## 19.—Number of Persons Killed and Injured on Steam Railways, year ended June 30, 1919, and for the calendar years 1919 and 1920—concluded.

(B) IN ACCIDENTS OTHER THAN THOSE RESULTING FROM MOVEMENT OF TRAINS, LOCOMOTIVES OR CARS.

| Description of Persons.   | June 30.            |  | December 31.                            |  |                      |  |
|---|---------------------|--|---|--|----------------------|--|
|   | 1919.               |  | 1919.                                   |  | 1920.                |  |
| Stationmen. Shopmen. Trainmen and Trackmen. Othersengers. Others. | Killed. 3 8 6 6 2 2 | Injured.<br>428<br>1,449<br>970<br>725<br>11<br>22 | Killed.<br>2<br>6<br>10<br>17<br>1<br>5 | Injured.<br>671<br>1,733<br>1,234<br>807<br>20<br>40 | Killed.  5 6 11 1 10 | Injured.<br>710<br>1,950<br>1,355<br>1,191<br>25<br>47 |
| Total   | 27                  | 3,605  | 41                                      | 4,505  | 33                   | 5,278  |

## ELECTRIC RAILWAYS.

The cheap and reasonably rapid conveyance of human beings is a necessity of the modern urban life which falls to the lot of an annually increasing percentage of the population of Canada. This necessity of life is supplied throughout Canada by the electric street railway, generally operated by the development of the water powers which

are so important a feature of Canadian economic life.

Historical.—Replacing the horse-car systems, used in Montreal and Toronto as early as 1861, electric street railways were first seen in operation in Canada in 1885, when a successful experimental railway was constructed and operated at the Toronto Exhibition Grounds. Before many years, their safety and convenience 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 nineties, while in the newer western cities electricity was used from the commencement. In the cities of the East, electric street railways are generally operated by private companies under franchises from the city, while in a considerable number of cities in Ontario and the West the street railways are owned and operated by the city, a fact which is indicated for 1920 in Table 23 by the word "municipal" in the name of the railway. In 1921, on the expiry of the 30 year franchise of the Toronto Street railway, the line in this second largest city of Canada was taken over by the city and is now being operated by a transportation commission.

Where possible, water-power with turbine engines is used for generating purposes. Where this is not available, steam power is necessary and although a more expensive method, modern devices have greatly reduced the cost per h.p. Many difficulties are met in operating the cars during the winter season, due to snow, ice and sleet. These, however, have been overcome by the use of sweepers, scrapers and plows. The single overhead trolley system has been found the most suitable and is in general use.

Great advances have been made during recent years in the construction and use of suburban or inter-urban lines, their mileage