

# The Canadian Engineer

*A weekly paper for engineers and engineering-contractors*

## ROYAL BANK BUILDING FOUNDATION WORK

TALLEST BUILDING IN BRITISH EMPIRE UNDER CONSTRUCTION IN TORONTO—GENERAL FOUNDATION SCHEME DESCRIBED—NOTES ON PIERS, COLUMN BASES, GRILLAGES, ETC.

**T**HE steel frame building which is now in the course of erection on the northeast corner of King and Yonge Streets, Toronto, is in every way an extremely interesting undertaking. The structure has been designed upon the most up-to-date and modern

will give it the distinction of being the tallest building in the British Empire. The over-all dimensions will be 81 ft. 2½ in. on King Street, 112 ft. 2⅝ in. on Yonge Street, and approximately 273 ft. from sidewalk to roof. Fig. 8 shows the progress which has been made on the



Fig. 1.—Showing Stage of Work on January 15th, 1914.

lines, as regards both engineering and architectural practice. The intention of this article at the outset was to deal with the engineering features of the entire structure, but owing to its size and the extremely large amount of important matter which a complete description of it would involve, beyond giving a few particulars of a general nature only the foundations will be dealt with in the present article.

The building, which is to be known as the Royal Bank Building, will be twenty stories in height, which

building up to March 20th. The ground plan is practically rectangular, with the exception of a light court which is introduced near the elevator shaft on the eastern side.

The basement is divided into three sections, that on the front, or King Street, being 14 ft. 7 in., the central portion 18 ft. 10 in. and the northern section 23 ft. 10 in. below the level of the sidewalk. The ground floor level over the whole area of the building is 4 ft. below the sidewalk.

**Excavation.**—The soil on this site is composed of an upper layer of clay extending to a depth of about 30 ft.,