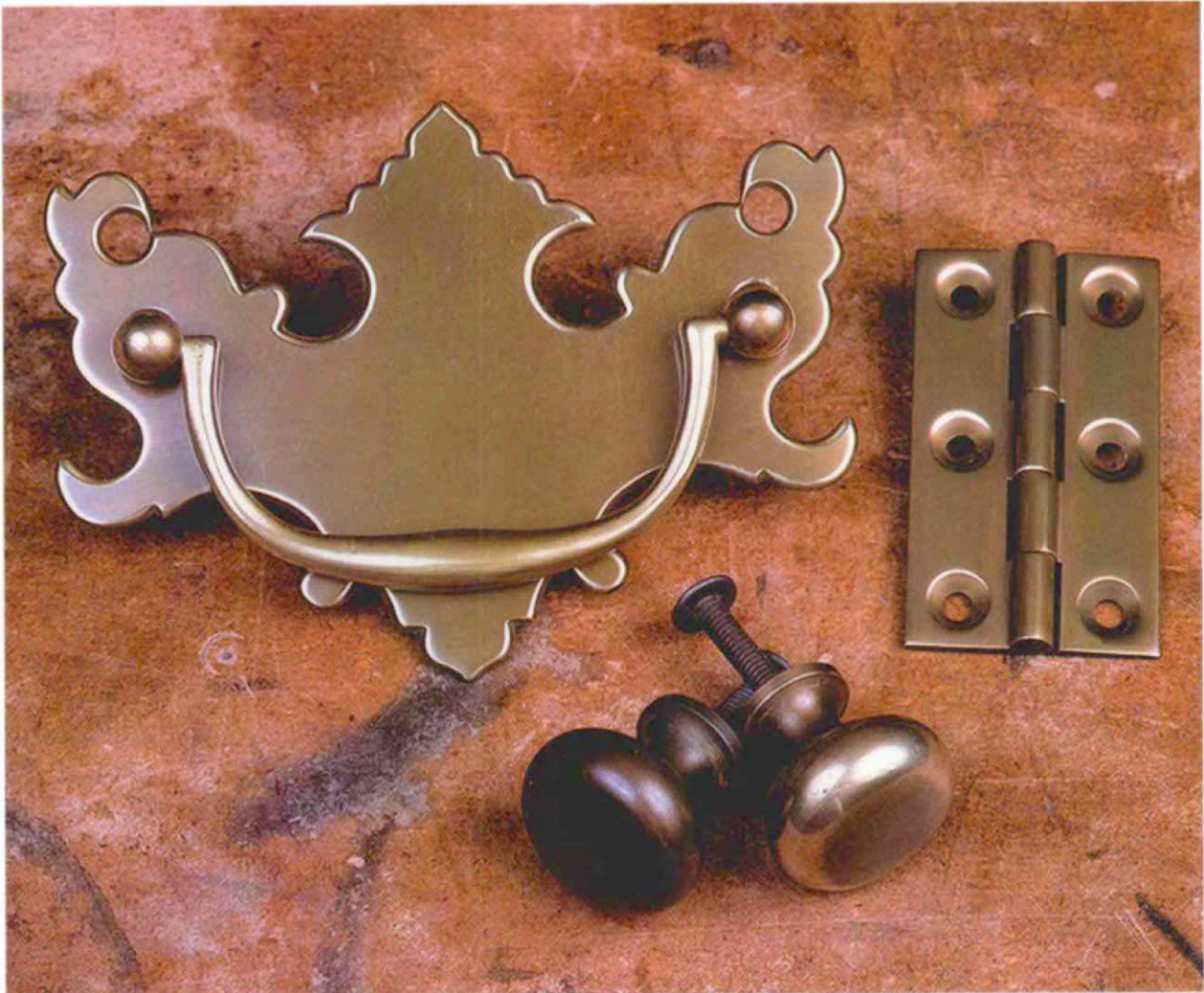


Antiquing Hardware

Readily available, inexpensive hinges and pulls can be turned into classy accents for your furniture



Brass that's not brassy. After soaking in lacquer thinner overnight to remove a protective coating, this brass hardware was suspended in an ammonia chamber until it mellowed to a soft, greenish gold.

