

Painter's Work.

PRINCIPLES OF GLASS STAINING.

This beautiful branch of art is quite too much neglected. The gorgeous display that may be made, and that has been so successfully done by some artists, is sufficient to excite the desire to bring it into more general use. One can conceive of no more beautiful method of ornamenting the windows of churches and public buildings, or, in fact, anything in the way of ornamenting on glass. The following method is the one now in general use. Before engaging in this, it would be better if the artist could get some little previous instruction. We will endeavor to give the correct principles in regard to the oven, the baking, the colors, and the manner of making and using them.

THE OVEN is made of fire brick, and arched over like a common bake oven. This is to admit of an iron chest, or muffle, as it is called, so close on the outside that neither fire nor smoke can penetrate, and about three or four inches less than the oven, so that there may be an equal space at the top, bottom, and sides, with legs to keep it from the bottom.

The sheet of glass to be worked upon (the softer the glass the better) should be spread over with gun water, and let dry, in order to prevent the colors from running together, it being also much better than the slippery glass to work on. After it is dry, lay it down evenly upon the design, which has been previously sketched upon paper, and trace, with a fine hair pencil, all the outlines and shades of the picture or ornament with black. [See the mode of the preparation of colors at the end of this article.]

THE LIGHTS AND SHADES are produced by dots, lines, and hatches, very much after the manner of the engraver. When this is finished and dry, it is ready for the

FLOATING. Take the prepared colors and float them on by dipping the pencil in the color, and taking it, as full as it will hold, to the glass, and just near enough so that the mixture will flow out upon the glass, care being taken that the pencil does not touch the glass, as it leaves a spot. This refers only to transparent colors.

TAKING OUT THE LIGHTS. The methods of doing this, after the color is on, are various. Perhaps the best way is to take a goose-quill, made in the shape of a pen, without the slit. With this the artist may take out the lights by dots, lines, &c., to suit his taste. It is then ready for the kiln or oven.

Over the bottom of the oven, or muffle, must be spread, about a half inch thick, a bed of slacked lime, perfectly dry, and sifted through a sieve. Upon this lay a sheet of glass, then another layer of lime, and so on, if desired, for half a dozen sheets, though for very fine work, and where uniformity of coloring is required, it is better to have a less number. There may be quite a number of iron slides in the muffle, so that a number of glasses may be burned at one heat, without having more than one or two upon each slide. Close the muffle and raise the fire; but gradually, or the heat will break the glass.

After it is got up to a red heat, it may remain so for two, three, or four hours, according to the tests, which are strips of glass, painted with the same colors as the sheets, and drawn out occasionally. When the colors are properly burned in, the fire may die away gradually, as it was raised. When cold, the glass is taken out and well cleaned.

The chemicals mentioned in the following preparation of colors, may be had at most of the first-class drug stores. These preparations should be combined, so that each shall require about the same amount of heating to bring out the color.

COLORS FOR STAINING GLASS.

FLUSH.

Red Lead,	1 ounce.
Red Enamel,	2 ounces.

Grind to a fine powder; work it up with alcohol, on a flag stone. Requires slight baking.

BLACK.

Iron scales,	14½ ounces.
White Crystal Glass,	2 ounces.
Antimony,	1 ounce.
Manganese,	½ ounce.

Pound fine, and grind in strong vinegar.

BRILLIANT BLACK.

Made to any degree of depth by the mixture of cobalt with the oxides of iron and manganese.

BROWN.

White Glass,	1 ounce.
Manganese,	½ ounce.

RICH BROWN.

Oxide of Platinum.

RED.

Red Chalk,	1 ounce.
White, hard Enamel,	2 ounces.
Peroxide of Copper,	1 drachm.

FINE RED.

Rust of Iron,	2 ounces.
Glass of Antimony,	2 ounces.
Litharge,	2 ounces.
Sulphuret of Silver,	½ drachm.

GREEN.

Brass Dust,	2 ounces.
Red Lead,	2 ounces.
White Sand,	8 ounces.

Calcine the brass to an oxide, and make all into a fine powder. Heat in a crucible one hour, in a hot oven. When cold, grind in a brass mortar.

GREEN. Oxide of Chrome.

GREEN. Blue on one side, yellow on the other.

YELLOW. Fine silver, dissolved in nitric acid. Dilute with plenty of water. Pour in a strong solution of salt, and the silver, in the form of chloride of silver, will fall to the bottom in a yellow powder. When settled, pour off again, and so on for five or six times. When dry, mix the powder with three times its weight in pipe clay, well burned and pounded. Paint on the back of the glass.

YELLOW. Sulphuret of silver, glass of antimony, and burnt yellow ochre.

YELLOW. Chloride of silver, oxide of zinc, white clay, and rust of iron.

It is by far the best method to buy the colors, if possible, ready prepared. Some, however, must be manufactured by the artist. Among them are,—

BLUE. Oxide of cobalt, which is cobalt ore, after being well roasted, is dissolved in diluted nitric acid. Add considerable water, and put into it a strong solution of carbonate of soda. A carbonate of cobalt is thrown to the bottom in a powder. Wash well, as for chloride of silver, and let dry. Mix this with three times its weight of saltpeter. Burn this mixture in a crucible, by putting a red hot coal to it. Heat, wash and dry it. Three pints of this to one of a flux made of white sand, borax, saltpeter, and a very little chalk, melted together for an hour, and then ground into an enamel powder for use. Any shade may be had by more or less flux.

VIOLET.

Black Oxide of Manganese,	1 ounce.
Zaffer,	1 ounce.
Pounded White Glass,	10 ounces.
Red Lead,	1 ounce.

Mix, fuse, and grind.

Remarks.—The fluxes are made of flint glass, borax, pipe clay, white sand, &c.

The principles of glass staining, and making the colors, therefore, will be found of great service to beginners; yet it must be understood that the practice will be very difficult, without some practical instructions; yet, one who has a taste, and some scientific ability, may be enabled, by studying these rules closely, and by a few trials in experimenting, to succeed in producing the work properly.

ANTIDOTE TO POISON IVY.—Dr. J. M. Ward, in the *Medical Record*, makes another addition to the already extensive list of remedies for poisoning by *Rhus radicans*, or "poison ivy." He recommends the profession to use, in all cases of poisoning by this plant, Labarraque's solution of chloride of soda. "The acid poison," he remarks, "requires an alkaline antidote, and this solution meets the indication fully. When the skin is unbroken, it may be used clear three or four times a day; or, in other cases, diluted with from three to six parts of water. After giving this remedy a trial, no one will be disposed to try anything else. It is one of the most valuable external agents known to the profession, and yet seldom appreciated and but rarely employed. It will sustain its reputation as a local application in erysipelas, burns and scalds."