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Before I write of my father Bernard J. Harrington - let us dwell briefly on his forbears -

The first Harrington to come to Canada was known as Pioneer John Harrington, he came to St Andrews East from New England probably Boston, about the year 1802 with a group of enterprising young men, their aim being to start a paper mill. It cannot be ascertained if John H. was a U.E.Loyalist, as some of this group were undoubtedly sympathetic towards the Revolutionists - then to, according to historical notes most of the U.E.Loyalists who came to St Andrews had come before the turn of the century immediately following the signing of the Declaration of Independence - but in any case this group proved loyal British subjects and had a high regard for the Mother country.

John Harrington helped with the building of the paper mill ( 1803 - 04 ) which was the first mill in Canada, and he was the first mill-wright. In 1806 he became part owner of the mill. The paper industry had a checkered history for 30 years - it furnished a great variety of paper for the Montreal market and started the prosperity of St Andrews, and for half a century made it the industrial centre of the lower Ottawa valley. It employed many hands. Wood pulp was not used in those days, the main dependence for raw material was rags of all kinds, which were often a scarce commodity in the early pioneer days. Rag men driving horses with good sized carts roved the streets of towns and cities calling out " Rags, any old rags for sale ? " and would pay small sums for worn out materials that could be parted with.

A historical cairn has been placed in St Andrews on which can be seen the following words -

" The first mill in Canada was built in St Andrews East in 1803 - 5 by a group of New Englanders. "

John Harrington married Charlotte McArthur who was the daughter of Peter McArthur ( the first settler at Carillon ). Peter McArthur's wife Phoebe Lane was a sister of Jedediah Lane and one of the founders of Lachute, which was first called " Lanes Purchase ". They had five daughters and four sons - Miss Burwash of Arnprior a descendant describes them in this way -

Sarah - very dark and handsome, unmarried and the good angel of the family.

Maria - married to Daniel McLachlan - had a stormy life.

Harriet - married to Dr Vancortland, who was exceedingly clever but went the pace.

Charlotte - married to Nathaniel Burwash who died of consumption about 1861 or 62 and left her with six children - the youngest baby Julia died to 0,

The fifth daughter died while very young, and nothing is said of her.

The sons were John, Armand, Eric and William. John Jr. lived his life in St Andrews, his sister Sarah keeping house for him. Nothing is said of Armand -Eric left St Andrews to live in Arnprior - a short account of him follows.

(6% Eric the fourth son of John Harrington was a St Andrews merchant - In 1852 or 168 years ago he sold his store and merchandise and removed to Arnprior. A printed announcement ( owned by Miss Wales ) of the sale gives a picture of the period in its list of goods. The ladies of that period bought exotic and rich materials for their formal costumes - their crinolins and bonnets, their carriage cloaks and polonaises ( a bodice with skirt open from waist downwards ). The following are a few of the names of materials - selicias, fancy orleans, jaconet ... mull - plain and fancy doeskins, moleskins, fustians - plain and wool cloakings - cashmeres, Persians, Ribbons and Laces I etc. "

A descendant of the family writes - " Eric Harrington lived in an oldfashioned house surrounded by a lovely garden of rose and pink peonies and tall yellow sunflowers. . . I can see him standing in the hall with a smile on his face, leaning on a cane. To me, about four years old, he seemed like a tall bent tree. My sister and I were often taken to see Uncle Eric by our Father, and we were always given chocolate cake and milk before we went home. "

Miss Russell of Braeside says - " I remember that he always walked with a canepor umbrella - he was on every occasion immaculately dressed, and was tall and handsome - when he sat in his square pew in the Presbyterian church, he always sat at an angle which enabled him to inspect every one as they came in and walked up the aisle. "

Eric Harrington's house still stands in Arnprior and I believe the interior is almost what it was in the early days and quite worth seeing, if you are invited in.

Lastly William, of whom we will hear more presently.

But to return to John Harrington Sr. the Mill-wright - he having made money from his paper venture as well as from other interests, bought a fine property of 240 acres, fronting on the main street of St Andrews which became the Harrington Estate There in the eighteen - twenties he built a fine two storey brick house, which all the older inhabitants remember as " The Harrington House ". This dwelling was said to contain the finest and most beautiful woodwork, as Mr H. was a great connoiseur of woods - Unfortunately this handsome home was destroyed by fire in 1918, and only several pines which grew in front of the house remained to mark the spot. The brass knocker from the front door inscribed with the name John Harrington was salvaged from the ashes and has since become the property of Eric Harrington of Montreal.

This property was a fine tract of land and contained splendid maple groves and much fine timber.

-- If you consult the family tree, you will see that William was the third son of John Sr. and Charlotte. He went to Montreal when quite a young man and entered a hardware establishment, where in a short time he became a partner. Later he

returned to St andrews to look after the family Colate, when at that the he received the responsible position for Captain Johnson as acting agent for the Seigneury - This appointment he held till the time I his death -He married Laure Some

He married Laura Seymour, and was the father of five children, a son Dr Bernard Harrington and four daughters, the best known of the latter was Laura.

Captain Johnson at this time still owned the Seigniory which was originally held by his Grandfather Sir John Johnson. Here it may be of interest to read a short account of how Sir John came to Canada from Mohawk valley. (Sir John was the son of the famous Sir William Johnson of Mohawk Valley fame).

The following paragraph relates to how Sir John escaped from Johnson Hall of the Mohawk "alley to Canada.

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Sie buch Scaling The canting interior Stand and State of the second seco The Seigniory of Argenteuil, had the distinction of being the only English Seigniory with an English Seigneur within the bonds of Lower Canada - but it was not without its French element, for the names of many illustrious French families are associated with this region - such names as the de la Rondes, de Hertels and Papineaus etc.. It was said that these families added in no small degree to the charm of the social atmosphere of the early days. They were lavish entertainers and their courtly French manners contributed to the cosmopolitan spirit for which the old town was noted.

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In historical interest Argenteuil Seigniory is unsurpassed among the seigniories of Lower Canada - Its significance is in a large measure due to the eminence of the Seignieurs who were amongst the most distinguished men of their day, they were characters that figured prominently in military and political events their wealth and fame helped to bring their domain to the attention of persons of influence, and to early bring a class of pioneers of superior intelligence and education, merchants with brain and capitol, tradesmen skilled in mechanical arts, and magistrates well qualified to organize municipal government - all this helped to explain the early and rapid developement of this region.

