

GAS VERSUS ELECTRICITY

Question of Belleville's Gas Problem Aably Discussed by Mr. Geo. W. Allen, of Toronto, Secretary-Treasurer of the Canadian Gas Association.

ELECTRIC HEATING IMPRACTICAL

Mr. Allen Claims That Gas is Coming Into Its Own—Electricity is Not a Substitute For Heating—Electrical Possibilities of Ontario Not Unlimited.

Editor Ontario.— I am greatly interested in an editorial entitled, The Gas Department, which you published in May 31st issue of The Weekly Ontario. In the ordinary course of events I might have passed over this editorial, but, having had considerable experience in the electrical field, and several years in the Gas business, could not let the matter go by without saying something that may be of interest to yourself and, to your readers in connection with the gas and electrical situation as it is in Canada today.

In order to properly answer this editorial I should take it paragraph by paragraph if I am to answer it in the manner it should be done.

The Grouches Paragraph No. 1 of your article brings out a point worthy of mention and that is in connection with "Isolated Grouches" that oftentimes exist between one corporation and another, or between the people of the city and its departments, or between the public and public utilities in general. I know of many instances where large corporations have been assailed for doing things which, on investigation, have proven to be without any foundation whatever. A few years ago, there were a number of complaints brought against the Gas Company of Toronto, stating that the company, although reducing the price of gas, were still making out the bills as aforesaid, and in consequence were not losing anything by the reduction in the price. A number of complaints came in that the pressure was being unduly raised; others, that their meters would operate whether gas was passing through or not; and others that the quality of the gas was far from being up to the standard. So great became the agitation that something had to be done, and following a deal of newspaper publicity, especially that of one newspaper which began publishing the complaints, consequently stimulating the activity and the agitation; resulted in the City Council taking up the matter and approaching the Government for relief through its Inland Revenue Department, finally succeeding in having the Government appoint an Inland Revenue Investigation Committee to receive the complaints of the citizens and try to do something to solve the problem.

Complaints Often Groundless The Inland Revenue officials came to Toronto, and gave publicity to the matter in the papers advising the people to bring their complaints to them at the city hall where the Department would look into each individual case. Strange to say, that notwithstanding the publicity, and in face of the fact that over 67,000 people were being supplied with gas, complaints came in from less than 130, under 2-tenths of 1 per cent., and this, as I said before, after the matter had been the subject of considerable press comment.

It cannot be truthfully said that such a percentage represented anything approaching a general complaint. On analysis of these complaints only 15 complaints, or 12% of the 130 were due to the company's own unintentional errors. Over 51% complaints were those where the increase of gas consumption was really small, not over 5%, or where the bill was clearly explainable by consumers conditions such as, amount of work done, increased equipment, etc.

This is only one instance among many that I could quote, where companies and corporations have been the target for many complaints that have no foundation in fact. As your editorial says, "It is only when such individual complaints become numerous that they indicate something is wrong in the system."

Mr. Gardner A Capable Man Paragraph No. 3 of your article, From this I note your remarks regarding Mr. Gardner, the manager of the plant, and I quite agree with you that he is an extremely conscientious and hard working servant of your city. He understands the technical side of his duties thoroughly and a change in management at this or at any time would not, in my way of thinking, be in the public interest, and I am sure you would be injuring yourselves by such a movement, and doing as well, a gross injustice to a tried and faithful employee in your city service.

"Resolved that the City Gas Plant Should be Abolished."

Paragraph No. 4. I notice you say that the special committee should not disband without looking thoroughly into the working of the gas plant; and in paragraph No. 5, you bring up the question for debate, "Resolved that the city gas plant should be abolished."

In paragraph No. 6 you say that you are not prepared to debate that question, either affirmatively or negatively at the present time, but that you present some facts and considerations that might afford the committee a basis for some minute investigation. It is here that I would specially like to draw your attention to something that you yourself, no doubt, have not even thought of, and which is quite contrary to your views that gas is a back number and that electricity will sooner or later supplant it.

Gas Just Coming Into its Own.

That gas is only lately coming into its own goes without saying with those who know the situation, and a few extracts from reports of eminent authorities, may be of interest to you at this time, in this connection. That gas, for illuminating purposes has not as promising a future as electricity, I grant you, but still there are thousands and hundreds of thousands of homes throughout the country that will be a long time throwing out gas, because of the fact that there is not yet, and will not be for some time, sufficient electric power to supply the many local requirements. Electricity for baking, ironing and other purposes is no longer an experiment, but would be an admitted success as far as doing the work is concerned if it were not for the fact that the use of electricity for such purposes is nothing short of a national crime when the same electricity used as motive power would do 25, 50 and in some cases 100% more useful work.

