

PRELIMINARY REPORT.

In the Bow and Betty River Regions, N.W. of the Rocky Mountains, with Special Reference to the Coal Deposits, by J. A. Dawson, B. S. P. G. S. C.

(SHORT EXTRACTS.)

The region embraced in the report and of which the examination and field work for mapping has been almost completed, extends from the Rocky Mountains eastward to the 40th meridian is bounded to the south by the 49th parallel, stretches northward some distance beyond the 51st parallel and embraces to the east of the Palaeozoic rocks of the mountains, over 27,000 square miles. A portion of the Rocky Mountains has also been explored and mapped out, but as the mountainous district must form the subject of a separate investigation it will be necessary to state there, merely that the north Kootenai Pass, the Crow's Nest Pass and the eastern portion of the Bow River Pass were the districts particularly examined.

The most interesting features of these explorations was the discovery that in the region of the Crow's Nest Pass, wide valleys based on cretaceous rocks occur west of the first range, which is formed of the Palaeozoic limestones and that in the cretaceous rocks an important intercalation of volcanic material appears, in connection with which trace at least of copper ores occur.

It is possible that in some of these now isolated troughs of cretaceous rocks, coal beds may yet be found in the heart of the range. The existence of a seam was indeed reported about twenty miles west of the summit of the Crow's Nest Pass but the locality has not yet been examined.

The rocks of the foot hills and plains east of the mountains are, so far as is ascertained, entirely of cretaceous and laramian age, overlain by glacial drift, and by alluvium. In the eastern portion of the district they are horizontal or very nearly so, being frequently affected by light undulating folds scarcely greater than might be supposed to have characterized the original surface of the disturbance above alluded to.

Besides the disturbance above alluded to the geology of the region in the immediate vicinity of the mountains is further complicated by the fact that the beds there change considerably in lithological character, the change being such as might be expected to occur on the approach to a shore line. Sandstone is much more abundant and coarser in texture and in some places conglomerates holding pebbles derived from the mountain occur.

One of the most abundant materials in these coarser rocks is the chert which is derived from concretions and regular layers in some parts of the limestone series. On approaching the base of the mountains this uniformity suddenly ceases and the beds become more or less sharply corrugated, the disturbances being in some instances so great as to form folds. The belt of country affected by this disturbance constitutes the foot hills. The exposures of the newer rocks nearest the actual margin of the Palaeozoic, very often show comparatively light south westerly or westerly dip, the base of the mountains. A series of great faults with down throw eastward, separate these newer rocks from those of the mountains and it is by a repetition of similar faulting in the mass of the range that the solid rocks of cretaceous rocks are so uniformly affected by this disturbance.

On the Bow River valley the width of the Palaeozoic (which here falls back some miles from its general line) is about twenty-seven miles, on the Highwood River and its tributaries a seventy miles. On the north side of the Old Man it is about twelve miles with a dip on the southern branches of the same stream, including Mill and Pincher creeks about thirteen miles. On the Waterbury (Kootenai) and Betty rivers, which are about fifteen miles which has before run northward nearly parallel to the base of the mountain ranges, the mountains changes its direction in conformity with that of the mountains, so that the dip is uniform in the north of the upturned strata in this district.

Views of the Rockies.

Mr. Fitzgerald Cochrane of this town and formerly from the "Star" and "Morning Chronicle" describing Calgary and a trip to the summit which he recently made. Writing of our own favorite town he says: "Calgary is beautifully situated in a natural basin or plateau formed by the bend of the Bow and Elbow rivers which flow on the north and south of it. The town is almost completely surrounded by what are called high hills, were it not for the Rockies rising in the distance beyond them, plainly visible (although 80 or 100 miles away) with their snow clad peaks apparently piercing the skies."

One rugged line peak upon which snow never lies stands up in strange contrast to its whiter neighbors. This is called the Devils head, why, I do not know. Not being familiar with the cranium of his Majesty I cannot say whether it bears any resemblance to it or not, but perhaps the one who named it had the advantage and knew what they were about.

The town site of Calgary was originally on the east side of the Elbow river where quite a number of buildings were erected, but the C. P. R. having fixed their station a mile further west across the river, the town or a greater portion of it moved over also. A further impetus was given to the new town site by the C. P. R. offering town lots at \$300 each with a rebate of one half if buildings were erected before the 1st of April. This produced a boom in buildings and the result was that in less than two months some three hundred buildings of various kinds were run up and the new town site now contains some 900 or 1000 inhabitants. Business of all kinds is rather dull just now a reaction after the building boom having set in, and money is scarce, but the townpeople have confidence that before long matters will improve. The city is still in an embryonic stage and is governed at present by a civic committee.

They have appointed however, for incorporation and there will soon be an election of a member for the North West Council which will meet in July in Regina. There are two churches here—Methodist and Presbyterian each with good congregations, and the members of the Church of England (who are quite numerous) are about erecting a handsome church. Their new pastor, Rev. E. Paske Smith, sent out by the Bishop of Saskatchewan has just arrived from England to take charge of the mission.

The same writer also gives the following description of

THE ROCKIES.

