

resulted in the discarding of the older system. An electric system 7 miles in length was opened at St. Catharines in 1887, using the double overhead trolley. This was followed by the completion of the Ottawa Electric Railway in 1891, and the electrification of the Montreal and Toronto systems in 1892. The street railways of other eastern cities were generally electrified during the 1890's, while in the newer western cities electricity was used from the commencement. In the cities of Eastern Canada electric street railways are generally operated by private companies under city franchises, while in a considerable number of cities in Ontario and the West the street railways are owned and operated by the municipalities, a fact indicated in Table 23. In 1921, on the expiry of the 30-year franchise of the Toronto Street Railway Co., the railway in this second largest city of Canada was taken over by the city and is now being operated by a transportation commission.

Many difficulties are met in operating the cars during the winter season, owing to snow. This, however, has been overcome by the use of sweepers, scrapers and ploughs. The single overhead trolley system has been found the most suitable and is in general use and during the past few years an increasing number of motor buses have been used; in 1924 only 48 were operated, but by 1929 the number had increased to 484.

In addition to the street railways there is quite a large mileage of electric suburban or interurban lines, especially in the Toronto, Niagara and Lake Erie district, where considerable freight traffic is carried, and on the Pacific coast, where the British Columbia Electric Railway operates several hundred freight cars.

Development of Electric Railway Traffic.—Figures for the year 1893 show that 30 companies, with a paid-up capital of about \$9,000,000, operated 256 miles of railway. By 1897, 35 companies made returns showing 583 miles of track, 1,156 cars, 26,431,017 miles run, 83,811,306 passengers carried and capital of \$18,727,355. In 1904, 44 companies showed 766 miles of track, 2,373 passenger cars, 42,066,124 car miles run, 181,689,998 passengers and capital of \$50,399,188. The statistics for 1929 show that during that year 57 companies with a capital of \$222,422,815, had 2,202 miles computed as single track, 4,183 passenger cars, 484 buses, 572 freight cars and 75 electric locomotives, 139,199,634 car miles run, and 836,729,851 fare passengers. The number of employees in the service of electric railways on Dec. 31, 1929 was 18,801, as compared with 18,697 in 1928. Total salaries and wages for the year 1929 were \$26,984,061, as against \$26,494,063 in 1928.

Statistics of Electric Railways.—Summary statistics of the operation of electric railways in Canada from 1901 to 1929 inclusive are given by years in Table 25. It may be noted in this table that the carriage of freight reached its maximum in 1928, with 3,892,114 tons, while the number of fare passengers carried in 1929 reached a new record of 836,729,851. This improvement was practically all in the large cities, the smaller systems showing decreases. In Table 26 statistics of mileage and equipment are given for the latest four calendar years, and annual statistics of the capital liability of electric railways are furnished from 1908 in Table 27. Detailed figures of the mileage operated, the capital liability, the earnings, operating expenses, employees, and salaries and wages, are given for 1929 in Table 28, while Table 29 shows by years from 1919 to 1929 the number of passengers, employees and others killed and injured on electric railways in Canada.