

ARTIFICIAL STONE.—Owen Williams, of England, has just taken out a patent for the manufacture of artificial stone. The following ingredients are used in preparing it; 180 lbs. pitch, $4\frac{1}{2}$ gals. dead oil or creosote, 18 lbs. resin, 15 lbs. sulphur, 44 lbs. finely powdered lime, 180 lbs. gypsum, 25 cubic feet of sand, breeze, scoria, bricks, stone, or hard materials, broken to pieces, and passed through a half-inch sieve. The sulphur is first melted with about thirty pounds of pitch, after which the resin is added, then the remainder of the pitch with the lime and gypsum, which are introduced by degrees and well stirred, and the mixture brought to boil. The sand, or broken earthy or stony material is then added, and the whole mass well stirred, and the dead oil is in a fit state to be moulded into blocks. In order to consolidate the blocks, pressure is applied to them in the moulds. The patentee gives also the proportions of the above materials to be used as a composition for laying pavements, as a cement for uniting to each other blocks of the first-named composition, when used for building purposes, and as a coating for bridges, the roofs of buildings, &c. The artificial stone hardens in about a week, when it becomes as stubborn as granite. The composition is not only a very durable, but a cheap one, it costing less to erect buildings out of this material than from the commonest kind of brick. A roadway, plastered with this material, becomes a smooth, solid, flooring of rock in about ten days.

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FLAX CULTURE.

We have received of late, several enquiries relative to the means which are being taken to extend the cultivation and preparation of hemp and flax in Canada. Those who feel interested in the subject, which is one of daily increasing importance, may rest assured that the matter will not be allowed to go to sleep, although since the Provincial Exhibition but little has appeared in the public prints about it. We have reason to believe that the question is occupying the earnest attention of the Ministers of Agriculture, and that that functionary either himself, or in connection with the Board of Agriculture, will shortly adopt some practical means of facilitating this object.

The fact is that changes or improvements, as they are called, are being so rapidly made in the United Kingdom, in the method of preparing and manufacturing Flaxen fibre, that a considerable practical difficulty exists in determining without further experience, which is in reality, taking

all things into consideration, *the* best and most economical process. Donlan's machine, which was sent by the CANADA COMPANY to our last Exhibition, is among the most recent improvements, and a mechanic of this city is constructing a new machine after that model. Donlan's machine will be thoroughly tested here during the present year, and from the deep interest which Mr. WIDDER feels in the subject, an interest which we believe is equally shared by the Directors of the Company in London, who will not fail to inform their principal commissioner here of whatever changes or improvements may take place at home, we have therefore good reasons for expecting, that before the expiration of many months, a clear and satisfactory way will be opened to us, in this country for preparing flax and hemp, in the best and most economical manner. In the mean time we will not fail to apprise our readers of whatever comes to our knowledge that is possessed of any practical importance.

We will conclude our remarks for the present, with some statements on the cultivation of Flax, condensed from an interesting paper read by Dr. Anderson, Chemist to the Highland Agricultural Society, entitled 'Summary of Discussions at the Monthly Meetings in 1851-2,' which appears in a recent number of the Society's Transactions.

Flax was formerly cultivated to some extent in Scotland, but of late years it has been almost abandoned, owing, however, to the low price of grain, induced by the late fiscal changes, the culture of flax has been revived, and attempts are being made to bring it within a defined course of rotation. The recent new process of preparing it for market without the old tedious, and sometimes unsatisfactory methods of steeping it in water, have mainly contributed to the production of this result. "It may be safely laid down as a rule, that in a country where labor is dear and rents considerable, the old process can scarcely be made to pay, except under the most favorable circumstances." Under the old system of retting, variations in temperature and the character of water and inattention to various little precautions, which are sometimes most difficult strictly to observe, would so deteriorate the fibre as to render it comparatively worthless: and if flax is to be made to pay at all it must be with the assistance of the new processes, which have been found upon trial more or less satisfactory. It has been proved that by adopting these modern improvements, the cultivation of flax has in most instances turned out more profitable than other crops.

It has been usually considered that flax is a great exhauster of the soil, by extracting a greater amount of inorganic matter than most other crops. Recent practice, we believe, as well