This Seigniory was a large tract of land covering in the first grant signed by the Count de Frontenac in 1652 an area of 72 miles on the north side of the Ottawa River - extending 6 miles east of the Long Sault Rapids and 12 miles north to the foothills of the Laurentians - the grant included all the islands, points and sand bars, of which the island named Carrilon was a part - also the North River of these parts flowing through rolling country of exceptioal beauty. This region of unbroken forest remained at that early period undisturbed for full a century, except as the hunting grounds of Iroquois Indians. Through the years the Seigniory was bought and sold and passed through varied hands - two of the more interesting families who owned it were the D'Aillebousts and the Panets - the former being a distinguished family who held high positions in Church and State in France, and the head of the latter family swore allegiance and fealty on bended knee to the reigning British Monarch George third. Panet was born the year when Montcalm and Wolfe met on the Plains of Abraham. He was 22 when he purchased the Seigniory, and was the seventh of a family of seventeen, fourteen of whom were sons. At the age of sixteen, he won great distinction in a battle near Montreal at the time of the American invasion under General Montgomery. The Seigniorial Regime was one of charm and romance, and happy relationships usually existed between the Seignieurs and their ' censitaires ! -

St Andrews East was the first organized colony of the Ottawa valley -The first English speaking colonists were from the U.S.A. who crossed the border towards the end of the 18th century. For knowledge of pioneer days we are dependant upon Grandsires, who faced the woods with but axe in hand - those were the days of ox-teams and wooden ploughs, of spinning wheels and candle moulds. These English speaking colonists came in two groups ( distinct ) the smaller group were United Empire Loyalists and the larger group were Americans of Puritan Ancestry many of them were veterans and sons of veterans of the Revolutionary Army - That revolutionary sympathizers should leave their country so soon after the war may seem strange, but the reason for their coming to Canada is not far to seek - it was obviously to their advantage to escape from the heavy taxation which followed the war, and to leave the stony farms of Vermont and New Hampshire and come to the fertile Ottawa valley with almost free land grants. These two groups who were on opposite sides during the war worked harmoniously in creating a strong pro-British sentiment in St Andrews - both Loyalist and Patriot were ancestors to be proud of. In the war of 1812 the Revolutionaries rallied to the British colours and resented the threat of the Yankies " that they would come over and take Canada before breakfast ". Small groups of these Americans were the founders of Canadian villages especially in the Eastern townships.

One by the name of Treadwell was the first man to settle above the Long Sault Rapids - he came to these parts first in the employ of the Hudson Bay Co., and later joined the service of John Jacob Astor in the fur trade. - he was 26 when he came and brought with him his young wife and retinue of negro servants. (Astor) had a fur depot on Vincent St. in Montreal.)

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There was no landmark more reminicent of thrilling events than the market square of St Andrews - it was the village playground - circuses with elephants, caged lions and entrancing music appeared. Cricket, baseball and the national game of lacrosse brought tournaments; and at one time the Iroquois Indians of Oka decorated with paint and feathers contested for laurels with the St Andrews Lacrosse Club. At the fall of Sebastopol in 1856, which brought to an end the Crimean war - a mandate to commemorate the event in St Andrews was welcomed by all, a great bonfire was Iit in the market square - Old timers say the pyramid of fuel reached 30 feet, and so great was the blaze that it could be seen as far as Vankleek Hill ... fortunate it was, that at that time the rooves of the houses were covered with a light fall of snow.

The large drill shed at the north of the square was used as a military headquarters, and the Parade ground was the scene of many a demonstration of cavilry and infantry.

In the early days at a heavy " barn-raising " when the farmer had got ready all the building material with every mortice and tenon ready to interlock, the neighbours assembled to give their help. At these times drinks were held indespensable, and at opportune moments they would clink glasses and sometimes drink from the neck of the bottle, giving a health to the women folk who were preparing the dinner. The good wives were skilled in making fermented wines from native fruits which warmed the hearts and loosened the tongues. With the passing of years this drinking brought much grief in the toll of wrecked lives, and there arose the St Andrewis division of the Sons of Temperance; the Society had a long and eventful history and through the years sponsored many a holiday excursion -In the year 1860 when the young Prince of Wales was in Canada, it organized a four day trip to Montreal together with its friendly rival the Non-Temperance group..... An old steamboat with high pressure engine was chartered for the occasion, and to meet the need of the growing number of subscribers, a barge was fitted up as a house-boat to give the required accomodation - The second group were no less alert, and also rented a barge which was said to surpass that of their rivals in the convenience of the curtained apartements, and its housekeeping appointments, and they saw to it that their larder was provided with a sufficiency of the" Oh be Joyful " - ! With all arrangements complete for the start and the sun shining brightly, the scene was a picture - With shrill whistle the "Buckingham"flying British colours at full mast, and with the St Andrews brass Band on board puffed down the North River with the two happy throngs in tow ... the singing of Rule Britania to the accompaniment of the Band added to the enchantment of the moving picture - The speed of the boat was six miles per hour.

A man by the name of Paquette writes " There are no brighter memories of our boyhood days, than those spent tenting on the old camp ground of Jone's Island - this favorite spot gave a commanding view of the Grand River ( the Ottawa ) that great highway of commerce for the populous basin of the Ottawa River before a railway connected Ottawa to Montreal. It was very much alive in those days with river craft of every kind from tugs and tow-boats to freighters and fine passenger steamers - or the scene might be varied by a tow of 12 or 15 barges laden with lumber bound for New York via the Richelieu River and Lake Champlain - or there might be a raft on its way to Quebec, with the raftsmen chanting their ' chansons ' jo the rythmic splash of oars. " St Andrews was always famed for its love of music, and for many years boasted of a full orchestra and a cornet band that was the pride of the Ottawa Valley -The mellow strains of the open air band concerts in the early forties were enjoyed by many a village gathering. The foundation of this musical life of old St Andrews was laid in the earliest days, when musicians from the military bands of the American Revolutionary armies were among the first pioneers and became the first local teachers of music. One band of great fame of these parts was Eilemans Band which gave concerts at L'Original, Hawkesbury and Vankleek Hill. In later years came Hugh Robertsons orchestra, known as the " Lobster Club " on account of the fondness of its members for lobster salad, which had always to be provided by the host or hostess of the evening. From the historical point of view, an important musical event was the Queen's Bitthhday Celebration of May 24th. 1877. A spectactular pageant reviving costumes manners and songs of "Ye olden times ". Many of the local people who took part were descendents of the Pilgrim Fathers. The delightful name of " Prudentia Holdfast " appeared on one of the programmes. Parson Howard was on hand at the pageant to observe the actions of " Ye young men and maidens " and to warn them that undue " levity and sparking " would be mentioned from ye pulpit next Lord's Day.

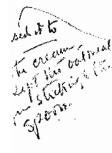
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An outstanding musician of St Andrews was Aime Mackay - he held the position of President of the Organists Ass. of New England, was Pipe-Organist in Chicago and also of St Pauls Cathedral - Detroit.

There is a very beautiful old cemetary in St Andrews, and in it will be found the remains of many interesting persons. In the burial plot of the Macdonells, lies the dust of Col. Edward Macdonnell, at one time Aide-de-camp to the Duke of Wellington during the Peninsular War - Later he became Quarter Master General of the forces serving in Canada for the British Army. His son was the organizer of the Argenteuil Rangers and was Commanding Officer in the Battle of St Eustache during the Rebellion of 1837.

So much for the history of St Andrews, now to return to the Harrington family - The following notes are some recollections given me by my sister Clare Harrington regarding our Grandfather William Harrington and his home.

