

carried up to within 1ft. at the top of the bank. This wall was backed with earth on each side, the upper slope being covered with stone pitching. The earth work in the case of the lower dam had been somewhat carelessly put in place, but with the upper one greater attention had been paid to securing good work. The by-wash in the case of the upper dam was 4ft. long, its crest lay 1½ft. below the top of the bank, whilst in the case of the lower dam the by-wash was 75ft. long and 18in. deep. This small difference between the levels of the top of the banks and the crests of the overflow weirs is the point most to be criticized, especially as a certain settlement of the main bank had occurred in each case, further reducing the margin of safety. Another objectionable feature was to be found in the laying of a pipe through the bottom of the banks, but this had, as it happened, no bearing on the failure. This arose by the upper bank being topped by a flood, although on the day of the accident the water level in the reservoir had been 7½ft. below the crest of the upper overflow weir, and the rainfall recorded in the neighboring meteorological stations was nothing extraordinary. Apparently, however, there must have been a local fall of very great intensity, which rapidly filled the reservoir, and which the by-wash proved inadequate to carry off. Once the bank was topped, the dam soon gave way, and the flood, passing down, of course, carried away the lower bank, which nothing could then have saved.

HANGING PAPER.

In hanging paper where the room has been occupied for some time it is essential, if good work is desired, that the room be cleaned out, floor washed, and the walls washed down or well brushed; not a fly speck should be left to be covered by the paper. The old adage: "Clean out the sides and corners, and the middle will take care of itself," holds good in the matter of preparing walls for papering. Perhaps in the whole art of decoration there is no department where cleanliness is so imperative as in hanging paper, and when work is commenced the workman should have at hand pumice-stone, a basin of clean water, a clean towel, and a sponge, all of which should be in a position where they may be used whenever required. The best paper-hangers use a large round paste brush and eschew the flat brush used by men who are not well up in the business. It is claimed—and justly, too—that the round brush takes up the paste much more cleanly than the flat one, and that it can be turned by the hand when spreading the paste, and thus prevent the paste from soiling the printed side of the paper. It also has other advantages, as it can be used in any shape it may be taken up, and can be worked drier than the flat brush.

NOVEL KIND OF FLOORING.

A novel kind of flooring has been provided in the power station of the Edison Electric Illuminating Company. This floor consists of a huge casting of cement forming the undivided floor of the entire station. The floor proper is 4in. in thickness, but at intervals of 15ft. there is cast on the back or under side of this 4in. web a beam 18in. in depth and 9in. in width, running crosswise of the station, and resting upon the supporting piers of brick. The floor is further stiffened by longitudinal ribs 14in. in depth, and tapering from 4in. to 6in. in width, placed 3ft. 6in. apart, running between the heavier crosswise beams lengthwise of the station. These stiffening projections are a part of the main casting, so that the floor is virtually one immense casting of cement, with stiffening ribs on its under sides supported upon brick piers. The floor is entirely fireproof, and is said to cost less by one-third than a floor involving the use of iron beams, while it affords a firm foothold and presents a surface sufficiently smooth to be easily kept clean. It will be interesting to learn what effect oil will have upon it.

CONCRETE AS USED IN FRANCE.

A concrete is used in France for building purposes that possesses the necessary qualities of solidity and hardness. It is composed of eight parts of sand, gravel and pebbles; one part of common earth, burned and powdered; one part of powdered cinders, and one and a half parts of unslaked hydraulic lime. These materials must be thoroughly beaten up together; their mixture, when properly moistened, gives a concrete which sets almost immediately, and becomes in a few days extremely hard and solid, properties which may be still further increased by the addition of a small quantity—say, one part—of Portland cement. It is stated that many large buildings have been constructed of this material in France—in one case a house three storeys in height, 65ft. by 45ft., standing on a terrace, having a retaining wall built perpendicular 20ft. high and 200ft. in length.

Every part of this structure was made of hard concrete, including foundations, vaults of cellars, retaining wall, and all walls exterior and interior, as well as the cornice work, mouldings, string courses, parapets, and balustrades, and the building has no band iron in the quoins or other plan to bind it together. All lintels over doors and windows and sills are composed of the same materials, being cast in moulds.

BUSINESS NOTES.

A new firm of plumbers in Montreal is A. Charpentier & Co.

Cote & Huot, contractors, Montreal, have dissolved partnership.

T. W. Cole, painter, of Stratford, Ont., is reported to have assigned.

A demand of assignment has been made upon Beauchamp & Deslauriers, sash and door manufacturers, St. Henri, Que.

It is announced that the Coleman-Hamilton Co., dealers in sewer pipe, cement, etc., Toronto, have been closed out by their creditors. The business was connected with the United States Fire Clay Co., of Pittsburg, Pa., which recently became financially embarrassed.

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