

material in this manner. Not only so, but our streets are made to exhibit architectural monstrosities which constantly offend the perception of educated beholders, and prove stumbling blocks in the path of progress of those whose artistic faculties are in process of cultivation.

#### Burning Damaged Cement.

MR. R. W. EGERTON, Executive Engineer of the Northwestern Railway, describes the results of reburning cement which had been damaged by floods during the progress of the Khojak Tunnel. To this purpose a furnace was employed which had been used for heating trough sleepers before reshaping them, the fuel used being dust coal. The damaged cement, which in most cases was found to be set solid to the centre, was taken out of the barrels, broken into pieces which would pass through a 3" ring, placed in the furnace, and the firing kept up day and night. After burning and cooling the cement was ground in a steam mortar mill and screened in a revolving screen of 1600 mesh. The material so treated was found to heat when slaked it used fresh, but this tendency disappeared after air slaking 15 or 20 days. The results of tests showed the material to have an average strength of nearly 200 lbs. after a period of slightly more than 2 months, or about one-third of the original strength. The re-burning was done at a sufficiently low cost to make the expenditure profitable, and the re-burned cement mixed with three parts of sands to one of cement, gave excellent results.

#### Roof Coverings.

SHINGLED roofs have recently come into favor for dwellings in Toronto. While less durable, they are said to be cooler in summer and warmer in winter than slate. A shingle roof is also less liable to injury from wind and settlement of the building. Perhaps its most important recommendation, however, in the eyes of the architect is the possibilities it offers for color effects. The monotony of black slate roofs has long been a cause of dissatisfaction with architects. Many of the new shingle roofs are stained, while others have been left to the softening influences of the weather. In the majority of instances where a stain has been employed, the entire roof is made uniform in tone—usually some shade of green. Now and then the attempt has been made to use a variety of shades, but as a rule the effect has not been satisfactory, the gradations of tone not being sufficiently gradual. Some architects have successfully adopted the method of mixing their own shingle stains. By this plan they claim to have been able to secure any desired color, as well as any number of tones of a particular color, being thereby enabled to obtain satisfactory graduated effects. This method is also preferred on the ground of cheapness.

#### The Financial Aspect of Rapid Building.

MR. Gilbert Cass, in an article in the New York Record and Guide, supplies data showing the wonderful rapidity with which modern tall buildings are constructed in that city. As an example, he takes the Broadway Chambers, a structure 50x95 feet and 18 stories high, which was contracted for on March 1st, 1899, and completed on May 1st of the present year. The site had to be cleared of old buildings, neighboring buildings and streets supported, foundations put in and materials prepared and assembled. Mr. Cass shows that the great value of the land upon which these structures are erect-

ed renders such rapid construction necessary. Assuming, he says, that the value of the land upon which the building is to be erected is placed at \$1,500,000, the interest thereon at 4 per cent. is \$60,000. If two years are consumed in construction of the new building, it will have cost in interest \$120,000, to say nothing of the loss of rental of the old building." Therefore, owners naturally hesitate about putting up structures of this character unless the work can be completed within a year. The writer referred to states that in order to accomplish such rapid construction, drawings must be prepared considerably in advance, and the contracts should be let at least two months before the work is to be begun. This gives the contractor the required opportunity to get the structural steel and other material under way in the shops.

#### Legislation Affecting Workmen and Contractors.

IMPORTANT legislation has recently been enacted by the Dominion Parliament affecting the rights of workmen and contractors engaged on public contracts. In July last the House of Commons adopted the following Resolution: "That it be Resolved, That all government contracts should contain such conditions as will prevent abuses which may arise from the sub-letting of such contracts, and that every effort should be made to secure the payment of such wages as are generally accepted as current in each trade for competent workmen in the district where the work is carried out, and that this House cordially concurs in such policy, and deem it the duty of the government to take immediate steps to give effect thereto. It is hereby declared that the work to which the foregoing policy shall apply includes not only work undertaken by the government itself, but also all works aided by grant of Dominion public funds. That it is not expedient to mix with this proposal the salaries of those employed in the public departments of the government." In pursuance of this resolution a number of new conditions have been embodied in government contracts since that date, the principal points of which are, that a contractor shall not assign or sublet his contract; that all workmen employed upon government contracts shall be residents of Canada, unless Canadian labor is not available, or unless there should be special circumstances which would render it contrary to public interest to enforce the condition. Workmen must be paid in accordance with the Fair Wages Schedule prepared by the government, the hours of labor and the rate of wages to be such as generally obtain in the locality in which the work is to be done; the contractor must furnish to the Minister of Labor a statement showing names of workmen, rate of wages, amounts paid and unpaid for work done, this statement to be attested by a statutory declaration; a similar statement is to be furnished with regard to the materials purchased for use on the contract; the Minister of Labor is given the right to reserve and pay over to the workman or the persons supplying materials out of the moneys due the contractor, any unpaid amounts which may be due them, no portion of the work is to be done by piece-work.

An officer has been appointed to collect data from various parts of the Dominion relating to the existing scale of wages in each locality and the rate of wages to be paid on each individual contract is specified by