

## Marbling Calf.



HALF MARBLING is the most difficult of all the processes of staining calf, requiring especially, skill, in getting the water to flow sufficiently to carry the colour, yet remaining long enough on the leather to prevent the colour striking in as it falls; and, after obtaining the necessary fall of water, speed in action when applying the sprinkle; and a quick decision when enough has been applied.

Always clear any other work well out of the way of the splashing, and get up into a corner where no draughts will drive your sprinkle away from the work for which it is intended. If you have only an occasional job you may make shift with a lap-full of shavings flung upon the floor under the rods to catch the water, but it is best to have a tray made of wood and lined with zinc, say about 4-ft. 6-in. long, by 2-ft. 6-in. wide, and about 3-in. deep.

For marbling, always prepare fresh colours made according to the directions given in the October number, and proceed as follows:—

**STONE MARBLES.**—Paste-wash and brown as usual; when thoroughly dry, glaire evenly all over with a soft sponge, slowly, so that the glaire will not froth; a few drops of good milk in the glaire will help to prevent frothing, or you may smear a little lard on the back of your left hand and touch your sponge on that at intervals. While the books are drying, prepare and set in order all that you require.

Your trestles should be about the same height as your knees with two flat rods stretched across from one to the other of, say 1½-in. in width and ¾-in. thick. Place them in the tray.

On your right, as you face the trestles, have a pail full of soft water with a large sponge in it, about the size of your hand. If the water is not soft, crush up a piece of soda about as large as a walnut and put that in. Close by, a clean saucer or glazed tile, or piece of glass for the sponge to lie on. Also a bunch of birch, about a third of an ordinary birch broom, tied up and the thin and damaged ends cut off; or a bunch of the yellow stalks from an American carpet broom will do, but nothing beats the birch.

On your left place the two jars of colour, with the brushes beaten out and lying ready for use on the top of each.

Now take the books and apply pieces of stout paper to cover the lettering panels, with a little paste, just sufficient to hold them on. Then put a book between the rods, with a piece of wood under each side, head and tail, sufficient to raise it so that the water falling from the back will flow towards the fore-edge on either hand. A very slight fall is all that is necessary but the exact gradient can only be determined by experience, as sizes of books vary.

Dip your birch in water charging it with as much as it will carry, and shake it over the back; as the drops unite they will flow down over the sides in little streams. When they are all in motion is the right moment; up with the brush of black and holding it high beat it out evenly over the surface: when you see the colour striking in and before it becomes deep,

lay down that brush and seizing the brown give a good sprinkle from that also; down quick; then grasp a full sponge of water and squeeze it out all over the back so that it carries off all the water and colour which has not struck in; then lift the book from the rods, being careful of the edges, and wipe off the superfluous damp and the paper on the lettering panels. Stand up to dry.

That is the simplest method of marbling, and you will observe after it is finished that as the water flowed, the colour was drawn with it leaving veins instead of spots, such as you see in marbles, varying in intensity of hue, while between the veins there is a ground work of sprinkle. Now by studying the principle by which the effect is gained you may be prepared for higher efforts. If your colour does not make the cloudy veins, there is either not enough water thrown on, or it runs off too rapidly, or you are not quick enough with the sprinkle. To cause the water to flow more slowly, lower the back a trifle; the other causes you must remedy by closer application. Remember, the colour must be thrown on to *running* water to make a good vein, so all your efforts must tend to keeping the water in motion while you are sprinkling and sprinkling while the water is in motion, for you cannot depend upon a second application of water.

There are other colours which may be applied in marbling which will more or less imitate certain stones; the best are the following:—

**Green Agate.**—Paste-wash and brown as usual. Put a half-quartern of the black into a full pint of water and mix thoroughly. Use a very full brush, not beaten out, and sprinkle heavily till the drops unite and flow, then squeeze from a sponge some green into the streams so that they flow together, and when they have fairly struck in, drench with water as before. For green use this: 1-oz. verdigris (acetate of copper) in 1-oz. of white wine vinegar; keep it in a bottle close to, or on, the finishing pan for at least a week, just close enough to keep it warm, giving it a good shake up at frequent intervals.

**Red Porphyry.**—Paste-wash and brown as usual but rather darker. Mix a half-quartern of black in a full pint of water and sprinkle with a fairly coarse spot. Let it dry, give it a good brushing and then glaire evenly all over. Then a very heavy sprinkle of fine red and follow with a fine sprinkling of scarlet; let that thoroughly dry and finally sprinkle with a medium sized spot of scarlet as equally as possible. For red use: ½-lb. Brazil dust, and ½-oz. powdered nutgalls boiled in three pints of water for twenty minutes. Strain through a piece of muslin and replace the liquid on the fire, add 1-oz. powdered alum, and ½-oz. of chloride of ammonia; boil up afresh and then add a little aqua regii according to the shade required, and use the mixture warm. For scarlet use: Put 1-oz. of white nutgalls and 1-oz. cochineal—both finely powdered—into a quart of boiling water and boil for twenty minutes, then add ½-oz. of aqua regii.

Aqua regii is a mixture of nitrous acid (aqua fortis) and muriatic acid (spirits of salts) and is a dangerous explosive. It is known to chemists as nitro-muriatic acid and generally sold very much diluted. You want

