

**Please read and send in as full
discussion as possible at earliest date.**

The Canadian Society of Civil Engineers.
INCORPORATED 1887.

ADVANCE PROOF—Subject to Revision.

N.B.—This Society, as a body, does not hold itself responsible for the statements and opinions advanced in any of its publications.

ELEVATOR CONSTRUCTION

By JAMES SPELMAN, M. Can. Soc. C. E.

Read at a General Section Meeting, October 16, 1913.

The question of storing grain is probably as old as civilization. Since the time when men began to cultivate the land the resulting crop had to be held at least a twelve-month. Later on, the necessity of making the crops of a bountiful year last over into lean years lead to the storage of the grain for longer periods.

Illustration No. 1 is taken from a wall painting in the Tombs in Thebes. It shows two granaries with conical domes that were used at one of the large houses.

Illustration No. 2 is a cross section of some silos that were used by the early Egyptians, also taken from a recently discovered wall painting. In this are shown all the fundamentals of the grain elevator. The grain was received in the pile at the right of the picture and measured in a measuring basket by the man on the right. It was then carried by the other men walking up the stairs to the top of the bins, from which primitive elevators the modern term elevator leg has been derived. The grain was poured in at the top and taken out at the bottom when required, and the markings on the bin walls are supposed to indicate the character of the grain. The bins were not two-story affairs, as might be judged from the illustration; the Egyptian method of showing that there was something in the background was to place it on top of what was in the foreground. Simple as this process is it conveys the idea of the modern elevator. The grain was received, weighed or measured, put into the different bins according to grade and taken out at the bottom.

Prescott in his "Conquest of Peru" mentions that the Incas stored grain and that they sometimes had on hand a supply which would last the immediate neighbourhood for ten years.