

# The Canadian Engineer

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ESTABLISHED 1893

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No. 1

## The Canadian Engineer

ESTABLISHED 1893.

Issued Weekly in the interests of the

CIVIL, MECHANICAL, STRUCTURAL, ELECTRICAL, MARINE AND MINING ENGINEER, THE SURVEYOR, THE MANUFACTURER, AND THE CONTRACTOR.

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### NOTICE TO ADVERTISERS

Changes of advertisement copy should reach the Head Office by 10 a. m. Monday preceding the date of publication, except the first issue of the month for which changes of copy should be received at least two weeks prior to publication date.

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Copy and cuts for changes of advertisements must be in our hands by the Monday preceding date of issue. If proofs are to be submitted, changes should be in our hands at least ten days before date of issue. When advertisers fail to comply with these conditions, the publishers cannot guarantee that the changes will be made.

### VOLUME XVII.

With this issue we commence a new volume. In last week's issue appeared a complete index of the first twenty-six issues of this year. It will be found to cover the engineering problems that have to be faced in Canada and when bound with Volume XVI. will be a great aid in reference work.

The size of the journal has been so increased that semi-annual volumes are necessary. The support the journal is receiving from subscribers and advertisers is so generous that we can promise more interesting articles, fuller market reports, and a more complete news service than formerly.

### FREIGHT TRAIN LOADS.

The record for hauling large freight trains was made by a Pennsylvania railroad last month, when it drew 4,451 tons of coal 124 miles in 7 hours and 15 minutes. The train consisted of an engine and tender, weighing 241,000 pounds; 85 steel gondola cars and a caboose, the total weight being 6,151 tons, and the length of train was 3,000 feet, or almost three-fifths of a mile.

Previous to this the company had made other tests over the same line. The results were as follows:—

No.	No. of cars.	Total weight of train, tons.	Time.	
			Hrs.	Min.
1	75 steel	5,307	10	21
2	75 "	5,348	8	2
3	75 "	5,348	10	12
4	85 mixed	4,852	12	30
5	86 "	4,922	9	42
6	87 "	4,623	10	21

These runs were made over a section on which grades were reduced to 0.2 per cent. compensated for curvature.

The figures give some idea of the volume of freight a modern railway can handle, and bring the railway and canal in closer competition.

### A NEW ROAD COVERING.

From Minnesota comes information of a new method of road-making. In certain sections of the State the highway soil was very sandy, and to make passable roads the highway engineer employed clover and sawdust.

Along the roadside and on the shoulders of the road clover and rye were sown. This grew and prevented the blowing of the sand. Then at intervals the clover and rye were cut and thrown on the travelled part of the road allowance. Sometimes sawdust was added, and as the material rotted and worked up with the sand the highway became firmer, and it could be graded like a loam road.

On another strip four inches of sawdust was spread, and this, too, made a good road.