Lead for BEGINNERS

Tulip Panel

Beginner Lead Project

Design by Mark Waterbury, Fabrication and Text by Dave Burnett

Wissmach Glass Company
#208, Orange Opal for Tulip, 1/3 Sq. Ft.
#112-L, Dark Green/Amber Opal for Leaves, 1/2 Sq. Ft.
87D, Sky Blue Opal for Background, 3/4 Sq. Ft.
#215, Pastel Green Opal for Border, 3/4 Sq. Ft.
#VM191, Medium Green/White for Border Corners, 1/2 Sq. Ft.

Other Materials Required
Flux Solder 3/16" Lead H-Channel
1/4" Zinc U-Channel Putty Whiting
Black Patina Handy Hangers™

Make two copies of the original pattern, numbering the pattern pieces and marking the grain direction of the glass, if any.

1. Use lead pattern shears to cut one of the pattern copies apart. The lead shears remove a strip of paper that is the width of the H-channel lead that will go between each piece of glass.

2. Position the paper pattern piece on the glass and score around the pattern, trying to be as accurate as possible. Use glass pliers to run the score and grozer pliers to smooth any rough edges. A glass grinder can be used as needed to help shape pieces, but if the cuts are exact, this step might be eliminated when working with lead channel.

3. Use a lead vise and pliers to stretch the lead before assembling the panel. Lead is a soft metal. Gently stretch the lead until it is straight and stops giving easily.

4. Cut two pieces of U-channel zinc—one for the top edge of the panel and one for the side edge. This will form a corner of the panel. Start fitting the glass pieces, measuring the lead H-channel and cutting it to fit with a lead knife or lead dykes. Assemble the panel from the corner out. Use horseshoe nails to hold the glass pieces and the lead channel in place.

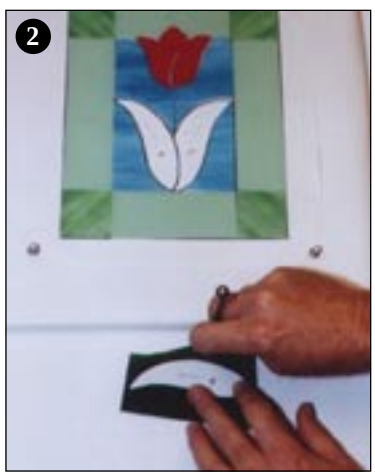
5. Continue placing glass pieces and lead channel. Then cut the zinc for the bottom and the other side of the panel to complete the frame.

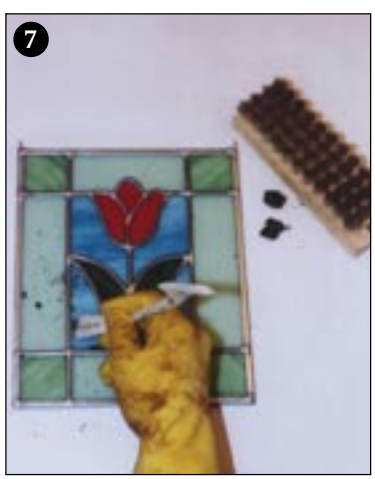
6. Apply flux where all joints meet. Control the temperature of the iron with a rheostat to melt the solder without melting the lead. Turn the iron temperature up when soldering the zinc. Solder the panel, front and back. Then solder hangers onto the zinc frame.

