

STAINED GLASS AND OBJECTS OF WIRE CLOTH.

A little stained glass work judiciously distributed imparts a bright and cheerful air to the house by introducing a few brilliant colors in a legitimate way, where they would be entirely out of place if introduced in draperies, carpets, or furniture.

It is an easy matter to make stained glass work after the more simple designs. It only requires a knowledge of the use of the glazier's diamond, or the very efficient

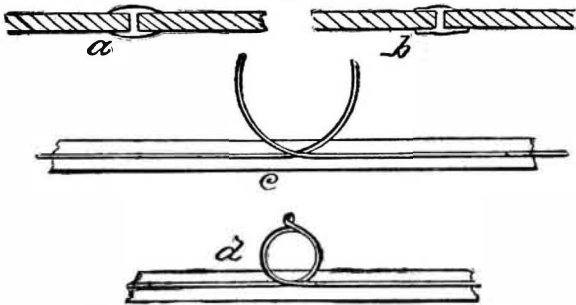


Fig. 1.—DETAILS OF THE LEAD WORK.

substitute for the same known as the roller glass cutter, and some proficiency in the use of the soldering iron.

The colored glass can be procured from almost any dealer, and for the grooved lead strips in which the glass is set, the amateur will have to depend on the stained glass works. Some manufacturers are willing to furnish it in small quantities, while others are reluctant. It is to be regretted that there is no simple way of making these strips. Every stained glass manufacturer is provided with a machine by means of which he rolls them from larger strips of about the same form, made at the lead works, and known as comes.

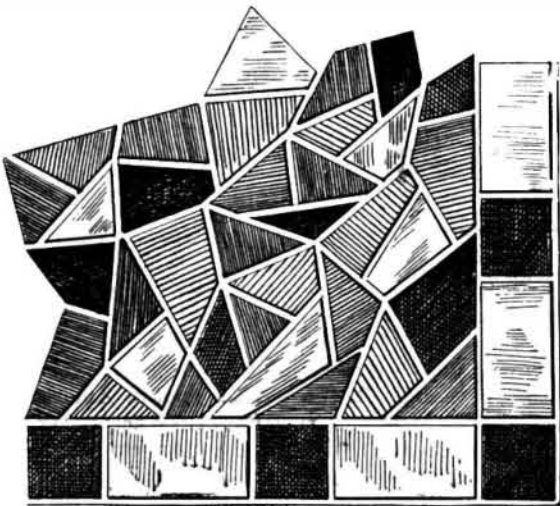


Fig. 2.—STAINED GLASS WORK "CRAZY" PATTERN.

Two kinds of lead strips are generally used in this kind of work, one of which is shown at *a*, in Fig. 1. This is narrow and convex, and well adapted for small curves, circles, etc. The other, shown at *b*, in the same figure, is wider and thinner and better adapted for straight work. At *c*, in the same figure, is shown the method of attaching copper wires to the lead for twisting around the rods which support the work, as shown at *d*.

A drawing of the pattern is made upon stout paper, and the work is begun by cutting the glass according to the pattern, fitting the lead strips and soldering* them at their junction. After all of the glass pieces

* For the soldering, an ordinary soldering iron is employed, and common tinner's solder is used in fastening the joints. Tallow is used as flux. A tallow candle is commonly employed for this purpose. The joint to be soldered is rubbed with the end of the candle, and the solder is applied. Of course the iron must be well tinned and hot, and the touch of the iron upon the work must be very quickly and dexterously done.

