

MISTAKES IN THE BUILDING TRADE.

A paper was read before the members of the Glasgow Building Trades' Exchange at the last monthly meeting by Mr. Alexander Muir, of Messrs. Alexander Muir & Sons, builders, on "Mistakes in the Building Trade." The author dwelt briefly on the imposing grandeur of the buildings of the ancients as compared with those of the present day. He instanced the Grand Colonnade of Palmyra with its 1,500 columns, the fragments of which now served to house a few Arab peasants. He laid the blame of our pettier structures on the fever heat at which we now lived. Our buildings, like everything else, were rushed. In the far back days buildings were planned and erected calmly and without hurry, and consequently gained in dignity. Even within the present century very much more time was allowed to builders than at present, and then builders seemed to take more enjoyment out of life, to labour less and to gain greater profits. In these days very many proprietors were resolved on getting a magnificent structure at a ridiculously small price. They started the economizing process by employing an inferior architect; and architect and measurers too frequently combined to persuade the economist that his notions could be carried out for the sum he proposed to expend. In the end he discovered that the cost was greatly in excess of his anticipation. This method of doing things told against the contractor, as, in order to keep the proprietor as long as possible in ignorance of the ultimate cost, he was only granted instalments in proportion to the schedule price. Consequently he was kept lying out of considerable sums. At the end of the contract, too, there was always the greatest difficulty in getting payment of the inevitable extras from the disgusted proprietor. In connection with these extras, Mr. Muir protested against the practice of architects or measurers altering the contractors' prices without consulting them, and of submitting these to a clerk of works to be checked. They ought to be gone over with the contractor himself and adjusted. He maintained that in all contracts the selecting of an efficient inspector was very essential. Mr. Muir dwelt on the old custom of contractors measuring the work for themselves, which, he stated, was of course impossible in their city. This practice, he said, was still carried on in Australia, and apparently beneficially to not a few contractors. He advocated the strict adherence, where practicable, to the adopted modes of measurement and clear details in schedules as tending to prevent mistakes and misunderstandings, and spoke strongly against measurers endeavouring to get

cheaper estimates by misleading descriptions in schedules. Mr. Muir vigorously deprecated the over-anxiety of contractors to secure, if possible, every contract that was issued, for the mere sake of leaving monuments to their memory. He held that no contractor should take a contract unless at a reasonable profit. The present keenness of competition was not conducive to good work. Every man should have time to eat, drink and enjoy the fruits of his labour. In conclusion, advertising to municipal structures, Mr. Muir regretted that in the design of the new art gallery, erected by Glasgow funds, the gentlemen responsible should not have seen their way to employ Glasgow talent, of which, he contended, there was abundance; and that in connection with the Jamaica Bridge, for the sake of a few thousands, the original broad scheme should have been abandoned.

BRICK-DUST MORTAR AS A SUBSTITUTE FOR HYDRAULIC CEMENT.

The use of brick-dust mortar as a substitute for hydraulic cement, where the latter cannot be obtained, is now recommended; experiments made with mixtures of brick-dust and quicklime showing that blocks of one-half in. in thickness, after immersion in water for four months, bore, without crushing, crumbling, or splitting, a pressure of 2,500 pounds per square inch. It is considered too that the addition of even as small a proportion as one-tenth as much brick-dust as sand to ordinary mortars, is preventive of the disintegration so often characterizing mortars used in the masonry of public works. The use of brick-dust mixed with lime and sand is said to be generally and successfully practiced in the Spanish dominions, and is stated to be in all respects superior to the best Rosendale hydraulic cement in the construction of culverts,

drains tanks, or cisterns and even roofs, whether for setting flat tiles or for making the usual tropical flat roof. The proportions used there in the manufacture are, approximately one of brick-dust, one of lime, and two of sand, mixed together dry and tempered with water in the usual way. —Arthur Lee in Stone.

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