

the efficiency of the various parts—as to wear and tear—of the two classes of engines.

From a study of the figures in each class the conclusion is arrived at, because of the increase in per cent. of breaks, that the design and workmanship on valves and valve gear is not as efficient as formerly.

The causes of breakdowns are also of some interest. To accidents and causes unascertained, 35 per cent.; old defects, 20; bad design, workmanship or material, 18, and negligence of owners or attendants, 27.

A GREAT COMPANY'S ANNUAL REPORT.

Elsewhere we give in some detail figures from the annual report of a \$459,318,424.41 company.

The Canadian Pacific Railway, with 10,543 miles of track, 1,478 locomotives, 53,000 cars and 25 lake and 38 ocean steam vessels, is first among the great transportation companies of the world, and it still grows. During the past year 403 miles were added to the system, and at the present time miles and miles of new road are under construction.

In the West, besides the building of branch lines, the C.P.R. acquired through the Minneapolis, St. Paul and Sault Ste. Marie Railway the Wisconsin Central Railway, and in the east the Orford Mountain Railway Company, a fifty-eight mile road in Quebec.

One noticeable figure in the report is the passenger income per mile. For carrying 9,784,450 passengers they received \$20,153,000, or 1.88 per mile, or less than the two cents per mile that some are so anxious should be the legal fare in Canada.

This railway, run on commercial lines, serving the community so cheaply and well, has been, and will be, one of the great forces that have done so much to develop our country; and we should not forget that it took men with vision and courage to launch such an undertaking, nor that the capital invested represents a legitimate business venture, now successful, but not always so.

It was well for Canada and the credit of the country that the directors had at their disposal at the end of the year fifteen million dollars.

EDITORIAL NOTES.

Time is not the only thing the builders of the Hydro-Electric Power Commission's line have to fight. The other day was developed an amusing phase of the work, when a conflict ensued between several farmers of Lincoln county and some members of a construction gang. According to newspaper despatches, the spoils of victory fell to the lot of the agriculturists, whose sense of fair play, however, cannot be admired. Pitchforks and shovels were their weapons of defence, or rather attack, and several of the workmen, who sustained injuries, will probably enter suits for damages. They had no desire to meet such indiscreet action.

* * * *

Owen Sound stands unique amongst Ontario towns in that it has discarded all street names and adopted numbers. Nearly sixty years ago Owen Sound was incorporated as a village, and each new street opened has added to the confusion of similar names and indefiniteness of location. By their new system all thoroughfares running north and south become avenues and number from the Sydenham River. The streets run east and west. The house numbering will be by the block system. Owen Sound council are to be congratulated for the enterprise they have shown in adopting this sensible method of street naming and house numbering. Strangers and visitors will appreciate the good points of the scheme, and Owen Sound will find she has set a good example.

DOMINION STEEL CO. AUGUST OUTPUT.

In spite of the fact that it has been somewhat handicapped by the coal supply, the Dominion Steel Company's output in August showed a big gain, while for the past three months, as will be seen by the following figures, the output is away ahead of the corresponding months in 1908:—

	Tons, 1909.	Tons, 1908.
Pig iron	68,237	62,197
Ingots	80,520	67,916
Blooms	71,404	63,243
Rails	46,854	42,415
Rods	19,276	10,856
Sulphate	625	714

The shipments for the three months were 72,022 tons, against 71,745 tons last year.

CANADIAN MINING INSTITUTE.

Meeting of Western Branch at Nelson This Month — Members will Visit Spokane.

The sixth general meeting of the members of the western branch of the Canadian Mining Institute will be opened in Nelson, B.C., on Saturday morning, September 25th, when routine business will be transacted and several papers read and discussed.

The council of the branch having approved of the acceptance of an invitation received from the reception committee to adjourn to Spokane and there join in welcoming the American Institute of Mining Engineers to the northwest, there will be at the close of the session in Nelson an adjournment to Spokane, where a joint session of the two institutes will be held, at which several papers relative to the "Coal Resources of South-eastern British Columbia and Alberta" will be read and discussed.

NEW LOCOMOTIVES.

C. T. R. Orders 25 from The Canadian Locomotive Co. of Kingston.

A few days ago the Grand Trunk Railway placed an order with The Canadian Locomotive Company, Limited, of Kingston, Ontario, for twenty-five locomotives of the Mogul type. Through the courtesy of that firm we are able to publish the following particulars:—

ENGINE.

Gauge	4' 8½"
Type of Engine	Mogul
Fuel used	Bituminous Coal
Wheel Base of Engine, Rigid	14' 0"
Wheel Base of Engine Total	22' 7"
Wheel Base of Engine and Tender	50' 3"
Height over all, Engine and Tender	14' 8"
Heating Surface, Fire Box	160.2 sq. ft.
Heating Surface, Tubes	1551.5 sq. ft.
Heating Surface, Total	1711.7 sq. ft.
Diameter of Driving Wheels	63"
Material of Driving Wheels Centres	Cast Steel
Diameter and Length of Driving Journals	9" x 10"
Diameter of Cylinders	19"
Stroke of Cylinders	26"
Type of Boiler	Extended Wagon Top, Radial Stayed
Working Pressure of Boiler	180 lbs.
Number of Tubes	266
Diameter of Tubes	2"
Length of Tubes	10-10"
Injectors	No. 9 Handcock
Safety Valves	World
Brakes	Westinghouse American E. T.
Kind of Packing	U. S. Metallic