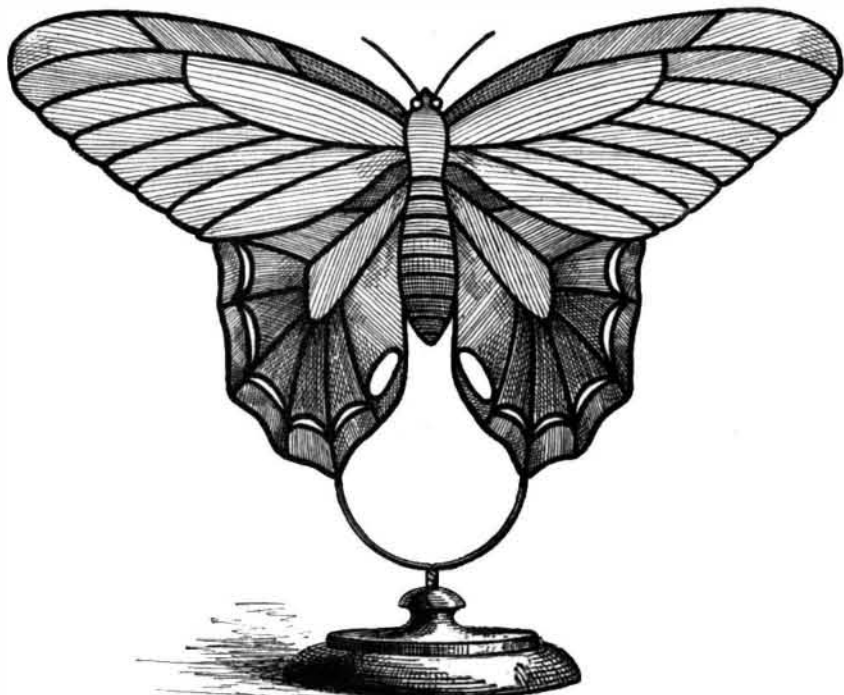


Fig. 3.—DESIGN FOR STAINED GLASS LAMP SCREEN OR FIRE SCREEN.

have been fitted and secured, the work is turned over and soldered upon the other side. The wires are then attached by first tinning them and then securing them by means of solder. These wires are twisted around iron rods, which are so arranged as to support the work. Small pieces will not require the iron rods, but larger ones are liable to sag and buckle of their own weight. They are also apt to be blown out of shape by a heavy wind. The easiest pattern to produce on stained glass is that shown in Fig. 2. It is hardly worthy of classification among patterns, but it is pleasing if properly done. Some care is necessary to secure harmony of color, but there is little chance of failure in this kind of work.

It is a common practice to gild over the lead strips after the work is done, by means of gold paint, but it is a question whether it is any improvement over the natural color of the lead, especially in work exposed to the action of the elements. For some indoor work, such as fire screens, sash screens, lanterns, lamp shades, etc., the gilding is not objectionable.

The screen shown in Fig. 3 is not difficult. All of the glass pieces are of such form as to be easily cut, and the work of joining the lead strips is quite simple. As to colors, it would be well to follow the example of nature, or in any case to select such as will harmonize. It is hardly possible to produce more gorgeous coloring than is found among the butterflies. Green, blue, greenish-blue, red, yellow, brown, black and white (opalescent) are colors from which to select for this object.

The wire frame which supports the glass is carried along the lead strips and secured by solder. The antennae are of wire. The base is of wood, neatly stained and polished.

A class of ornamental objects may be made from wire cloth which rival in beauty any kind of stained glass work. Figs. 4 and 5 are examples of this kind of work.

The wire cloth for this purpose should be made of fine wire, the mesh should be coarse, say 10 to the inch, and, moreover, the cloth should be painted and allowed to dry before the ornamental work is applied. The wire cloth is supported a short distance from a design drawn on paper and the different colors are introduced into the meshes by means of an ordinary writing pen. A gelatine solution is used for this purpose. It should not be very thick, and it must be kept warm. Ordinary transparent gelatine may be colored for this purpose by adding aniline. Colored lacquers answer admirably for filling the squares. Common white glue answers very well for filling the body of the design. The beauty of this kind of work and the simplicity of the method by which it is produced recommend it for many purposes.

The construction of the frames for the lamp shade and hanging lantern requires some mechanical skill. Probably the aid of the tinsmith will have to be invoked in these cases. It will pay, however, as the articles will well repay the trouble and expense.

The hanging lantern, Fig. 5, is designed for a hall. It may contain a kerosene lamp, or the device known as the "fairy lamp," in which a large candle is employed as a source of light.

The colored checks in the wire cloth appear like gems when illuminated.

Monument to Seth Boyden.

In honor of Seth Boyden and in memory of his distinguished services in promoting mechanical industries in the city of Newark, N. J., a handsome monument of the man was unveiled in Washington Park, Newark, N. J., on Wednesday, May 14. R. Wayne Parker, President of the Newark Board of Trade, presented the statue to the city. Mayor Joseph E. Haynes received it on behalf of the municipality. The oration was delivered by Chancellor Runyon, who enumerated the inventions of Seth Boyden, some of which were improvements in the manufacture of leather.

By analyzing the coating or varnish of a piece which had been presented to him, he in a short time discovered the process and produced an article better than that which had been exhibited to him.

