

Colonial Style Copper Lantern

A Metalworking Project

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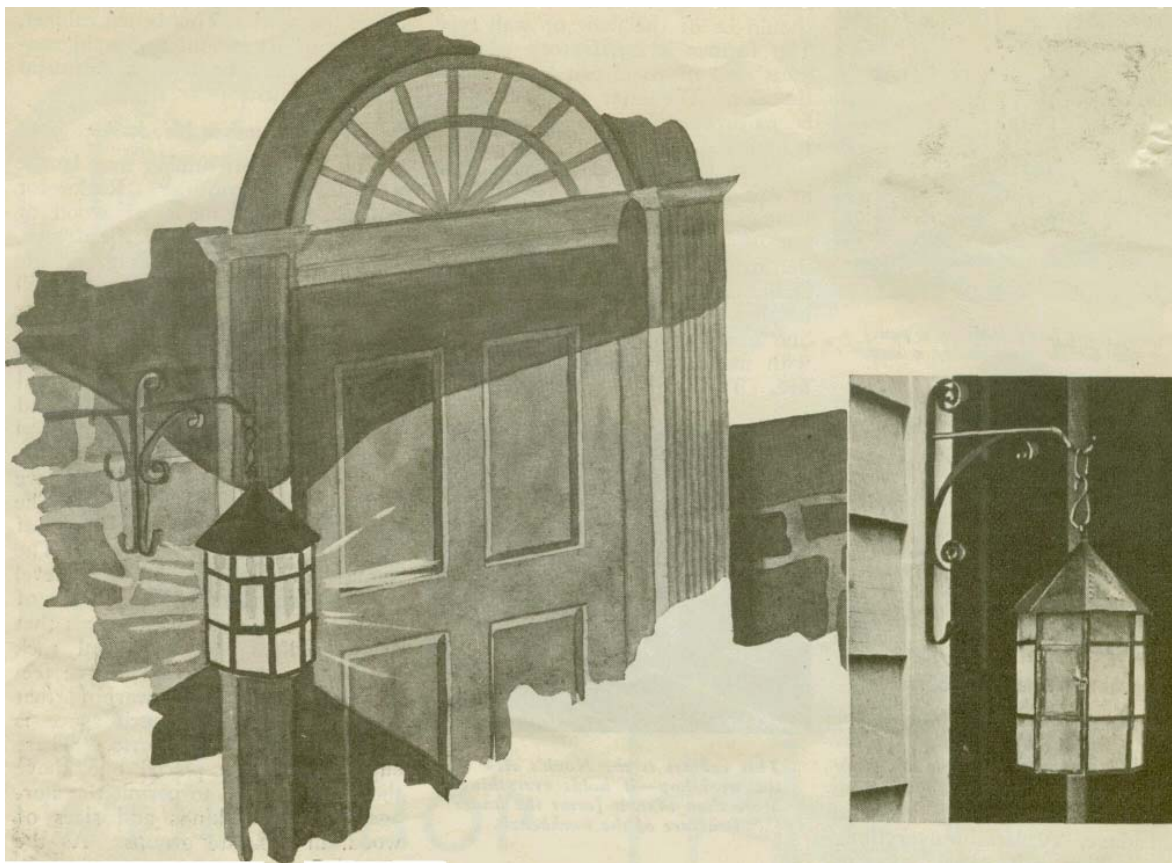
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COLONIAL STYLE

Copper Lantern

Adds Charm to a Doorway

By Franklin H. Gottshall

THE design of this lantern harks back to colonial days when home-made candle and whale-oil lamps hanging by the side of each doorway were the chief means by which the townsmen found their way about the village after dark. Made of 16 gauge copper, fitted with

ground glass, and supported by a scroll bracket of iron, this modern adaptation will furnish an absorbing piece of work for today's craftsman who reproduces it, and when finished he will have a decorative and useful object to grace a doorway.

To begin the lantern, carefully

draw a full-size pattern of the bottom. See Fig. 7. Transfer this by gluing the pattern to the copper with shellac or paste and cut it out with jig saw or with tin snips. Locate and drill the small holes for ventilation.

Next bend up the edges. This may be done by fastening them in a metal worker's vise and bending the bottom over until a 90-degree angle is formed. Remove the pattern with water or alcohol. You'll need 8 clips, each made of a piece of copper 1/4" wide and 1/2" long, bent in the middle to form an "angle iron." These clips are soldered on the inside of the bottom to hold the glass in place.

