

THE USE OF VARNISH ON INTERIORS.

There seems to be a general lack of care or intelligence on the part of the house-painter in the use of varnish for a finish or final coating on the wood-work of buildings, and it is my purpose to give some facts connected with this much-abused material, based upon an experience of some thirty years in varnishing carriages, railway-cars, and interiors: the work of the former being, as is well known, one which requires great skill in the manipulation of the tools, and a certain amount of knowledge of the action of the material used, when changed from a bulky mass to a thinly spread out sheet or layer. The carriage varnisher is required to produce with varnish a mirror-like surface: and the care with which he performs his work, the temperature of the place, and the choice of materials and tools, are as important to the varnisher of interiors, though seldom if ever thought of. In order to present the matter in a proper light, we will first look at the varnishes best adapted for the work.

Carriage varnish, which is compounded with the greatest care and skill from the best copal gums and pure linseed oil, is the standard, while common resinous mixtures are ignored; the former giving results, if the work be properly done, which cannot be secured in any case by the use of the latter. The copal being melted and mixed with the oil, it is boiled for a while, and when slightly cooled, spirits of turpentine is gradually added, until the proper consistency is secured, when it is run off into large tanks to settle and become "ripe" with age before it is fit for use. The addition of turpentine to the mixture while the latter is quite warm, is the only means of causing a perfect assimilation of the component parts, while, if it be added after the oil and gum are cold, a partial separation of the ingredients takes place.

Here is a particular point for the house-painter to remember. He invariably thins varnish with turpentine or oil to enable him to make a small quantity of the varnish cover a large surface, or to render it easier of application, and by so doing, he destroys a large share of its durability, much of its lustre, and nearly all of its binding or adhesive properties.

The varnish maker puts his goods upon the market ready for use; no mixing, no thinning is necessary, and the carriage painter knows that to do good work he must not tamper with the varnish furnished him by a reputable manufacturer.

For interiors, particularly on those parts frequently handled, the varnish should be of that character which possesses elasticity and yet is capable of drying sufficiently hard to give a surface which is not easily softened by the warmth of the hand. A hard, inelastic varnish is liable to crack and flake from the ground on which it is spread, and to show a gray or white mark where bruised or scratched; but an elastic varnish, such as is used on carriages, will furnish a yielding surface for the change made in the ground by atmospheric influences, and consequently adapt itself to the case and not crack; and at the same time be unaffected by the slight warmth of the hands.

Such varnish may be applied "flowing" and present a smooth glass-like lustre, or the gloss may be removed by rubbing the surface with a rag dipped in wetted pulverized pumice-stone. The former is known to the trade as a "gloss finish," the latter as "dead" or "oil finish."

The application of varnish, the tools necessary for doing the work, and the temperature of the apartment in which the work is to be done, are of importance. We often see varnished work which has a rough or corduroy appearance, or it is covered in parts with "festoons" and "heavy flows," and although there may be such evidence of bad work coming from the hands of an experienced workman, it is seldom the case. The first-mentioned fault, *i. e.*, streakedness or "corduroy," is brought about by working the brush over the varnish after it has begun to "set"; or by applying the varnish too sparingly, whereby the material has no opportunity to "flow" or spread out evenly into a glassy surface. The second fault "runs" and "flows" is caused by want of care in "wiping up," or neatly laying the varnish; while both of these troubles may rise from adding oil or turpentine to varnish before applying it. Varnish should be laid on "full," that is, a good supply must be spread on, then carefully leveled down with the brush before it becomes thickened or "set." Unlike paint, the least working of the brush to lay it level, the better; while paint is best when well laid by repeated passing over with the brush.

The tools best adapted for laying varnish are flat, bristle brushes, the size being governed by the size of the work, although for very small panels, a flat badger's hair brush is best, owing to its soft yet elastic properties. Round and oval shaped brushes answer a very good purpose on some parts of the work,

but he who accustoms himself to the use of flat brushes will, as a general thing, make the best work.

