

the summer season. Grass grows readily wherever sown, and as there is considerable precipitation all along the lakes and rivers of the southern valleys, which are not within the dry belt, grass as pasture would do well. If nothing more, it would greatly improve the appearance of the country.

THE KOOTENAY RECLAMATION SCHEME.

By far the most important tract of agricultural land in the whole country is that embraced in what is known as the Kootenay reclamation scheme.

The lower Kootenay bottom lands begin near Bonner's Ferry in the United States territory, about 93 miles from Kootenay Lake, 33 miles of which are in Canadian territory, so that the greater part of them are in the United States. Judge Sproat says the valley was formerly an extension of Kootenay Lake made into land by the material brought down by the Kootenay River, and which is still forming. The bottoms are hardening. The Indians formerly used side hill trails to get to the lake. They now use trails that run along the bottoms. The valley is from three to five miles on an average between the side hills, which are from 1000 to 2000 feet above the surface; those on the west side inferior for pasture and scantily timbered; those on the east side lower and less regular and not retiring to high mountains, with grassy slopes. The east hill side affords a considerable but not connected area of fertile land, being heavy clay and sandy loam suitable for the growth of the ordinary cereals. Seven experiments in farming have been successful. Cattle graze alternately on the side hills and bottoms. Judge Sproat in his 1884 report says: "I would class these wooded fine grass east-side hills within our territory as a third class stock range for limited bands."

Speaking of the bottom lands, Mr. Sproat speaks of them as follows: "Every acre of these fertile lands, if completely reclaimed, would at once be applied for by the best class of settlers, as there is little doubt that all the cereals and the ordinary root crops and vegetables would grow well and ripen if early sown or planted." The same gentleman speaks hopefully of the prospects of dairying.

This tract of land is what is included in the Kootenay reclamation scheme. Its importance as an agricultural feeder for the Kootenay Lake district can hardly be over estimated, and will be to that country what the Fraser Valley is to the coast.

It is described in the *Victoria Colonist* of March 30th, 1892, as follows:

"Between Bellingham, on the international boundary line, and the south end of Kootenay Lake, the Kootenay River flows through a valley, ranging from three to five miles in width, unsurpassed in richness and fertility by any lands in the province. Unfortunately, the banks of

the river are insufficiently high to retain the volume of the flood waters during the spring freshets. Annually, during the months of April and May, snow waters from the adjacent mountains fill up the river channel, overflowing its banks, and converting the valley into a temporary lake. As this is the period for tilling and sowing, agriculture has up to the present been practically at a standstill. Recently an effort was made to reclaim this valuable tract of land by enlarging the outlet of the lake some few miles below Nelson, the assumption being that a wider outlet would give a greater discharge to the flood waters of the lake, and as a consequence allow the flood waters of the river to discharge freely into the lake without overflowing its banks. Considerable money has been spent in carrying out this idea, but the object aimed at has not been obtained, even in the slightest degree. To anyone versed in hydraulics this result would have been a foregone conclusion, as it is self-evident that to obtain an increased discharge from a body of still water, like a lake discharging through a long river, the gradient or fall of the river bed must be increased. With an increase of fall the velocity of flow will be increased, and with increased velocity must be increased discharge. Widening the mouth of the river, without increasing its fall, will merely increase the lake's area.

The Alberta and B.C. Exploration Company, of London, England, (whose resident manager is Mr. G. Alexander, of Calgary, one of the promoters of the project) some few months ago secured the services of Mr. G. A. Keefer, M. Inst. C.E., of this city, to report on the works, so far as carried out, and to outline a scheme by which the object desired might be obtained.

Mr. Keefer's opinion was that the reclamation of the valley could more readily and economically be accomplished by dyking the banks of the river, and, acting on his report, the company are about to energetically carry out his recommendations.

The machinery for a powerful drag dredge, capable of excavating 1,200 cubic yards per day, has been constructed by Messrs. Heatty & Co., of Welland, Ont., and is now on the way to the works. The hull of the dredge, as also a house barge for the officers and men, has been under way at the mills of Messrs. Sayward & Davies for some time past. Work will be commenced at the international boundary about the 15th of April, and will be prosecuted day and night. The magnitude of this undertaking can be understood, from the fact that 70 miles of dyke, six feet wide on top and averaging eight feet high, will be required. It is estimated that the work cannot be completed before the middle of 1897, a period of five years.

The superintendent is Mr. F. G. Little, late superintendent of the Matsqui dyke. The engineers are Messrs. Keefer and Smith, of this city. In the hands of these gentlemen, a successful result can be confidently looked for."