Just as you can choose a stain to get the exact wood color you want and a finish for a certain sheen, you also can pick the finish for your hardware. The finishes can be bold and bright or subdued and understated.

Here are two techniques for making custom fin-

ishes for hardware. One is for antiquing zinc-coated steel hardware; the other is for antiquing brass. Not every piece of furniture calls for antiqued hardware, but for some custom pieces, one of these techniques will give you just what you're looking for. —*Vincent Laurence, associate editor*

Patinating brass

by Gary Rogowski

Bright, shiny brass appeals to many people. But for my one-of-a-kind, custom pieces, I want the hardware to be like the woodwork itself—simple, not showy. So I take the bright brass hardware available at the local hardware store and mellow it so it looks like it's been around for a few years (see the photo on the facing page). The best part is that this patination process takes just a few hours.

Most store-bought hardware has a protective finish on it to preserve its sheen. I remove it by letting the hardware soak in lacquer thinner overnight. Swirling the hardware around in the jar a few times helps ensure that all the finish is removed. After the finish is gone, fish the hardware out of the lacquer thinner with thin scraps of wood or chop sticks. If you use your hands, wear rubber gloves (see the top photo at right) because fingerprints will show up as smears on the patinated hardware.

Then I put the hardware directly into an ammonia chamber. This is simply a glass jar (peanut butter jars are ideal) into which I pour about an inch of industrial-strength (28%) ammonia. This ammonia is available from large chemical- and janitorial-supply companies. Look in the yellow pages for a local source because shipping a hazardous substance like this can be very expensive.

Be careful when working with this ammonia. Although furnituremakers have used it for years to fume oak for Mission-style furniture, you should still proceed with caution. Use a cartridge-style respirator with an ammonia cartridge, safety glasses (goggles would be better) and gloves.

I suspend the hardware above the ammonia on light-gauge wire, being careful not to let the hardware touch the sides of the jar, the ammonia or another piece of hardware (see the center photo at right). Any contact will result in an uneven finish that you'll have to remove with a Scotch-Brite pad and steel wool. Screws that can't be attached to the hardware itself (hinge screws, for example) can be driven into a small scrap of wood with a hole drilled near its end. I hang the piece



Lacquer thinner removes the protective coating. Most store-bought hardware has a coating to preserve its sheen. You have to remove this before you can fume the brass.



Above, but not in, the ammonia—Suspend the hardware on light-gauge wire, and keep the pieces from touching the jar or each other.



Remove the plating with abrasives. A Scotch-Brite pad followed by 0000 steel wool effectively removes plating without leaving deep scratches in the brass.

of wood on the wire, too. Keep the lid twisted loosely on the jar so your whole shop doesn't reek of ammonia.

Several hours in the chamber will give the brass a nice, light patina. Keeping it there overnight will make it quite dark. Experiment to determine what works for you. It's a good idea to keep a set of control pieces, each exposed to the ammonia for a different length of time, so you can have some reference samples. You can also use them to show clients.

Some brass hardware has a thin plating beneath the lacquer, which you'll only discover after an initial treatment with ammonia. It shows up as a splotchy surface. If that's the case, remove the plating with a Scotch-Brite pad and 0000 steel wool, and then return the hardware to the ammonia chamber (see the bottom photo on p. 59).

Finally, to fix the patina, I either spray a light coat of lacquer, or I wax the hardware (see the photo at right). This keeps the tone of the hardware exactly the way I want it.

Gary Rogowski is a contributing editor to Fine Woodworking magazine.



Waxing the hardware preserves its patina.



Patinating steel

by Stephen Winchester

Shiny zinc hardware is fine for outdoor or utilitarian furniture. And you can't beat the price. A pair of 2½-in. by 1¾-in. hinges sells for only \$2.59 in my local hardware store. But for traditionally styled cabinets or fine furniture, which is the kind of work I do most of the time, shiny hardware just doesn't cut it. I could use more expensive hardware, but with a little resourcefulness, I've found a way to make these hinges look like they've been around for a century or two (see the photo at left).