I hardly know how to describe my feelings as I approached nearer and nearer to the mighty barriers which nature had placed across the American Continent from North to South for so many hundred miles. It was about sunset on a beautiful spring evening that we entered as it were, into the heart of the mountains. On the north the peaks were covered with eternal snow which no power of the sun can ever melt, but on the south side the snow lay lighter and the rugged rock stood out boldly outlined against the evening sky, the peaks gilded by the setting sun. As night came on we plunged deeper and deeper into the recesses of the mountains, the scenery became grander and yet more grand. A chill wind swept down the mountain side cutting to the very marrow. Above us on either

hand rose the mighty mountain peaks, like grim sentinels guarding the valleys beneath. The feeling was one of awe mingled with admiration as I thought of the majesty of nature and her works compared with the littleness of man and the greatest efforts of his genius. No pen picture can give the faintest idea of the grandeur of the scene. I carried the pencil of our own Foreshaw Day whose sketches of the Rockies I hope some day to see. It is a curious thing how nature seems to have left open a natural pathway for the iron horse up to the summit of the mountains. It looks like the river bed of some mighty stream which in the past pre-Adamic age perhaps has forced its way through the heart of the mountains. Immediately behind Silver City, rises the most picturesque mountain in the whole range east of the summit. It is called "Castle Mountain" from its wonderful resemblance to the ruins of an ancient castle. Its highest peak is said to be a mile and a half high and is almost perpendicular.

GENERAL NEWS

DOMINION.

OTTAWA, June 23.—It is expected that Hon. Mr. Macpherson, on his return from England, will resume the duties of Minister of the Interior, as his health is greatly improving.

The directors of the Canadian Pacific have filed an opposition to the sale of the principal section of the Montreal, Portland and Boston Railway at the instance of the Hochelaga Bank. The opposition to the sale is with a view to the sale of the entire road at no distant day. Mr. Pew writes from New York to the Globe in answer to Mr. Van Horne. He makes a proposition to build the Manitoba and Southwestern Railway and have the line between Nelson and Archibald completed this season. Mr. Pew says he is to give the names of his principles. The remainder of his letter is devoted to defence of himself and vituperation against the Canadian Pacific people.

GENERAL.

LONDON, June 26.—A narrow escape from a dynamite disaster is reported from Bradford. An infernal machine filled with dynamite and powder was placed on the street car track. Over this car filled with people passed but the machine failed to explode.

In the Commons this evening Mr. Gladstone moved that the Franchise Bill be ordered to a third reading. He denied that the bill was intended to make permanent the Liberal administration. The government, he said, tried its best to avoid a conflict with the House of Lords, but should a conflict arise, while he would greatly regret it he had no doubt of the issue. (Tremendous cheers.) Sir Stafford Northcote objected to Mr. Gladstone's reference to the House of Lords. The Bill was then ordered to its third reading by a unanimous vote. The result was received with prolonged cheering.

In the House of Lords to-day Earl Carnarvon gave notice of his intention to introduce a motion of censure of the Government's Egyptian policy. The motion is couched in the same words as that which Sir Stafford Northcote will move in the commons except that it omits the reference to Egyptian matters.

OUR SISTER PROVINCE

Port Moody.

From the Guardian. The people at the terminus are looking anxiously forward to the arrival of Mr. Van Horne, who is supposed likely to give his rations about the work of construction on new wharf, round house, station house, sidings &c. The work is imperatively needed and which must be undertaken at an early date, would involve employment for a thousand men. This would make quite a stir at the terminus. Lots continue to change hands at good prices, but the sales recently have been to buyers desiring to build and reside at Port Moody. There are now three trains per week instead of two and this number must be again increased when the line is in working order above the new bridge over the Fraser. Building and clearing goes steadily forward but the supply of houses is insufficient to meet the demand.

Mr. Wm Pinchbeck, an old pioneer of Williams Lake, now at Victoria, en route to England where he goes to visit his friends, after an absence of over a quarter of a century has seen a vast change in this province. When he left this city in 59 to go up river the only mode of locomotion was a canoe, the other day he came down by railway. Mr. Pinchbeck has reaped the advantages of industry and integrity he has now a magnificent farm of more than 2000 acres.

A correspondent who writes from the Williams Lake district says: "The crops look well all over this part of the country; the cattle are in prime condition and there is a great demand for pork oxen. They sell readily at \$150 a pair. Two year old oxen sell at \$30 each. If we may judge by the demand for oxen trained and untrained, we would say there will be a great increase next year of the area under wheat. In the district by the road and river from here to Cariboo the water is scarce and the only crop that looks well are potatoes."

Another correspondent, who writes from Clinton says: "We had an abundant supply of strawberries on the 20th of May but the skies are cloudless, the water in the ditches is scarce and the crops are in danger. The thermometer stands at 90 in the shade day after day. This is quite unusual for the season and farmers fear that the weather in July may destroy the berry crop. That would be a great misfortune for this is a pastoral country and cattle require to be fed for five months in winter."

The Kootenai Courier gives an extremely favorable account of the diggings at Coeur d'Alene. The account is lengthy so we clip a fragment as a sample. "The Last Chance, until within a few weeks considered only a fair claim is yielding gold by the pound, eight pans of dirt averaging \$1.50 to the pan truly an immense sum indeed when 2 or 3 cents per pan would pay very well." The claim is owned by Capt. J. D. Woodson, W. H. Payne and others and is without doubt one of the best in the district. It is situated one mile below Murrayville, on Pritchard creek. Work is at present being advanced on the rim rock and the dirt pans out from \$1.50 to half an ounce in the crevice. This is the best quality of gold being over 900 fine, not much washed, carrying considerable quartz and indicates that a great quartz lode is close at hand. The one hundred ounces spoken of as being stripped off will probably yield from \$15,000 to \$20,000. A double string of sluices will be put in at once and as fast as the money is taken out it will be used in opening up the old channel which is believed to be wonderfully rich and to open up will require a large force of men.

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