

product. As high as 260 men a day have been employed on this contract, the active prosecution of which was begun on April 1. The highest output of one concrete mixer has been 262 yards of tamped concrete, or 328 heaped 1-yard buckets of loose concrete in 8½ hours. Vertical faces of concrete are obtained where necessary by 1-inch mould boards secured to well-braced studs outside.

The principal plant consists of the two concrete mixers, driven by two 15 horse-power vertical high-speed engines, a Murray and a Safety; two horizontal tubular water bottom 50 horse-power Lidgerwood boilers, one Cameron duplex steam pump with 3-inch suction, which has been needed only to remove the rain-water, one derrick, 70-foot mast and 65-foot boom, all with four steel rope guys and running tackle, good for 10 tons load each. Two of them have the Buffalo standard fittings and the remainder those of the St. Paul Hoist and Derrick Company, and all of them have new round sticks of Norway pine spars from Brooklyn yards. They are all painted white, and present a neat and handsome appearance. They are operated by six double-drum Lidgerwood hoisting engines, two of them with individual boilers. Messrs. Heins & LaFarge are the architects, and Gen. William Sooy Smith, of Chicago, is consulting engineer of the cathedral, and the above-described work is being executed by Sooy-smith & Co., contracting engineers, of New York, upon a commission contract. The earth and rock excavation was done by J. D. Crimmins and J. J. Hooper respectively, and John Pierce has a contract for dimension granite for piers, etc.—Builders' Reporter.

UPRIGHTING A TALL BRICK STACK.

UNDER the above heading Brick describes the method by which Mr. E. W. Seamans, of Grand Rapids, Mich., succeeded in righting, at the Standard Concrete Manufacturing Works, at Norristown, Pa., a tall chimney that had declined considerably from the perpendicular:—

At the company's works there is a brick smokestack 122 feet high and 11 feet square at the base, the walls are 36 inches thick and the whole structure weighs not less than 400 tons. Some time since the top of the stack began to lean over and, when it inclined 45 inches from a vertical line, it was felt to be too dangerous to allow to go any further.

It was agreed that any attempt to pull it back to a perpendicular position would certainly cause its destruction. Contractors would not undertake the task of righting it for any less sum than the cost of pulling down and rebuilding it. So Mr. Seamans thought out an entirely original scheme for straightening it; this he had to carry out himself, as no one would take the risk.

To raise the sunken side of the stack was an impossibility. The only course left, therefore, was to sink the other side four and one-half inches. To accomplish this ten and one-half inches of brick work was removed from the foundation on three sides. As the bricks were removed square blocks of wood were inserted, one after the other, until three sides of the towering mass of bricks rested on wooden cubes. Between the blocks supporting the stack temporarily substantial brick piers six inches high were built, leaving a space of four and one-half inches between the top of the piers and the bottom of the undermined brick-work.

The foundation was now in readiness for the culminating feat, the removal of the wooden cubes, which, successfully effected, the side of the stack would be lowered to the piers prepared for supporting it while the interstices were bricked in. The blocks had to be removed gradually and simultaneously.

Each block was ignited and all were kept burning briskly. If one burned faster than the others the fire on that particular block was quenched until the others reached the same stage of incineration. Thus all were made to burn uniformly, and as the blocks were being reduced to ashes the stack slowly righted, until the last ember died out, when its top was on a vertical line with the base.

The entire work consumed one day. The reduction of the wooden blocks to ashes required an hour. In that time the top of the stack moved forty-five inches, but so slowly that men with powerful field glasses could not detect the slightest motion.

PERSONAL.

Mr. A. M. Ross, senior member of the firm of Ross Bros., painters, Hamilton, Ont., is dead. He was born in that city in the year 1838, and worked for a number of years in the car shops of the Great Western Railway. After the death of his father he took charge of his business, and conducted it with his brother.

There is much anxiety on the part of the friends of the Hon. Mr. Harty, Minister of Public Works for Ontario, owing to the conflicting reports regarding the condition of his health. It is hoped, however, that he may be successful in his effort to regain health, and be able in the near future to again resume the active duties of his Department.

Mr. A. M. Calderon, the well-known architect of Ottawa, has taken unto himself a bride, in the person of Miss May Bate, daughter of Mr. Newell Bate, merchant of the same city. The wedding took place on the 23rd of October, at Christ Church, the venerable Archdeacon Lander officiating. Mr. and Mrs. Calderon left on a short tour in the States.

The death occurred at Victoria, B. C., last month of Mr. William Wilson, at the advanced age of 94 years. Deceased was born in Banff, Scotland, where he learned the mason's trade, coming to Canada at the age of 29 years and settling in the city of Quebec. For upwards of half a century he carried on business as a builder and contractor, and erected a number of important buildings in that province.

At St. John's church, Toronto, on the 6th of October, Mr. Frank S. Baker, of the firm of Curry & Baker, architects, was united in marriage to Miss Florence Mary Kenrick. The ceremony was performed by the Rector of the church, the Rev. A. Williams, in the presence of a large assembly. Mr. Baker and his bride are spending their honeymoon in the Eastern States. We join our congratulations to those of their numerous friends, and wish them a happy and prosperous voyage through life.

On the 22nd ultimo the death occurred in Toronto, after a lingering illness, of Senator John Ferguson, M. D. Deceased was born in the county of Middlesex, Ont., in 1839, and was at one time a prominent contractor. He built a portion of the New York and Oswego Midland Railway, and the Galt and Berlin road was also constructed under his supervision. He was given the contract for the enlargement of six miles of the Welland canal, and, with Mr. Robert Mitchell, built the larger portion of the waterworks system in Toronto and also the works at St. Catharines.

Every poor speller seems to finally go into the sign-painting business.—Atchison Globe.

A striking instance of the durability of timber, under certain conditions, was afforded during the excavation for the foundation of the Bowling Green Building, New York. A line of spruce piles was discovered at some distance below the surface of the ground, which, as far as we can learn, were placed in position about 150 years ago and actually formed a bulkhead, the tide then reaching this point. These piles, upon examination, were found to be perfectly sound, and to all appearances would have been just as sound and good 150 years hence.

In his selection of typical workmen Mr. Gladstone has given preference to those in the building trade. The editor of the British Workman having asked Mr. Gladstone for a message to working men which is to be reproduced in fac simile in that journal, has received one, of which the following is the most interesting paragraph: "I think there is among parents in what are called the laboring classes too much anxiety to take their children out of hand labor and to transfer them to head labor. But a good deal of what is called head labor is not worthy of the name, whereas hand labor is, in many branches, capable of great elevation. Take, for example, the connection of the mason's trade with the sculptor's art, and the relation between the carpenter and the wood-carver. Further, the higher hand labor is very much better paid than the lower head labor. It would be of great utility to laboring men if they would think this through for themselves."