Electricity Falls as Heating Agent

Many people are looking forward to the days when electricity will supplant the use of coal and gas and other fuels in the heating of their homes and in doing many other heating operations, but, using the words of Mr. Arthur V. White, Consulting Engineer, Commission of Conservation, that the sooner "The public mind is disabused of the idea that, as a heating agent, electric energy could be made an adequate substitute for coal for the citizens of Canada, the better it will be for it." He states that its economical use is in the direction of the development of power.

An editorial published in the April issue of "Industrial Canada, on electric heating, states that, "It will doubtless come as a surprise to many that in the opinion of so able an engineer as Mr. Arthur V. White of the Conservation Commission, the application of electric energy in the production of heat is a very much exaggerated possibility. We have, for some time, had a sort of pleasing feeling that sooner or later means would be devised for the economic utilization of the electric current in heat-

ing houses."

Not a Substitute for Coal

"The fear that the coal supply would be exhausted within a certain number of years was offset by the belief that long before that time we would have become quite independent of coal. Mr. White, of course, doesn't say that eventually means will not be found to produce a suitable substitute for coal. The point is that we cannot rely on our water powers to do the trick. They will be adequate for power purposes but not for heating purposes and until some other source of electrical energy is discovered we must do our best with the present arrangements."

At the first general meeting of the Canadian Society of Civil Engineers, held in Toronto on March 22nd, 1918 it was quite evident from a digest of the papers read and the discussions that took place between the engineers representing every branch of the fuel industry that electricity was doing the country a great service whenever it was utilized for power purposes, but when used as a heating agent was doing the country a national injustice.

Gas Has a Great Future.

We do not believe there has been a meeting held anywhere within recent years that could give gas men more encouragement as to the future of their industry, than that same meeting of the Canadian Society of Civil Engineers, held in Toronto on the afore-mentioned date. This meeting was promulgated for the express purpose of analysing the present fuel and power situation and if possible to arrive at a satisfactory solution of the problem. That gas will play a very important part in the future of this and other countries was clearly shown in and through a careful analysis of these many papers and discussions.

Electricity Will Never Solve Fuel Problem

It was pointed out by a number of the electrical engineers present that the people of the country need not depend upon electrical energy ever being a solution of the heating problem. It was manifestly shown that electrical energy was primarily intended for power purposes and to use it as a source of heat was robbing the country of energy which would do double or triple more duty if used as motive power. It was shown that all the available water power of the country could not supply the maximum demand that would be created for electricity, for heating purposes even in a few large towns, aside from the great amount of energy that would be required for power purposes on railways and in the industries of our land, not to say anything of the lighting loads.

Canada Has Great Fuel Resources

Mr. V. H. Hannel, Chief of the Fuel Division of Mines, Ottawa, Can., was one of the first engineers to open the meeting and his paper on "The Fuels of Canada" was an interesting one. The Fuel outlook was neither discouraging nor gloomy if proper exploitation and economy were assured. The situation was difficult because Canada drew 55% of her coal from the United States and also 91% of her oil products. Canada would therefore be hard pressed if there was a curtailment of this supply. Mr. Hannel pointed out that the central provinces of Canada had 12,000 sq. miles of peat bogs and 16 million tons of peat fuel. Owning to the great water content of peat, something like five times its own weight of water, the drying process was an expensive operation. But one of the efficient means of utilizing peat was brought out in the discussions when it was stated that it could be used in gas plants for the production of gas, or else used in powdered form as a boiler fuel. Other engineers pointed out that almost all the bituminous coal mined or brought into this country could be more efficiently used if turned into gas and the coke released for the purpose that could most efficiently use it, and the gas released for general house heating, and other purposes at a low rate. It may be a surprise to you to know that many electric irons are using double and triple the amount of electricity that would be required to do more efficient work as a prime mover. It would take almost 1,500 H.P. of electrical energy to supply power for irons if one iron was used in each home in Belleville alone, let alone the power that would be required if electric ranges and other electric household utilities were in general use.

Power Possibilities Exaggerated

An eminent electrical engineer speaking at the recent meeting held in Toronto, stated that the power possibilities of Niagara Falls were very greatly exaggerated and that there would not be sufficient power at the Falls to supply anything near the requirements for heating purposes of a city the size of Toronto alone. Engineers all over the country have seriously considered the part that gas will play in the future activities of our country, and to even consider the possibilities of doing away with the present gas plant is nothing short of foolishness.