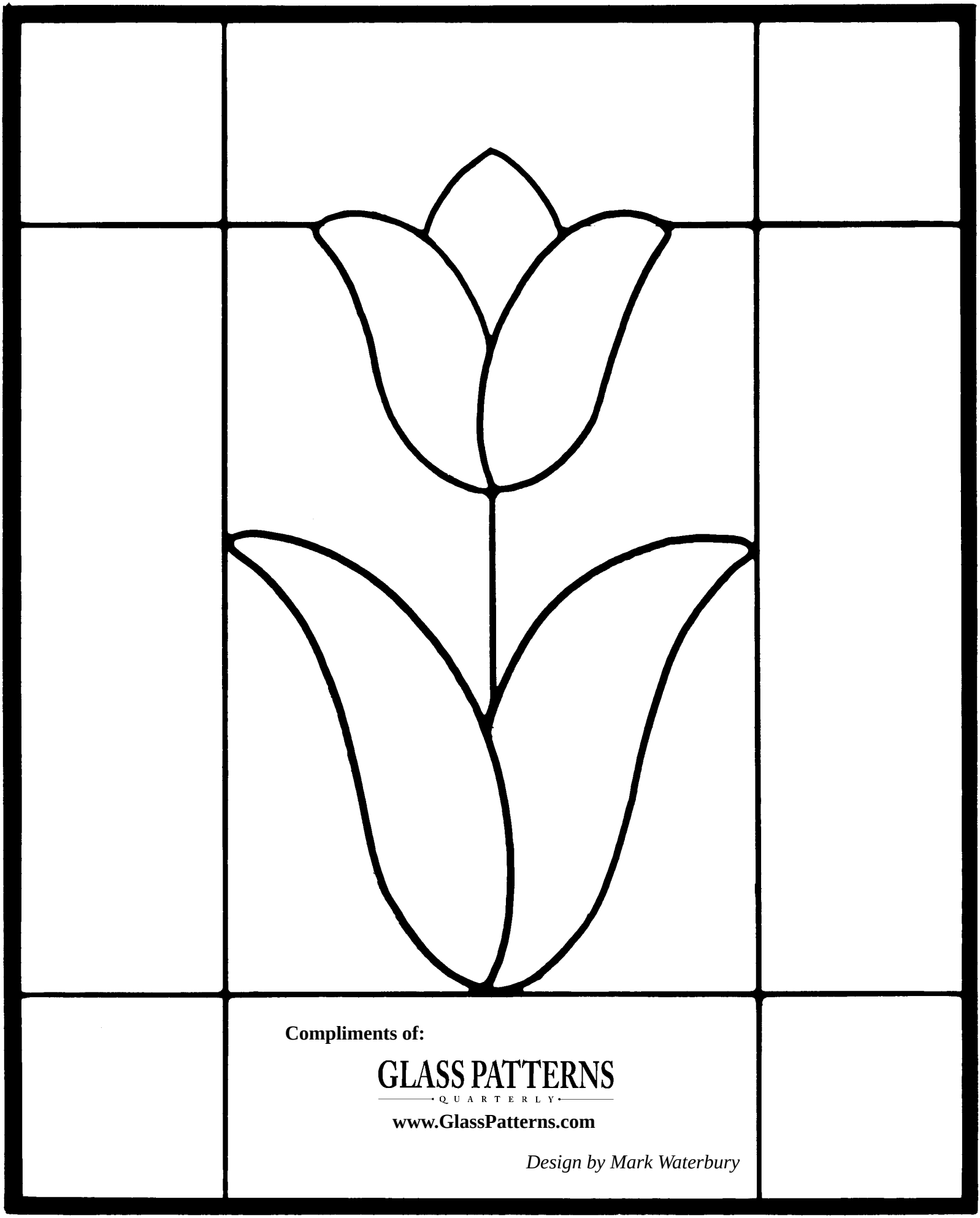
7. Clean the panel thoroughly before applying putty. The putty will weatherproof the panel, strengthen it, and keep the glass from rattling in the channel. Use your finger, a fid, or a stiff brush to push the putty into the lead channel, front and back.

8. Use whiting and a brush to clean the panel of excess putty. After the panel has been cleaned, use black patina on the lead and soldered joints to darken, if desired.

Do not eat, drink, or smoke while working with glass. Always wear eye protection during the cutting, grinding, and soldering of the project. Work in a well-ventilated area when working with the lead, particulary while soldering. Wash hands thoroughly after working lead, solder, flux, or patina to remove any chemical residue.







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Design by Mark Waterbury