

# The Canadian Engineer

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## CO-OPERATIVE METER READING

NEARLY every city residence contains two meters and many contain three meters, each of which is read every month by a different man. "It is perfectly feasible for one man to read all the meters in a house," suggests Engineering-Contracting, of Chicago, "and with almost as great expedition as the reading of only one meter. Moreover, it would be feasible to send all three bills—for water, gas and electricity—in one envelope."

The only difficulty in the way of executing such a program of economy arises from the fact that ordinarily these three utilities are supplied by different companies or by different departments of a city. But this difficulty is not so great as to inhibit the application of such a commonsense plan of reducing the expenses of meter reading and billing.

Certainly it lies within the power of public service commissions to require water, gas and electric companies to perform work jointly, and to prorate the joint expense. This is already done in a number of cities where telephone and electric light companies occupy the same poles and conduits with their wires. Probably every city could bring about a joint reading of water, gas and electric meters merely by passing an ordinance compelling co-operative action by public utility companies and city departments.

"We believe it to be a conservative estimate that \$5,000,000 can be annually saved in the United States by the joint reading of meters and joint mailing of bills. Capitalized at 5 per cent., this is \$100,000,000, which may be called the commercial saving that may be effected by

this co-operative plan," says our contemporary. In these days when every bit of waste should be speedily eliminated, this is a capital suggestion, and could well receive earnest consideration by Canadian public officials as well as those in the United States.

## AMERICA'S ENERGY SUPPLY

THAT the economical utilization of America's energy supply requires the generation of electric power wherever hydraulic or fuel energy is available, is the claim made by Dr. C. P. Steinmetz, chief consulting engineer of the General Electric Co., Schenectady, in his article on "America's Energy Supply."

"The power should be collected electrically just as we distribute it electrically," says Dr. Steinmetz. He makes a brief survey of the United States energy supply in fuel and water power and says that the total potential hydraulic energy of that country is about equal to the total utilized fuel energy.

He states that the modern synchronous station is necessary for large hydraulic powers, but that the solution of the problem of economic development of the far more numerous water powers is the adoption of the induction generator, because of its simplicity of control. In his discussion at the meeting of the American Institute of Electrical Engineers, Dr. Steinmetz referred to the problem of recovering some of the fuel power now wasted, and he suggested that simple steam turbine induction generators be interposed between the boilers and the steam heating systems, collecting the power electrically. "The power that could be thus recovered," stated Dr. Steinmetz, "is an appreciable part of the total available power in the fuel."

## MONEY FOR HOUSING

FUNDS up to a total of \$2,000,000 are offered to municipalities by the government of the Province of Ontario for the purpose of providing housing facilities. The province offers to lend money to any Ontario municipality at 5 per cent. to meet one-quarter of the expenditure, the municipality itself being required to furnish the other three-quarters. Money at 5 per cent. looks attractive at the present time, as this is much below the current rate, even for provincial borrowings.

This proposal recalls transactions of a similar nature in Ontario which took place over fifty years ago under the authority of the Municipal Loan Fund Acts of 1853 and 1859. The act of the former year authorized the government of the then province of Canada to loan money to municipalities for public works and other improvements at 5 per cent. The province could at that time borrow at less than a 5 per cent. basis, and the difference was intended to pay the cost of administration. The purpose of the act was to provide a greater supply of money and at cheaper rates than the municipalities could secure upon their individual credit. There was no limit placed upon the total to be provided under the act. Accordingly, the act of 1859, which extended the privilege to Lower Canada, limited the total to £1,500,000 each, or over \$14,000,000 altogether. In 1867, just fourteen years after the original act was passed, the municipalities of Upper Canada had borrowed from the province a total of \$7,400,000, or almost their limit, while Lower Canada had secured \$2,428,140. What is more