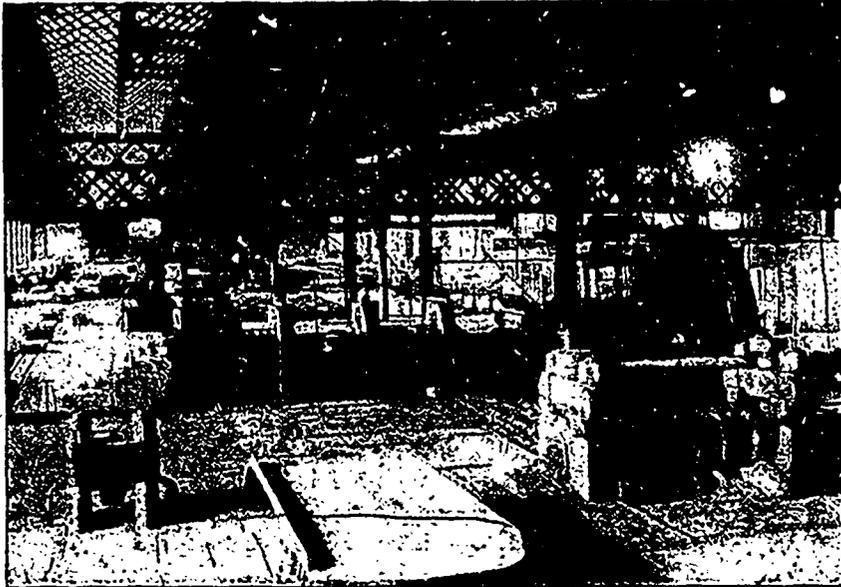


BRITISH RAILWAY ENTERPRISE.

(Correspondence of THE CANADIAN ENGINEER.)

My letter under this head last month made some general comparisons between the railway systems of Great Britain and the United States, and showed that in the great essentials of safety of passengers, speed and economical administration, as well as profits to investors, the railways of Great Britain take the lead.



RAIL MILL, CREWE WORKS.

This, my concluding letter, will give some more concrete facts concerning the magnitude of the operations of a great British railway. In doing this I have singled out the London and North-Western Railway, not only because it is the largest railway corporation in the world, but because it is one of the best administered, and withal most popular with Canadian and American visitors to England. I gave incidentally some figures showing the splendid equipment of this road, and the admirable training of its officers and men, as shown in their ability to handle such enormous crowds of passengers and quantities of freight as they are called upon at times to transport. Figures are not always dry, and certainly the figures with which one is required to deal in describing the work of a great corporation like this, are eloquent in themselves. The capital of the London and North-Western Railway is a little over \$600,000,000, the magnitude of which will be realized when I mention that the total capital invested in all the industries of Canada of whatever kind is, according to the census of 1891, \$354,620,750. The report of the company for the half year ending June, 1896, shows that the following passengers were carried: First class, 981,785; second class, 1,461,405; third class, 33,416,013; season tickets, 41,815, or at the rate of nearly 72,000,000 per year, and so far as I know not a single passenger's life was lost. This total more than equals the population of the United States, Canada and Newfoundland combined. In one week last year (that before the Bank holiday) the passenger traffic receipts were \$1,560,000.

And yet the total mileage of the London and North-Western, including leased lines, is only 1,912. The return of rolling stock at the meeting referred to showed 2,335 engines; 1,778 tenders, 4,369 passenger cars or "coaches" of various classes, and 65,850 cars for various classes of freight. This is exclusive of "duplicate working stock," among which are 445 engines. The company also own 4,078 horses—enough to make a strong cavalry force for an army, while its human

employees, numbering 60,000, would certainly make a respectable army. The bill for coal and coke for the locomotive department for the past year was \$1,975,000, and for "oil, tallow and other stores," for the same branch, \$131,740. It requires \$12,500 a day to keep the road in proper repair, the approach roads, bridges, signals and like items costing \$700,000, and \$500,000 a year goes in painting and repairing, besides \$150,000 in rebuilding. Over \$360,000 a year is spent for new ballasting alone. Every foot of the line is inspected every day, and every signal cabin along the whole system receives inspection each fortnight. In the signal department there are eleven inspectors with 500 foremen, "chargemen," and arti-

sans, and the rodding they deal with would extend from Land's End to John O'Groats, and the wires would more than stretch across the Atlantic from Liverpool to New York. There are 18,000 signals and 1,500 signal cabins, there being nine complete cabins turned out each week at the works at Crewe, to replace worn out ones, some of them having twenty-four arms.

To keep the rolling stock of the London and North-Western in repair costs about \$1,500,000. A third class passenger car costs in England about \$3,000, and a first class composite one about \$4,000, and each vehicle gets sixteen coats of paint before it is finished.



ERECTING SHOP, CREWE WORKS.

So much of the work of car building is done by machinery that the item of labor only costs \$100 per car. The car works are at Wolverton, and employ 3,500 men; the goods trucks, or open freight cars, are built at Earlestown, near Liverpool, and employ 2,000