Improve the Gas Plant

If the people of Belleville and other towns, who are considering the doing away with their gas plants would get together and put their gas plants in first class condition they would not only be able to make the gas cheaper, but would be also able to distribute it in a manner that would make it much more efficient than it is at the present time. One has only to review the gas situation of a city like Toronto to see what great possibilities there are ahead of this great industry. At the beginning of the hydro electric development work, the Consumers' Gas Company of Toronto, although at that time having been 61 years in business, established a new business department for the education of its consumers in the proper use of gas, teaching them how to use it more efficiently and thus get the greatest good out of it for the amount of money expended. At that time, nine years ago, the Gas Company of Toronto had 55,000 consumers of gas; in nine years, notwithstanding the extreme competition from the electrical men, the company has now reached the point where there are about 110,000 consumers on its books; more consumers than the city itself has water customers, and the output of gas itself has increased from an average output of around five million cubic feet of gas daily, to nearly fifteen million cubic feet average daily, and on some days during the past winter, owing to a shortage of coal, the company helped out the situation by supplying additional gas for the purpose, reaching an output of over seventeen million cubic feet of gas per day.

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Electricity not Cheaper than Gas For Cooking

In paragraph No. 8 your remarks regarding electricity for cooking, etc. are noted. Many of our domestic science teachers and professors admit there remains to be made many improvements to electric ranges before they will supplant gas. Isolated cases can be found where the difference in electricity for cheapness may be found, but they are few and far between. The great mass of people in the first place cannot possibly, in the ordinary course of events purchase the appliances, owing to the high cost of electrical equipment, even though they would like to.

I do not think there are over 500 electric ranges in the city of Toronto while there are over 50,000 gas ranges and 25,000 gas water heaters in use. Over 30,000 of these gas ranges were purchased within the last few years, notwithstanding the possibility of being able to obtain the cheapest electrical energy in the world.

The Case of the Type-Setting Machines

The fact that you are using electricity for heating metal for the type-setting machines is in itself a pity, because, I am sure if the thing was general the country would be robbed of useful energy that could otherwise be used to much greater advantage for power purposes. The past winter has shown us that it does not take much to make a shortage in the power. Store windows cannot be lighted by it and hundreds of factories are unable to obtain it, and I might say that one of the biggest problems before the people who want to use electricity throughout the hundreds of towns now connected with the electric lines, is where are they to get the power required. The fuel situation is a very serious one and, as the Power controller says in connection with the use of electricity that "it is primarily intended for power purposes, only and should not be used for heating."

Gas Solves the Fuel Problem

Hundreds and thousands of industries in the city of Toronto are using gas for many purposes and the campaign of education has proven that the use of gas is an economical solution of our fuel problem. Almost all coals should be utilized in some form or other in the manufacture of gas and the proper solution of the heating and fuel problems of our country within the next few years will be in this direction if the country is to be saved from very serious fuel famines. The writer's own opinion regarding the solution of the fuel problem for the future is in this direction and believes that wood fuel should only be used by the people in closest proximity to the source of supply and that no coal should be allowed to be shipped to centres where there is an abundant wood supply. Coal brought into the country and mined in the country should be turned over to gas manufacturing, of coke oven plants when the gas content would be released and sold in centres that could not conveniently get a wood or coal supply. It could also be distributed in as large an area as possible for domestic, industrial and other heating purposes at a low price while the coke would be used in centres not conveniently situated to the coal or wood supply, and also utilized in metallurgical, foundry and smelter operations, and if necessary for the generation of steam power. Peat, as I said before, could best be utilized as a gas producing substance and the gas sold for heating purposes.

Up-to-Date Gas Plant a Valuable Asset

The city of Belleville and a good many other gas cities would do well to spend considerable money on their gas plants, for I am sure, that the result would more than offset the expenditure involved. It would be a surprise to many of the smaller gas towns if they suddenly had the gas shut off and were forced to purchase coal or electricity to make up the loss. A gas plant, in proper hands, and kept in an up-to-date condition becomes an asset that no city or town would ever think of doing without. The gas plants mentioned by you at Cobourg and Napanee cannot expect to ever be worth anything as long as those controlling the situation in these towns, (as in these instances, the Electrical Department) are allowed to manage the affair. For it stands to reason that if these business men have nothing but electricity before their vision they cannot see any good in the gas plant, but I venture to say that these gas plants in the hands of independent and go-ahead men would very soon need to be enlarged to take care of the demand for the gas that would be created. The same thing applies to Belleville. Your good manager, however, is handicapped by the run-

down state of the gas plant through no fault of his, but from what is I understand, lack of funds to put the plant and system into an up-to-date condition, that would in time rebound to the great good of Belleville.

