



INTERIOR DECORATION.

THE instances in which rooms are painted in oil or distemper mainly free hand with elaborate ornaments, says the *Painter's Magazine*, is increasing. The difference between the undulating regularity of pounced figures and those executed otherwise is apparent. Free hand treatment may, of course, be advantageously combined with the use of the stencil, particularly where scrolls form part of the design, as scrolls demand exact repetition of form.

A somewhat elaborately painted apartment, the scheme being very felicitous, has the wall space in distemper; the tone or tint of color, which is neutral and of a slightly green hue, is made from lime blue and raw umber mixed with white, the umber being of a golden tint. The color of this wall space is fitted to contrast well with engravings, water colors or oil paintings, as well as with the warm colors presented in the room. The wall is paneled, the stiles being painted in a slightly darker shade of the same color with a touch of Indian red added. This with the perpendicular lines gives sufficient distinction to make the stiles appear of an entirely different color without being too strong. The dado is painted with a darker tone of color made with raw umber, Brunswick green, Indian red and white in oil colors. Had the dado been in distemper, lime blue instead of green would have been best introduced into the mixture. The corners of the panels are stenciled with dark brown made from umber, Indian red and black, and the pattern on the panels in a slightly lighter shade of the same color as the panels themselves, sufficiently strong to show the pattern clearly. The lines round panels are done with a strong dark, dull gold color made with ochre and umber alone. The skirting is done with the same color as the corners of the pattern are stenciled with. Underneath the frieze is a picture moulding painted black. The whole of the breadth of frieze is painted the same color as the wall space, but with a little ochre and Indian red added; the figures are leafage in gold lines bordered with fine black lines.

She parlor of a house recently finished has the wall space between skirting and frieze painted without ornament in lavender of a delicate shade. The frieze is a light buff with leaf design in gilt, veins being outlined in dark brown; a broad line of gilt runs below. The moulded cornice is a lavender tint with upper section a soft light shade of sea green with light blue edge, the moulding picked out with gilt. The grounding of outer stiling of ceiling is of great breadth, painted in with a beautiful shade of lavender bordered by light blue lines and is studded with medallions on a ground of black that presents a beautiful combination of brilliant colors so selected and toned as to have a rich subdued effect. The inner edging has border in leaf on a delicate blue ground in gilt and cherry red. As each end of the ceiling, which is of oblong shape, is a large medallion in bronze colors, the figures constituting a vase with flowers and foliage, griffins forming the handles. The stucco centre piece shows gilt, sea green and soft pink beneath the open work, the projecting portions showing a brilliant combination of colors, harmonized and pleasantly contrasted.

The dining room, as well as the library, has always provided suggestive symbolical designs for painters and decorators. The pursuit of game, the netting of fish, the husbandman's labors, the vintage and the orchard have formed the subjects of friezes, sometimes in professional form, and are occasionally now introduced, but general taste would seem to incline against these too direct allusions to the purposes of the room. We have met in the free-hand decoration of a sleeping room a symbol as an ornament for the walls eminently appropriate, namely, the poppy, the emblem of sleep. The flower itself is well suited for ornament, particularly, as in this case, with a varied disposition of leaves and stalks. The design is admirably treated in blue and red on an ecru ground. Although there are no blue poppies the use of other colors than the natural ones is conventionally correct. The frieze is of sulphur yellow with gilt, and the ceiling, there being no cornice, is of a light bluish tone, with border consisting of band of series of narrow lines in red.

We lately saw a hall the chief wall space of which was

a pale old red, the matting dado also red but of deeper tone; the frieze too was red with an all-over interlacing pattern in paler gold red, outlined heavily with red gold; the ceiling was a warm drab with red gold and pale red interlacing pattern over it, the drab by the contrast giving a distance effect. The hall floor was painted in an antique red color, and had a central Smyrna rug in old reds and ecrus with touches of olive and dull blue. Two portieres, one at the entrance of the staircase hall and the other of the library, were of Indian red cotton canvas. The abundance of red was not displeasing.

A north room with antique oak has a wall paper in two shades of light shrimp of foliage pattern with a frieze of light olive green of the same style paper, separate from each other by an oak picture rail; the ceiling is a lighter shrimp pink ground with golden olive figures.

The best time to paint the outside of a house is early in the winter, or in the spring, when the air is cold and no dust is flying.

The first, second and third coats of paint, on the outside of buildings, should be prepared by mixing the white lead with boiled linseed oil, and allowing each coat to dry hard before applying the next.

A firm in Brooklyn is manufacturing a species of metallic relief for wall decoration, consisting of thin sheets of tin, brass, copper, steel, aluminum or other metal embossed in beautiful patterns, which are simply decorated in colors and nailed on wall or ceiling.

Parts of wood to be painted which are soiled by smoke or grease are to be washed with a solution of saltpetre in water, or with very thin lime whitewash. If soap-suds are used to wash off the smoke or grease, they should be thoroughly rinsed with clean water or the paint will not harden.

