



LAKE LOUISE.

Another phase in connection with the waterways of our North West is their immeasurable value in connection with the coming and important matter of

#### IRRIGATION

Agriculture, by means of irrigation, is a very different pursuit from the business of farming as generally understood. Apropos of the prevailing opinion that irrigation is merely a substitute for rain, it has been said that rain is a substitute for irrigation. Irrigation does more than rain—it enables the farmer to raise larger and a greater variety of crops. Though necessary where the rainfall is small, it is most scientifically employed in those portions of Europe where the rainfall is the largest and most certain.

The first and most obvious advantage of irrigation is, that it renders crops secure against injury or ruin by drought.

The second advantage is, that it permits of intensive cultivation. Where there is good soil and plenty of sunshine, and the farmer can apply water just when, where, and in what quantity he will, the tilling of the soil becomes a science.

Another feature of great importance is the fact that irrigation permits the widest diversification of crops.

Irrigation renders possible the highest conceivable development of independence and prosperity on the fewest possible number of acres. There is the scope for science and intelligence to work out the best possible results, and so secure the largest return from each acre and the nearest approach to perfection in quality. So it becomes purely an industrial problem, a question of brain and brawn, to obtain support from the small irrigated farm.

The drawback and bane of country life is its loneliness. Not only the young folks, but the old as well, keenly feel the dearth of human sympathy and companionship. The average size of our farms is about 150 acres. If these could be reduced to 25 acres, which is double the average size in many portions of the States where the lands are irrigated, six families would occupy

the space now held by one. Neighbors would then be six times as numerous, and the possibilities of social enjoyment multiplied in that ratio.

To increase the productiveness of our lands—to colonize them with a productive population, to develop the highest conditions of human happiness for the people—that is the great and precious end to which all our efforts should tend. This problem must be solved in the interest of the people and humanity. It is a great trust which God has committed into our hands. Let us seek to find the correct solution of it.

#### The Irrigated Lands of Utah and Arizona.

UTAH is in the geographical centre of the irrigation empire. In climate and altitude it represents the medium between the two extremes existing on the north and south. Whatever else may be said of the Mormons, it is conceded that they are by nature and habit the best of empire builders. When they entered the valley of the Great Salt Lake, forty-four years ago, they found an alkali desert awaiting them. They had heard nothing of irrigation, but their leader was a man possessing a genius for surmounting difficulties. He lost no time in wedding the limpid mountain stream to the arid soil of the desert. His followers were not only soon able to sustain themselves, but rapidly went forward in the accumulation of wealth. The average size of their farms is 20 acres. In certainty and variety of production these farms are nowhere

surpassed, and in beauty of surroundings these homes are the equal of any to be found on the face of the earth. Utah is full of beautiful valleys filled to their utmost capacity with prosperous twenty-acre farms, and uniting in a high degree the charms of country with the conveniences of town life. In some portions of Utah the agricultural village of Europe has been preferred. In those instances the farmers have their homes in the village, and go out to their farms each day. The success of the Mormon settlers was due in part to the fact that their operations were planned by one masterful mind. The common people thus labored with an intelligence superior to their own.

To the mind of the average American probably the most hopeless desert is that of Arizona. It is indeed a very arid country and nothing but the cactus and mesquite tree subsists naturally on its level plains. But that soil is rich beyond comparison, and when water is turned upon it becomes enormously productive. The traveler who leaves the main line of the trans-continental railroad and passes a few miles north to Phoenix finds himself in the midst of the Salt River Valley. Here he beholds the possibility of a new civilization in the heart of Arizona. Under the magic of irrigation the small farm flourishes and produces everything, even to the citrus fruits. The future of Arizona is beyond computation. It will be a rich and populous State and illustrate the highest possibilities of the irrigated farm.—*Exchange.*



NEAR THE SOURCE OF THE PEACE RIVER.