sweep down unrestrained by swamps and ungathered by reservoirs, so that their beneficial uses are largely lost to the communities along the river banks.

The prairie river generally occupies the bottom of a great depression a mile or more in width, with steep sides 100 to 200 feet in height, which are deeply furrowed by gulches of accessory streams, creeks and rivulets that are generally dry in summer. The main stream meanders through the bottom land, and during great floods, the minor banks are overtopped and the bottom of the valley flooded.

The prairie lakes are often of considerable area, 40 square miles or more, but are generally shallow. The sloughs are filled with a fair depth of water during wet years. They have no outlet streams, but in midsummer they shrink to insignificant ponds. This decrease in volume renders them very alkaline. These peculiar conditions of the prairie water supply can be understood by giving examples of the methods employed or projected to make the most of them.

DOMESTIC USE.—Edmonton, the capital of Alberta, derives its water supply from the Saskatchewan. Calgary has a water supply owned by a private company and drawn from the Bow river. A pile dam has been made across the entire river, and a wooden flume along one shore leads the water about half a mile to the wheels. The population is now over 20,000, principally located upon a flat about forty feet above the river. Residences are now being built upon the surrounding plateau, 200 feet higher, so power for pumping must soon be increased. The coal mines at Canmore and Banff are only 80 miles distant by rail. Medicine Hat pumps its supply from the South Saskatchewan. The power used is natural gas, of which the locality has a plentiful supply. Increase of population at Calgary, Macleod and Lethbridge will bring up the question of sewage contamination at Medicine Hat, which is down stream from all these places. The same difficulty, too, will arise, later, at Saskatoon and Prince Albert. Regina is at present supplied from Wascana creek. Later, it may be necessary to utilize Last Mountain lake. Brandon takes its supply from the Assiniboine, which also furnishes the power for pumping. Winnipeg, the third largest city in Canada, obtains water from a system of artesian wells. The pumping was formerly done by steam, but the high price of coal has led to the adoption of electric power generated on the Winnipeg river.

IRRIGATION.—Two extensive irrigation schemes are now in operation. One near Lethbridge, takes water from the St. Mary river, the main canal being led along side hills and into sloughs which act as reservoirs.