

The accompanying statistics in general represent the situation at the end of 1917, the figures having been gathered at various times during the past year. A similar census has been taken in the United States covering the same period, but the results are not yet available. While it may be misleading to compare Canada's 1917 statistics with the 1912 (the last available) statistics in the United States, yet it is interesting to note that at that time in that country, only

TABLE 10—SALARIES AND WAGES PER ANNUM IN CENTRAL STATIONS

	No. of Employees	SALARIES AND WAGES	
		Total	Per H.P. Installed
Alberta	438	\$ 458,423	\$ 6.08
British Columbia	453	496,081	2.13
Manitoba	405	433,262	6.44
New Brunswick	215	155,164	8.75
Nova Scotia	288	227,874	13.07
Ontario	4,147	4,063,060	5.18
Prince Edward Island	23	17,402	14.19
Quebec	2,476	1,514,186	2.50
Saskatchewan	363	348,952	10.98
Yukon	39	63,311	6.17
Canada	*8,847	†\$7,777,715	\$4.22

*Of whom 3,712 are employed in municipal stations.

†Of which \$3,487,210 is paid by municipal stations.

30 per cent. of the power used by central stations was developed from water, whereas in 1917 in Canada, about 90 per cent. of the central station power was hydro-electric. The installed hydro-electric power per thousand of population was 24.7 h.p. in 1912 in the United States, compared with 198.0 h.p. in 1917 in Canada.

AUTO CATCH-BASIN CLEANING TRUCK*

By LEWIS M. HASTINGS
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FOR the purpose of cleaning out and removing the material from its street catch-basins, the city of Cambridge, Mass., has constructed an auto catch-basin cleaning machine which has now been in service for over six months.

The city first purchased a 3½-ton auto truck, equipped with a special steel body of 3 cu. yds. capacity and a wood auto dump hoist for dumping the load by power obtained from the truck engine. This power hoist has been found of very great service in the saving of time and labor in dumping heavy loads.

The excavating and loading of the material from the basins is done by means of an orange-peel excavating bucket, 18 ins. in diameter and about 16 ins. deep, holding about 1½ cu. ft. of material. This bucket is opened and shut by a piston and cylinder attached to the head of the bucket, and operated by compressed air at a pressure of about 100 lbs. per sq. in.

Compressed air is obtained by an Ingersoll-Rand air compressor located at the left side of the chassis frame. Power to drive the compressor is obtained from the main engine shaft or propeller by a sprocket and chain drive to the shaft of the compressor. The compressed air is led to the bucket by two lines of ¾-in. armored rubber hose. Underneath the platform on which the operator stands in a sliding valve or controller with which the two hose lines are connected and by which the air is put into one hose line to open, and into the other hose line to close, the bucket, by pressing down or releasing the valve with the foot.

The two hose lines are passed over pulleys on the crane and move back and forth with the hoisting chain as the

*Excerpt from paper presented to the Boston Society of Civil Engineers.

on streets and highways naturally has not yet reached the proportions anywhere in Canada that it has in some parts of the United States, but the time will soon come when Canadian authorities will have to make more stringent rules and will have to pay more attention to training the public in their observance.

One of the most needed innovations is legislation placing the full risk upon the pedestrian for any accident that may occur as a result of his or her crossing a street or highway at any point excepting a recognized crossing, or as a result of taking a diagonal route across a street intersection instead of following the traffic both ways.

LET THERE BE LIGHT!

SIR HERBERT HOLT, president of the Montreal Light, Heat and Power Co., has challenged Sir Adam Beck to wager \$10,000, the loser to send his cheque to any hospital named by independent parties. Sir Adam says that the prices of power in Montreal are much higher than in Toronto, and submits data to prove his case. Sir Herbert says that his company sells the cheapest power in the country, taking taxes into account. Hence the challenge to Sir Adam to put up his money. Sir Herbert suggests that the wager he referred to a board of electrical engineers to be appointed by the Engineering Institute of Canada. As one of our daily contemporaries suggests, this dispute should generate light but not heat.

CENTRAL STATION STATISTICS

VALUABLE work has been performed by the Dominion Water Power Branch and the Bureau of Statistics in compiling such thorough information about the central electric stations in Canada. The four motives for the compilation of the data were as follows:—

First, a stock-taking of Canada's present central station facilities and provisions for expansion.

Second, an analysis of the statistical data collected, for the purpose of noting the characteristics and trend of the industry.

Third, the preparation of a complete directory of the central station industry, covering concisely and systematically the principal features of the commercial and publicly owned stations in operation throughout the Dominion.

Fourth, the preparation for those interested of information regarding the locations where blocks of electrical energy are for sale, the prices at which this power is obtainable and the transportation facilities available in the vicinity.

START PUBLIC WORKS!

SECRETARY WILSON, of the United States Department of Labor, says: "Whenever it is possible to utilize public means, wherever it is possible to undertake public work that is valuable for peace-time purposes, it should be undertaken as promptly as possible. It may not be needed, but it ought to be provided so that it can be utilized if it is needed."

"Personally, I am opposed to the creation of work solely for the purpose of giving employment to somebody. I look upon that as being so much waste; wasted intelligence, wasted energy, and wasted material. But the same argument cannot be made against employing labor for useful purposes. And this should always be borne in mind: That if you have millions of men out of employment and by virtue of their being out of employment, unable to supply food and clothing and shelter for their families, they are going to insist upon the opportunity of earning a livelihood."

"I am not one of those who take the ground that a country or a government owes every man a living. But all government, all organized society, is man-created, and, consequently, more or less artificial because of the restrictions that must of necessity be imposed for the purpose of enabling