Mission Embossible

Anything I Can Do DVD Volume 8 – *Metal Work*

Jazz up your décor with copper

Materials:

- Copper sheeting
- Ammonia
- Pickling vinegar
- Newspapers
- Copper powder
- Nail polish or shelac

Tools

- Stylus
- Abrasive scrub pad
- Nail
- Scissors or tin snips
- Knife
- Chisel

Steps:

If you're on the hunt for cheap but tasteful décor upgrades, how about copper switch plate covers? They're fun to make, and deliver a zing of artfulness to your surroundings.

Copper is unexpectedly delightful to work with. It's really soft, so you can shape it easily without having to heat it or wail on it with a huge hammer (as with iron, for example). Copper was the first metal that humans pounded into tools, dishes and weapons and it's still the beginner's choice because it's so cheap and malleable. Plus you can apply finishes (made from stuff you have around the house) that will add a lively patina in shades of green, turquoise and blue.

Sheet Happens

Start by buying a bit of copper sheeting, available at places that stock sheet metals (look in the Yellow Pages under 'steel' and you can usually find a metal supplier who deals in various metals, including copper). My favourite weight for copper sheeting is .007 mm. You can cut it with ordinary scissors and it's really easy to emboss. Once you've tracked down your copper, the fun begins.

Treat the copper surface with synthetic steel wool

The surface looks like this after scrubbing with synthetic steel wool

Synthetic steel wool also comes fixed to a mandrel which fits in a drill

The finish made by the mandrel looks like this

Scratch 'n' Switch

To get a really cool 3-D iridescent finish, rub the copper surface with an abrasive dishwashing pad. This dulls the surface slightly, but adds depth and mystery, especially if you make circular patterns with the pad. (This scuffed surface treatment is often used on stainless steel surfaces in upscale restaurants, although they use a much heavier abrasive on the hard steel. Isn't that just the kind of arcane info that makes your weekend? Me too.)


Stylus from an art supply store with punch end and ball end


Use the ball end of the stylus to press the design into the metal


Embossed copper switch plate cover in process

The Embossible Dream

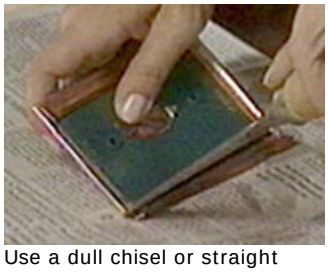
Trace the outline of a switchplate onto your copper, and cut it out, adding an extra half-inch hem on all four sides. Then draw a freehand design on the copper with a pencil, or trace a design you like and transfer it onto the copper using carbon paper.

Next, place the piece of copper wrong side up on an inch-thick pile of old newspapers, the ideal surface for embossing. To make embossed impressions in the copper you need a stylus, available at craft stores and art supply places. (Or just use a dried-out ballpoint pen.)

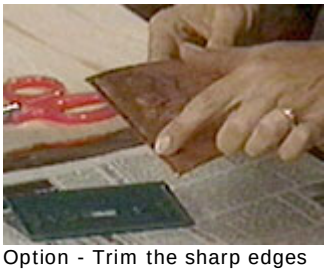

Mark the location for the toggle to pass through the cover


Use an old chisel to cut an X from corner to corner


Fold the copper around behind the plastic cover


Use a dull chisel or straight screw driver to help make the corner folds


Use a Popsicle stick to press the copper against the switchplate


Option - Trim the sharp edges with sticky copper tape designed for use with stained glass

Run the tip of the stylus over the lines of your design. If it binds or balks, don't press so hard. You can always go over it again. Once you've finished embossing you'll need to cut out the opening for the light switch toggle. Use an old knife or chisel to cut X-shaped slices in the opening from corner to corner, and fold the resulting tabs behind the opening. Fold the outside hem around behind the switchplate as well, and use a Popsicle stick to flatten the copper against the back.

Safety Tip

Prevent cuts from the sharp edge of the copper by covering it with copper foil tape found in stained glass supply shops.


Brush shellac or nail polish on to the head of the screws


Then dip them in copper powder


The screws match nicely

Screwed Awakening

The screws that came with the switchplate are not going to match the copper, so dab a little copper-coloured nail polish on the screw heads, or coat them with clear nail polish and dip them in copper powder, available in small vials at art supply stores. Use an awl or a nail to punch two screw holes through the copper switchplate cover and you're on your way.


Double switch plate cover with blue-green patina


Copper switchplate cover with leaves and green patina over brown base

Remember that people with clammy fingers will paw the light switch hundreds of times a year, so if you don't want the pedestrian brown hue which results from human grime interacting with copper, I recommend coating your final patina with shellac, urethane or beeswax polish.


Place the scrap wood about half an inch in from the edge


Lift the copper to start the bend


Continue bending with your fingers


Roll out the bend to finish

You can make matching lampshades or candle sconces using sheet copper. Another way to prevent cuts is to hem the edge by placing a scrap piece of wood about half an inch in from the edge and lift the larger side of the copper up to form a right angle. Use your fingers to finish pressing the fold over flat and then roll it tight with a rolling pin or pasta roller.


Sketch a design on the copper

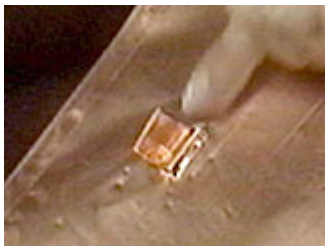

Use a variety of tools for different effects


Working from a model can help

Use a variety of tools to punch a pattern into the copper. It helps to have sketched out a pattern directly on the metal first. Then use nails, carving knives, kitchen knives or the corner of an old chisel to make the pattern. Different sizes of knife blades make different punctures and can be used to flesh out the design.


Make a reflective back and coat it with a clear sealer


Make tabs on the front piece


Pass the tabs through the slots in reflector


Leave enough space between the two sheets for a candle


Another copper lamp, embossed and cut out with green patina and shellac as a sealer

Stand Up and Be Mounted

To mount your design on a reflective back, cut another piece of copper about two inches larger on all sides than your design piece. Hem the edges, polish the surface and coat with water based urethane or shellac. Cut tabs in your design piece and matching slots in the reflective backing. Be sure to position the slots in such a way that when the two pieces fit together it creates a space between the front and back. Pass the tabs through the slots and make a double bend in the tabs to hold the pieces firmly in place.


Equal parts pickling vinegar and household ammonia


Five coats of vinegar first and then one coat of salt water


Two parts vinegar, one part salt water and one part amonia

Chemistry Tip

If you'd like to apply a blue-green patina to your switchplates, brush on a layer of household ammonia, followed right away by a coat of pickling vinegar. The two chemicals mingle and react together to oxidize the metal. It works fastest outside in full sun. Let the solution dry. If the patina still isn't colourful enough, repeat the process as many times as it takes to get a great shade of turquoise. If you want a softer green, use 2 parts pickling vinegar, one part salt water and one part ammonia.

Flame finish

The flame of a soldering torch will also provide and interesting colour on bare copper. To stabilize, use a clear coat of shellac, water based urethane or wax.

You'll enjoy working with copper just as much as the first humans did. If it helps, wear a loincloth and practice poor dental hygiene, just to experience the rich reality of The Copper Age.