

MINERALOGY.

SOMETHING OF INTEREST

To Amateur Prospectors. (SELECTED) PAPER NO. 2

Water has no properties that should separate it from the mineral kingdom. All bodies have their temperature of fusion; lead melts at 612 degrees F; sulphur at 226 F; water at 32; mercury at 39. No difference therefore of this kind can limit the mineral departments. Ice is as properly a rock as limestone and were the temperature of our globe but a little lower than it is, we should rarely see water except in solid crystal like masses or layers. Our atmosphere and all gases occurring in nature, belong for the same reason to the mineral kingdom. Several of the gases have been solidified, and we cannot doubt that at some specific temperature all might be made solid. We cannot therefore, exclude any substance from the class of minerals because at the ordinary temperature it is a gas or liquid. Quicksilver with such a rule would be excluded as well as water. A mineral, then, is any substance in nature not organized by vitality, and having a homogeneous structure. The first limitation here stated—not organized by vitality—excludes all living structures, or such as have resulted from vital powers; and the second a homogeneous structure excludes all mixtures or aggregates.

The different spars, gems and ores are mineral aggregates. The compound character is apparent to the eye in granite, for there is no difficulty in picking out from the mass a shining scaly mineral, (mica) and with more attention, semi opaque whitish or reddish particles (feldspar) will be easily distinguished from other (quartz) that have a glassy appearance. It is a popular belief that stones grow, yet the absence of any proper growth is the main point distinguishing minerals from objects that have life. Plants and animals are nourished by the circulation of a fluid through their interior; in plants we call the fluid sap; in animals blood; and the increase or growth takes place by means of material secreted from this circulating fluid. The living being commences with the mere germ, and grows through youth to maturity, and when the fluid finally ceases to circulate it dies and soon decays.

Minerals on the contrary have no such nourishing fluid. The smallest particles are as perfect as the mountain mass. They increase in size only by additions to the surface from some external source. The deposit of salt forming in an evaporating brine, has layer after layer of particles added to it, and by this mode of accumulation, its thickness is attained.

Beds of an ore of iron called bog iron, are sometimes said to grow. They do in fact increase in extent. Rills of water running from the hill, wash out the iron in the rocks they pass over, decomposing and altering the condition of the ore, and carry it to low marshy ground, where the water becomes stagnant and gradually the iron is deposited. This bog ore as the name implies, is found mostly in low marshy grounds, and often contains nuts; leaves and sticks changed to iron ore. The increase here is obviously by external additions.

In limestone caverns, and about certain lakes and streams there is much carbonate of lime. As it evaporates layer after layer of the lime is deposited, till thick beds are sometimes formed. In caverns, the water comes dripping through the roof, drop by drop, and each drop as it dries, deposits a little carbonate of lime. At first it forms but a mere drop on the surface, but it gradually lengthens, till it becomes a long tapering cylinder, and sometimes the pendant cylinder or stalactite, as it is called, reaches the floor of the cave, and forms a column several feet in diameter. It thus appears that minerals increase, or enlarge, by accretions or additions to the surface only. They decrease as the surface is worn away by the action of running waters and other agents.

When they decay, as sometimes happens from contact with air and moisture, or some other cause, the change begins with the surface and results in producing one or more different minerals. The line of demarcation therefore, between beings and minerals or in organic matter, is strongly drawn.

FORD'S PEPPERMINT.

QUEEN vs. BEAUPRE.

Charged with having Intoxicating Liquors in His Possession. (BEFORE MAJOR DOWLING, POLICEMAGISTRATE)

Victor Beaupre of Gleichen appeared before Major Dowling on Thursday morning in the Mounted Police court room, charged with having in his possession, on the 22nd ult., at Gleichen or 14th siding, intoxicating liquors.

Mr. Bleeker appeared for the defendant. The defendant pleaded "not guilty." Sergeant Dunsmuir of the Mounted Police sworn.

He testified that on the 22nd April last, he saw the prisoner in his store. He asked defendant if he had any kind of essence in the store.

He said he had on hand a box of peppermint. The box of peppermint was produced. Witness testified that he reported the case to the court. One bottle of the stuff was given to Dr. Kennedy. Witness here produced Dr. Kennedy's report. Witness said he tested the stuff himself and said that the best part of it contained alcohol. Witness was not sure that the bottle produced was the one he tested, but the box was the same. It was Ford's extract of peppermint. Witness said he believed it was intoxicating the best part of it was alcohol. Dr. Kennedy had stated that it contained ninety per cent. of alcohol.

Cross examined by Mr. Bleeker. Witness said he was a detective looking for liquor in the country—employed on special service. He had his own discretion. He had a pass

to travel around wherever he wanted to. Witness had visited Mr. Beaupre's house several times. It was his duty to go into the store. He went into any store just as he thought proper. The first thing he always did where he had any suspicions was to ask directly. There were no bounds to when he should go in. He was always on duty. He obtained his orders from Police headquarters. Witness did not open every box that came to the station. Witness only did so when there was any thing suspicious, and he could generally tell by the shake of a package.

