Percee, Sask.; and further directing that Orders of the Board Nos. 4918 and 5178 be rescinded.

5421-Oct. 8-Directing the C.P.R. Co. to clean out and put in good order all the ditches leading to and from the culvert No. 89.9 as far as station 31 + 18, near Cookstown, Ont., and that the said work be completed by November 15th, 1908.

5422-Oct. 15-Authorizing the C.P.R. Co. to construct, maintain, and operate two branch lines of railway, forming a Y, at St. Gabriel de Brandon, Que.

5423-Oct. 15-Extending until December 15th, 1908, the time within which the C.N.Q.R. Co. may install the interlocking plant directed to be provided by Order of the Board, No. 4862, dated June 2nd, 1908, at a point on Lot 2375, Parish of St. Sauveur, Que., between mileage o and mileage I of the Quebec and Lake St. John Junction spur, where same crosses the C.P.R. east of Lorette, Que.

5424-October 16-Extending until December 31st, 1908, time within which interlocking plant on G.T.R. at Chatham may be installed.

5425-October 15-Granting leave to the C.P.R. to construct its branch line across St. Gabriel, St. Village of St. Gabriel de Brandon, P.Q.

5426--October 14-Granting leave to the Toronto and York Radial Railway Company to operate their trains over the G.T.R. at the village of Sutton, County York, Ont.

(Continued on Page 772.)

# **IRRIGATION IN ALBERTA.**

## (The Monetary Times.)

It is difficult sometimes to grasp the full signifi-cance of the irrigation development of Southern Alberta. It unquestionably constitutes one of the important steps in agricultural progress that Canada has witnessed. It is confidently expected that within the next decade there will be created upon the Canadian Pacific Railway Irrigation Block, east of Calgary, 'a densely populated and highly pro-ductive agricultural area with excellent land values. An along the main line of the Canadian Pacific Railway in

Along the main line of the Canadian Pacific Railway in Alberta signs greet the eye announcing the fact that "irriga-tion doubles crops," implying that by the application of water idea might even go a step further and state that "irrigation doubles crop area" as well. The general agricultural practice throughout Manitoba, Saskatchewan and Alberta is tending more and more towards confining crop production to summer Along the main line of the Canadian Pacific Railway in more and more towards confining crop production to summer fallowed fallowed lands. This has become the universal practice all through the Pacific wheat-producing States, in fact, wherever farming under light rainfall conditions prevails. Upon the winter wheat farms in Southern Alberta the summer fallow practice practice is also in vogue.

Soil is not nearly so complicated a matter as conducting the ordinary farm. The district south of Lethbridge was principally settled by the Mormon Church and the citizens of that town prevailed upon the Lond Church and the citizens of that town prevailed upon the Mormon Church and the citizens of that town prevaled ately surrounding Lethbridge for colonization with Ontario farmers. It is a peculiar fact that to-day Ontario men who had never had never more skillfully and intelligently than do the Mormons, who of Utah. of Utah.

In considering the possibilities of irrigation in northerly latitudes, it is well to bear in mind that the State of Montana, Alberta, raises more agricultural products under irrigation than the State of Idaha more than the States of Oregon, than the State of Idaho, more than the States of Oregon, Washington, and Wyoming combined, as much as the State of Utah, and half as much as the State of Colorado. Enormous irrigation provide the state of construction in of Utah, and half as much as the State of Colorado. Enormous irrigation projects are now in the course of construction in Northern Montana under the auspices of the United States among irrigating states. In fact, there is unmistakeable will presently not be in the arid parts of the continent, but tudes and under sub-humid climatic conditions.

# Backbone of Irrigation Farming.

In studying the economic side of irrigation, the first fact In studying the economic side of irrigation, the first fact to be thoroughly grasped is that the foundation of irrigation enterprises is not the production of either fruits, cereals, roots or garden truck, but the feeding and finishing of live stcck. This has been the history of irrigation development in every State of the Union. The proof of this contention is that of the total irrigated area in crops in the United States at the forage. The actual figures are:—Total acreage, 5,712,000 acres. In hay and forage, 3,666,000 acres.