Cut the long strips which form the vertical framework of the lantern. These should be 1/2" wide by 9 1/2" long. There are eight of them and each one will have to be partly folded along the vertical center line at an angle of 135 degrees so it may be soldered to a corner of the octagonal

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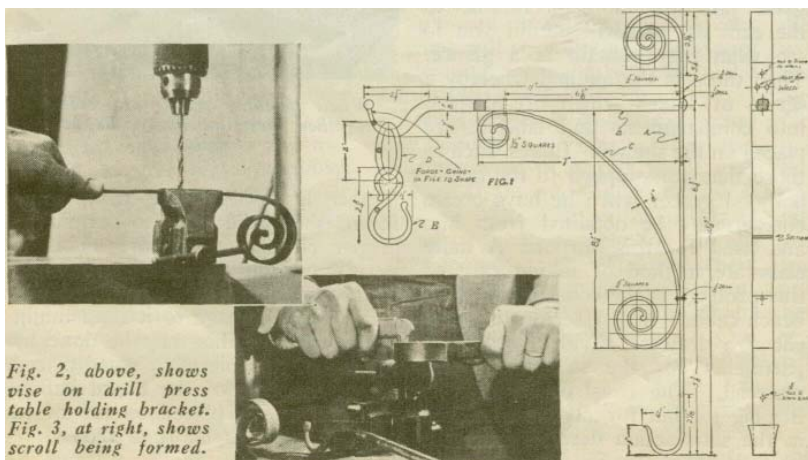


Fig. 2, above, shows vise on drill press table holding bracket. Fig. 3, at right, shows scroll being formed.

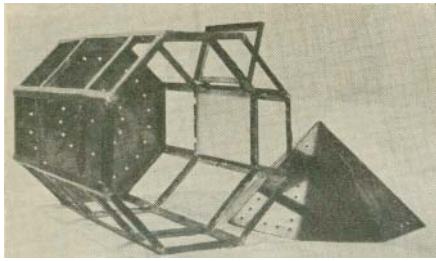


Fig. 4. The copper skeleton is complete, ready for installation of glass panels.

bottom. A simple way to do this work is to lay out all eight of these pieces on a sheet of copper and fold each one over a hatchet stake with a mallet before cutting it free from the sheet.

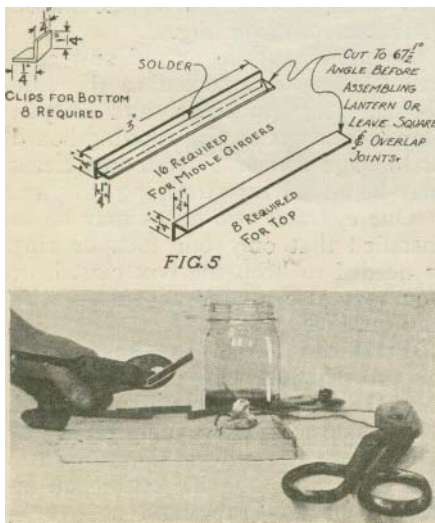
Next cut the horizontal top girders. Make 8 of these 1/2" wide by 3" long and form to 90-degree angle girders as shown in Fig. 5. These will form the top of the framework. There are also 16 T-shaped girders made from 1/4" by 3" pieces soldered together. This operation is depicted in the photograph at the bottom of this column.

When all of the girders have been made, they may be soldered to the bottom and to each other to form the framework which holds the glass. When soldering the vertical girders to the bottom, be very careful to have them square with the bottom so they will not lean to one side. Check them with a try square as the work progresses.

Solder the angle girders to the tops of the vertical girders. Then locate the positions of the T-girders and solder them. Do all soldering on the inside of the lantern. The best flux to use for this job is muriatic acid cut with zinc. [Editor's note: this is the same as "Tinner's Flux" at your hardware store.]

Fig. 4 shows the assembled framework at this stage, and Fig. 8 shows

The two intermediate girders of the lantern are T-girders, made by ~ soldering a strip down the center.



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a few of the clips for fastening the glass already cut and partly bent. Three clips on each horizontal girder should now be cut. Notice that these clips are not cut all the way back.

