

Miscellaneous.

The "Victoria Stone."

A new artificial stone, invented by Rev. H. Highton, is described by *Engineering* for May 13th: "The process of manufacture consists in mixing broken granite with hydraulic cement, and steeping the whole, when set, in a solution of silica. Two kinds of granite are used, Mount Sorrel and Guernsey. This is broken up into small fragments on the works. It is then mixed with Portland cement in the proportions of four of granite to one of cement, sufficient water being added to render it of a pasty consistency. In this state it is filled into the moulding frames, and allowed to stand for four days to dry. It is then taken from the mould and placed in a solution of silicate of soda, where it remains for two days, when it is ready for the market. * * The material produced is known as the Victoria stone, or petrified concrete, and the objects moulded from it are flagging, sinks, mantel-pieces, coping, and cap stones, sills, stairs, and such like articles. It is not so applicable for finely cut mouldings. * * A slab of the concrete two feet wide and two inches thick, resting loosely on supports two feet apart, will bear in ten days' time an average weight of 700 pounds in the centre. After having been steeped in the silicate bath, it will sustain more than 1,000 pounds, whilst in five months it will carry 1,700 pounds, and in nine months 2,400 pounds. The crushing strength was found by Mr. Kirkaldy to be 6,441 pounds per square inch. A block, presenting a surface of six inches by nine inches, sustained a weight of nearly 160 tons. At a London brewery it has been laid to replace ordinary paving, which was constantly being broken by the rough handling of barrels. Since the Victoria stone has been laid not one slab has been broken."

Shrinking of Seasoned Timber.

The various kinds of oak, and some other kinds of valuable timber, will shrink more or less every time the surface is dressed off even a small fraction of an inch. Wheelwrights accustomed to work in oak are well aware of this fact, and a correct appreciation of it often enables them to turn out work of a superior character, even of ordinary materials, by first blocking out the pieces roughly, then allowing the timber to season, and afterward working the various parts by degrees, as the seasoning process becomes more and more complete. White oak spoke timber, for example, may be allowed to remain in the rough state for half a score of years, under shelter, without becoming seasoned so thoroughly that the timber will not shrink after the spokes have been dressed out.

Carriage wheels have often been made of the choicest quality of oak timber after every spoke had been seasoned for several years; and to the great surprise of the wheelwright, every spoke would move in the joints before the vehicle had run three months. The defect in such instances could not be attributed

to inferior timber, nor to perfunctory workmanship; but simply to this one circumstance that the parts of the timber were put together before the timber had ceased to shrink.

To prove that the best quality of oak will shrink, after a spoke has been dressed out, let a tenon be made on one end, and driven immediately into a mortise; after a few days' exposure in a warm workshop, the spoke may be withdrawn with little difficulty. The same fact will hold good in the manufacture of wood-work of any kind where oak is employed for tenons. In order to make joints that will never start, the pieces on which the tenons are to be made should be dressed over several times, until the shrinking has ceased. Then let the tenons be made. After these have shrunk, while exposed to the drying influences of a warm workshop, the spokes, or other parts, may be driven into their respective mortises, with the assurance (especially if they are dipped in oil paint previous to driving) that the timber will shrink no more.

Many kinds of farming implements, in the manufacture of which oak and ash are employed, render very unsatisfactory service, simply because the seasoned timber was not allowed to shrink before the tenons were driven into the mortises. In like manner, oak chairs and other oak furniture will frequently shrink to such an extent that the pomels, rungs, dowel-pins and banisters will all work loose, if the precaution we have described is not observed. —*Manufacturer and Builder.*

Advertisements.

CANADA AIR LINE RAILWAY.

NOTICE TO CONTRACTORS.

THE SURVEYS, PLANS, AND SPECIFICATIONS, authorized to be made by the Provisional Directors, in pursuance of the Act of Incorporation,

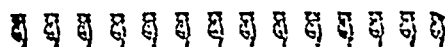
WILL BE ON EXHIBITION at my Office, in Hamilton,

From 22nd August to 2nd September next, For the construction of that part of the above-named Railway lying between Glencoe and Aylmer.

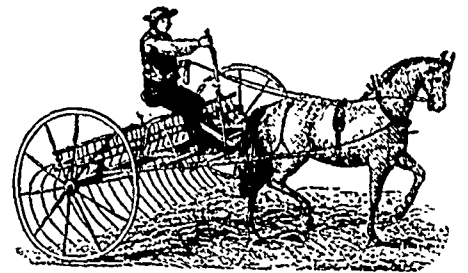
HAMILTON, Ont., } GEO. LOWE REID, Chief Engineer.
5th July 1870. } (v2-7-11)

SITUATION WANTED.

A MANAGER ON A FARM, BY A YOUNG MAN lately from Scotland (son of a farmer); seven years experience, and understands stock and arable farming thoroughly, both practically and scientifically. Upper Canada preferred.
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Will do more work, easier, cleaner, and better than any other. Does not gather dust in the hay. Will rake over rougher ground. Is light and strong, well-made and nicely finished. The teeth are fine spring steel, independent of each other, and will yield to pass obstructions. Took first prize at the Provincial Fair, London, 1869. For testimonials, &c., send for circular. As our manufacture for 1870 is limited, orders should be sent at once.

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NO travelling agents are sent out from these Nurseries. The following dealers have engaged to purchase all their stock of trees and plants for the fall of 1870 and spring of 1871 at these nurseries, the same to be of first quality only. Parties ordering trees, &c. of any of the under-mentioned dealers will correspond with the parties from whom they order. Their names and address are as follows, namely:

C. P. WALDOCK, Westminster, London P. O.
ROBERT GORDON, Goderich P. O.
JAMES STEWART, Goderich P. O.

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Wishing to give more attention to the raising of bees and queens, I offer the following inducements till the close of the coming Provincial Fair:—

To any person sending \$3, I will send my single-boarded hive with improved entrance, price \$3, or an individual right, price \$3, and my dollar book on bee culture, soon to be published; tickets will be sent for the book. For \$5, both hive and right, or an Italian queen, and the book. For \$10, or the highest bid above that during the next six weeks, a township right and the book. For \$12, or highest bid above that, a township right, one hive, and the book. For \$400, or highest bid above that, a right for the entire Province of Quebec, with the exception of two or three counties that are sold, this right is worth \$2,500. For \$200, or highest bid above that, I will sell a patent for a Self-acting Buggy Hub, lately introduced; specimen carriage to be seen at Brooklin, Ont.; this patent is worth \$2,000. Sale of townships not to interfere with sale of hives upon the above conditions.

J. H. THOMAS, Brooklin, Ont. v2-5-11.