" William Harrington my Grandfather married Miss Laura Seymour a gifted and gracious lady, but delicate - and after bearing five children she died, but not before the eldest daughter was able to take over, she was Charlotte, then came Maria, Mary and Laura and after quite a gap my father Bernard James. I can only just remember my Grandfather, I recall seeing him only twice - he was tall straight and lean and came to visit our home in Montreal ( Wallbrae Place ) and brought much joy to the children by producing from his overcoat pockets various shapes and sizes of cakes of maple sugar, these made from the sap of his trees in his maple grove on the St Andrews property. The next time I saw him, was when we visited him in St Andrews - and I can see him now at the breakfast table, after a long grave, taking a great spoon and dipping it into a tall glass jug of cream before he ladled it out on to his h ot oatmeal. The dining-room was at the back of the house, but a door led from it into the library which was at the front. Across the hall was the drawingroom running right through from back to front, with a low window at the side looking on to the garden. Just under the window was a bed of petunias, and I remember looking at them longingly and enjoying their fragrance. The inlaid floors were polished and shone brightly, I believe William Harrington was a connoiseur of woods. The house was square of Georgian style with



a New England look - there was a wide welcoming front door, on which hung a large brass knocker with the Harrington name and date. On one side of the house towards the back were segeral pantries as well as the kitchen, above which were maids quarters. Back of the kitchen was a large court yard around which were gathered the farm buildings. How well I remember all the farm produce that was sent from there to Montreal for the nourishment of Bernard J's growing family. It was only after the death of William Marrington that I again visited St Andrews. My Aunt Laura was there alone with ohly Bella the faithful servant to help her. Bella still made butter, and took me into the cool creamery with its rows of shelves, on which many bowls of milk waited to be skimmed, and she with a large spoon skimmed off the cream, putting it into a churn - then ended up by giving me glasses of cream and luscious ginger cookies. "

Mr William Harrington accompanied by his wife, the aforesaid Miss Laura Seymour, not infrequently visited his friend Mr Gibb at Como, on the Lake of Two Mountains. In order to make this trip, I have heard my Grandfather tell that their mode of travel was by being paddled down the Ottawa River by Indians in a large canoe.

It was said that Isaac Walton had no more ardent devotee than Mr Seymour of Montreal. ( Laura's Father ). A familiar scene on the North River, was the old gentleman seated in a cushioned chair under an ample sunshade, in the stern of the boat, the Harrington skiff, while always Victor the Indian was the guide and oarsman for the days fishing. Their return at sundown usually meant fresh fish for dinner for the village dames, for Mr Seymour was always very generous with his catch.

Shortly after William Harrington's death, Aunt Laura moved into a small house, taking with her what furniture she required, the remainder coming to B.J.H. to Montreal - all of it was solidly built mahogany. The house was then let to a farmer, who carried on with directions given in hasty visits from B.J. This arrangment proved to be most unsatisfactory. After trial of several farmers, the last one allowed a viscious bull to escape, which killed a neighbour's horse that was grazing along the road. The owner of the horse demanded an outrageous sum of money, quite beyond the limits of a professors salary ! This was the last straw and was the finale of the St Andrews home - and in 1885 the house and property were sold, and as stated before in 1918 the house was burned to the ground. This fine property finally came into the possession of the St Andrews Golf Club, a fine Corporation who are beautifying the whole region.

The last occupant of the house was a farmer by the name of Fitzgerald, who said the house was haunted. Two lads with inquisitive turn of mind, explored the house from garret to wine cellar and found no ghosts - the walls of the spacious hall and dining-room just seemed to echo the voices of long ago.

> "No voice in the chamber No sound in the hall Sleep and oblivian Reign over all "

My Aunt Laura was the sister who lived the longest and therefore one heard the most of - but the other girls must have each been charming in their own way and I would gather full of fun, judging by their photographs they were all good looking. In these Victorian days the young ladies all had their accomplishments beside their household skills and Bernard's sister Charlotte Painted charmingly. It was said that she made a fine sketch of the old paper mill, though where it is now is hard tosay. There is in my possession a picture which always hung in my Mothers bedroom - it is that of a rosy faced child smiling, this is framed with a circular gold mat and square frame, it is a delicate and finely carried out piece of work of that period. Besides these examples of her art she was fond of flower painting. My Father always had in his library a small painting of sweet peas.

Laura was an accomplished planist and music teacher and brilliant accompanist and was for many years organist in the Presbyterian church - She had a great appreciation for clasical music, and a wonderful ability in rendering it. A sel ection which was frequently in demand at gatherings over which she presided was "The Harrington March " composed by her brother Dr Harrington. Quoted from a small book is the following " Miss Laura Harrington lived quietly in her small house for many years, and became an inspiring and much beloved person in the community - she had rare qualities of character and a marked educational influence in St Andrews."

Maria probably embroidered or made lace, while Mary or possibly all of them had literary talent. The following are paragraphs selected from Aletters written home from a European trip.

" My first experience of sleeping under eiderdown took place at Cologne and I can tell you it is a grand institution. There were not many bed clothes, but an immense square pillow covered you all over, the case of it was made of red stuff with white lace on top, and a frill of white lace around, so the effect was very fine, especially when I was under it - How Louisa did laugh, just my head sticking out of all these feathers - but it is so comfortable, warm as toast and yet no weight, capitol for a sick person I should think ..... The next thing that amused me was the dinner next day, we dined at one o'clock instead of at night, and were the only English speaking people present. They had a great many courses and everything tasted good except a very tender goose which was stuffed with chestnuts, which I don't like, with it we had stewed prunes instead of apple sauce, and boiled celery roots and all ..... at short intervals along the table were placed in little stands like silver match boxes quantities of tooth picks, which the men used freely - fancy seeing a whold row of spectacled Germans picking their teeth ? ..... It is sad that Cologne is a dirty town, but frost and snow covered up things and destroyed all impurities, so I did not require to use my perfume. ! "

Frankfort: "We have made the most of our time and have seen as much as possible by driving about - We visited Goethe's house, and went into the room where he wrote many of his earlier works. Then we drove through the 'JUdenstrasse' ( Jews street ) the dirtiest, darkest, most antiquated place you could imagine. Many jews settled here in the 12th. century, but their privileges were very limited. Gates at each end of their quarters prevented them leaving in evenings, holidays and Sundays, and till 1806 they could not enter the market place, under severe penalties. However the denizens of these dark passages and gloomy houses got rich, as all jews will, and from this very street came the great Rothchild family."

"We have all been invited to another German "Feed " for eating seems the entertainment - this time it was to tea, and we were seated around a table loaded with foreign cookery. First came cold boiled fish, then the beverage (very weak and mean tea ) and fish passed again. Plates changed and roast turkey, roast hare pickled herrings, sliced mutton swimming in vinegar - cold ham, 4 varieties of sausage, cold, and cut in slices. Black German bread, butter, pickles etc. Then plates changed again and 4 species of preserves besides stewed apples and cranberries were handed around consecutively. After this a huge cake, which had been gracing the centre of the table was cut and partaken of, and a variety of small cakes had been handed around on a tray, like at country " tea meetings ". To wash down all this mixture, ( to use an elegant simile ) to make you feel more like a swill pail than ever, beer, red wine, white wine and champagne were to be had if wanted. Everybody drinks here, even the small children, but you never see a drunk-

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en person, the wines are very light, so do not effect ones head. This mild tea occupied so long a time, that the next move was to come home, which we accordingly did, having a good deal of fun about the funny way of doing things."

"We remained in Berlin till Friday, sight seeing most of the time, I went to the Ballet, which I did not enjoy - it seemed so dreadful to think of so many young girls devoting lives to such an occupation - all natural feelings of modesty must be entirely lost. The opera I liked better... I suppose I will never hear better singing and music ...... (To Bernard ) If you should need any music let me know which pieces you would like, for it sells for a song here. .....

Today I committed the extravvagence of getting a very pretty dress, that we saw ready made, and I needed something for the wedding, as my black would not do for such an occasion  $\leftarrow$  it is a silk and wool material of light colour, trimmed with brown silk frills, and made me look quite stylish, though it is very ladylike. Our hotel is very comfortable, and the dinners very grand - I enclose a bill of fare - fortunately what we had to masticate was not as jaw breaking as the names might lead you to believe ! "

We now come to the all important subject, being that of the life and work of Bernard James Harrington.

