basins trapped; 1 gravity outfall into Old Man River; disposal works to be constructed.

Wetaskiwin.—Pop., 3,500; water supply, m.o. Source, 3 wells each 250 ft. deep; pumped by compressed air to underground concrete reservoir, thence to elevated water tower with 227,000 gal. capacity. Supply ample. Water mains, 6.25 miles; 268 house services; 300 houses without services; 65 stop valves and 51 hydrants. Daily consumption, 100,000 gal.

Sewerage system, combined plan; 6.4 miles of city sewers and 3.5 of outfall sewers; ventilated at man holes and tops of house service stacks; 267 house services and 17 catch basin connections; 1 gravity outfall 3½ miles from city. Daily discharge, 120,000 gal.; treated in sedimentation tanks and effluent disinfected.

Municipal gas supply, natural, 975 B.t.u.

Red Deer.—Pop., 2,500; water supply, m.o. Source, Red Deer River by pumping; 1 intake, an 18-inch gravity flow pipe to two wells 18 ft. diam. and 20 ft. deep. Water mains, 7.25 miles; 305 house services; 102 stop valves; 34 hydrants, and 2 fountains. Daily capacity, 400,000 gal., filtered through 2 ft. of sand cylinders in each well.

Sewerage system, combined plan; 4.76 miles of sewers, ventilated at man holes 130 yards apart. 215 house services; 45 catch basin connections, untrapped; 1 gravity outfall into Red Deer River.

Redcliff.—Pop., 3,200; water supply, m.o. Source, South Saskatchewan River by pumping. Water mains, 15.5 miles; 308 house services, 108 houses without services; 106 stop valves, 33 hydrants. Daily consumption, 100,000 gal.; natural filtration.

Gas supply, natural, supplied by private company; 16 miles of mains and 430 house services.

Camrose.—Pop., 3,100; water supply, m.o. Source, 3 wells 130 ft. deep; pumped by compressed air to reservoir, thence by centrifugal pumps to water tower. Water mains, 2.5 miles; 90 house services; 23 stop valves, and 28 hydrants. Daily consumption, 37,500 gal.

Sewerage system, separate plan; 3 miles sewers and 90 house services; 1 gravity outfall discharging 33,000 gal. per day; treated on earth beds and effluent, disinfected by bleaching powder.

Athabasca.—Pop., 2,000; water supply, m.o. Source, Athabasca River by pumping; 1 intake, two 8-inch lines steel pipe to suction well; 4 miles water mains. No house services, system used entirely for fire protection. 22 stop valves and 24 hydrants.

Bassano.—Pop., 2,200; water supply, m.o. Source, Bow River, by pumping to a stand pipe; 1 tunnel intake, water gravatating to deep well. Water mains, 5½ miles; 40 house services and 250 houses without services. Daily consumption, 180,000 gal. to town and 150,000 to C.P.R.

The first town up stream is Calgary, 85 miles distant; down stream, Medicine Hat, 97 miles distant.

Sewerage system, combined plan; 3½ miles of sewers; 40 house services and 16 catch basin connections; 1 gravity outfall discharging into disposal works 2.5 miles from town.

Town has a Reid incinerator.

Claresholm.—Pop., 1,000; water supply, m.o. Source, Willow Creek; filters into gallery, gravitated to town and is pumped to increased pressure; 4 miles water mains. Daily consumption, 50,000 gal.

The town is supplied with natural gas by a private company.

High River.—Pop., 1,500; water supply, m.o. Source, Highwood River by pumping; infiltrates into concrete well at 600 gal. per min.; 1½ miles water mains; 43 house services; 34 hydrants.

Sewerage system commenced in 1913. Sewage to be discharged by pumping.

The first town down stream is Carmangay, 40 miles distant.

Blairmore.—Pop., 2,200; water supply, m.o. Source, York Creek by gravity; 4½ miles water mains; 200 house services; 8 stop valves and 38 hydrants.

Gleichen.—Pop., 80,000; water supply, m.o. Source, deep well by pumping; 1½ miles water mains; 22 stop valves; 6 hydrants. Daily consumption, 6,200 gal.

Sewerage system, combined plan; 1½ miles sewers, ventilated at man holes; 1 gravity outfall discharging 5,000 gal. per day. Sewage treated in sedimentation basin.

All these cities and towns have municipal engineers and staffs, with the exception of Red Deer and Comrose, where the municipal engineering is looked after by local firms of civil engineers.

THE GREATEST PRACTICAL TEST FOR THE MOTOR TRUCK.

IN *The Canadian Engineer* for October 8, editorial reference was made to the extensive use of the motor vehicle in the European war and to the policies of the belligerent powers toward the subsidization of manufacturers and users. Motorized military equipment extends beyond the main services of transportation of troops and commissariat to a host of auxiliary needs. The various services in which motor vehicles are employed receives a concise but comprehensive study by R. W. Hutchinson, Jr., in The Engineering Magazine for November. The following extracts will be found interesting:

Both light artillery and machine guns are being hauled on motor trucks. In the advance on Liège over a hundred motor trucks were used in carrying machine guns alone. In transporting field guns the cannon are generally placed on a trailer wagon, the carriage on another trailer, while the truck carries entrenching equipment, repair parts, tools, tanks of fuel and oil for itself, etc. Heavy siege guns and mortars are being moved, where road conditions permit, by two large tractor trucks in side-by-side fashion; but the 30-horse team is still being largely used for the heaviest siege guns. Trucks may serve as towing units, but they are too valuable for other services—provisioning the army, for instance. A close comparison of the speed and distances moved by the Germans and French in the war of 1870-1 will disclose the fact that to-day with motor transport the armies are operating at twice the distance from their base compared with the work 44 years ago.

Also without motor trucks, the immense armies now measured in millions instead of thousands would be difficult indeed to provision, as the battle lines have extended from 100 to 250 miles front, and have shifted so rapidly in position that if dependence were just on army mules supplying them with food, movements would be slow, the fighting efficiency of the men greatly impaired, and the slaughtering of the huge herds of cattle now necessary to victual the vast hosts would make sanitation impossible, leading to malignant disease and pestilence. Again, space where such prodigious numbers are now employed is valuable. A motor-transport train occupies only one-third of the space of the animal-drawn wagon, and being positioned much farther behind the army, causes less congestion between the main army and its auxiliaries and be-