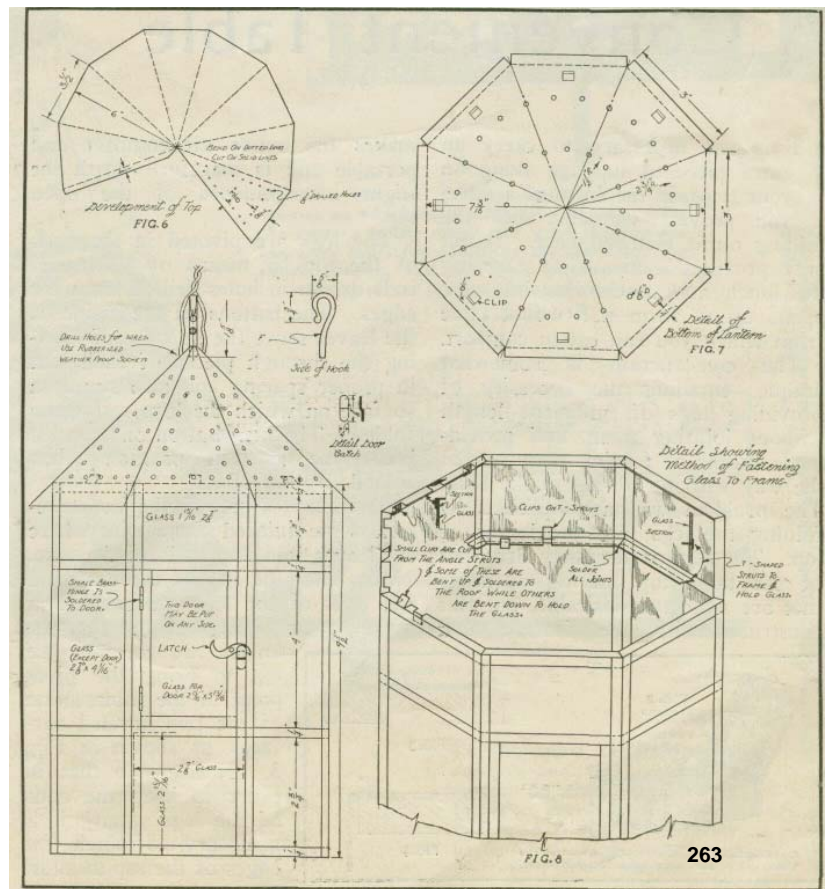
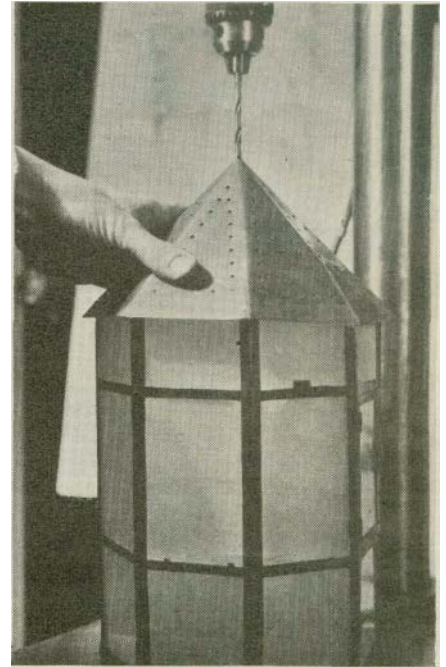
Make the angle girders for the door. There will be four of these, two 1/2" by 4" and two 1/2" by 2 1/2". Make the door and solder two small brass hinges to it. Snip into the vertical girder the thickness of the closed butt and turn small clips to fasten the hinges to the lantern. Have someone swing the door while soldering the hinges so as not to fasten the joints of the hinge.

Next, draw the pattern for the roof, Fig. 6. Transfer it to the copper as was mentioned before and drill the holes. This may also be folded to the proper shape by hand on the hatchet stake and the angle trued up with a mallet or a planishing hammer. By means of the clips which have been turned up, solder this roof to the frame.

The door catch is made of a piece of copper 1/4 by 3/4", shaped and bent as shown in the detail. Solder it to the girder, 1 1/2" above the bottom of the door. The door latch is made from a piece 1/2" by 1 1/8". The design is laid out and the piece may be cut with snips or a jeweler's saw.

A hole is drilled in the center of the latch and in the door large enough to take a rivet. The ground glass may be purchased, cut to size, for about fifty cents. In fastening the glass, plan to set the pieces near the door first (Continued on page 279)

After complete assembly, the top is drilled to receive a hook.



Copper Lantern for Doorway

(Continued from page 263)

and the pieces directly opposite the door last so that the opening may be utilized to get at the clips when fastening the last pieces. The lantern itself has now been completed.

To make the bracket, secure the following materials :

A—1/8" x 3/4" x 27 1/2"

B—3/8" x 3/8" x 13 1/2"

C—1/8" x 3/4" x 25 3/4"

D—1/4" dia. x 6"

E—1/4" dia. x 8 1/4"

F—1/4" dia. x 3 1/4"

Begin the work by bending the scrolls. It may be done with the metal cold or red hot. Both methods were used for the lantern illustrated. If a forge is not available for heating the iron, a good coal fire in the furnace will serve.

To form the scrolls, fasten a monkey wrench with thin jaws into a vise, with the jaws up. Place the bar of iron into the jaws of the wrench, leaving only a short end extended on the side to be bent. With another wrench or a bending fork form the scroll, bending the metal about the same amount each time before extending the end further for the next bend. This operation is shown in Fig. 3.

Form the knob on the end of the 3/8" arm with a file, or by forging, or by grinding on the emery wheel. Then taper the metal for a short distance in back of the knob and finally bend the hook over the horn of the anvil. Forge and file the rear end of the bar so it may be riveted to the scrolled piece. Form the ring, the small hook and the link of the chain. The hook, which is fastened to the top of the lantern, may be made of 1/4" copper wire instead of iron.

Drill the holes to fasten the pieces forming the bracket. To square the bracket properly lay the pieces composing it on the steel square while lining up the holes. When all the holes have been drilled, assemble by riveting the pieces together. Drill a hole in the top of the lantern and solder the hook in place. Use a rubberized outdoor socket in the lantern.

A coat of clear lacquer may be applied to the lamp and bracket as a protection against the elements. Be sure that your work is thoroughly cleaned in a pickle bath or with scouring compound before lacquering.