My Father B.J.Harrington, who later became so well known at McGill University, was born at St Andrews East P.Q. on August 5th. 1848. As stated before, he was the son of William Harrington. Quoting Miss Burwash, she speaks of my Father intthis way, "Your very clever and musical Father." St Andrews was an interesting little town to be born into, and it proved a good place for Bernard during his young years, for he was not a strong lad. He lived happily there with his Father and Mother and four sisters - Charlotte, Mary, Maria and Laura. Bernards early education was obtained chiefly from tutors - he then entered McGill University where he graduated in 1869 with honors in natural science, and taking the Logan Gold Medal in Geology. He then proceeded to the degree of Master of Arts in this University, and subsequently continued his studies in the Sheffield Scientific School at Yale University, specfalizing in mineralogy under Dana and Brush. In 1871 he obtained the degree of Doctor of Philosophy, being the first Canadian to gain this degree at Yale- also taking the prize in Mineralogy. At Yale he was a class mate of Prof. H.S, Williams of Cornell, who both received the degree of P.H.D. at the same time. Having obtained his P.H.D. he returned to Montreal and entered the laborstory of the Geological Survey of Canada whose headquarters at that time were situated there. During his time at the Survey he studied many of the rocks and minerals of the country, both in the field and in the laboratory, and in particular prepared a monograph on the iron ores of Canada - His findings were given to the scientific world through the medium of the publications of the Geological Survey and other learned bodies. His first field work was carried out in Prince Edward Island, where he assisted Sir William Dawson in the making of a geological report of the island.

While at Yale he made many life long friends, who never ceased to ask him to visit them, which he did whenever possible.

Im 1871 he was appointed lecturer in assaying mining and chemistry at McGill and in the following year succeeded Dr Sterry Hunt as chemist and mineralogist to the geological Survey, discharging these duties of both positions for several years. Im 1879 he retired from the Survey and devoted his whole attention to the teaching at McGill, where he was subsequently appointed David Greenshields Professor of Chemistry and Mineralogy.

As has been said, Dr Harrington's first duty was the teaching of general chemistry, mining and assaying - to these were soon added other branches of chemistry and also mineralogy - when it was deemed necessary or imperative that instruction in metallurgy should be given, and as there were no funds to meet the expenditure,. Dr H. spent a summer visiting and studying various smelters, and subsequently for many years taught all the metallurgy in the college - and this he

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must have accomplished most satisfactorily, as shown from the fact that many of his students rose to occupy foremost positions in the mining world, and many became known as leaders in the profession all over the two Americas - So to with the subjects of petrography and botany - for lack of funds to pay other teachers Dr H. again stepped into the breach, and at the expense of a great amount of time and energy and personal sacrifice he taught these subjects, and kept the instruction at a high level, till such time when new benefactors enabled the University to appoint specialists in these important fields.

Prof. Evans, one of B.J.H's demonstrators writes "For years, this devoted man carried on single handed .. many an evening found him working in the laborstory into the 'wee sma hours ', cobbling up damaged appliances, or setting up experiments for lectures " -

In paying tribute to some of McGill's good men, Dr H.M.Tory said -" McGill should not forget such devoted men as Dr Bernard Harrington, who with equipment in the old Arts Bldg. little better than a deal table and a kitchen sink, taught the men who were later mining half the copper of the world - and it was Dr Harringtons great dictum, that a teacher was not of much value unless he could, by example, compel his students to be restless in their desire to supersede him " -

An unknown Science man of the year '86 writes - " Dr Harrington or just \* B.J. \* as he was affectionately spoken of among the boys ... All his old students remember him - What a task was his; chemistry in all branches, mineralogy mining, metallurgy, petrography, all these he taught, and many of his classes were large - and there was laboratory work as well as lecturing - The equipment was very meagre, but it was stretched to its uttermost limit, and all that could possibly be got out of it was realised - Down in a dark cellar superintending a fire assay, or hurrying around a lab, demonstrating, explaining, encouraging; loaning his own private possessions where the college equipment was not sufficient; searching through the cupboards and store-room for apparatus with which to illustrate a lecture; improving where instruments were lacking; setting up his own class room experiments and carrying them through; and then cleaning up the apparatus and putting it away - all this he did himself, for he had no assistant till 1884. Many a good story he had to illustrate and enforce important points, and he was never too busy to lend a helping hand to anyone who might ask. When old students revisited the college, he was the first about whom enquiries were made ?

Again Dr Tory writes in recalling the good old days at McGill. " At that time, the great laboratories which have grown up on the McGill campus were unknown - the whole chemistry department consisted of a lecture room and two small laboratories in the basement of the old Arts Building - the entire space was far from adequate. The teaching staff consisted of one professor and an assiatant - The professor was the late Dr Harrington; one of the most beautiful characters and ablest teachers that I have ever known ".

" For such research as DR H. found time to carry out, he was obliged to provide most of his supplies at his own expense; and his private apparatus was constantly being called into requisition for the use of his more advanced students. His most valuable possessions were a petrographical microscope, an agate mortar for specially refined work, and a platinum spatula. " Clare Harrington says " My Mother would often accompany my Father to his laboratory in the evenings, and sit there while he did his research work - working herself on a large basket of mending which she had brought with her. "

There is a delightful story told by Prof Evans of one of B.J's experiments.. he says " On one occasion, in performing an experiment before a large class He was holding above a table a heavy glass cylinder, when an unexpected explosion blew it out of his hand - The surprise, and the realization of the damage that the flying glass might do seemed to petrify him, and he remained immovable The glass cylander hit the ceiling and came down unbroken into his still outstretched hands ... As he and the class regained their sences - he quietly remarked, " I always do it this way gentlemen " This was followed by roars of Laughter and thunderous applause ! ! ! "

Another story that was told of him is as follows - " Dr Harrington was pestered for information by all sorts of people, and was called upon to answer many silly questions, (and of course all free of charge ) as well as those that were worthwhile. He used to tell with gusto of a man, somewhat crack-brained, who not infrequently would rush in, in a great hurry and enquire in a most anxious and mysterious manner, what would be the result if certain things were mixed ? what would happen if salt and ground bricks and pounded up date stones were stirred together ? Pleasantly and patiently Dr H. would answer, as far as human knowlege would permit - But when one day; he received per messenger a sealed envelope containing a sheet of foolscap filled with a long list of the most incongrous materials, and a request that the writer might be informed immediately what would happen if these things were intimately blended ? he pencilled humbly and truthfully across the bottom of the paper " God only knows " I and he heard from his correspondent no more I -

Somehow or other Dr H. found time to analyse and report on new minerals During the extension of the new resevoir behind the college buildings, he mapped and examined the intricate series of dykes that have been forced up through the Trenton limestone at various geological periods, and in this connection he discovered a new and very unusual mineral which he named Dawsonite, after Sir Wm. Dawson, Principal of the University - It might be said that this very rare mineral was of such unexpected composition, that he delayed the publication of its results until he could find time to repeat with extreme care the whole investigation, and even then the correctness of the announcement was seriously questioned. But the subsequent discovery of the same mineral in Tuscany, and its independent examination by competent mineralogists removed all doubt as to the correctness of Dr H's report on this rare species.