The first step in transforming zinc-coated utility hinges (or other zinc-coated steel hardware) into antique iron is to remove the zinc coating. For this I use muriatic acid, which I dilute 50% with water and place in a shallow plastic container. Add the acid to the water, and be careful not to let it splash. Muriatic acid is commonly available in hardware stores, at lumberyards and pool-supply stores.

Old hardware, in a hurry—Stephen Winchester takes shiny, zinc-plated hinges and other hardware and turns them a dull black, making them look almost hand-forged. The whole process takes only an hour or two.

But just because it's readily available doesn't mean it's harmless. Use muriatic acid outside or in a well-ventilated area, and protect your eyes. Goggles and acid-proof gloves are a good idea.

Put the zinc-coated hardware into the muriatic acid (see the photo at right). If there are screws, don't forget to include them. The mixture will start to smoke immediately. So stand back, and do not breathe the fumes (it's best to do this outside). After a few minutes, swish the hardware and acid around a little to make sure all the zinc is off. The hardware will probably smoke some more.

When the hardware has stopped smoking, set the plastic container in a sink or tub, and rinse it thoroughly with cold water (see the center left photo). Let the water overflow the container for a minute or so to be sure the acid is completely removed. Then dump the container, and dry the hardware.

To darken the now-bare steel, you have to heat it to red-hot. I put the hardware in a tin can and nestle it in the coals of my wood stove. A charcoal grill would most likely work as well, or you could simply heat each piece with a propane torch. The wood stove doesn't provide consistent heat, but that probably contributes to an authentic-looking, uneven finish (see the center right photo). When the whole can is glowing, pull it out of the fire, and set it down on a fireproof surface to cool.

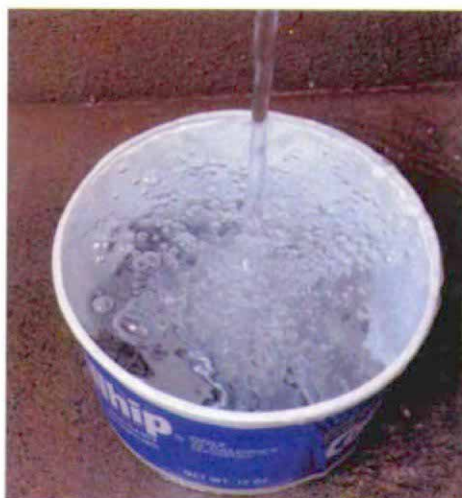
After the hardware has cooled just enough so that you can touch it, remove the surface scale with an old toothbrush (see the bottom left photo). Then, to give the hardware some protection against rust and to give it a bit of a patina, apply a generous amount of wax to the larger pieces, and tumble the screws around in a wax-impregnated rag (see the bottom right photo). There's no need to buff out the wax later. It just sort of sinks into the warm steel.

It's always a good idea to test a sample before putting all the hardware for a project through this patinating process. I've seen hinge pins and other pieces dissolve in the acid and melt in the heat. I'm not sure why, but I've had good luck with Stanley hinges. But the pins melted out of a pair of National hinges. □

Stephen Winchester is a professional furnituremaker and cabinetmaker. He lives in Gilmanton, N.H.



Remove the zinc-plating with muriatic acid. The mixture will smoke, so stand back and don't breathe the fumes.



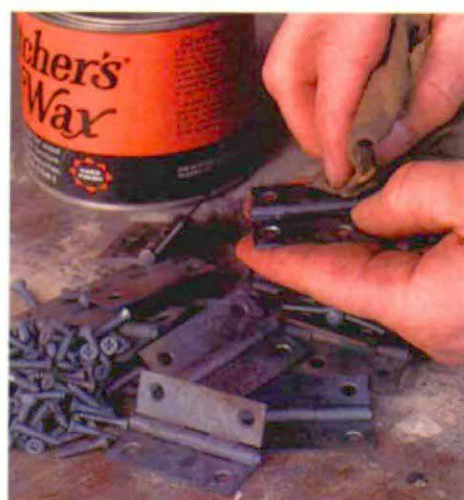
Rinse the hardware thoroughly for a minute or two in cold water.



Heat the hardware to red hot. Then let it cool until you can touch it.



Brush off the scale. An old toothbrush works well for this job.



Finish the hardware with wax. There's no need to buff it out.