

LOCATION OF TOWNS AND VILLAGES IN THE OTTAWA VALLEY.

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(Continued from page 70).

In the October issue the writer stated that the exact location of villages in the valley of the Ottawa was determined either by water power or by points on former routes of transportation.

In most cases the land in the vicinity of the sites selected was of such a surface character that it was suitable for the requirements of habitation and the growth of villages into towns. In other words the topography in general presented no serious problems to municipal engineers in the matter of street grades, drainage, bridging, or water supply.

The growth of a village has been influenced by its location and environment. In most cases the growth around the original mill site was due to its becoming a trading centre for the surrounding farming community. In some cases a basic industry like lumbering and saw mills furnished the mainstay of the village while trading was secondary.

The construction of lines of railway connecting up these towns and villages with one another and with the main highways of commerce was a later development bringing in the industrial stage, when towns competed for industries to come and locate within their limits. At this stage favourable location with regard to natural resources and to land and water transportation were of importance; although other considerations which had nothing whatever to do with geography, such as offering a bonus to manufacturers, was taken into account in the decision.

A short sketch of the physical geography of the region in a general way has been given so that we are now in a position to consider a few localities in more or less detail. From what has been said, however, we see that the character of the surface has had considerable influence on the population, the flat clay land being the most important in the development of large communities while a great part of the upland sets its face rigorously against any attempt at cultivation and human habitation. Between these two extremes there is much good agricultural land as well as considerable debatable ground where such considerations as, whether forest would not be more economic than cultivation, enter in.

RIDEAU RIVER AND TRIBUTARIES.

The Rideau river drains a group of lakes of the same name situated in the less rugged portion of the upland underlain by the belt of crystalline rocks which extend southward to the St. Lawrence between Brockville and Kingston. On emerging from the lakes and the upland it flows over a drift covered plain-like region, where it has cut down to

bedrock only at a few places. At most of the points where it flows on bedrock there are rapids or falls, the most notable being the last one on its course where it tumbles from a cliff into the Ottawa river at Ottawa.

The Rideau is a good example of a recent drainage channel almost entirely controlled by the character and distribution of the glacial drift and not by the underlying bedrock. It would normally flow eastward and enter the Ottawa river much further down than it does but on encountering the belt of morainal ridges which stretch from Ottawa to Prescott it is diverted toward the north.

It is stated that in the year 1793 three brothers named Burrill from Connecticut explored the Rideau river, probably coming in by way of Brockville from the St. Lawrence route, and took up land on its banks. The point on the river known as Burrills Rapids which may have been their original location never developed into a village, but Merrickville which is situated on a fall about 7 miles above this point did grow to be a village.

A canal was constructed primarily for military purposes by the Royal Engineers during the years 1828 to 1832, which utilized the Rideau lakes and river to their full extent. The long stretches of quiet water with only an occasional obstruction where locks had to be built made it especially favourable for this purpose. A series of three locks was necessary at Smiths Falls, a point which afterwards grew to be a town of some importance.

The western limit of marine clay sediments appears to occur here, but there is no large area of it in this locality, the clay being confined to a few patches along the Rideau river. Glaciation seems to have removed a good deal of the older soils from the level region east and north of Smiths Falls and much of the land is poor in consequence as the soil consists only of a thin sheet of sandy drift overlying the bed rock. The bed rock in that area is mostly badly creviced magnesian limestone through which the rain water disappears quickly from the surface, so that it becomes almost barren during dry spells.

Land of this character does very well for fruit trees or for wood lots as a source of fuel and other merchantable timber but is of little value for cultivation of crops. Its chief use in farming is to furnish pasturage for sheep and is well adapted for this purpose in moist weather when the grass is good.

The first railway to enter the Ottawa valley started from the main line of the Grand Trunk at Brockville and was designed to serve the towns of