

effectually with a broad stick or spatula, and then strained through a metal strainer. The size should now be added, and the two lightly, but effectually, mixed together. Care should be taken not to break the jelly of the size any more than can be avoided, and this may be best done by gently stirring the mixture with the hand. If the jellied state is retained intact, the colour will work and lay on smooth and level. Then size, whether made of parchment clippings, glue, or any other material, should be dissolved in a sufficient quantity of water to form a size, and will lay on better and make a better job than when the size is used hot. Colour mixed on the former plan works cool and floats nicely, while the latter works dry and drags and gathers, thus making a rough ceiling or wall, and the difference in the labour required, is very much in favour of the jellied size. A little alum, added to the distemper has a good effect in hardening, and helps to dry it out solid and even.

It is customary in some cases to give the ceiling or wall a couple of coats of oil paint previous to the application of the distemper. This stops the suction, and gives a richness to the colouring; but if, as frequently happens, the wall gets low in temperature during a continuance of cold weather, when a change takes place, the condensation is so great that the water runs down in streams to the top of the skirting, and the colouring matter thereby becomes stained.

We give the following approved rules for mixing colours in distemper:

TO MAKE SIZE.—The best size for distemper colours is made from parchment clippings. These are put into an iron kettle filled with water, and are allowed to stand twenty-four hours, until the pieces are thoroughly soaked; then boil for five hours, occasionally taking off the scum. When the liquid is sufficiently boiled, take it from the fire and strain it through a cloth. If the size is to be kept for a length of time, dissolve three or four ounces of alum in boiling water, and add to every pailful. The size must be boiled again till it becomes very strong. It must then be strained a second time, put in a cool place, and it will keep for several weeks. Different kinds of size are sold at the shops, some of which are exceedingly pure and can be depended upon for general purposes.

PINK.—Dissolve in water, separately, whiting and rose pink. Mix them to the tint required, strain the colour through a strainer, and bind with size.

LILAC.—Take a small quantity of indigo, finely ground in water, and mix it with whiting till it produces a dark grey; then add to the mixture some rose pink. Mix well and strain the colour and a beautiful lilac will be the result.

LIGHT GREY.—A small quantity of lampblack mixed with whiting composes a grey. A wide range of shades may be obtained from the darkest to the lightest grey. The lampblack should be well ground in water.

FRENCH GREY.—Take the quantity of whiting required, and soak it in water, then add Prussian blue and lake which have been finely ground in water. The quantity of each of these colours should, of course, be proportioned to the warmth of the tint required. This is a handsome and delicate colour for walls. Rose pink may be substituted for the lake, but it does not make so brilliant a colour, neither is it so permanent.

ORANGE.—This is a mixture of whiting, French yellow

or Dutch pink, and orange lead. These ingredients may be proportioned according to taste. This colour cannot be worked except in a size jelly, as the orange lead is a colour which has a great density and will sink to the bottom, separating from other colours.

BUFF.—A good buff may be produced by dissolving, separately, whiting and yellow ochre in water. A little English Venetian red should be added to give a warm cast. Mix with size, and strain as before directed.

DRAB.—Dissolve whiting in water, and grind some burnt umber very fine in water. Take a quantity of each, and mix them together, (1) Grind a little lampblack very fine, and with it sufficiently stain the colour to make the tint required. (2) Dissolve, separately, some whiting and yellow ochre in water. Take a quantity of each and mix them together. Grind a little lampblack very fine, and with it sufficiently stain the colour to make the tint required. (3) Another shade may be obtained by adding a little Venetian red. By diversifying the proportions of these pigments, a great variety of colours may be produced. These are all permanent colours and may be depended upon.

SALMON.—An excellent salmon colour may be produced by dissolving whiting in water, and tinging it with the best Venetian red. A little Venetian red mixed with lime whitewash and a quantity of alum will answer very well for common purposes.

With regard to the method of laying distemper colours, it may be an accepted fact that, the sooner they dry after they are laid on the better. The best plan is to close the windows and stop the free circulation of air as much as possible, while the distemper colour is being laid on. This prevents it drying too quickly and enables the workman to lay the colour on more evenly, and with less danger of drying too quickly, and enables the workman also to lay the colour on more evenly, and with less danger of showing any piecings; but the moment the wall or ceiling is covered, the windows and doors should be thrown wide open, and as much fresh air admitted as possible. If the distemper does not dry quickly it becomes slightly discoloured and shaded. One great point to be aimed at is, of course, a level and uniform surface when dry, and this desirable result can only be obtained by the colour being laid on of a proper consistency, with proper brushes, and with every attention to equality.

When ceilings are badly stained and discoloured from the accidental overflow of cisterns, water-closets, etc., the only effectual method of treating them is to work them off with clean water and give two coats of oil paint before the distemper is applied. Other processes are adopted, but as they cannot be depended upon it is much better in the first instance to incur a little extra expense, and paint the discoloured ceiling in oil colours.

MONTREAL CITY SURVEYOR'S REPORT OF THE VARIOUS WORKS EXECUTED BY THE ROAD DEPARTMENT DURING THE PAST YEAR.

We have before us the report of Mr. Ansley, Civil Engineer and City Surveyor, which in a very plain and lucid way places before us the disbursements on the different works carried on during last year under his supervision. In the remarks made by the Surveyor on the By-laws relating to his duties he recommends that a change should be made in those laws which were made some thirty or forty years ago, and which only now exist as an obstruction and hurtful to the office and position he holds. The By-laws when made many years ago, were never intended by the framers to meet all the requirements and duties devolving upon the City Surveyor of Montreal in the present day, and the sooner they are changed or struck out of the Municipal Code the better for the city.

We have always contended that a city official if not found competent to perform his duties, should at once be replaced by a more competent man; but when we have a competent man, that he should have full power to carry out the duties of his office without a y interference on the part of the city councillors or alderman, or by friends of contractors.