

generally commences on the fourth day, and in some cases a little earlier. It has never been known to appear after the fifth day. The results, so far, are insufficient to furnish ground for much of an opinion as to their cause. (3) Some natural cements showing nothing abnormal when tested in the laboratory at the usual temperature, are very much retarded in strengthening in practical work by cool weather—much more so than cement of the same or other brands. Such cements were found to be lower in lime and higher in silica than normal cements. (4) Some natural cements are found which give greater strength at seven days when mixed with two parts of sand than when made up neat for the same time.

STONE-CUTTING SAWS.

An obvious improvement in the manufacture of circular saws for cutting stone has been patented by Mr. Geo. Anderson, Taymouth Engineering Works, Carnoustie. A great drawback hitherto felt in connection with these saws, which have their cutting edges fortified with diamonds, has been the expense involved by the loosening and loss of the diamonds. Mr. Anderson has devised a means whereby the precious stones are fixed so securely as to render their loss, by dropping out of their setting, almost impossible. The principle adopted is that of fixing by electricity. The diamonds are fitted into small holes drilled into the steel, and the parts so fitted are subjected to electric welding, or fusing, so that the diamonds are gripped by a compact mass of steel sealed around them. The blade of the saw is five feet in diameter, and in the periphery of the blade are inserted, at intervals of an inch and a half,

126 sockets, 42 being in the middle of the periphery and 42 at each side. At the speed of 560 revolutions per minute the saw cuts a stone 4 ft. 8 in. long in eleven minutes, although a much higher speed can be employed.

NOTES.

A liquidator has been appointed to wind up the affairs of the Danville Asbestos and Slate Co., Limited.

Mr. J. M. Kilburn is asking from the town of Lakefield, Ont., a bonus of \$10,000 and exemption from taxes towards the establishment of cement works.

The Pedlar Metal Roofing Company, of Oshawa, are mailing to their customers proofs of illustrations of the interior of the Seminary Chapel at Quebec, the metal work of which was manufactured and placed in position by this company.

The production of gypsum in Nova Scotia for 1899 was 140,000 tons, against 131,000 tons in 1898. A large part of this found its way to the United States. Limestone showed a total production of 32,000 tons, against 24,000 tons in 1898. Grindstones and similar quarry products were produced to the amount of 12,989 tons, as against 38,000 tons in 1898.

A new method of slaking lime and cements, which has just been patented in France, and which is said to secure great speed and uniformity in the tempering of the solid, consists in treating the mass in a closed vessel with high-pressure steam. It is said that the slaked products, being formed at high temperatures, are specially able to resist high temperatures afterwards.

The cement manufacturing business formerly carried on by the Rathbun Company at Napanee Mills, Ont., the Beaver Portland Cement Company, at Marlbank, Ont., and the St. Lawrence Portland Cement Company, of Montreal, Que., has been merged into a new concern incorporated under the name of the Canadian Portland Cement Co. The new company is capitalized at \$1,500,000. The president is Mr. E. W. Rathburn, of Deseronto, Ont., and the managing director is Mr. E. G. B. Allan, of Napanee Mills, Ont. The head office will be in Toronto.

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