The temperature of the room in which varnishing is to be done should never be below seventy degrees nor above eighty-five degrees Fah. If the room be cold the varnish will probably "crawl" or go in patches, "work stiff" and give an endless amount of trouble. If too warm, it will "flatten" or dry with a subdued lustre. Where the best results are desired a mean temperature of about seventy-five to eighty degrees should be maintained.—*American Architect.*

PAIN IN ANIMALS.—Prof. J. Rymer Jones is authority for the statement that crustaceans and certain other animals are not susceptible to pain. He says, in a paper on this subject:—"Pain, Nature's kind harbinger of mischief, is only inflicted for wise and important purposes—either to give warning of the existence of disease, or as a powerful stimulus prompting to escape from danger. Acute perceptions of pain could scarcely, therefore, be supposed to exist in animals deprived of all power of remedying the one or of avoiding the other. In man the power of feeling pain is indubitably placed in the brain; and if communication be cut off between this organ and any part of the body, pain is no longer felt, whatever mutilations may be inflicted. The perception of pain depends upon the development of the encephalic masses; and, consequently, that as this part of the nervous system becomes more perfect, the power of feeling painful impressions increases in the same ratio; or, in other words, that inasmuch as the strength, activity and intelligence of an animal, by which it can escape from pain, depends upon the perfection of the brain, so does the perception of torture depend upon the condition of the same organ."

DANGERS FROM VOLCANIC PLATES IN DENTISTRY.—In a recent paper in the *Medical Journal of American Sciences*, Dr. Sexton states that volcanic plates (worn in the mouth) produce diseases that are often the source of reflex aural disease. These plates have been in use over twenty years, and are largely adopted. The constituents are caoutchouc, the sulphur required in the vulcanizing process, and vermilion or sulphide of mercury, used as coloring matter. The gradual disintegration of the plate in the mouth liberates a salt of mercury, whose poisonous effects are well known. And the plates are otherwise injurious. At least one-third of all those who attempt to wear them experience great irritation of the mouth, often accompanied by hypersecretion of saliva. The sufferer usually lays aside the plate till informed of the necessity of growing accustomed to its presence by uninterrupted use. Vulcanite is a non-conductor of heat, and the effect of its contact with the highly sensitive tissues of the mouth is to produce hyperemia and inflammation. Another source of injury is the very close contact of these plates, which is maintained by atmospheric pressure, and may favor the absorption of their substance.

A READY POISON REMEDY.—If a person swallows any poison whatever, or has fallen into convulsions from having over-loaded the stomach, an instantaneous remedy, most efficient, and applicable in a large number of cases, is a heaping teaspoonful of common salt, and as much ground mustard, stirred rapidly in a teacupful of water, warm or cold, and swallowed instantly. It is scarcely down before it begins to come up, bringing with it the remaining contents of the stomach; and lest there be any remnant of the poison, however small, let the white of an egg or a teaspoonful of strong coffee be swallowed as soon as the stomach is quiet; because these very common articles multiply a large number of virulent poisons.—*Medical Brief.*

TO MAKE GOOD VINEGAR.—Some one asks the *Phrenological Journal* why it is so difficult to get good cider vinegar now-a-days. The editor replies as follows:—"The main reason is that genuine cider vinegar can't be made in a hurry. A good article of cider will be two or three years in becoming vinegar, unless kept at a high temperature, when a few months may suffice. The larger portion of that sold as cider vinegar is as innocent of apple juice as possible. Better not use the sour stuff anyway; but eat fruit which will supply a form of acid more suitable to your stomach."

LOBSTERS are cultivated in a salt water pond on the New England coast. The pond covers 30 acres, and is so arranged that the water is partially changed at each tide. The food supply consists of refuse from the Boston fish markets, and during the first year 15,000 marketable lobsters were sold.