During Prof. Harringtons lifetime he made quite an extensive collection of minerals, which he used in the instruction of his students. This collection was purchased after his death for \$3000.00 by Dr James Douglas and Sir William McDonald and presented to McGill.

Although Dr H's lecture rooms and labs were considerably extended from time to time, it was not until the opening of the McDonald Chemistry and Mining Building in 1898 that adequate accomodation, equipment and staff were furnished. Dr Harrington planned and designed this fine building which was erected for the University by Sir William McDonald and he was the Director of it until the time of his death - Sir Andrew Taylor was the architect, and B.J.H. worked with him over the plans of the building, he stayed in town all one summer giving of his time so that every detail should be right. Sir William was not only a benefactor to the University but a family friend - he never failed to visit the latest arrival at Walbrae Place, The Harrington home were (9 babies born there) - he took the greatest interest in them all.

" Dr Harrington, through the years received many invitations to lecture outside the University, and his efforts in this direction were always most

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acceptable; he had a pleasing manner and never allowed his learning to run away with his judgment, but always spoke so as to be understood and enjoyed by his listners. "

Villiam

To return to the days when Bernad J. lived at home with his father in St Andrews. It is of interest to know that for several winters when the children were growing up, John Harrington took a house in Montreal on Laws Lane on the eastern slope of the mountain - This rough road climbed from Pine Ave to where the lower section of the incline railway ran up Mount Royal - It cut through the Law property and " Piedmont " owned by Mr John Molson, and was very much in that part where the McGill Stadium now is. In the winter the Law's Lane was a splendid place for tobogganing and bob-sledding, and in the summertime, after walking to where the railway ran, it was facinating to watch the holiday-makers being pulled along to the upper terminal by huge heavy dark greacy ropes running over rollers. Mr Frothingham a well known business man, had a daughter Louisa who was a great friend of the Harrington family - indeed years later, after Louisa had married John Henry Molson and lived at Piedmont the friendship continued, and she spoke often of B.J.H. as her son calling him " Bernie " - and the children of B.J.H. looked upon her as an adopted Grandmother. As children, it was one of the greatest treats to be taken to visit at Piedmont - One arrived at some brownish wooden gates on Pine Ave. opposite Durocher St. Passing through the pedestrian gate one walked through the lower part of the property on a narrow board walk - meadow grass was on either side, till you reached the rising ground where were rocks, and where tall trees grew and foliage became racher, and where in the springtime great clumps of narcissi grew unmolested. Then one became aware of a pleasant smell of apples as they passed the quaint little faded yellow apple house, near which were huge beds of lilly of the valley - After this all the property leading to and surrounding the house was cultivated and paths and beautiful flower-beds abounded - glorious geraniums of all colours, masses of pansies - and in one more secluded bed, with stone steps leading to it were graceful fuschias looking like little old-fashioned ladies wearing drooping earings - Near the fence by Laws Lane, was a small deep pool built around with rocks and fern where large fat goldfish swam in summer, and burrowed deep into the mud for their winter siesta - Not far from this pool was a gate with heavy iron latch, which gave access to the Harrington housejust across the lane.

The house of Piedmont was large and square with a big entrance hall, at the rear of which was a high curved stairway and a big hot air heating pipe. There was a breakfast room for every day meals - A very large drawing-room with a huge grand piano, near which hung a huge oil painting of an Egyptian scene at sunset - The library was next, it had as one of its ornaments a glass ball which when turned upsidedown showed a realistic snowstorn, the flakes falling on small houses and people. Then there was a long dark box, about the size of a baby's coffin, as children, we all thought that it contained the ashes of Mr Molson who had been cremated, but later it happily turned out to be a music-box, the ashes must have been somewhere else ? Across the hall, and to the left of the front door was a very large and formal dining-room, this was only used for state occasions nevertheless, if we were very good children, we were sometimes taken in here to stand in front of an old mirror, which when vertical made you look very tall and thin and absurdly distorted and when horizontal bulged you out to enormous proportions, causing the most hilarious entertainment and uproarious laughter ! My two older sisters stayed in this house at one time, and they had some idea that a ghost walked about at night on the upper floor - but I don't think that they ever actually saw one ? - U'.

It was in 1876 that B.J.H. married Anna Lois, Sir William Dawson's

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daughter - This union produced nine children, four sons and five daughters.

John Eric Harrington ( died at age of 17 ) Conrad Dawson Harrington Bernard Gibb Harrington William Seymour Harrington

Edith Laura Marrington ( died at age of 11 ) Clare Margaret Harrington Ruth Minna Harrington Lois Sybil Harrington Constance Eva Harrington

Bernard and his wife first lived at Wallbrae Place, a short little street running off University St just north of Milton Street. It was very close to McGill and not far from where Sir William and Lady Dawson lived, their house being the eastern end of what is now the Registrars office at McGill. All I can remember of this house is an enormous round tin bath with wide wooden railing on top, in which it seemed possible to bathe any number of children at one time. And then a large butternut tree in the garden that had a seat built entirely around it. My sister speaks of my Father's collection of minerals being kept in two tall cabinets in the library at Wallbrae Place - these precious and varied stones being shown with explanations to the children on special occassions.

As the University grew, the property at Wallbrae Place was required for the development of the Medical School, and the Harrington family moved to 295 University Street, three doors below Pine Avenue. This was a large three storey house and well suited to the needs of the growing family. The various rooms were pleasantly and tastefully devorated, though without any signs of luxury. I think it can be correctly stated that B.J's salary never exceeded \$5000, and how he ever brought up his family, buying clothes, paying doctors and educational bills etc. is still a mystery to me. My Mother believed that it was the furnishing of the mind that should be specially attended to . At some period of my Fathers life he was able to make a little extra money from research work - but that priviledge was denied to the professors in later years by the University - I can remember the extreme joy afforded to the whole family, when Uncle George Dawson arrived one Christmas and presented my Mother with a beautiful oriental rug for the front hall.

Some years after Mrs John Henry Molson became a widow - she thought she would like to come and live with my Mother and Father, but she wished to have her own rooms and space in the house, for this reason she gave the money to have a large wing built at the back of our house, the upper part of which she would use. On the ground floor there was a spacious breakfast nook , and a beautiful diningroom with tall bright windowns, a recessed fireplace with seats at either side and a large built in china cabinet - it was a handsome room, the wood work being very dark oak and the walls a scarlet red. Over the dining-room was another room of generous proportions with a balcony off it, and over all was a huge veranda which commanded a magnificent view of the city and St Lawrence River.

When the building of the wing was almost completed, Mrs Molson had a stroke and was never able to leave Piedmont, and so these fine rooms fell into family use, and added greatly to the home. At the time that the wing was built, certain alterations and interior decorations were made to the old part of the house - and I can remember that the bedroom I shared with my sister Eva was freshly papered with a high dado of wallpaper covered with little pink roses - This seemed to be one of the most wonderful things that had ever happened in my life.

Some months later Mrs Molson died, leaving to my Mother her prized black velvet dress, her opera cloak, which was made from a paisley shall, thickly quilted inside with crimson silk, and trimmed with mink - and a valuable length of Brussels lace given her by her husband - this lace later being used for my to the wedding gown. There were also legacies of money for my Mother and her four daughters.

