

Causes.	Employees.		Passengers.		Others.		Total.	
	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.
Falling off trains.....	2	18	5	318	..	..	2	89
Jumping off trains.....	..	..	..	..	..	2	5	320
Struck by engine or cars.	1	..	3	42	8	117	12	159
Head out of window.....	..	..	..	3	..	..	..	3
Coupling cars.....	..	6	..	..	..	..	..	6
Collisions.....	2	24	1	34	..	26	3	84
Walking on track.....	..	1	..	18	13	57	13	76
Other causes.....	2	13	1	18	1	10	4	41
Total, 1903.....	7	62	10	504	22	212	39	778
" 1902.....	2	30	8	413	22	120	32	563

In the Statistical Office we began to obtain returns in 1898. The following is the return for that year:

Number companies sending returns.	35
Total number miles of track. ....	635
Number of cars .....	1,379
" trailers.....	392
" snow-sweepers, ploughs .....	69
" miles run.....	28,547,908
" passengers carried.....	94,616,344
" employees.....	4,004
Total amount capital paid up.....	\$18,309,876
Bonded debt.....	10,454,452

I think that there was some misunderstanding about the miles of track. Otherwise the return for 1898 appears to me to be fairly correct. In 1900 the return gave 688 miles. In 1901 we asked for the miles of track, single and double, in order to eliminate the apparent confusion, and obtained as the result answers which aggregated 555½ miles. The latest return gives a total of 647.29 miles, showing an increase of 92 miles since the new century came in.

#### TELEPHONES.

The summer of 1904 is the 30th anniversary of the invention of the telephone. In 1874 Mr. Graham Bell, then on a visit to his parents, who lived in Brantford, made some laboratory experiments which proved that speech could be transmitted by wire. Two years later, August, 1876, the first transmission of speech over a telegraph wire took place in Brantford. In 1877 the telephone went into commercial use, this city of Hamilton being the first to establish it. From that beginning the use of the telephone has been constantly on the increase. The first returns the Statistical Office secured showed that in 1893 Canada's equipment was 44,000 miles of wire; 33,500 instruments, by means of which 72,500,000 messages were sent in the year. In the ten years since the number of instruments has increased to 81,500 and of messages to 253,970,000, an increase of 144 per cent. in instruments and of 250 per cent. in number of messages—instruments 1½ times more; messages 2½ times more.

Taking the population of the last census there is in Canada one telephone instrument to every 65 persons.

By provinces:

Ontario, one telephone to every..	59.7 persons.
Quebec, " " " "	63.8 " "
Nova Scotia, " " " "	99.4 " "
New Brunswick, " " " "	85.3 " "
P.E. Island, " " " "	215.0 " "
Manitoba, " " " "	51.5 " "
N.W. Territories, " " " "	251.3 " "
British Columbia, " " " "	33.4 " "

According to our list there were on the first of this year 56 companies in Canada, divided by provinces as follows:

Twenty in Quebec, eleven in Ontario, seven in New Brunswick, six in Nova Scotia, one in P.E. Island, two in Mani-

toba, three in the North-West Territories, one of these being in the Yukon, and six in British Columbia—the Bell Telephone Co. being counted three times, one in Quebec, one in Ontario, and one in Manitoba. Actually there are fifty-three, and we obtained this year returns from all but seven.

Some of them are, I believe, under the control of the Bell Telephone Co., and their returns are included in that company's returns.

(Just here I may note with satisfaction that all responded to our request with promptitude, and showed sympathy with our efforts to procure the statistics published in the Year Book of Canada.)

Our neighbors to the south in 1900 showed a per capita of one telephone in 40, while in some places, such as San Francisco, it had reached one in twelve (U. S. Census Bulletin). The latest statistics indicate a per capita of one in 38. This rate of progress is exceeded by Denmark, in which country, according to Mr. F. Dagger in the Canadian Engineer, the per capita is one in every 14. Canada

	Manufacture of Electrical Appliances, Electric Supplies.		Electric Light.	
	1891.	1901.	1891.	1901.
*Establishments.....	No. 13.	25	23	58
Capital.....	\$1,520,000	\$5,207,397	\$3,185,257	\$11,891,025
Hands.....	No. 408	1,922	630	899
Wages.....	\$158,500	\$846,618	\$237,348	\$451,047
Output.....	801,752	3,032,252	845,134	2,008,017.

