

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

City Engineer, Cambridge, Mass.

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.