White or plain ceilings no longer make even a pretence of existing. To paper the ceiling is as absolutely necessary as to conceal the white monotony of the wall. Papers with harmonizing accessories, as stiliings, extensions, corners and centres, etc., are now made expressly for the appropriate aspect of the ceiling. The sides once settled in character the ceiling arrangement will follow with competent choice, without difficulty or dilemma. The color, tone and harmony of the ceiling establishes the art and beauty temperament of the entire room—just as sunshine or shadow supplies the comfort or cheerfulness of the day.

We learn from the *Builder and Wood Worker* that Lee Yeing, a skillful Chinese carpenter and joiner, has arrived from San Francisco to take charge of the interior beautifying of the new Chinese town hall, at No. 16 Mott street, New York, which is now in process of erection. Lee is said to be the most skillful woodworker in the United States. He can build a box, a table or an entire house without the use of a nail, and can carve any figures on wood as easily as a Chinaman writes fire-cracker letters. His stock of tools is a curiosity shop to the ordinary American eye. They are of all sizes and shapes, and mostly of roughly wrought iron or steel.

Frequently it is found undesirable to paint stone trimmings of a house which have been discolored; or a stone basement of a wood or brick house may be in the same condition. Monsieur Diebhabert, of Paris, has adopted successfully the method of cleaning the stone on the walls of the quays of the Seine where it flows through that city. To a paste composed of a solution of soda and lime is added a little chloride of lime; this is mixed to the consistency of honey and spread over the surface and allowed to remain two or three hours. After this treatment a mixture called sulpho-chlorhydric is passed over the surface with a large gutta percha brush, which forms a kind of glue on the stone; afterwards the surface is syringed with the same liquid. This forms an adherent paste, which is afterwards scrubbed off. The sulpho-chlorhydric mixture is composed of sulphuric and hydrochloric acids mixed empirically according to the necessities of the case. The most besmirched stone regains under this treatment its pristine appearance. It often happens that discolored stonework detracts from the effect of the painter's work on the rest of the facade; sometimes the stone is begrimed with a slimy deposit which resists the application of a color coating.

The moths have taken wildly to the electric light, and, in fact, love it not wisely but too well, says a Brantford paper. Every morning the linemen throw out thousands of these insects from the globes where they have been attracted by the light and killed by the current. Lineman Harvey Tomblinson has selected the most perfect and rarest specimens on his usual morning round, and has now got one of the most complete collections of Canadian moths in the city.

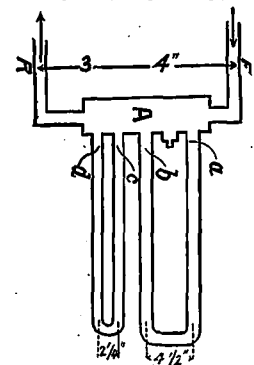


HOT WATER HEATING.

THE motive power gravity which causes circulation in a hot water heating plant is brought into action not by the expansion of the water, but by its contraction. To make this clear, says a writer in the *Northwestern Architect*, consider that the normal condition of the plant when in operation is with the hottest water in the place and that what takes place in the actual starting of the apparatus is a *changing condition*. Let us then imagine the apparatus to be filled with hot water and just enough fire to keep the temperature at the top of the boiler constant to be maintained.

In the marginal sketch B represents the boiler, R, a radiator, C a coil, T a tank, F, a flow or supply pipe and d d return pipes. On account of the greater amount of surface exposed, the water in the pipes d d, soon becomes colder than that in F and contracts, the loss in bulk is "made good," from the tank, and consequently the water in d d is heavier than an equal horizontal section of water in F and B and falls down forcing up an equal bulk not equal weight of warmer water. This would be the case even if d d entered the top instead of the bottom of the boiler and if the surfaces exposed were exactly equal it would be impossible to make all other conditions approach equally near enough to maintain a perfect balance and prevent a circulation up one pipe and down another. A single pipe standing up will have a slight circulation up the centre and down the outside so long as the water in the boiler is hotter than that in the pipe.

It should be constantly borne in mind that more motive power in a hot water plant is only to be obtained by an increase of the difference in the temperature of the supply and return pipes and that the increase will either lower the average temperature of the radiators thereby decreasing the amount of heat obtained from them, or will raise the temperature of the boiler and lessen its efficiency by which we mean the ratio between the heat theoretically obtainable from a given quantity of fuel and that actually obtained. Therefore we should look well to the resistances to be overcome and see that the piping is so arranged as to make as little as possible. This end is best obtained by directness, using but few fittings and especially avoiding elbows. Those in common use have been shortened by competitive manufacturers until many of them are on a radius of less than one diameter. Longer ones can be procured but so few of them are used that no dealer carries any stock of them and the price is so high that it is probably cheaper to use pipe of such size



that the use of common ones is admissible than it is to buy long ones. Any fitting even a coupling is an obstruction as the flow is diminished by the discharge into it and the entrance into the pipe on the other side of it, these losses can be reduced by reaming the pipe to semblance of the "Vena contracta" but it is difficult to get fitters to do it. As a general thing they either think