Remember that the Canadian Electrical Association will meet at the Royal Muskoka Hotel, Muskoka Lakes, July 6th, 7th and 8th. In addition to a splendid programme of technical papers, arrangements have been made for an enjoyable outing.

CANADIAN GAS ASSOCIATION.

Last week we gave a summary of the proceedings of the gas convention. This week we give in detail some of the most interesting papers as well, as the report of the Committee on the Illuminating Power and Calorific Value of Gases made in Canada.

The officers elected for the year 1910-11 are as follows: E. J. Philip, 1st Vice-Pres.; A. W. Moore, 2nd Vice-Pres.; J. Keillor, Sec.-Treas. Executive Committee, J. E. Leishman, J. H. M. Young, R. A. Wallace, Chas. Forbes, P. S. Coate.

REPORT OF ARTHUR HEWITT AND JOHN KEIL-LOR, THE COMMITTEE ON THE ILLUMI-NATING POWER AND CALORIFIC VALUE OF GASES MADE IN CANADA.

Your committee appointed to collect data as to the candle power and calorific value of coal and water gas supplied by gas companies and corporations throughout Canada, beg to report as follows:—

We recall that at the convention held last year in Montreal, the paper and discussion on the "candle power of gas" brought out the following facts and suggestions:—

"That there had been no change in the Dominion Government statutes, regulating the testing of gas and the candle power that is to be supplied, for 24 years."

"That during those 24 years the methods of using gas had so totally changed that there was no longer any necessity for gas companies in Canada supplying to consumers the quality of gas prescribed by the Gas Inspection Act, 1886."

"That in other countries, notably Great Britain and Germany, the regulations governing the testing of gas have been revised to suit the new methods of using gas and the candle power reduced."

"That in other countries more modern and efficient burners for testing the candle power of the gas had been adopted—notably the No. 2 Metropolitan burner and the old standard Argand burner discarded."

"That in view of the fact that about 90 per cent. of the total gas made in Canada was now being sold for purposes other than flat or open flame lighting, it was suggested that tests be made in Canada of from 12 to 20 candles for the special purpose of ascertaining the respective candle power and heating values of the gases lower than 16 candles: the idea being to obtain information which would guide the association in recommending a reduction to a lower grade candle power gas which would still contain sufficient heating units for the all-round requirements of the consumers."

Following the lines indicated your committee decided to make these tests in Toronto, where coal gas and water gas is made, and a blend of the two distributed to the consumers. The tests to be made as follows:--

(1) for candle power using the Sugg. 16 candle standard and the P. Pentane lamp. Calorific value to be measured by the Junker calorimeter.

(2) for candle power using the new No. 2 Metropolitan burner and the Pentane lamp. Calorific value to be measured by the Junker calorimeter.

It was also decided by your committee that the Association should be in possession of statistics covering the entire gas production of Canada, for the purpose of ascertaining first-hand the total quantity of gas made, the candle power of same, and the proportions sold for heat and fuel, mantel lighting, etc.

Accordingly, a circular letter was mailed to every gas company in the Dominion who make coal gas, water gas, or a mixture of the two, requesting that they supply information the committee desired on the form enclosed for the purpose. Returns were received from every company making coal or water gas with the exception of two.

The following is

A.—A tabulated statistical report of the gas made in the year 1909 in cities and towns in Canada.

B. C. D.—Tabulated returns of the tests for candle powers, and corresponding calorific values

Tabulated statistical statement of the gas made in the year 1909 in cities and towns in Canada, showing the proportions used for (1) heat and fuel (2) mantel lighting (3) open flame lighting—and the candle power, compiled from the returns sent in by the gas companies themselves:—

		Proportions used for.			
			(2)	(3)	
	Coomed	(1)	Mantel	Open Flame	Candle
	Gas made,	Heat & Fuel,	Lighting,	Lighting	Domes
	Barrie Cubic Ft.	Cubic Ft.	Cubic Ft.	Cubic Et	rower
	Baileville 12,000,000	6,000,000	5,400,000	600 000	supplied.
	Berlin 20,200,000	10,200,000	7,500,000	000,000	18
	Colgory 35,000,000	26,250,000	6.750.000	2,500,000	19.36
	Calgary 27,000,000	20,250,000	6,750,000	2,000,000	16.7
	Cupoling 7,400,000	4,400,000	I,500,000	· · · · · · · · · · · · · · · · · · ·	16.0
	Gueiph 44,000,000	26,400,000	13.200.000	1,500,000	18.1
	fiamiiton 101,000,000	53,500,000	38,000,000	4,400,000	17.5
	Ingersoll 12,000,000	6,000,000	4.800,000	9,500,000	16.0
	Kingston 40,000,000	20,000,000	20,000,000	1,200,000	16.0
	Listowel 3,000,000	300,000	2,250,000		20.0
1	London 192,000,000	115,200,000	67,200,000	450,000	19.0
1	Montreal1,459,000,000	875,000,000	510,600,000	9,000,000	17.5
ł	Napanee 5,000,000	2,500,000	2,500,000	73,000,000	17.46
T	Nelson 7,100	5,000,000	2,500,000		20.0
ŀ	Owen Sound 18,000,000	10,800,000	2,100,000		18.0
ł	Oshawa 4,000,000	2,000,000	3,000,000	3,000,000	16.0
ł	Ottawa 126,500,000	113,850,000	1,640,000	100,000	17.0
L	Peterboro 17,000,000	16,150,000	12,050,000	•••••	16.5 .
L	Quebec 120,000,000	72,000,000	050,000		18.0
l	Stormont 4,000,000	1,600,000	45,000,000	2,400,000	18.0
	St. Catharines . 18.650,000	12 100 000	2,000,000	400,000	18.0
	St. John 36,200,000	1.800.000	5,550,000		18.0
	St. Thomas 56,200,000	22 500,000	30,800,000	3,600,000	17.0
	St. Hyacinthe 5.000.000	22,500,000	22,500,000	11,200,000	17.3
	Toronto	4,000,000	800,000	200,000	18.0
	Vancouver 122 000 000	1,113,200,000	007,800,000	445,200,000	10.0
	Winnipeg	95,900,000	27,100,000		16.0
	Woodstock 20,000,000	104,000,000	49,300,000	12,300,000	17.0
		15,000,000	14,400,000	600,000	16.75
	4,995,050,000	2,837,300,000	1,573,340,000	584,410,000	

Percentage of Cubic Ft. total gas made.

 (1) heat and fuel (2) mantel lighting (3) open flame lighting 	2,837,300,000 1,573,340,000 584,410,000	57 32 11
	4,995,050,000 1	00

From the tabulated statement "A" it will be observed that out of the total gas made in Canada 57 per cent. is used for heat and fuel, 32 per cent. for mantel lighting, 11 per cent. for open flame lighting. We desire especially to draw your attention to the small percentage used for open or flat flame lighting, 11 per cent., as compared with the large proportion used for heat and fuel and mantel lighting combined, 89 per cent.

Compare these with proportions used for the same purposes in 1886 when the existing testing regulations were enacted.

Gas used for heat and fuel Gas used for lighting by mantel	In 1886 pproximately. 15%	In 1910 Actual. 57 %
burners	nil	32%
Gas used for lighting by luminous or flat flame burners	90%	11%