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In paragraph No. 8 your remarks regarding electricity for cooking, etc. are noted. Many of our domestic science teachers and professors admit there remains to be made many improvements to electric ranges before they will supplant gas. Isolated cases can be found where the difference in electricity for cheapness may be found, but they are few and far between. The great mass of people in the first place cannot possibly, in the ordinary course of events purchase the appliances, owing to the high cost of electrical equipment, even though they would like to.

Yours very truly, George W. Allen, Secretary-Treasurer Canadian Gas Association

Editor's Note.—We desire to thank Mr. Allen for his very valuable letter and the fund of information he has given us on the local and general situation in regard to gas. His letter should be carefully perused by every citizen.

We will make no extended comments on the letter at present, any further than to state that The Ontario has no companions of conscience in regard to the substitution of electricity for gas in heating the metal used in our linotype machines. By careful calculation we have ascertained that we are actually saving more than \$500 a year by the lower cost of electricity and the increased efficiency of the linotype operators, who have now a steadier and more dependable heating agent. There is no shortage in the Trent Valley, as Mr. Allen seems to fear at Toronto. We are not cheating anybody out of light or power by the change. There are still tens of thousands of horse-power undeveloped along the Trent and its tributary streams, while the Mohr River has no electrical development whatever.

Electricity for the heating of homes, as we believe, entirely out of the question with present appliances. The cost would be several hundred per cent. greater than with coal at the prevailing war prices. But it would be idle for any of us, expert or otherwise, to predict what

the future may have in store in regard to electrical heating. It is a process still in its infancy. Invention may or not solve the problem of cheap and efficient domestic heating by electricity as it has cheap and efficient lighting and power production. We are very optimistic that the fortunate discovery will be eventually made.

Electricity for the concentrated work of cooking, ironing and similar domestic services is another matter. A small unit of electricity as of gas, is brought to bear on a limited surface. A comparison of the costs of gas and electricity for these little services, that we have made from a somewhat extended examination, seems to favor electricity by a surprisingly high percentage, using costs at Belleville as the basis.

Now that the debate has been opened we will be glad to hear from others, either pro or con.

Y.M.C.A. Notes

This month has been a very busy one around the "Y" in that we have given every boy in the public schools who could not swim the opportunity to learn. Our aim was to teach every boy to swim and we have been very successful in teaching quite a number to use the different strokes, which will be a great benefit to them if an accident should ever happen to them in the water. This week will end the free-swims. Total number of boys handed for the month and a half, 522.

Y.M.C.A. Hike

About forty boys took the opportunity of going on a treasure hunt last Saturday, and all reported a good time. The nature of the hunt was for a box of candies hidden the night before and ever so far a note was hid telling where to find the next note until the last note was found, telling somewhere near where the candies were to be found. This proved to be a very exciting time for the boys as some of them were right near the box several times and every boy was on his toes until the candies were found, after which the boys returned to the Y, where they enjoyed a half hour's swim. The lucky boy to find the candies was Richard Sinfield.

Y.M.C.A. Baseball

Last Saturday a number of the boys met and organized a playground baseball league and Wednesday afternoon was the opening of the West Side, the East Side playing their game in the evening. In the afternoon the Beavers, clashed with the Eagles and a good many interesting plays were pulled off. This game is somewhat new to the boys but will do a great deal to develop some first-class players. Batteries for the Beavers were Symons and Ashley; for the Eagles, Lathford and Walters. Lineup:

Table with 3 columns: Name, Position, Opponent. Includes Beavers (Clark, C. Doolittle, W. Harden, J. Day, M. Symons, H. Moxan, F. Symons, G. Ashley, C. Brant) and Eagles (Eagles, L. Stork, E. Edwards, J. Nevery, H. McKnight, D. Weeks, M. Latchford, Walters, A. Weeks).

Score: Beavers 23; Eagles 9.

The second game was played between the Maple Leafs and the Giants and proved very interesting for the boys. While the score would make it seem as if the game was all one-sided, it was not that way. Every boy played hard and no doubt after a little more experience in this game they will be pulling off some fast games. The result of this game ended in a win for the Maple Leafs, 15 to 4. Lineup:

Table with 3 columns: Name, Position, Opponent. Includes Maple Leafs (A. Buck, A. Andrews, J. Riggs, Hardwick, H. Joss, J. Munroe, F. Keller, J. Reeves, B. Brown, spare) and Giants (Giants, R. Sinfield, J. Woodley, J. Weeks, E. Hews, J. Harris, W. Day, A. Weir, D. Turney).

