

PRODUCTION OF BUILDING MATERIAL.

From the annual report of the Ontario Bureau of Mines for 1901, it is learned that the output of building and construction materials has for some years been steadily increasing, and the aggregate for 1902 was in excess of that of 1901, though in one item, that of common brick, there appears to have been a falling off, presumed to be due to the average price having advanced from \$5.90 to \$6.41 per thousand.

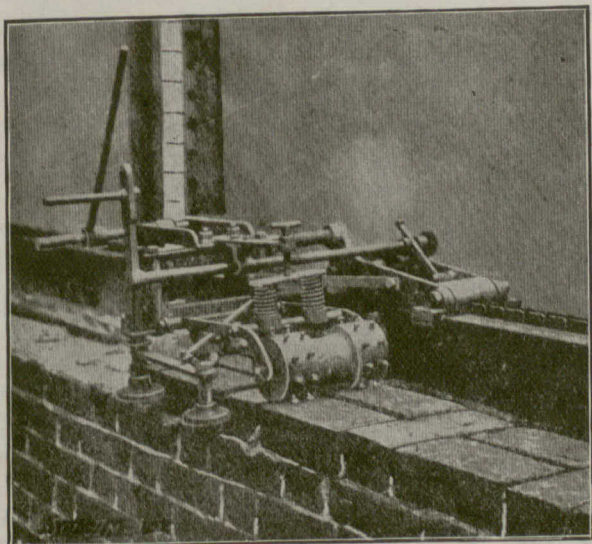
The following table gives the statistics of the production of building stone, rubble, etc., lime, common brick, and pressed brick and terra cotta for the five years 1898 to 1902 :

Material.	1898.	1899.	1900.	1901.	1902.
	\$	\$	\$	\$	\$
Building stone, rubble, etc	750,000	667,522	650,342	850,000	1,020,000
Lime	308,000	535,000	544,000	550,000	617,000
Common brick	914,000	1,313,750	1,379,590	1,530,460	1,411,000
Pressed brick and terra cotta	100,344	105,000	114,419	104,394	144,371
Totals	2,072,344	2,621,282	2,688,351	3,034,854	3,192,371

Other clay products consisting of drain tile, paving brick, sewer pipe and pottery, were made during the year to the value of \$604,280, a slight decrease from 1901.

A MACHINE FOR LAYING BRICKS.

An Englishman, John H. Knight, has designed a machine for plain brick laying, shown in the illustration. Vertical posts are set in the ground about 15 ft. apart. Adjacent to the wall to be built to these posts is secured a wooden girder upon which is screwed a 6 in. x $\frac{1}{4}$ in. steel plate. This steel plate forms a bed on which the machine runs. The driving mechanism consists of a toothed pinion meshing with a pitched chain along the girder, motion being given to the pinion by gears and handle. A guide bar secured to the girder forms the straight-edge for the face of the bricks which are fed to the machine by hand. A pawl operated by a separate handle serves to press one brick back against the



BRICK LAYING MACHINE.

previous brick. Each brick as it moves back pushes a ridge of mortar in front of it, so that the vertical joint between the two bricks is filled. The mechanical bricklayer pats the top of each brick, this being done by a spiked roller which derives its downward pressure from a stout spiral spring regulated by the adjusting screws. The mortar is run out by hand in front of the machine. As each course of bricks has been laid the girder is lifted by hand 3 in. Holes are bored in the

upright posts to form catches for a lifting lever. Two men and a boy can operate the machine. One man spreads the mortar, the second feeds the machine and the third operates it. Mr. Knight claims that the machine will lay down from 500 to 600 brick an hour.

MR. PERCY E. NOBBS.

We are privileged to present to our readers the accompanying portrait of Mr. Percy E. Nobbs, who recently entered upon his duties as Professor of Archi-



MR. PERCY E. NOBBS.

tecture at McGill University, Montreal, in succession to Prof. S. H. Capper.

Mr. Nobbs is a native of Haddington, N.B. His earlier years were spent in Russia, where he received his first artistic instruction at the School of Design, St. Petersburg. In 1887, he entered the Edinburgh Collegiate School, leaving in 1893 to take the Arts Course (new regulations) at Edinburgh University. During his school and college years he took various art and technical classes at the Heriot Watt College, the school of art and the new school of applied art, all bearing on his profession.

In the spring of 1896, Mr. Nobbs graduated as M. A., and travelled abroad before becoming an articled pupil with Mr. R. S. Lorimer, A.R.S.A., of Edinburgh, with whom he remained four years. In 1900, he won the Tite C. Prize at the R.I.B.A., and passed his examination for A.R.I.B.A., afterwards spending a further period in foreign travel and study.

In 1901 he entered the service of the London County Council, where he gained much practical experience of building operations. Subsequently he became chief assistant to Mr. A. Hensell Tiltman, F.R.I.B.A.

In January of the present year Mr. Nobbs was awarded the Owen Jones Travelling Studentship (£100) for a scheme for the decoration of a church in mosaic.

He is a member of the standing Committee on Art of the R.I.B.A., and the author of a number of valuable papers on professional subjects presented before the Edinburgh Architectural Society.

In assuming the chair of architecture at McGill, Mr. Nobbs will endeavor to give practical form to ideas already clearly defined, and which it is hoped may improve the status of architecture and of architectural workers in Canada.