\*Establishments having five hands and over.

has not used the telephone to the same extent, but we appear to be making great strides forward, and British Columbia has come within measurable distance of the greatest of telephone-using peoples, the people of Stockholm, in which city there is one telephone in every eight persons.

The Dominion began to construct telephone lines with a commercial end in view, in 1877, as already stated. As far as our somewhat incomplete statistics show, 14 telephone companies now in operation began distributing "hellos" in the decade 1880-1889; 14 in 1890-1899 and 13 in the present decade. Of the remainder we have no record.

The usefulness of the telephone in business in rural communities is well illustrated by the practice in the great fruit growing valley of Nova Scotia. The steamer at Halifax has loaded up with all she purposes carrying of other articles. She is to sail on Saturday afternoon for Liverpool. Her agents telephone to Kentville and Wolfville on Thursday that there is space left for say 2,000 barrels of apples. Kentville and Wolfville telephone to the sub-agents of the London (Eng.) fruit dealers, "How many barrels can you send to Halifax?" These sub-agents jump into their gigs and in an hour have arranged with the orchardists as to

the number of barrels to be delivered on Friday evening at each station along the railway. Then they telephone the result to head stations. Cars are provided in accordance. The fruit is shipped to Halifax Friday night, put on board the steamer the next morning and off goes the steamer, the fruit having been exposed to high temperature hardly at all, the orchardists having had ample time to get their barrels repacked, the railway full opportunity to supply the necessary cars and the steamer being able to take on board the freight without exposing it to the influence of adverse conditions of weather on the wharf.

The number of telephone messages per annum for different countries is:

France.....	187,002,352
Germany.....	766,226,337
Great Britain and Ireland.....	723,246,368
Austria-Hungary.....	147,543,138
Denmark.....	59,210,855
Belgium.....	38,753,367
Switzerland.....	20,670,391
Netherlands.....	31,460,979
Norway.....	1,723,347
United States.....	3,002,000,000

#### ELECTRIC LIGHT, HEAT AND POWER COMPANIES IN CANADA.

The equipment of these with which Canada has provided herself is of comparatively recent date.

There is no mention made of electricity in the census records of 1881.

In the census of 1891 the following information is given, 1901 being given for comparison:

	Manufacture of Electrical Appliances, Electric Supplies.		Electric Light.	
	1891.	1901.	1891.	1901.
*Establishments.....	No. 13.	25	23	58
Capital.....	\$1,520,000	\$5,207,397	\$3,185,257	\$11,891,025
Hands.....	No. 408	1,922	630	899
Wages.....	\$158,500	\$846,618	\$237,348	\$451,047
Output.....	801,752	3,032,252	845,134	2,008,017.

In addition the census of 1891 gave as follows:

ELECTRICAL APPLIANCES AND SUPPLIES.	
(Establishments having under 5 employees).	
Establishments.....	No. 10
Capital.....	\$43,813
Hands.....	No. 17
Wages.....	\$14,615
Output.....	63,100

In the census of 1901 no provision was made for the collection of statistics of establishments having under five hands, so that for purposes of comparison we must take the development which has occurred in establishments having more than five hands.

These show an increase in the ten years as follows:

ESTABLISHMENTS.	
(Electrical Appliances and Supplies).	
	Per cent.
Capital.....	—increase in ten years—246
Hands employed.....	346
Wages paid.....	434
Output.....	278

The statistics of electric light, heat and power plants having five hands have been given before. In addition to these there were in 1891, 57 establishments having fewer than five hands, with a capital of \$928,514; employees 133, receiving in wages \$60,336 and having an output of \$309,015 of finished products.