

made with a nib on the under side that hooks over the slat on which it rests. These nibs are usually punched for nails while the tile is soft in such a way that the nails are driven into the upper edge of the slat. Some tiles have no nail holes, but, instead, a nib on the bottom, near the lower end, punched for a wire, and it is not considered necessary to wire every tile, but only a few scattering ones. Some are made with nibs to hook on the slats, but none for wires and no nail holes, depending upon gravity alone to keep them in place. It is not necessary to use solid sheeting, but only slats three inches wide. But in the case of an old roof already sheeted, solid narrow slats, one-half inch thick, are nailed on top of the sheeting on which to hang the tiles.

Almost any clay that will make good brick or drain tiles will make good roofing tiles, but it is essential that it shall dry straight and without cracking. Most kinds of clay will do, but there are kinds that appear to be first-class that cannot be dried without going to pieces. A specimen of such clay was sent to our firm for trial from Minnesota, from which we never got a whole tile, but the pieces burned to a fairly good red. Other specimens we have had that would dry over the boiler or anywhere. Common surface clay is more liable to crack than others, but when mixed with, say, 20 per cent. of shale or fire clay it generally works well and dries almost anywhere, and may be considered an ideal clay for tile-making. The admixture of shale reduces the usual red color, which is its only fault. Pure fire clay or potter's clay makes excellent tiles as far as quality goes, but the color is bad. These are good if treated with a slip of some kind or with pigment ground in the clay. Anyway, fire clay can be relied on not to warp or crack, and to stand a very high heat, which shale or surface clay will not. For bluesmoking almost any clay can be used, but the better the clay the better the tile, and hence fire clay or some mixture of it will make better blue tiles than any other, and the danger of over-burning is a small factor. Bluesmoking is an excellent means of disguising under-burned tiles, they all come out one color, and the bad ones look as well as the good ones, but that need not mitigate against the process, which is an excellent one if the ware is burned properly. In preparing the clay for tilemaking it is important that it shall be ground and screened finely, using a No. 20 or 24 screen, and thoroughly pugged and worked through an auger mill into slabs a little less in area than the tile—say one inch less at each side, one-half inch less at each end, and thick enough to contain a little more clay than the tile. The surplus overflows, and a fin is left around the edges that must be trimmed off. The pressure is not necessarily very

great, and as the press runs almost idle during its revolution, except at the point of greatest pressure, it will be seen that very little power is required.

The Queenston Quarry Co., of St. David's, Ont., is seeking incorporation, with a capital stock of \$50,000.

The works of the Standard Drain Pipe Company at St. John's Que., have been closed down pending a decision by the government regarding the duty on drain pipes.

Steps are being taken to form a joint stock company to carry on the business of manufacturing sanitary goods hitherto conducted by Messrs. Dakin & Co., at Iberville, Que.

A very simple remedy to remove rain spots, or such caused by water soaking through ceilings, has been employed with good results. Take unslaked white lime, dilute with alcohol, and paint the spots with it. When the spots are dry—which ensues quickly, as the alcohol evaporates and the lime forms a sort of insulating layer—one can proceed painting with size color, and the spots will not show through again.

In a recent decorated library, the walls have been wainscoted about five feet high, where the low, open bookcases do not occupy the wall space, and all the oak woodwork has been stained a forest green. Above this a damask pattern paper, in two shades of dark green, has been used, running to the ceiling without a frieze, and separated from it simply by a narrow picture molding. The ceiling is a pale green, with stenciled Empire border in a slightly darker shade. The hangings are of green figured denim, and the Smyrna rug on the floor carries out the same color scheme. Relief is afforded by the bright colors of the Liberty velvets that have been used to upholster the quaint-shaped chairs, and the bright cushions that are piled upon a divan in the window seat.

SCREWS IN STONE WALLS.—A Dusseldorf engineer, knowing from experience that wooden dowels for the purpose of securing screws in stone are apt to weaken the walls and do not afford the desired solidity, has devised an ingenious method of obtaining a firm anchorage. For this purpose a wire of suitable thickness is coiled onto the screw, so as to follow the threads of the same and to form a kind of screw nut. The coiling may commence near the head or thick end of the bolt and proceed toward the point by laying the wire into or between the threads, so as to touch the bottom of the same, the section of each screw thread being perfectly triangular or trapezoidal and the core of the screw conical (similar to a wood screw). After arriving at the point of the screw, the wire may be wound backward over the helix already wound on, but with a steeper pitch, so as to leave wider interstices between consecutive convolutions of the wire. After the wire has been laid on so as to form a nut, and then the screw withdrawn, the nut or wire coil is introduced into a hole which has been drilled or otherwise formed in the wall for this purpose, and which is slightly wider than the diameter of the nut measured over the outer layer of the wire, after which the interstices are filled up with plaster of Paris cement, or similar binding material in a plastic condition. When the said binding material has become sufficiently hard and firm, the screw bolt which has served as a core, or another screw bolt having the same diameter and pitch; is screwed into the wire coil, and may now be screwed out and in repeatedly without damaging the wall, because the wire serves as a screw nut, which is secured to the stone or wall by the cement or other binding material.—Philadelphia Record.

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