

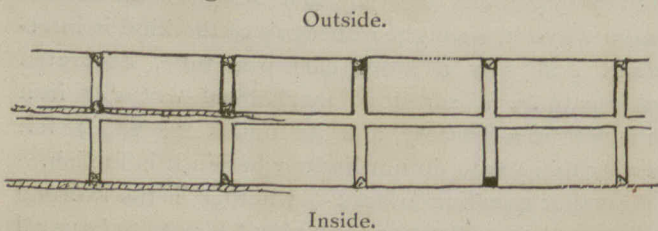
wrought, it must still be beautiful; but it has ceased to be fitting. For strong practical work, many times repeated, cast iron is the natural modern material, and, though the wrought iron scroll-work arm may be true Gothic design, the man who does the work well in cast iron is the true Gothic designer. In carrying out his work with the severe simplicity that the occasion demands he is not out of spirit with the old workmen; who were not always florid, but gave us also the plain wall spaces and simple constructions that we envy; and who, most likely, if they had been called upon to erect several thousand trolley-arms in one city, would not have tried so hard as we think to direct attention to them.

SPECULATIVE BRICKWORK.

It is accepted as a general truth in Ontario, particularly in the country, that a brick house is a cold house. This seems a strange conclusion to have arrived at about a good building material, but it is unfortunately true. That it is necessarily true is quite another affair. It is altogether a matter of the wretched habits of building we have got into in this country. The fault lies not in the brick but in the way in which it is laid. To save some mortar, but chiefly to save time, we build brick walls that as far as the wind is concerned, are little better than a sieve.

The householder when he contemplates his dwelling wonders how the cold air finds its way in. The brick it is true is not absolutely impervious to air but the mortar is as closely set as stone; and, when mortar fills the space under and over and between all bricks, it is a mystery how a brick wall lets in the cold. What air there is in the bricks must be immovable and ought to act as a protection, wrapping the house all round with the same non-conducting envelope that keeps a bird warm when it fluffs out its feathers.

The trouble is that the vertical joints are not full of mortar, as we assume that they are, but are open channels throughout the greater part of their length, stopped only at the outside and inside ends, and that only by an irregular plug of mortar that does not necessarily fit tight.



The proper way to lay a brick wall—nine inches thick or otherwise, but the nine inch wall for cheap houses is the subject of our discourse—the right way of building it, as generally understood, is to lay a course at a time; to finish the stretcher course as completely as the heading course, laying both halves of it at once, on a bed of mortar which extends the full thickness of the wall; and by sliding the bricks forwards and sideways as they are placed on the bed, some of the mortar, which is laid on thick for the purpose, is squeezed up to fill the vertical joints, both those running across the wall and that running lengthwise. This fills the bottom half of the joints. The top half is filled by throwing mortar into them when the next bed of mortar is spread. Thus all joints are full of mortar, and the wall is both strong and air-tight.

The speculative builder's method differs from this fundamentally in that he builds up the inner and outer portions of his stretcher courses separately. The use of coloured mortar for the face of the wall has no doubt given rise to the practice, but the particular result is an entire absence of mortar in the longitudinal joint all the way up, crossed and stopped only by the headers and the bed on top of them every sixth course. For the five courses between headers he builds separately two neat little four inch walls. It is a size convenient for keeping control of your mortar, and he makes it go as far as possible. The bed is made abundantly thick by the simple process of pressing down the centre with the point of his trowel and squeezing the mortar out at the edges. (The bed being thus hollow in the centre, the brick rests only on its edges, which gives it every chance to spall; but that is another question, and perhaps not a serious question in the case of a small house.) The mortar which bulges out at the edge of the bed, when a brick is set down upon it, he scrapes off handily with the point of his trowel and with it butters the end of the next brick, making an irregular blob of mortar on its outer edge—the plug on the outside, shown in the cut above. Some bricklayers have a particularly irritating way of catching up on their trowel any remnants of mortar they can and then, as they call it, "cleaning" their trowel by scraping these savings off on the top edges of the brick as they lie on the bed, and carefully smearing the scrapings over the top of the joints, making a thin protective coat which will effectually prevent any mortar falling in when the next bed is thrown on top of the course.

So much for the method. The result is a wall with vertical joints empty of mortar, except for a plug at the wall faces which, neatly pointed, makes a good showing, giving the impression of fullness of mortar to a wall which is as empty of it as it can possibly be without falling down.

And the result of this emptiness is that a candle has been—not can be, but has been—blown out when held on the inside of the windward wall of a house which was closed in but not back plastered.

The back plastering is usually considered to be the cure for the state of affairs, but it is not enough. Double back-plastering would be better, and that is the suggestion offered by the writer to any one who is caught, as he was, by an agreement for a house intended to be cheap, in which it would have been obviously unfair to force perfection upon the builder. The contractor for the mason work, who was anxious to do what he could, short of making his men work in an unaccustomed manner, so that they would be slower than he had calculated upon, himself proposed, as a solution, to back plaster the outside half of each division of wall before laying up the inner half. This has been done (as shown on the left of the plan above), and it looks so solid that the suggestion is here offered for the improvement of speculative brickwork at small cost of material or time.

In the budget recently brought down in the Canadian House of Commons provision was made for increasing duty on white lead from 5 per cent. to 30 per cent. This was done to afford protection to the new white lead industry established in Montreal, the first of its kind in Canada. As a result it is announced that the price of paint will advance about 75 cents per hundred. It is expected that the result of increased duty eventually will be that white lead will be wholly manufactured in Canada instead of being imported and ground into oil here, as at present.