[This refers to the Baillie-Grohman scheme of reclamation.—Ed.]

Two objections have been urged towards this scheme, first that seepage will occur and render the dyking futile; second, that if reclaimed, irrigation will be necessary and that the facilities for that are too limited. Local opinion is opposed to the second objection, and the fact that the irrigation is not necessary on the side hills, would seem to be conclusive. As to the first the engineers in charge should be the best authority and both are gentlemen of high standing in their profession. Regarding that point Mr. H. B. Smith, C.E., in an interview with the *Victoria Times* of a recent date says:

"The erection of that dyke will reclaim 47,000 acres of the finest land in the world. It is a perfect Garden of Eden. It is the most perfect stretch of loam ever seen anywhere and is practically bottomless, inexhaustible. A rich, fat soil, the very cream of farming land. Now, to show you that it is not a quagmire or peat bog or anything else but splendid farming land, the excavation in which the dredge was built is ten feet deep, surrounded with water within a few feet of the edge. Yet the bottom of the excavation is only damp and the water has been standing around the excavation for weeks. That should surely settle the statement that has been made about the land being only a swamp or quicksand."

THE INDIANS OF THE KOOTENAY.

Mr. A. S. Farwell in his report to the Provincial Government in 1883, says:

"From the most reliable resources, I gather the Kootenay tribe of Indians number about 820 men, women and children, and are divided approximately as follows:—450 British Indians, domiciled north of the international boundary line, and 20 American Indians residing in Idaho and Montana territories; the remaining 150 Indians are migratory, receiving their share of the annuities paid by the United States Government, at its agency on the Jocko River, in the Flathead reservation, Montana territory and claiming to be British Indians when they wander north of the boundary line.

"Of the 450 British Indians, 150 claim the lower Kootenay as their country, from the boundary line, down

Kootenay River and through Kootenay Lake and its tributaries. The remaining 300 Indians consider the land along the Upper Kootenay River, from the boundary line at Tobacco Plains northward to the Lower Columbia Lake as theirs. The majority of these Upper Kootenays winter at St. Mary's Mission."

The Lower Kootenay Indians are the only Indians in West Kootenay district. They formerly lived about Sproat and the Kootenay mouth, a little band who hunted up the Columbia and Slocan. These were of the same "nation" as the Colville Indians (now in the United States) and they assembled about the Hudson's Bay Co. post at Fort Shephard; on the abandonment of that post they went to Colville and are not now counted as British Columbia Indians by the Canadian Government. The Lower Kootenay Indians are not nearly so highly civilized as the Upper Kootenays. "They are," Mr. Farwell goes on to say, "indolent, poor, badly clothed and badly armed. They have no houses, and live summer and winter, in 'lodges' constructed of poles covered with mats or hides. In former years they were supplied with seeds of different kinds, and they made efforts to raise potatoes, wheat, etc., but the uncertainty of securing their crops through the flooding of the country so thoroughly disheartened them that they gave up in disgust. They also possessed quite a number of houses and cattle, but have become greatly reduced, the result of gambling. Concerning this tendency which is more or less characteristic of all Indians in British Columbia." Mr. Sproat tells the following:

"On one occasion, when encamped on the Kootenay bottoms, between Kootenay Lake and Bonner's Ferry, an Indian rode up, naked, but for a breech clout, and with a bit of rope for a bridle. He sprang from his horse and offered his hand with a grand air. He had passed up the valley four days previously on a fine horse, with an expensive saddle and equipment, silver spurs, a \$50 suit of store clothes and \$20 in his pocket. Having staked and lost everything, he borrowed a pony and a breech clout, and was on his way home. Had an artist seen him he would have a good subject for 'before' and 'after'."

A great many of these Indians formerly wintered on Goat River, about nine miles north of the boundary. They run their stock in the winter on Goat River and between McLaughlin's and Jerome Creek. As the summer advances and the water recedes, the Indians move down the river and fish and take their stock with them.

Bancroft describes these Indians as the "Gulle Kootenays." In appearance they resemble the plain Indians of the Northwest rather than the typical Siwash of British Columbia.

FISHING.

Kootenay is, par excellence, the country for fishing. Fish abound in all the waters of the valleys described, the Arrow Lakes, Kootenay River and the Kootenay lakes. These are caught by trolling, with the rod and line and any other way that fish are caught. Fly fishing in the season of low water during July and August is said to be a