

NOTES.

Every difficult lesson mastered in school, every finished task, or anything else done as well as it can be done gives so much added power for the next lesson or task; likewise every slighted lesson, every half-finished task, or every slipshod piece of work weakens the power for the next undertaking.

The Bartlett Illuminating Co., of Saginaw, Mich., is putting up a warehouse building close to its main plant, and has purchased a quantity of old brick from the big chimney on the burned Lee mill and at the Christy buggy factory. This brick is being crushed in a powerful stone crusher run by electricity, and is being used in place of stone in the concrete work.

Numbers of visitors to the recent Canadian National Exhibition were attracted by the exhibit of The Cement Stone & Building Co., corner Queen and Abell Sts., Toronto. They manufacture cement stone for the trade at their works at above address, and have a light and simple machine which can be easily operated to turn out cement stones at the rate of one a minute.

The lack of perfect symmetry in many of the famous cathedrals and temples of Europe has been a subject of many investigations by Mr. William H. Goodyear, of Brooklyn, N. Y. Ruskin pointed out the aesthetic meaning of this asymmetry and a few others have noticed it, but no careful study was made until Mr. Goodyear undertook the work. Some years ago he pointed out the presence of curvature in the horizontal lines of famous buildings, and more recently he has established the divergence of columns and the presence of vertical curvature. The most important result of the measurements seems to be a proof that from the time of the Greeks, and possibly the Egyptians, until the Renaissance gradually drove out Gothic architecture, the master builders of the greatest skill were accustomed to modify the straight lines of their structures by various devices to improve their appearance to the observer. It is the failure to do this which has produced in modern building a sense of something lacking, according to Mr. Goodyear.

The air-cleansing apparatus at the Royal Victoria Hospital at Belfast, Ireland, is constructed as follows, according to Mr. Henry Lea, of Birmingham, designer of the ventilating plant. In a timber framing, reinforced tee bars, are removable with

panels, each having two strong wooden rollers, one at the top and the other at the bottom. Coconut fiber in the form of a yarn is wound from one roller to the other, over and under; the fibers are stitched together close to each roller to prevent them from moving and the rollers are held apart to keep the screens in tension. The subdivision in panels is partly due to the fact that one portion of such a filter, as the upper, will rot quicker than another and panels can be kept in stock. The screens are kept wet by means of horizontal perforated sprinkler pipes. These are fixed near the top of the screens, about 12 inches away in a horizontal direction. They are supplied with water from a series of automatic flushing tanks, set to discharge the requisite quantity of water about once every ten minutes. The water strikes the tops of the screens and runs down the yarns to the bottom.

USEFUL HINTS.

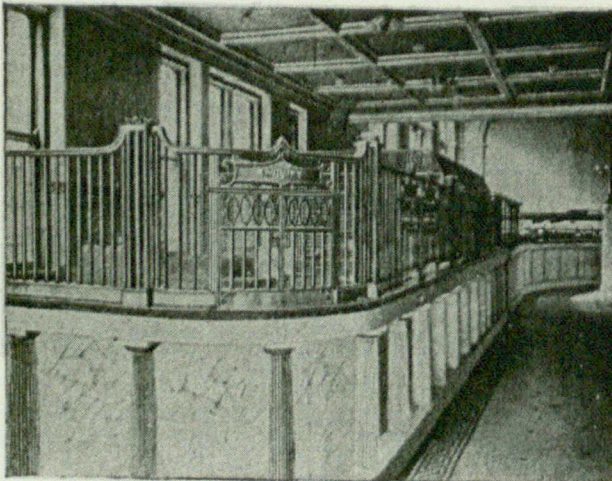
To fasten the colour in limewash used on the outside of a building to your limewash, while slaking, add to each pailful about two pounds of Russian tallow. If that is not available, use linseed oil—about a pint and a half to each pailful of wash.

To test linseed oil, hold it up to the light—the stronger the better—and if it seems at all opaque, don't have anything to do with it. If from properly ripened seed it will be limpid and even brilliant, and instead of tasting rancid will be pleasant. It is most important to have oil from fully ripened seed.

PAINT FOR WIREWORK.—The following is believed to be a good recipe for such:—Boil as much litharge with really good linseed oil as will make it of just a convenient consistency for putting on with the brush. Add lampblack, 1 part, to each 10 parts of the litharge, and boil the whole for three hours over not too fierce a fire.

PAINTING ON CEMENTED SURFACES.—Previous to painting with oil paint, the entire surface should be washed with a solution of carbonate of ammonia. The ammonia should be exposed to the air until the crystals of the same effervesce into white powder. About a $\frac{1}{2}$ lb. of the ammonia should be dissolved in nine quarts of cold water. After this wash is applied and dry the paint should be applied. The cement surface should be at least three weeks old before painting.

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