In the evening game which was played by the Canucks vs. Tigers, the result was a win for the Canucks. This was a very close game, the score standing at full time 30 to 17. Lineup: Carucks 1B, Tigers.

Table with 3 columns: Name, Position, Opponent. Includes H. Hurley, H. Read, P. Wims, J. Jefferys, C. Casemen, C. Ketcheson, J. Marshall, A. Bongard, S. Curry and N. Wilber, spare.

Schedule of Games

East Side— June 19—Canucks vs. Tigers, June 26—Tigers vs. Canucks, July 3—Canucks vs. Tigers, July 16—Tigers vs. Canucks.

West Side— June 19—Beavers vs. Eagles, June 19—Maple Leafs vs. Giants, June 26—Eagles vs. Maple Leafs, June 26—Giants vs. Beavers, July 3—Maple Leafs vs. Beavers, July 3—Giants vs. Eagles, July 16—Eagles vs. Beavers, July 16—Giants vs. Maple Leafs, July 23—Maple Leafs vs. Eagles, July 23—Beavers vs. Giants, July 30—Beavers vs. Maple Leafs, July 30—Eagles vs. Giants.

Table with 3 columns: Name, Position, Opponent. Includes McAlpine, F. Boyer, C. Kerr, McPherson, K. Emerson, W. Scott, F. Joss, H. Mitchell.

Schedule of Games

East Side— June 19—Canucks vs. Tigers, June 26—Tigers vs. Canucks, July 3—Canucks vs. Tigers, July 16—Tigers vs. Canucks.

West Side— June 19—Beavers vs. Eagles, June 19—Maple Leafs vs. Giants, June 26—Eagles vs. Maple Leafs, June 26—Giants vs. Beavers, July 3—Maple Leafs vs. Beavers, July 3—Giants vs. Eagles, July 16—Eagles vs. Beavers, July 16—Giants vs. Maple Leafs, July 23—Maple Leafs vs. Eagles, July 23—Beavers vs. Giants, July 30—Beavers vs. Maple Leafs, July 30—Eagles vs. Giants.

100,000 lbs. Xmas Pudding

Hamilton, June 21.—The Canadian Red Cross Society has placed the Hamilton fruit kitchen and staff at the disposal of the Canadian War Contingent Association for the manufacture of one hundred thousand pounds of Christmas pudding to be forwarded to the Canadian soldiers overseas. The pudding will be put up in five-pound tins and for every fifty dollars, sixty puddings will be delivered in London, England, bearing the name of the society or individual, making the contribution.

A WASTE OF LABOR

A Philadelphia girl who inherited a million dollars, and whose affairs are under control of a judge, recently exhibited to him her budget for the year, as follows:

Table with 2 columns: Item, Amount. Includes Clothing, manieuring, shampooing, hairdressing (\$3000), Household bills (4000), Education, church contributions (2000), Entertainment, dinners, dances, hotels (2000), Physicians, opticians, dentists (1000), Upkeep of automobiles, insurance, clubs (5000), Bonds, etc. (850), Social duties at school and elsewhere (3000), Total (\$20,850).

A nation which is being urged to cut down its allowance of beef, pork and wheat will probably read these items with some irritation. The harm is not measured merely by the amount of money expended. It consists mainly in the misdirection and waste of energy through employment that serves no useful purpose. The people who are making useless articles of luxury for this chaff, or dancing attendance upon her, ought to be producing food, clothing and other necessities for the mass of the people and for the Allies and their armies.

CONCERNING TITLES

With a relatively few exceptions, titles are not so unpopular in Canada as some of the political folk would have us believe. Titles neither make nor unmake the man. Titles were granted for indifferent or no service; defeat themselves. They stamp the holder as merely a political wire-puller and a snob.—London Free Press.

Miss Blanche Fagan, of Holloway is visiting Mrs. Caldwell, Charles St.

Mrs. Wm. Robertson left on the flyer for her home in Chicago today.

Miss Mildred Fagan has gone to Erie, Pa., where she intends to spend her holidays.

Adj. N. R. Trickey who is in charge of the S. A. Work here has with his family moved to 270 Ann street.

Mrs. A. Sills left on the flyer for Vancouver, B.C., where she will remain with her daughter for some time.

Mrs. R. Waddell and Miss Mary Waddell 168 James street left yesterday on a short visit to friends in Kingston.

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