

These surveys developed the fact that two extensive areas afforded special advantages for irrigation, one situated in the Lethbridge District which could be supplied with water from the St. Mary's River, and the second a large block of land lying East of Calgary which could be supplied with water from the Bow River. Preliminary surveys for the



Standard Bridge—Crossing Canal.

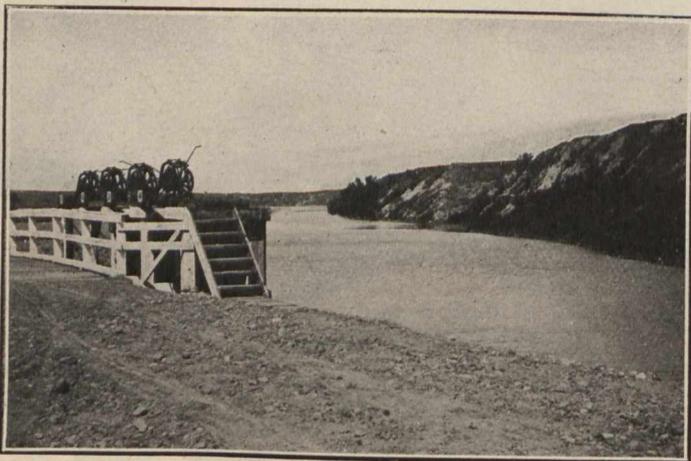
canals to supply water to these areas were completed and the first mentioned scheme was taken up and carried to completion by the Alberta Railway and Irrigation Company. The second scheme is that now embraced in the Canadian Pacific Railway Company's project which is dealt with in these pages.

The construction of many smaller ditches as individual schemes, or corporate undertakings, were also put in hand with the result that to-day there are in Southern Alberta four hundred and eighty miles of canals and ditches capable of irrigating 625,000 acres.

The necessity for irrigation received somewhat of a setback owing to the unusually wet seasons experienced during the years 1898-1902, but the fact that crop production could be increased and ensured during any year by irrigation in the larger part of the semi-arid region has been proved by those who have dealt with the matter intelligently, and it is now recognized that while irrigation is not a necessity in the same sense that it is in the arid States to the south of the International Boundary, it is an insurance on a crop in Southern Alberta justified by the cheap rate at which both land and water can be obtained.

Area Embraced in the Irrigation Project.

The area included in the Canadian Pacific Railway Company's irrigation project comprises a block of three million acres situated east of Calgary along the main line of the



Spillway Gates, Main Canal.

company's railway. The block is bounded on the west by the Fifth Meridian, on the south by the Bow River, on the east by the line between Ranges 10 and 11 west of the Fourth Meridian, and on the north by the Red Deer River and the north boundary of Township 28.

The block has an average length east and west of about 150 miles and an average width north and south of 40 miles.

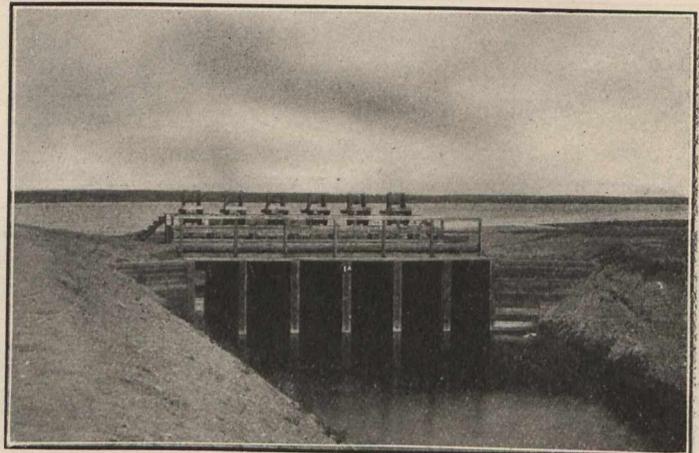
Within the block, the Company owns all the land except some areas which had been granted as homesteads prior to 1903. For convenience in dealing with it, the block has been divided into Eastern, Western and Central Sections, as indicated on the map referred to, each section containing about one million acres.

The block is an open prairie plateau with a general elevation near its western boundary of 3,400 feet above sea level, and slopes rapidly to the east until an elevation of 2,300 feet is reached at the eastern boundary. The surface throughout is more or less rolling until the Eastern Section is reached where large areas of almost level plains are found.

The soil throughout the whole block is first-class, with heavy black loam or a clay subsoil in the western portion and a lighter sandy loam with good subsoil in the more easterly parts. The whole block produces a most luxuriant growth of nutritious grasses, and the natural grazing is such as to provide pasture for horses, cattle and sheep throughout the whole year.

Climate.

What is the climate like? Is a question which intending settlers in the irrigation block are sure to ask, and his anxiety on this point is natural. First, because he should satisfy himself that the climate is one in which he and his family can live in health and comfort, and second, because the climate will have much to do with the success or failure of his agricultural operations.



Headgates, Secondary Canal "A."

In answering this question the statement can be safely made that Southern Alberta is favored with one of the most healthy and comfortable climates to live in on this continent. Its elevation varying from 1,400 to 3,400 feet above sea level, combined with its clear dry atmosphere, the almost continual sunshine, the total absence of malaria of any kind, its mild winters and cool nights during the summer all tend to produce a pleasant and healthy climate. The portion of the Province referred to has attained a continental reputation as a Sanatorium for pulmonary or bronchial troubles, and many persons can be referred to who moved to Alberta in weak health who are now strong and vigorous.

The winter in Southern Alberta is a season of bright sunny days broken by short intervals of cold weather and long spells when the western chinook winds bring almost summer temperatures. The snow fall is so light that as a rule wagons are used throughout the year and the snow disappears entirely as a rule two or three times during the winter under the influence of the warm chinook. During February and the early part of March brief periods of cold weather are usually experienced, but from one month to six weeks of winter is as a rule the limit.

Stock consisting of horses, cattle and sheep graze at large throughout the whole winter, and the fact that the beef which has attained such a high reputation as "Alberta Beef" has been and is killed directly from the range in winter is a proof of the mildness of the winter climate.

The summer season is characterized by hot days of almost continual sunshine with cool nights and a never failing