

as unfortunate that through misunderstandings this society should have to face such difficulties as it luring the past few months. The re-elected officers undoubtedly put forth every effort to at once organize chapters in many sections of America. The building up of the headquarters of the organization will be helpful to the outlying districts.

#### POPULATION IN CANADIAN CITIES ACCORDING TO AREA.

The question of density of population has not had very much influence on problems in Canada. In the past we have pretty much length and breadth to consider, density of population only becoming an important factor recently.

The following table was compiled with a view of indicating the density of population in Canadian towns and cities. Figures given vary from our largest city to some of our smaller towns. Studying the table, one will notice a unity in density of certain populations, but it will also be seen that this varies with locality. The list could have been easily enlarged, but we felt that the cities given here are representative centres.

Province or City.	Population.	Area in acres.	Population per acre.	Total Assessment in \$.	Assessment per acre in \$.
Ottawa, Ont. ....	387,000	11,410	33.9	206,562,158	18,103.6
Toronto, Ont. ....	118,300	13,990	8.4	116,101,390	8,298.8
Vancouver, B.C. ....	100,000	7,140	14.0	106,454,265	14,909.5
Calgary, Ont. ....	67,000	3,990	16.7	37,169,767	9,315.7
Edmonton, B.C. ....	45,000	4,637	9.7	28,326,120	6,108.7
Winnipeg, Alta. ....	35,000	7,680	4.5	30,880,000	4,020.8
Regina, Ont. ....	23,000	9,000	2.5	25,584,000	2,842.6
St. John's, Ont. ....	16,500	2,808	5.8	8,552,105	3,045.6
Montreal, Ont. ....	14,000	3,200	4.4	6,067,740	1,896.1
Quebec, Ont. ....	13,000	3,000	4.4	5,898,443	1,966.1
Halifax, Ont. ....	12,300	2,400	5.1	6,338,454	2,641.0
St. Catharines, Man. ....	11,300	5,760	1.9	8,088,929	1,404.3
London, Ont. ....	9,200	1,477	6.2	4,424,782	2,995.7
Windsor, Ont. ....	9,200	1,242	7.5	3,753,700	3,023.9
St. Louis, Ont. ....	6,800	2,550	2.6	3,175,012	1,245.1
St. Paul, Ont. ....	6,300	680	9.3	2,213,939	3,255.7
St. John's, Ont. ....	4,632	5,760	4.6	1,961,842	1,961.8
St. Louis, Ont. ....	4,100	567	7.2	1,424,408	2,512.1
St. Paul, Ont. ....	4,000	800	5.0	2,140,800	2,676.0
St. John's, Ont. ....	4,000	2,560	1.5	1,095,973	428.1
St. Paul, Ont. ....	4,000	2,206	3.3	1,376,735	1,141.5
St. John's, Ont. ....	3,819	1,300	2.9	1,590,065	1,223.1
St. Paul, Ont. ....	3,325	805	4.1	1,187,163	1,474.6
St. John's, Ont. ....	3,200	1,215	2.6	1,272,115	1,047.0
St. Paul, Ont. ....	2,300	1,414	1.6	765,959	541.6
St. John's, Man. ....	2,100	4,000	.525	970,200	242.5

#### ELEMENTARY ELECTRICAL ENGINEERING.

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This series of articles will be continued for some months. They will be of particular interest to the student of electrical work and the civil engineer anxious to secure some knowledge of the simpler electrical problems.

**Batteries.**—An electric battery may be defined as a combination of substances between which there is a difference of potential due to their chemical affinity. For example, if a piece of zinc is immersed in a vessel of sulphuric acid, the acid tends to combine with the zinc and form zinc sulphate. This chemical affinity between the acid and zinc gives rise to an e.m.f. at the junction separating the two. This e.m.f. is a measure