My Father was full of hospitality, and almost daily befriended students demonstrators, professors, or visitors, often bringing them home for lunch or dinner - Lunch was usually a fairly informal meal, children and grown-ups sat around a large table - the children kept quiet, and listened to what their elders talked about, often learning many interesting things. We usually had a main course of liver and bacon, chops or sausages with vegetables, followed by varied desserts of corn meal muffins and maple syrup, graham gems and jam, oat cakes and honey or doughnuts - but always maple syrup or jam. My Mother made masses of jam and marmalada. When the bitter oranges were in season, everybody had to take a turn at slicing the fruit thinly in a most Laborious way - our hands got tired, and we did not enjoy doing it. the

Christmas dinner, and other dinner parties which were given from time to time, were very special occasions, then the best china and silver were used, and a full coarse repast was served with dignity and ease - My heart still grows warm when I think of the large brown turkey surrounded with sausages arriving at Xmas dinner, lying on the biggest size platter with a depression at one end to catch the gravy, this followed by a large home made plum pudding, all ablaze, the magic blue flames delighting all, as it was set before my Mother. One must not forget the mince pies, ice cream, fruit nuts and candies - and at the end  $\eta_{h,\ell}$ Venetian glass finger bowls to dip ones sticky fingers in.

Students were always welcome at B.J's home, and during the winter session he would have social evenings for them - One of these events which seemed to be particularly successful, was when he had a tubful of water electrically charged, placing on the bottom coins of various values, which could be picked out if a student was brave enough to withstand the electric current when his hand reached into the water !

Some English students, visiting the house one cold winter evening, were got to light, to their great amazement, one of the old gas mantels with electric sparks made by rubbing their feet on the carpet 1

My Father was very precise in his ideas of behaviour, and I can remember how vexed he was, when a young man calling to take me out one day, lit up his pipe on the front step, and proceeded to smoke it while walking down the street with me - this was highly indecorous ... Another time, he was really angry, when a student at initiation time was told to ring our front door bell, ask for me, and then plead with me to tie a bib, which he carried, around his neck, and give him a glass of milk to drink - This my Father thought most ungentlemanly and that fraternities were going to far ! As written earlier - My Father was a very musical man - He had had little musical training, but was gifted with such a true ear, that he could go to a concert, come home and play on the piano all that he had heard. His touch was sensitive firm and sympathetic, a pleasure to listen to. When he came home from the University after a hard days work, he would often go to the piano and give vent to his feelings - If it had been a day of achievement, he would strike up a lively march, possibly of his own composition, or if his mood was quieter it might be soft music - but whatever it was, you would know what state of mind he was in. B.J. always played for students evenings - He ran the Glee Club and spent many evenings in bringing out a new College Song Book, contributing several songs to it himself. If a friend were ever renting or buying a piano, it was always B.J. who was asked to test it for tone.

From the time of his marriage he entered into the life of the Dawson family completely, even to the spending of his summers at Metis, where Sir Wm. had a cottage. He thought the air of the lower St Lawrence so bracing, that when Sir Wm. offered to purchase the old Darey house, next to his, the offer was gladly accepted, he could not think of any finer place for his family and himself to apend their summers in - Life was primitive and simple in those days, this was the place for old clothes and natural pleasures - There was time to search for shells and sea animals, to collect ferns and wild flowers - to gather strawberries, and to peel birch bark from the trees to make pleasant things with. There was time for all sorts of leasurely passtimes, boating, tramps in the woods, fishing, picnics and bonfires - reading and good conversation and for my Mother time to sketch. My brothers loved to search for lobsters and eels under the big boulders at low tide and frequently went off to the bluberry savanne to search for speckled hawks eggs, found in enormous nests at the top of old spruce trees, sometimes these nests were so big, that it was not possible to reach around into the nest, and a hole would have to be made through the bottom. Often they would return with a large hawk which they had shot, they were a big bird, with wide expanse of wing and wicked looking claws, these were carefully removed and later sent to Montreal, where they were mounted with silver and then used as gifts.

One of the highlights of the summer was when my Father engaged one or two buckboards or carriages and drove us all to the Grand Metis Falls, a distance of 12 miles. This was an all day event, with picnic baskets and all sorts of paraphernalia. The high falls were beautiful and unspoiled in those days to get to the rocks above them, it was necessary to drive along a wooded road close to the edge of a high cliff above the rushing river, this always frightened me very much - I always wanted to get out and walk, but was never permitted to do so. My Father fancied himself as being a good horseman, he held his reins well, and made use of his whip in truly dashing manner - if any little French dogs ran out and barked at his horses, as they frequently did, he took great pride in flicking his whip at the agressive little villains !

On Sunday afternoons, my Father always took us for a walk back in the country, often through wooded parts - I remember I was always on the lookout for a surprise attack from any black bear that might be lurking in the vicinity. ! One can recall, the finding of the rare Indian Pipes and other strangefungi in the darker part of the woods, and if fortunate the sweet smelling linea and very occasionally the trailing arbutus.

Another drive of interest, was along the old 'Root Road 'where we would usually make a stop to go into a soggy wood to look for the strange Pitcher plant and yellow Ladies Slipper.

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Crawfords Falls was another beauty spot for a picnic - You arrived at it by walking through a farmer's grounds, then down to a stream, where the men usually took off their socks and shoes and rolled up their trousers and gallantly carried the ladies and children across - The walk continued through sunny newly grown woodland, where you were apt to meet cows, and often the fear of an untied bull ! Then of a sudden the path wound into shade and you soon found yourself by the big pool with cliffs and woods on all sides. In this enchanting spot we made camp, fires were made and kettles boiled. Sometimes people fished in the pool and at other times swam. It was said that there were large eels living under the rocks at the bottom.

B.J.H. was fond of boats and a good oarsman - He always provided punts for his children which were made by the local carpenters - He usually had a light coloured varnished row-boat for his own use. When the sea was calm and the weather fine, B.J. would take different parties out for a row, often to Boule Rock sometimes landing there - It was a pretty sight to see the boat being eased off the shore, and then slowly moving out into the greeny blue waters - If ladies were present, they would usually have gay parasols to guard their gentle complexions - little girls would sit quietly in muslin hats or embroidered sunbonnets. It was the greatest treat to be invited on one of these trips, and if you were lucky enough to be asked to sit in the stern and manipulate the rudder, why that was just Heaven ! On such fine days the water was so green and so clear you could peer down and down to the bottom where rocks, pebbles, sea urchins, muscles, sea weed and starfish could be seen - and even the odd flounder burrying himself into the sand as he was frightened by the shadow of the boat above. It was a terrible temptation to trail your hands in the cool sparkling water, but this was not generally allowed. It was an adventure to land on Boule Rock, but if one had bare feet, it was far from comfortable, as the rock was composed of conglomerate or pudding stone and was very sharp. There was just one spot on the island where there was a handful of earth and green things grew, here a species of wild oats grow.

B.J.H, created the first garden to be made by a summer visitor, he was a fimiliar figure working daily in his garden, he found so much peace and contentment there. Through the years, he supplied vegetables to the home, and many of his blooms took prizes for their size and brilliance of colour. His great pleasure was in sharing his flowers, and many will remember his adorable neatly arranged bouquets, with fragrant touches of stocks, heliotrope, lemon verbena and mignonette. In his garden were goosebery bushes and red and black currants -When it came time to pick the currants, the children would be needed to help, but they always mysteriously seemed to disappear at this time ! He made a speciality of white raspberries, but there were never very many of these. B.J's Iceland and Shirley poppies were quite a show, and the sweet smelling dark purple lilacs were beautiful to behold. In these early days, we arrived at our house as dawan was beginning to break, after a five mile drive from the station the first thing we wanted to do, was to run to the garden and see if the poppies and lilacs were out ? The only sound that was audible at that early hour were the sweet notes of the Canada bird, and the lapping of waves on the shore.