## A Significant Deduction.

It has been established in the foregoing that the most valuable crops irrigated lands anywhere can produce is material for the feeding and finishing of live stock. It has been demonstrated that the climatic and soil conditions in Alberta are peculiarly favorable to the highest development of alfalfa and other forage crops. It will be also readily ad-mitted that by reason of a healthy invigorating climate, absence of disease and other favorable factors, Alberta has no peer in the production of live stock of all classes. The market conditions for finished live stock are, on the whole, nearly as favorable as the United States. In some respects they are more favorable. Such being the case, it is a fair deduction that irrigated lands in Southern Alberta should command the same value as those south of the line.

command the same value as those south of the line. It is expected that 1,500,000 acres will be brought under artificial watering when the Canadian Pacific Railway Com-pany's project east of Calgary is finally completed. The most striking way of illustrating what this development means is to compare it with the total irrigable area of the United States. This is, at present, 7,263,000 acres. It will thus be seen that the area of land to be placed under irrigation under one project exceeds one-fifth of the present total irrigated area of the whole of the United States. It is five times as great as the irrigated area of the State of Utah, and is greater than that of the State of California and equal to the irrigated area of the whole State of Colorado. Within a few years, Southern Alberta will, therefore, become the greatest irrigating district on the continent of America. Beet Sugar Production.

### Beet Sugar Production.

Sugar beet culture is rightly considered a leading feature of irrigation farming. The northerly latitude of Canadian irrigated lands, with the long cloudless days, increases the activity of the chlorophyl cells of the beet leaves, which elaborate the saccharine, so that a great quantity of sugar is formed in proportion to the area of leaf surface. We have, therefore, a climatic or geographical advantage over our southern competitors in sugar beet culture.

Few countries can compete with Western Canada in the rew countries can compete with western Canada in the production of sugar, and it is expected that agricultural and industrial history will be written when the proper cultivation and treatment of beets in that latitude is once thoroughly understood and practised. Coal is found everywhere, at least in districts where sugar beet growing is likely to be prosecuted on a large scale, and enormous lime-stone deposits are available on the eastern slope of the Rocky Mountains. The walke of a succer factory to a community needs only

The value of a sugar factory to a community needs only incidental reference. The era of "sugar towns" has dawned in Western Canada, and with the enormous extension of irrigation, her manufacturing capacity of this commodity will be only limited by market requirements, which promise to become enormous in view of the unprecedented influx of population into the prairie section as well as the Pacific Province.

# How Calgary Benefits.

It is reasonable to suppose that the Canadian Pacific Railway tract of 3,000,000 acres, irrigated and non-irrigated lands will be divided into at least 15,000 farms, sustaining six lands will be divided into at least 15,000 tarms, build make a individuals each, including hired help. This would make a rural population of 90,000. According to the last census, the rural population of 90,000. According to the last census, the ratio of rural to urban population is as three to two. This would give an additional town and village settlement of 60,-000, or a total population of 150,000 souls. In other words, a settlement almost as great as the present total population of the whole Province of Alberta will ultimately occupy the territory lying within a distance of 120 miles east of Calgary.

territory lying within a distance of 120 miles east of Calgary. Any wholesale merchant or manufacturer knows what such a development will mean to Calgary, which has even now taken a distinct lead as an important distributing centre. Furthermore, there is no district in Canada or the United States where exists as vast an agricultural area, devoid of waste lands, as that contiguous to Calgary which can be de-veloped by irrigation. Consequently, Calgary will have not alone a densely populated, but also an extensive irrigated farming area tributary to it. Sales are frequently made by the Canadian Pacific Pail

Sales are frequently made by the Canadian Pacific Railway of 40 and 80 acre tracts to families from the irrigated dis-tricts of the United States where such land is worth from \$100 up to \$2,000 per acre. This indicates the possibilities in the way of population and production.