

## THE MARBLE INDUSTRY OF GREECE.

The famous Dippotin marble quarries in the Island of Euboea are now being restarted by an English company. These quarries supplied green marble, and had not been worked for 2,000 years. The marble quarries near Pentelikon are also exploited by an English company, but, so far, not quite successfully. It has already expended considerable sums on improvements, and hopes to start work in the new quarries by the end of the present year. 1,000 cub. metres of Pentelikon marble have already been contracted for in connection with the Stadian at Achon. Several American orders have also been secured, and a gigantic block is shortly to be despatched to Berlin.

## WAGES AND WORKING HOURS IN ENGLAND.

According to the last annual report of the Board of Trade (London) for the year 1900, "the year 1900 was the culminating point of the upward movement of wages which began in 1896, and that the general level of wages stood higher at the end of 1900 than in any other year for which statistics exist. In other words in the last year of the nineteenth century the artisan was in a more flourishing condition than at any other time in the history of this country. But the same report also states the fact that from the end of 1900 wages began to decrease, and this downward movement is certain, there can be little doubt, to continue for some time to come. As regards the hours of labor, it is interesting to note that one of the most important changes was that in the cabinet trade, there being a reduction of two and a half hours per week, affecting 8,000 cabinet-makers in London. In the building trades there were 9,111 people affected, and a reduction of 8,016 hours for a full week, which represented an average reduction in hours per week of 0.88. Thus, together with an increase in wages, there was a reduction in the hours of labor, all tending to show how much the condition of the working classes has been improved in the century which is now at an end."

## UNFAIR WORK.

It is one thing to order and get good bricks, and another thing to see what the contractor does with them when the order is faithfully fulfilled. We recently saw says the British Clayworker an enormous piece of brickwork, not ten miles from Charing Cross as the crow flies, in which tenth-rate red bricks are being employed for the interior, and a rather substantial bluish brindle for the exterior of both sides of a wide wall. The wall may, perhaps, be from 4 ft. to 4 ft. 6 in. in thickness, and is remarkably well built. But—what will happen when it has been up a few years? There is an awful example of what might almost be called an answer to this question close by, where a very thick wall of somewhat similar character is cracked practically from top to bottom (about 25 feet). That wall has been patched up from time to time as the face clearly shows. Yet, so far as we can see, the builders of the new wall have not profited by the example exhibited to them near by. The fact is, that for brickwork having to bear a great strain, and especially a moving one with stress in addition, it does not do so to sandwich inferior bricks between thin walls of good ones—even when the brickwork in itself is excellently

done. The outside bricks, after a time are called upon to bear an undue strain owing to their more elastic nature as compared with that of the porous red bricks within. On the other hand, when the damp course is impaired, or non-existent, the inside bricks suffer to some extent, and strain is set up between them and their outside neighbors. If the wall does not buckle it will tend to crack. This is an unfair use of bricks, detrimental to them and to the maker; though no one could say that in the case mentioned the work is that of a jerry builder.

## CEMENT CONCRETE FOR BRIDGES.

The satisfactory results following the use of cement concrete for arched bridges in other countries, has led the Spanish authorities to adopt this material for the new bridge of Las Segahas over the river Ualon, says the British Clayworker. It will have a span of 165 feet; the arch and spandrels will be composed of concrete to the almost total exclusion of all other materials, and the spandrels will be of open design formed of vertical pillars carrying arches. Pivots or hinges are to be used at the crown and at the springings of the arch. The arch is segmental, and has a rise of 18 feet 9 inches from the centre of the pivot at the springing to the centre of that at the crown. At these two points the depth of the arch is the same, and measures 3 feet 2 inches, but at the centre of the half arch the depth is increased to 4 feet 8 inches. Between the open cast-iron parapets, which are 4 feet high, the width of roadway is 17 feet, but no provision is made for footpaths. The main arch is to be faced with brickwork. The spandrel arches are 5 feet span. The composition of the concrete to be used in this work is as follows, the proportions being by volume:—Cement 1, sand 2.5, and broken stone 5.

## PRACTICAL HINTS.

A French authority says a good cement to form the joints of stones round water reservoirs consists of: Litharge in fine powder, 5 parts; minium, 4 parts; sifted road dust, 100 parts; oil, 9 to 10 parts. This cement is said to become gradually white, and in a few months to acquire the colour of quarry stone.

**SHRINKING WALL PAPER.**—To remedy this defect the wall should only be rubbed down with pumice stone and cleaned, as the size and whiting have a tendency to crack and give, in fact, it has the same effect on a painted wall as gum. The paste required for sanitary paper is: After mixing the flour well in cold water, put a gallon of hot water, or rather boiling water, to every pound of flour. Mix well, strain through a sieve, and put in a piece of alum about the size of a walnut. After putting the paper on roll the joints well.

During the past ten years or so, many experienced and observing painters have pointed out the effects of priming with yellow ochre alone, and have recommended that when ochre is to be used for priming it should be mixed with from 50 to 70 per cent. of pure white lead and thinned with pure raw linseed oil only, or at most with the minimum quantity of dryer. Ochre, consisting for the most part of silica or sand, is at best a brittle pigment and cannot hold its own with white lead as a priming. When covered with an elastic white lead paint, it will remain fixed longer than when a more brittle paint is used over it, but sooner or later it will "split," throwing off the top coats of paint. If this has happened in your case, you can determine by examining the back of the peeled off strips of paint, as well as the bared wood, both of which would show a yellow color. We believe that the lead and zinc paint obtained a direct hold on the ochre priming, which had also lost its adhesion to the lumber, and there not being oil enough for all, caused the cracking and subsequent peeling or scaling. The only other cause that the trouble could be attributed to would be a damp surface on painting.