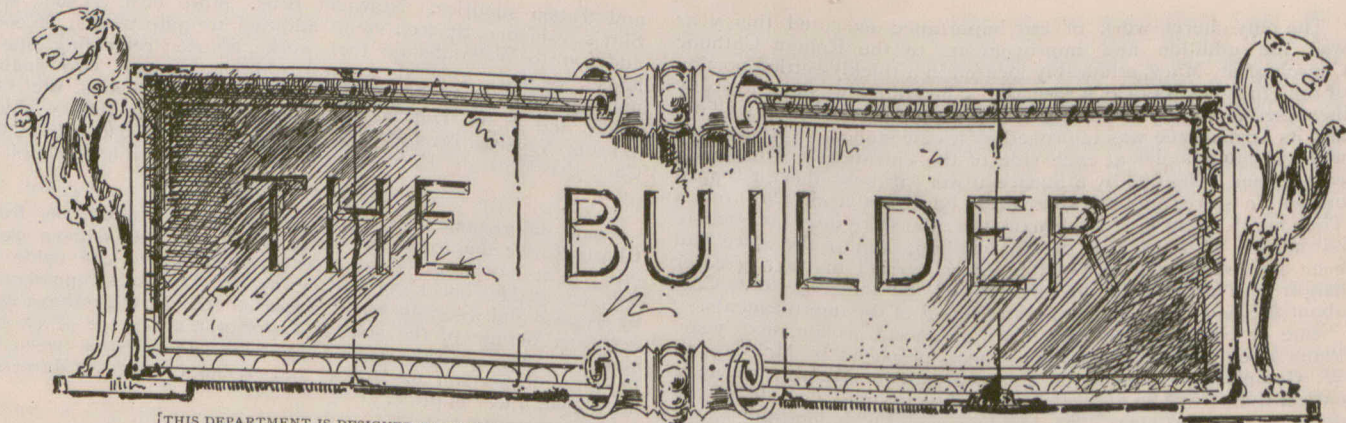




[THIS DEPARTMENT IS DESIGNED TO FURNISH INFORMATION SUITED TO THE REQUIREMENTS OF THE BUILDING TRADES. READERS ARE INVITED TO ASSIST IN MAKING IT AS HELPFUL AS POSSIBLE BY CONTRIBUTING OF THEIR EXPERIENCE, AND BY ASKING FOR PARTICULAR INFORMATION WHICH THEY MAY AT ANY TIME REQUIRE.]

Quarried Stone. A CONSIDERATION in the use of stone for important buildings is that of having it quarried, stored and seasoned some time before being worked and placed in the walls. By these means the natural sap is allowed to evaporate and the stone tested as to its quality. This would add slightly to the cost, but the money would be well spent if this precaution prevented the wasting of stones from the rains, frosts, or atmospheric influence, which, especially in this country, soon act on the surface of a newly-quarried stone. Stone that is quarried one day, and built in the wall the next, is in a "green" state and unfit for use. It is not in condition, as its pores are open and ready to absorb moisture or destroying gases, which would tend to its early destruction. Every stone-worker knows that the polished surface on a stone that has been seasoned is very different from what he gets on one fresh from the quarry; and this of itself should be sufficient evidence to warrant the precaution recommended, which is, to thoroughly season stone before using.

Piece-Work vs. Day-Work.

It has never yet been satisfactorily decided whether it is better to have work done by the day on buildings, or by piece-work. It is quite natural for men who are receiving a certain definite price for a piece of work, and when the price has been cut down to the smallest limits, to put the least amount of labor upon it which will make it acceptable. We may deplore or condemn this disposition as much as we choose, but that will not help the matter, because it is founded in human nature. Men do not, as a rule, work for the sake of work. Labor is not in itself desirable; it is the results or the products of labor which we desire, and which constitute the sole natural incentive to labor. This universal and inherent disposition of mankind to supply their wants with the least possible exertion, which is in itself right, and to which we are indebted for all our progress and improvements, is the prime cause of all slighted piece-work. But some builders leave it to their customers to discover this before the work is accepted from the workman, while others have men as overseers whose special business it is to find out the faults before the work is passed; and herein lies the whole secret of the success or failure of piece-work. Payment by the piece is, perhaps, the fairest way to have work done if everything is honestly and properly done on both sides, because each workman is then most likely to be paid in exact proportion to his ability; but it is all-important that there should be some definite standard of workmanship which the finished work must conform to, and it is equally important that

an honest judge should see that that standard is maintained and uniformly adhered to. The disposition of workmen to slight piece-work, and do it in the poorest possible manner so long as it is accepted, is supposed by many to be fatal to the production of the highest grade of work. And yet it is a notorious fact that much of the best work done in this country and the neighboring Republic is paid for entirely by the piece, and the men doing the work find little to say against the system. Notwithstanding all this, conditions will arise in and about a new building, for which no provisions have been made, nor could be made, that seem to point out that it would have been better to have had the work done by the day. If all men were honest and trustworthy, work by the day would be the proper thing; then the owner would receive full value for his outlay, and the workman would receive a just remuneration for his labor and his skill. Doubtless, Providence intended that all work should be done by the day, but the perverseness and selfishness of mankind have so ordered matters that an honest day's work can only be obtained under fear of the lash. Hence the failure of the day-work system.

Building Brick Piers. THE reason why so many brick piers give out or prove unsatisfactory is not because of their containing enough brick, but because of their not being properly constructed. The only way to build a good and substantial pier of brick is to lay each course the full size of the pier, and not, as is often done by careless workmen, to build up the outer four inches of the pier seven or eight inches high and afterwards fill in the interior, as it is impossible to get proper bed or bond; bricks of the hardest quality only should be used when heavy weights have to be sustained. Avoid bats and use as little mortar as is necessary to get solid work. Make the size of piers so that whole bricks can be used to obtain proper bond; tamp each brick after it is laid in position with a hammer until it rests solid on its bed. In small piers lay the brick on a bed of mortar and flush up solidly every course; in larger piers make a joint or rub on the bed and lay headers every fourth course. If bond stones are to be inserted, the joints should not be too tight; the larger the pier the larger the joint and bedded high in the centre, and in no case should a bonding stone be bedded on the outer edges of the pier only, as it would then be likely to crack and crumble with the weight it carried. Use cement in all mortar in connection with lime, and wet the bricks in all cases where there is not any danger from frost; when iron plates or columns are set on the bonding stones, and