

Extravagant Use of Water in American and Canadian Cities

Europeans More Economical—Metered Supply Restrains Waste, yet is Cheaper to Householder

The average American or Canadian citizen is wantonly wasteful in the use of water. Statistics of water consumption show a great difference between the amount consumed by cities in Europe and in America. The average daily consumption in seventeen large cities in England, Germany and France is about 37 gallons per capita, the highest being about 66 gallons, at Glasgow, and the lowest about 20 gallons, at Nuremberg. The per capita consumption in the average American or Canadian city is nearly four times as great. In New York city the daily consumption is about 130 gallons per capita; in Chicago, Philadelphia and Pittsburgh, it is close to 200 gallons. The excess of the per capita consumption of water in America over Europe can be traced almost directly to the personal habits and financial status of the two peoples. Although water for toilet use should not be stinted in amount, and although there is no disposition among the advocates of water economy to discourage habits of cleanliness, it is a fact, established beyond all disproof, that the present consumption is largely in excess of the amount necessary to secure the desired end. Consequently the use of water meters on house service has become very common, not, it should be emphasized, to reduce the necessary consumption, but to impart to the householder the habit of giving thought to needless waste.

European countries seem to be taking the lead in so reducing the price of electrical energy as to make it a serious competitor of coal and gas in the domestic cooking and heating field. Up to the present, the champions of electricity, in enumerating its advantages for cooking and heating, could only bring forward arguments as to its greater convenience, such as safety from fire, cleanliness, absence of odour and ashes.

Cooking and Heating by Electricity

England and Sweden Take Lead in Reducing Price of Current—Comparison of Cost with Coal and Gas

In several towns of England and Sweden, electricity can now be obtained at as low a rate as 1c. per kilowatt-hour and, at this rate, it is more economical than coal or gas.

In the English cities of Bradford, Sunderland and Southampton, the rate is 1c. per kilowatt-hour plus a small fixed charge. In Southampton, since the reduction to this new rate, the number of electric heaters in use has increased from 20 to 1,000.

In Sweden, the town of Boras, with a population of 21,000, is considering very low rates on domestic electricity. There are to be three tariffs, a rate of 1c. to 1½c. per kilowatt-hour for cooking, of 1½c. to 2c. per kw. hr. for heating, and a higher rate for lighting.

Canada is also following the good example and low rates are now enjoyed in many municipalities supplied with electrical energy through the Ontario Hydro-Electric Power Commission. Among these, probably the lowest is Fort William, Ont., where a special rate of 1½c. per kilowatt-hour is offered for cooking purposes.

In connection with this subject the following table is of interest. It shows at a glance at what price electricity should be sold for heating purposes, to be on an equal cost footing with gas or coal. The figures given are based on average conditions met in practice, that is, coal is taken as having an efficiency of 10 per cent, gas an efficiency of 20 per cent, and electricity an efficiency of 80 per cent.

COMPARISON BETWEEN GAS AND ELECTRICITY.

Price of gas per 1,000 cubic feet	Corresponding price per kw. hr. for electricity
\$0.50	1 cent
.60	1½ cents
.70	1¾ cents
.80	1½ cents
.90	2 cents
1.00	2½ cents
1.25	3 cents

British Columbia Dairy Inspection

Compilation of Milk Records—Protest against Importation of Nontested Cattle

A new policy has been introduced into the dairy industry of British Columbia by the Provincial Minister of Agriculture. The value of permanent milk records has long been recognized by the Provincial and Dominion Governments as an actual asset to the farmer and a benefit to the dairy industry, and after months of careful investigation of the procedure followed in the principal dairy countries of the world, a plan has been evolved by the department that, it is believed, will increase the value of these animals.

A competent inspector, trained in the science of cow-testing, and with a complete outfit for his operations, will be allotted to every district in the Province pasturing at least 400 cows within certain limits, the cost of his employment being borne partly by the cow-testing associations of this district and partly by the Provincial Government. This work will be supervised by the dairy instructor, and will involve the bonusing of the associations by a sum amounting to \$250 to \$500 per year.

The Chilliwack dairy district has been chosen as the first experimental base for this new work, and two inspectors have already been assigned to this field. The 63 dairymen in this area own approximately 1,200 milk cows, and the night and morning milk of every cow will be weighed and tested at least once every month, the records so obtained being subsequently tabulated so as to ascertain the annual yield of each cow.

Dairymen of British Columbia are vigorously protesting against the action of the Government in allowing milk from herds of cattle that have not been put through the tuberculin test to be brought into the Province, while they are compelled to have all their animals tested. At the last meeting of the Lower Mainland Milk and Cream Shippers' Association the suggestion was made that they would be fully justified in resisting further tests, and it was resolved to bring the question to the immediate attention of the authorities.—U. S. Daily Consular and Trade Reports, Nov. 26, 1913.

COMPARISON BETWEEN COAL AND ELECTRICITY.

Price of coal per ton	Corresponding price per kw. hr. for electricity
\$4.00	1 cent
5.00	1½ cent
6.00	1¾ cent
7.00	2 cent
8.00	2½ cent

—L.G.D.

AVERAGE PER CAPITA CONSUMPTION OF WATER IN REPRESENTATIVE CANADIAN AND AMERICAN CITIES

Region	Number of cities	Daily consumption in gals. per capita
Canada	9	108
New England	49	86
Middle Atlantic states	44	137
South Atlantic states	15	90
Ohio valley	55	88
Upper Mississippi valley	53	73
Lower Mississippi and Gulf region	6	53
Rocky Mountain region	5	283
Pacific coast	5	204
Total	241	100*

*Weighted average.

Two objections are urged by those who oppose the introduction of water meters.

(1) Many claims relative to their alleged disease-breeding qualities have been made, but all have been shown to be absolutely unfounded.

(2) The most common and the most sincere objection advanced by uninformed persons is that, with metered services, the charge for water results in diminished personal cleanliness, which might contribute indirectly to disease. There is no evidence that such an effect was ever produced and a moment's consideration will show that such an occurrence is most unlikely. The difference between personal cleanliness and personal uncleanness is represented by such a small amount of water that it is negligible.

Many opponents of meters who base their objections on the ground of cost to the poor man are in ignorance of the fact that the minimum rate under the metered system is so low that the poor man

actually effects a saving, and, furthermore, the amount usable for the minimum rate is ample for ordinary use—but not for wasteful use.

The city of Milwaukee, Wis., has a population of 374,000. Last year 2 per cent of the population paid less than 50 cents; 11 per cent paid between 50 cents and \$1.00; 26 per cent paid between \$1.00 and \$2.00, and 18 per cent paid between \$2.00 and \$3.00. In other words, 58 per cent of the people in Milwaukee paid less than \$3.00 for their water and 70 per cent paid less than \$4.00; while the 100 largest consumers paid nearly half the entire revenue of the water department for 1912.

Does that look like discrimination against the poor man?

In what city in Canada can the poor man get his domestic water supply for less than \$1.00?—Abstracted, in part, from *Water-Supply Paper No. 315, United States Geological Survey.*

Save the wood ashes and keep them in a dry place. They are a splendid fertilizer.

Siam exports about nine million dollars' worth of teak a year.