This was the origin and he the originator of that great business in this country, a manufacture in which the city of Newark is pre-eminent and the products of which it sends to every part of the globe and in which it commands the market. Mr. Boyden made no attempt to

secure to himself the benefit of his discovery, but gave it to the world. His merit and his generosity in the matter were recognized, thirty years after he sold out and left the business, by those who had profited by them, and on their testifying such recognition to him (about 1863) he said: "I introduced patent leather, but it should be remembered that there was nothing generous or liberal in its introduction, as I

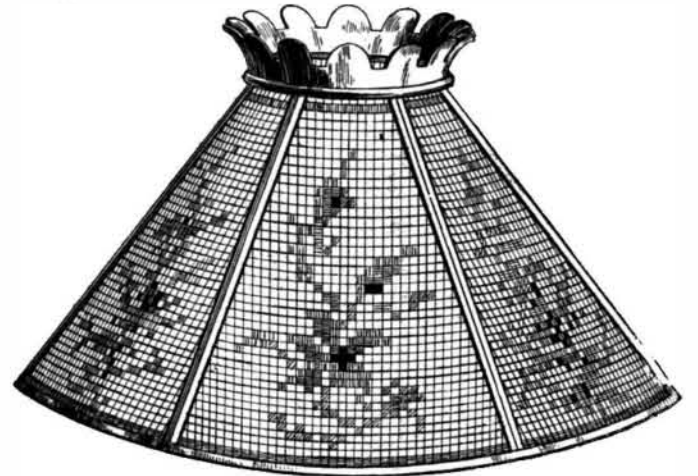


Fig. 4.—LAMP SHADE.

served myself first, and when its novelty had ceased and I had other objects in view, it was the natural course to leave it. When I had done so, and other more active and enterprising persons chose to supply the wants of the public, I wished them all prosperity, and am happy to see it, to see patent leather useful and valuable and a business of the first magnitude, and to see a friendly social feeling existing among all interested. May it be as enduring as the use of leather."

Mr. Boyden died March 31, 1870, aged 83 years. The versatility of his genius, says the *Shoe and Leather Reporter*, was remarkable. He entered many fields of effort, differing widely from each other. He manufactured locomotives and invented delicate optical in-

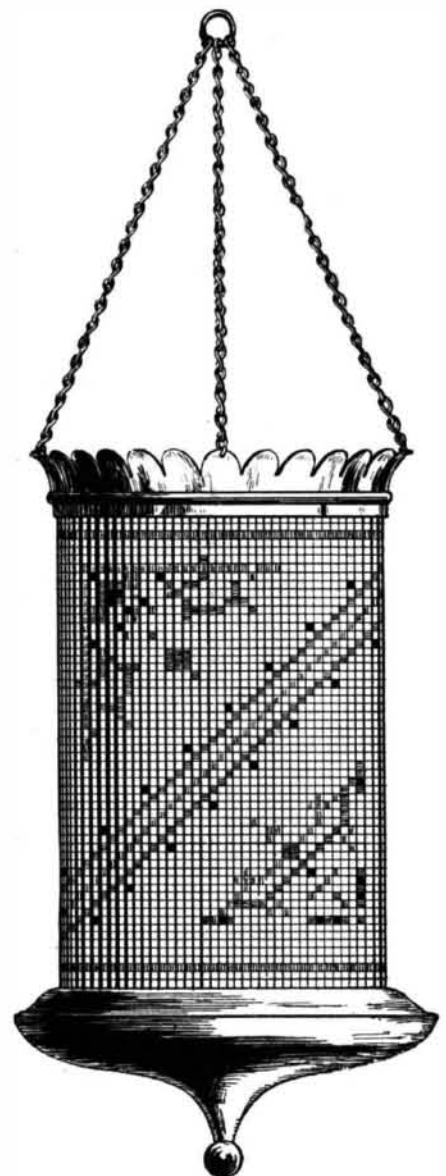


Fig. 5.—HANGING LANTERN OF WIRE CLOTH.

struments; repaired watches at the age of fifteen, and produced a telescope of great power; by skillful cultivation he increased the size of the variety of strawberries which bears his name beyond that of any other kind; he improved on Daguerre's process of producing sun pictures, and discovered a method of manufacturing Russia sheet iron. His life seemed to be a refutation of the "jack at all trades" axiom, for he was an adept at everything to which he turned his hand.

It takes about three seconds for a message to go from one end of the Atlantic cable to the other.