Prof. Evans writes - " Having raised in his own garden a few specimens of the negundo or ash leaved maple, a tree at that time new to this part of Canada an d being experimented with for the North West, he investigated its sugar producing qualities - I have a vivid recollection of the delightful odour that permeated the laboratory for many days during the boiling down of the sap, and of the delicious taste of the resulting sugar. B.J.H. was much interested in carpentry, and was always ready to make things for the cottage - a desk as a reward to one of the children who was struggling with spelling or some other equally irksome subject. He made a fine corner cupboard for the living-room, for which Mrs H. painted pannels of birds on rough butcher's paper for the four doors.

as children in looked forward greatly toour Father's return from work, for if he whre not los tired he world go to one of his library cupboards and produce a large mechanical fly. The Mug was there herned up in the hall, and the fly having been Wound up would begin its autics rushing round and round in eccentric circles, dashing between peoples legs - and often ending up Under the radiator - It was all very exciting! - another thrill that he treated us to was a canary that warbled estatically, just like a real bird - and then he had some wonderful German books that had moving prictures, these ware worked with narrow prices of Card board at the bollom glue picture - the mode of operation was always Reptvery Secret, un dia not dare eugenie? - There was a dog that poked this head out of its Rennel and basked at a donkey with a Sack of grain on its back, when in turn the donkey Ricked the dog . - and the artist who climbed the fluce and left his painting for a moment, where a your care along and licked the paint off the canvas! \_ How wall one remembers these early entertain newls of childhood -

А Ц. Although B.J.H. spent most of his summers at Metz's with intermittent trips to town - returning to Metis, he would arrive back with stacks of examination papers to be corrected, as well as ample supplies of fools cap for writing up his lectures for the coming session. A library room had been added for him, where he could be quiet and away from his children, and also their many friends who seemed legion. to incred the form.

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When my Mother moved to Metis for three months, it was a real move, and everything had to be taken for the duration of the summer - There was a large wooden blanket trunk, the linen trunk, the book trunk etc and always a big tin trunk full of biscuits - this was kept locked behind the door in the dining-room It was considered a very clever trick, if any of us children could locate the key and secret it for their own use 1

Dr Frank Adams of McGill University in speaking of Dr Harrington says "Dr H. is known as the author of very valuable and important researches - He prepared for the Geological Survey a number of very important reports, those upon the iron ores of the Dominion of Canada, and upon the apatite deposits of the Province of "uebec, meriting special mention". The Montreal Gazette prints -"Dr H. contributed much to scientific literature, especially in the domain of mineralogy - he also found time to write a biography of Sir WNILIam Logan, the first Director of the Geological Survey of Canada, this appearing in 1883 -Sir William Logan was a most remarkable man, and one who accomplished great things for Canada, he was a scientist of many parts - "William Logan was a life long friend of Sir William Dawson, and B, J.H. had many opportunities of knowing him. This work was entirely a labour of love and is one of interest entertainment and information.

The reader will now be able to delve partially into this book by reading the paragraphs set down below, which contain some of the more interesting sections of the volume.

"Sir William Logan was born in Canada, had the greater part of his education in England. After college graduation, he spent some time in Wales -( 1831 ) where he made maps and smelted copper for a firm there.

In 1834 he made a journey to France for his Company and visited copper mines while there - It took two days and three nights to travel from Paris to Boulogne.

Six years before coming to Canada for his life work he writes "You must know that I have become a bit of a geologist and a Fellow of the Geographical Society - I take great interest in the science and some or other of my writings may appear in print ". About this time he became keenly interested in the origin of coal.

In 1833 he writes the following to his Mother in Canada - " Did you ever hear of any copper ore in Canada? if any were discovered, it might become a matter of profit to us, if we could get hold of it, and it proved to be of good quality, I understand there has recently been a mine discovered in connecticutit would be no matter of surprise if some were found in Canada within reach of the St Lawrence ".

About now he says " I have almost made up my mind to offer myself as a candidate to undertake the survey of Canada, and if I begin, it will not be my fault if it does not go ahead ".

Now that geology had become his favourite pursuit, he longed to return to Canada, and scan with critical eye the rocks over which he had climbed as a boy - So in 1840 he set sail for Halifax on the S.S.Acadia - On arrival at Halifax, cheering crowds greeted them, as this ship was bringing the monthly mail. From Halifax he went to Pictou, and from there by boat to Quebec, and again by boat from Quebec to Montreal. He says " The first person I saw on the wharf was John Molson, looking just the same as ever - Molson got me a calashe, and I drove up to Miss Dupiriers to look for my brother, when I got there, I found that he had gone to look for me, so I sallieg forth again to look for Him ".

Lord Sydenham was Governor General of Canada at this time, and he appreciated fully the importance of acertaining the nature and extent of mineral resources in Canada. An appeal was made to Lord Stanley in England that Logan should be appointed to undertake the geological examination in Canada, and 1,500 pounds was granted for the purpose.

1837 saw the formation of the Canadian Geological Survey just prior to Logan's appointment.

1842.

In 1841 Logan made the great discovery of reptilean footprints at Morton Bluff N.S. in building stone - he found also that all seams of coal were in beds of clay, this established the fact, that every seam is accompanied by a layer of underclay filled with 'Stigmaria ' or plant life of a certain type. He says " Some of the seams of the Albion Mines were 24 feet thick .... I stayed one night with a humble family called McNaughton, and had to sleep with a shoemaker, I went to bed with my flannels on ! "

It was on this trip that Logan met Dawson, and was delighted to have the opportunity of visiting the Pictou coal field with so experienced a worker.

Logan said that the Albion mine was not quite as fine as the Mauch Coal Mine of Penn. He gives the following account of this Penn. mine. " At 5.30 we got into the railway car, and in 20 minutes ran down to the mine this was an inclined plane, which carried us down a thousand feet in 8 miles -The flight down strikes one as being very odd, away the car goes without steam or horse power, slow in motion at first, but gradually increasing in speed, until a rapidity of about 25 miles per hour is attained - The vehicle seems instinct with life, and one feels as if on a horse which is running away - the conductor can slightly diminish the speed with a friction strap - there are many short turns on the road, and as the track is single, the descending car might come in contact with the ascending train, as it is drawn up with mules. A good deal of skill is displayed - accidents have occured, pigs cows and men have been run over and killed, a deaf and dumb man lying drunk on the rail was cut in half ! The whole train consists of 70 waggons which descends in 4 divisions in about thirty minutes, the empty waggons are drawn up by mules, ten mules to each sixteen waggons. The mules are of course brought down the incline in cars, riding like gentlemen - It is amazing to see with what sagasity they take their places, both in entering the cars to descend, and in dismounting at the bottom of the line. The company has 300 mules to perform the work, which is so hard that horses could

not stand it.

In 1843 Logan did much work at South Joggins Mine N.S. . His industry and powers of observation were remarkable - There were 76 beds of coal and 96 ' Stigmaria ' underclays - no where else in the world is there so magnificent and instructive an exposure of coal measures.