Witness knew there was some essence in defendant's store and he told him to make away with it. What witness complained of was that there was ninety per cent alcohol in it. Witness had to seize it unless there was a permit from Mr. Steete. Witness did not remember the first question he asked defendant when he went to Gleichen to arrest him. Witness however told him he would take charge of the box and get it tested. The box was unbroken. The bottles were all cased up in paper. Witness said that he had taken a bottle of the essence to Dr. Kennedy. After getting Dr. Kennedy's report witness laid the information, and then got a warrant to apprehend the prisoner and arrested him.

Mr. Bleeker asked that the identical bottle which the witness had examined be produced in order that he might have it examined by Dr. Lindsay.

Mr. Bleeker then read an affidavit and other papers from the defendant, denying the accusation.

In consequence of the absence of Dr. Kennedy at Medicine Hat, the case was postponed until Thursday next. The court then adjourned.

CALGARY.

THE METROPOLIS OF ALBERTA

Its Situation—Extent—Buildings—Population and Prospects.

This one year old town is situated near the confluence of the Bow and Elbow rivers in the district of Alberta, within sight of the great Canadian Alps whose wreaths of eternal snow glisten in the sunlight and afford the traveler a never failing source of wonderment and pleasure. The town site is beautifully laid out in a regular natural basin formed by the wide bend of the Bow and Elbow rivers, both of which here well deserve the name of Bow. The valley is here from a mile to a mile and a half wide.

To the east is the natural opening through which the Canadian Pacific enters the basin and to the west is a similar opening through which the train emerges on its westward course. With the exception of these two gaps the immediate view is obstructed by bold, magnificent and continuous bluffs, whose escarpment exposes various kinds of valuable stones which will yet be a source of wealth to the town. To one accustomed to the dead level of the eastern prairie, or even to the rolling prairie of the Assiniboine, the valley of the Bow affords a most agreeable variety, and the traveller who enters it for the first time cannot help uttering exclamations of admiration. It is no exaggeration to say that it is one of the finest town sites in North America. It has already earned the distinction and it is well deserving of it. But if the local scenery is varied and charming, the view to the west where rise those majestic cliffs which have been often termed the back bone of North America is grand in the extreme. The great cones show themselves here and there beyond the peaks of the foot hills, and pierce the sky with their snow clad sides and apices.

The Canadian Metehorn and the Devil's Head, the latter a curiously shaped mountain of a dark hue rounded like a dome is plainly visible on any clear evening from Stephen Avenue, and when the telescope is brought upon their icy cones the eye is furnished with a treat of which no eastern city can boast. Calgary has already assumed the dimensions of a city. There are at least three hundred buildings of all kinds in the place. Here are the headquarters of the Mounted Police, there being a force here of at least 150 men. The first town site was laid out on the east side of the Elbow, close to where that river joins the Bow, but the location of the railway depot about a mile further west changed the business centre of the place, and most of the east enders moved over in the night time to the west side, though the store of the Hudson's Bay Company that of Messrs. King & Co. are still on the east side of the river, and the well known firm of I. G. Baker & Co., traders, occupy ground at the east end though on the west side of the Elbow. These firms are the largest in the place and as may be supposed do an immense business. They have selected ground on the west side and they intend to build. The barracks of the Mounted Police occupy a beautiful situation on a rising ground at the east end, but it is evident that the heart of the business life is centering around the depot.

There is already here a Methodist Church, a Presbyterian Church and a Roman Catholic and the English Church people are arranging for a handsome structure to be erected this summer. There are already several hotels which furnish accommodation to the weary traveller.

Capt. Boynton, an Englishman of means and who takes a great interest in the place is erecting on Stephen Avenue a theatre which is to cost several thousand dollars. The building is in a fair way of completion and it bids fair to become one of the successful institutions of the place.

A noticeable feature is the existence of bar rooms and saloons, and the total absence of the liquor traffic, and to meet an intoxicated person is a rarity. Hop beer is the most intoxicating beverage. This is due to the prohibitory law in force and is producing a quiet and orderly population. It is perhaps the most cosmopolitan place of its size in the Dominion. There is a western freedom about it that is most agreeable since drunkenness is a feature which does not enter into the teeming of every day life.

With the development of the mineral treasures Calgary promises to become the Denver of the Canadian North-west. Indeed it is already designated by that name.

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The soil near and around Calgary is a light sandy loam. A magnificent country stretches to the north and north-east along the Red Deer River, towards which are already flocking large numbers of settlers. When it is borne in mind that the great frozen belt which stretches from Lake Superior to the Saskatchewan exercises no influence on this region, that the winters are mild, with only an occasional cold day, that there is none of that terrible winter severity which renders Manitoba in winter synonymous with the Arctic Circle, some appreciation will be felt for the climate at least. When the traveler passes the country near and around Medicine Hat he enters a more agreeable climate, and every fifty miles west from that point makes a very perceptible difference. The winters of this district are neither so long nor so severe as those of the Red and Assiniboine valleys. Spring commences from two to three weeks earlier, and the fall is two or three weeks later. The prevalence of westerly winds, Chinooks, ameliorates the climate and renders winter not only agreeable but positively acceptable.

