

tone of the brick must be good. We certainly have this variation of tone in our Dunedin bricks, but I think that the colour itself is not all that it could be. It seems to lack richness, and is too much of a pinky shade, whereas more orange or purple tones are to my mind more pleasing. I do not think it would be a very difficult matter for the manufacturers to experiment by adding some ingredients to the raw clay, for the purpose of ascertaining whether the colour could not be improved, quite cheaply and with little trouble to themselves.

#### BONDING

The next point is the method of laying or the style of the bonding. There is no doubt that the spacing of the joints and the insertion of bats are carried out in a somewhat haphazard method in Dunedin. The size of the brick varies considerably; this no doubt may account very largely for the defect. A common defect which is quite fatal to the appearance of a wall is the irregular fashion in which vertical joints often are placed one above the other. Unless all vertical joints are in a true straight line, there is a decidedly ragged appearance. As far as general effect is concerned, there is no doubt that Flemish bond is far ahead of all other styles for the majority of the brick walling. In our Residential, Ecclesiastical and similar work, I think we might well follow the lead of the Byzantine Architects, and more freely adopt the use of patterns and relieving courses etc. The new Presbyterian Church at Invercargill has some most interesting brickwork, and shows what can be done here if we care to take the trouble and insist on getting what we want. In this Church, as well as relieving courses of various coloured bricks, the ordinary walling in arch spandrels and similar places is set herringbone fashion and in various other patterns. I think if we ceased to use rough cast in small patches and cement facings, and obtained our relief and play of colour from the judicious use of say chipped clinkers and sand bricks in various tones and set in the form of diaper work and herringbone etc., we would obtain much more pleasing results. However excellent the brickwork, I think it is in most places quite spoiled where plain cement composition facings and dressings are used. The cold grey of the cement invariably clashes with the colour of the brickwork, and quite kills its appearance. If the cement work is tinted with hydraulic lime, as in the Public Library, a warm tone results which harmonises with the brickwork and gives a much softer and pleasing effect. I have noticed that many buildings in and around Dunedin have looked very much better just when the brickwork has been completed and before the plasterers have got to work. This has led me to the belief that we largely spoil our buildings in the finishing of them off, and that, whereas there is a general appearance of uniformity of surface about the semi-finished building, this desirable quality is, in many instances, totally spoiled, and the building made to look fussy and disjointed by the indiscriminate tacking on of patches of plaster. If the walls were relieved by coloured bricks and by panels and bands of clinkers and by chevron and diaper work, a far more modest and

becoming structure would result and the harmony and continuity of the wall surface would not be interrupted and disjointed by harsh surfaces and disagreeable lines. For the finish of copings, sills, fire hobs etc., the plain brick on edge is quite simple and costs no more than the ordinary flat method, but it adds a decided finish to the work and gives it some character.

I do not think that we pay nearly enough attention to these small details, and allow the bricklayer to set his bricks as he thinks fit, provided he keeps a thin joint and an even face to his work.

Another relieving feature often used in England, but seldom seen here, is the tile creasing. The use of thin tiles with fat joints is centuries old, and for relieving horizontal courses, small arches, projecting labels over openings and oversailing courses, is I think, both simple and delightful. We are hampered here in not having the necessary flat tiles. Shingle tiles and Marseilles floor tiles are very expensive, and dished roofing tiles unsuitable. I see no reason why the brickmakers or terra-cotta workers should not make and stock plain flat tiles say about 6ins. x 9ins. x 1 in. thick, provided we make a custom of using them.

*(To be continued)*

## Our Railways

### MR. HILEY'S REPORT

The Report of Mr. E. H. Hiley, the new General Manager, on the N.Z. Railways, provides food for thought. It is unfortunate that since the report was written, war has broken out, as this will probably constitute a serious bar to the raising of a loan of £3,250,000, which is the figure Mr. Hiley states is needed to make the Railways up to date. His scheme includes the following:—

New Stations and Station-yards—	£
Auckland .. .. .	450,000
Wellington .. .. .	480,000
Palmerston North .. .. .	40,000
Hastings .. .. .	40,000
Lyttelton .. .. .	100,000
Christchurch .. .. .	320,000
Addington .. .. .	100,000
Timaru .. .. .	40,000
Duplications—	
Penrose-Papakura .. .. .	75,000
Ohinewai-Huntly .. .. .	40,000
Horotiu-Frankton .. .. .	45,000
Newmarket-New Lynn .. .. .	200,000
Lyttelton Tunnel .. .. .	125,000
Grade-easements—	
Penrose-Mercer .. .. .	150,000
Mercer-Frankton .. .. .	10,000
Frankton-Te Kuiti .. .. .	40,000
Palmerston North-Marton .. .. .	50,000
New Engine depot and Approach Lines—	
Auckland .. .. .	140,000
Additions to Railway Workshops—	
Newmarket .. .. .	30,000
Petone .. .. .	30,000