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CONTENTS OF THIS NUMBER:

| Page, | | PAGE. | |
|------------------------------------|----|--|----------|
| Air, The Navigation of the | 9 | Iron and Steel Industry as shown at the Stockholm Exposition, The | |
| Ingenieurs Mecaniciens | 19 | Swedish | 10 |
| Boiler Explosion at Orillia | 21 | Kinoch, James, Chief Engineer, | |
| " Mumford's Improved | 9 | Canadian General Electric Co | 12 |
| Canadian Association of Stationary | | Lathe Owners, Interesting to | 26 |
| Engineers | 19 | | 26 |
| Canadian Electrical Association | 20 | | 12 |
| Cement, Manufacture and Use of | | Mining Matters | 25 |
| Sand | 17 | | • |
| Cement, The Constitution of Hy- | | Ontario Land Surveyors | 15 28 |
| draulic | 14 | | |
| Distilled Water | | Plumbing Appliances, Ventilation of | 4 |
| Electric Flashes | 23 | Plant for the War Eagle Mines | 20 |
| Engine, The Steam | 12 | Prospector's Outfit | 18 |
| Estimates, The Dominion | 19 | Railway Engineering | I |
| Fires of the Month | 28 | | 27 |
| Fires and Fireproof Construction | 30 | | 12 |
| Foundations | 5 | Road Materials and Construction | 6 |
| Friction | 7 | Settlement, Co-operative | 18 |
| Grate Bars, Robertson's Shaking | | Steamship Monarch, Repairs to | 18 |
| and Dumping | | | 14 |
| Horse Power, To Estimate | 14 | Water Wheels, Impulse | 28 |
| House Boat, An Ottawa River | 20 | Wheel, The E. & D | 20 |

FOR THE CANADIAN ENGINEER.

RAILWAY ENGINEERING.

BY CECIL B. SMITH, MA. E., MEM. CAN. SOC. C.E., ASSISTANT PROF. OF CIVIL ENGINEERING IN M'GILL UNIVERSITY.

CHAPTER VI.

(Continued from last issue.)

RAILWAY LAW.

Railroads being recognized as public necessities have had great powers conferred on them by legislatures, which have also necessitated many legal restrictions to prevent the abuse of these powers. All of which in Canada has in time become formulated in the "Railway Act." This Act defines, amongst other things necessary for a railway engineer to be familiar with: -

- I. The powers conferred on the Railway Committee of the Privy Council for negotiating traffic, tolls, returns, methods of operation, of construction, capital stock, and distribution of gross revenue obtained.
- II. The privileges and powers granted to railway companies.
- III. The duties of a railway company to the Government and to the Privy Council.
- IV. The duties of the railway company to the individual, and the rights of the private individual.

Much of the matter contained is rarely-needed by the engineer, and the following extracts cover the main information which he is likely to need in the course of construction and maintenance.

This series of papers will be issued in book form as soon as they have appeared in THE CAMADIAN ENGINEER.

- I. Powers Conferred on the Railway Committee.
- (a) To regulate the speed through various classes of cities, towns and villages-which is not to exceed six miles per hour in any case.
- (b) To regulate the use of steam whistles in towns, cities, etc.
- (c) To regulate the means for passing from one car to another, for the safety of employees, and the methods of coupling cars.
 - (d) To impose fines for offences under these clauses.
- (e) To enquire into, hear and determine applications, disputes or complaints regarding right of way and location questions, constructing branch lines, the crossing of one railway company's tracks by those of another railway company, the construction of railways along or across highways or navigable waters, tolls, rates, running powers, traffic arrangements, unjust preferences, discontinuations, distortions and the carrying of highways, streets, ditches, sewers, etc., over or across the lands of a railway company.
- (f) By itself or agents, it has full legal power to enter on to property of a railway company to examine books, plans, etc., to summon witnesses and in general it is to have the same powers as a law court.
- (g) The inspecting engineers of the Privy Council are to have every desired information, in reason, supplied to them on demand. They are to be carried free while on inspection trips, and to have the services of all company telegraph operators free while on Government businesspenalties for obstructions of the inspecting engineers are also defined.

II .- THE PRIVILEGES AND POWERS OF A RAILWAY COMPANY.

These are given with the view of assisting the company in overcoming obstructive measures, of a corporation or individual, where it is evident that the public would be best served by the construction and operation of a railway.

These powers should be thoroughly considered by a company's engineer before taking any steps likely to incur the ill-will of the public, to whom the company mu.t ultimately look for its income.

- (a) The company or its agent may enter on crown lands or the lands of any person or corporation whatever for the purpose of survey and location.
- (b) It may purchase land for the use of the railway, and may sell what it does not need.
- (c) It may build anywhere within one mile of the first located filed line, or within any further distance prescribed by the special Act.

(In the Act a railway is said to be near to another when some part of one is within one mile of some part of the other railway.)

- (d) It may fell trees within 99 feet of either side of the railway, when they are liable to fall across the track. . .
- (e) It may cross or join any other railway, and enter on its lands.
- (f) It may divert temporarily or permanently streams, highways, water or gas pipes, sewers, drains or telegraph or telephone poles, but must restore them to their former