The waters of the Bow and the Elbow abound in trout, the mountain and brook variety which afford excellent sport to the citizen and tourist. The waters are clear and beautiful, the streams being mountain fed and clear as crystal.

The proprietors of the town are the North-west company the Government, the Railway Company, Mr. Stewart, and some others. Lots have been sold principally on building terms and a rebate allowed for building within a certain time. There are already about twenty stores in this place, three or four hardware stores, two stationer stores and the North-west Printing Office, and through the columns of the Nor-wester, which is published every Tuesday, will be furnished to thousands of eager eastern people the most valuable information concerning this most promising young city. The North-west Land Company have just completed a handsome office on the north side of Stephen Avenue which is to be occupied by the efficient and gentlemanlike agent, Mr. Ramsay. That Calgary is to become the capital of the proposed province of Alberta there can be no doubt. A great future is before it, and it has all the conditions of a sound and substantial commonwealth.

An application for a town charter has already been made to the North-west Company, and in a few weeks the town will have an incorporated existence, thus giving it additional status and importance.

The people of the town are already moving in the matter of bridging the Bow in order to secure the Edmonton trade. A new bridge has been erected across the Elbow, thus uniting the old town with the new, and the Canadian Pacific Railway Company and the North-west Land Company have contributed \$250,000 each towards the construction of another bridge across the Elbow to connect with the Fort McLeod trail. The population of Calgary is already about 1000, which is rapidly increasing. Two through trains from the far east are now running weekly. Calgary, though not the end of the C.P.R., is the terminus of the road. West of this point the road is in the hands of the contractors.

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Current Publications.

The "Century" for May is on our table. The frontispiece is a good picture of Chief Joseph the Nez Percé. The introductory article is the "Salem of Hawthorne." It says:—"Nathaniel Hawthorne's instinct for localities was not strongly developed; wherever he walked, in city or country (and he was very fond of walking), he constantly missed his way. This trait or deficiency is not without its reflection in his writings. It is of small importance to him what the topography of his story might be—whether his house faces to north or south, whether his street turns to the right or left. He is willing to let these and analogous matters take care of themselves, and herein he differs remarkably from the great French novelist, Balzac, who wrote by the map and the rule, and who always knew precisely the income of all his people and from what investment it was derived." The Metopes of the Parthenon and the Lapith Head in the Louvre is an interesting paper which we safely recommend to Mr. McCookie. Charles G. D. Roberts has some figurative verses on the Slave Woman John Burrough contributes an interesting paper on British fertility. M. G. Van Rensselaer commences a series of papers on Recent Architecture in America, and an "Evening Song in May," in verse by John Vance Cheney reminds us that we have entered the merry month. "De Sever" is continued. "Rose Maider" is a brief but interesting narrative. Chap. XI of the "Avarage man" is continued. The Bay of Islands, in calm and storm is an interesting maritime sketch. "Of the creature of the Alice May." Thomas Hughes has an interesting paper, "The women of the Bee Hive." C. E. S. Wood, (Is this our friend of the Fort McLeod Gazette?) contributes a very interesting account of the capture of Chief Joseph and the chase by General Howard. Topics of the Time and Spectators are up to their usual freshness.

NOTICE. Notice is hereby given that the late firm of W. FitzGerald & Co. has been dissolved in Calgary, and the partnership estate and effects, including their individual estate and effects, in trust for all their creditors, either individually or as members of said firm, and all persons having claims against the said partnership or either of the said individual members of the said firm, are requested to send in their claims, residences, and particulars of their claims, with vouchers attached, to the undersigned at Calgary, Solicitors for the said estate, on or before the Fifth Day of June, A. D. 1884.

And notice is hereby given that after the said date, the said Trustees will proceed to distribute the assets of said firm, and the individual assets of the members of said firm, among the parties entitled thereto, having regard only to the claims of which notice shall have been given, and that he will not be liable for the assets, or any part thereof, is distributed, to any person or persons whose claims have not been so notified.

H. BLEECKER, Solicitor for Trustee. Dated at Calgary, April 24th, 1884.

LOST. A GOLD CHIFF BUTTON LINK PATTERN. Finder will be suitably rewarded by leaving same at this office.

TENDERS will be received by the undersigned until 11 o'clock (noon) Monday, 13th, for the erection and completion of an Episcopal Church at Calgary. Plans and specifications may be seen and any other information obtained by applying at the office of Messrs. Edward McCookie and Co., Architects, Stephen Avenue, Calgary. The lowest and most satisfactory price necessarily accepted.

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