Gaspe was deemed a most important part of the country for mining examination - Gaspe at that time was a wilderness inhabited by bears and other wild animals, there were no roads, the courses of the streams unknown, and the precipitous mountain passes untraversed - Such was the country that Logan was about to investigate - It certainly needed courage to enter single handed upon such a work - he scaled cliffs, climbed rugged mountains and traced rivers to their source, and all with a calm determination and fixity of purpose. It was said of him "He laboured long and earnestly to promote the interests of his native land we have plenty of Canadians able and willing to work for themselves, but few who like Logan are willing to work for Canada " -

Where ever Logan worked he was pursued by inquisitive people, causing him much annoyance - At one place a man appeared across a field, the following conversation ensued -

" I say Hallo, I say - Mr, I say ! "

I turned around and sang out

" Well what do you say ? "

I want to speak to you -

So I turned back and coming up to the fence where he stood, leaned over on one side, while he leaned over on tother, so we stared at each other for a few seconds He was an elderly man with grey hair, dresses in blue jacket and trousers with a glazed hat - "Well, said I" "Where do you come from ? said he "

I could not help laughing and replied

"Where do you come from ? where are you going ? what are you doing ? Whats your age ? - Where were you born and whats your name ? said I " " Well well " said the man " We are out of the way of hearing news, and when we see a stranger we want to know why he's here - what has brought him " -

" Well I will inform you, " so I told him what I was about, and we had a talk about rocks - Later 20 other men followed me, but they only watched and said nothing.

So much of this extremely hard work was tiring to say the least, and Logan was beginning to feel he had had enough of the Pictou district, and its bad weather of this season - He writes " The only means of amusement I have had here, has been in spending a few hours with my young friend Dawson, a very excellent geologist, who has paid great attention to the structure of this part of the country ( N.S. ) He was out with Lyell when he was here, and has made a collection of the fossils of the Silurian rocks " - Logan had had such a tough summer, that he was attired in such disreputable habiliments, that he looked more like a shipwrecked seaman than a gentleman, but he was full of geological information.

Dawson and Logan carried on a correspondance through the years, it was not however till 1855, when Dawson was appointed to McGill that the personal acquaintance was renewed, and from that time, there was the closest intimacy and cooperation, which continued till the death of Sir Wm. Logan - Dawson's advice and influence on many critical points forwarded the scientific objects of the Survey - and Logan upheld and testified to the splendid scientific work being done at McGill, by his endowment of the Logan Medal and the Logan Chair of Geology

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Though there was plenty of coal in N.S. Logan was disappointed not to find any in the Gaspe peninsula — his report of the country however is well worthy of careful study.

In describing a trip through the Gaspe, he speaks of eating porpoise shoulders, which were like beef steak - and when in the woods, they greatly enjoyed the flesh of porcupines, and frequently resorted to birch tree juice to quench their thirst. On one occasion, his dog took after a porcupine, as they are wont to do - he got himself so full of quills, that the guide wanted to shoot him, but Logan with the greatest of patience and tenderness went to work on the dog, and after a very long time removed every quill. He speaks frequently of using spruce bark in the construction of cances.

On page 215 of his biography the following account of staying with a ferry man and his family appears.

" I have never heard anyone so continually out of breath, she ( the wife ) came puffing in from milking the cows, followed by five children - and after everything she did she puffed loudly ... she gave me, after a great deal of puffing, barley scones, boiled eggs, butter and milk - reserving herring and potatoes for her husband and his helper. When it came time to make the sleeping arrangements, the mother pulled out a low bed from under the main bed and arranged her five children in it - later the hired man was assigned the hard bench beside the fire - Logan was very politely told to sleep in the main bed - the good manylaid a matress on the floor between the fire and small bed - It was only by waking very early that Logan discovered where the bonne femme had placed herself - she had found room for her body on the small bed among her five children ren and her legs on her husbands matress. " Logan said - this 15 foot square room displayed a singular picture 1.

After his work at Gaspe, Logan surveys the Upper Ottawa region, as far as Lake Temiscamang, 100 miles above Bytown (Ottawa)

In 1846 his work was extended westward to Lake Superior, many rocks here were of volcanic origin and Logan was surprised at the amount of copper, he says "There is much more copper in this country than I had any notion of "-

In 1950 - the first Exhibition of the Industry of all Nations was held in London - His Royal Highness Prince Albert acted as President of the Commission appointed to conduct the Exhibition. Logan and his staff sent a large collection over, and Logan himself was given leave of absence to arrange it... It was eight years since he had been in England and great was his joy to be there again and meet with his fellow scientists - While there he was elected Fellow of the Royal Society, he was the first native Canadian to receive this honor - He received a medal from Prince Albert - and the Canadian Exhibit was visited several times by the Queen and her Court.

In 1854 it was said in England - " The Survey in Canada is held in high estimation by men of Science in England and France - this Geological Survey is one of the most extensive and important in the world - Mr Logan's name which will ever stand high has conferred on this work a wide spread fame. "

/ Logan and his men worked with the greatest of accuracy - he speaks of his worker Mr Richardson as a diligent explorer, who last year paced 100 miles in the Ottawa country from Pembroke to Vaudreuil, keeping a register of every step, and by means of this pedestrian measurement and townships plans, he was

able to complete a map of the whole area - ifoot to a mile - every rock and exposure he saw is marked. " As written previously, all types of people were ever interested in his geological manoeuvres, most of them thinking he was digging for treasure - In one locality, when he returned one day with a huge block of stone, they felt sure he must have a treasure of great value, and when asking the priest about it, he wisely said " He makes medecine with it ".

In 1855 Logam again found himself setting up a great Exhibition of minerals, this time in Paris - Logan secured for himself lodgings in front of the Palais de L'Industrie - but scarce had he arrived, when a sensational event occured - it was an attempt to assassinate the Emperor Napoleon as he walked in the Garden of the Tuileries. At once a meeting was called at the British Embassy to vote an address of congratulations to the Emperor on his escape from the bullet of the assassin, and Logan was chosen to present the address - He describes the reception of the deputation in the following manner. " The deputation waited on the Emperor at half past twelve o'clock, and of course , I had a good opportunity of seeing both the Emperor and Empress, We were in a magnificent chamber with a double row of chandeliers - After a short delay, the Emperor and Empress with the whole Court came through the room on the way to the chapel - The address was presented, and the Emperor thanked for it in English in a very low tone of voice, I could hardly make out what he said - We were all then presented to both the Emperor and Empress, I being announced as Commissioner to the Exhibition for Canada - We each had a gracious bow and smile from the Emperor and Empress To me it appeared that the Emperor is a better looking man than his portraits represent, and the Empress though like her portraits is not as striking, her features are small, and she seemed to have a slight expression of anxiety and distress which detracted from her beauty " .

Logan toiled unceasingly to complete all arrangements for the Exhibition, he could not be induced to leave his work long enough to see the Review of 30.000 troups in honor of the King of Portugal, but attended the Grand Bal at the Hotel de Ville, at which there were 6000 people. Again he writes - " I have been in tensely occupies colouring a geographical map and am nearly worn out on Monday I did not go to bed till 2 o'clock, and then got up at four ! "

The opening of the Exposition took place May 15th. there was of course a great crowd - The whole thing was grand and beautiful. The Emperor and Empress came to view it, and passed by with all their Court, so close to us, that we had a good view of them ".

In August the Queen, Prince Albert and the young Prince of Wales visited Paris and of course the Exposition, accompanied by the Emperor - Her Majesty passed through the Canadian division, and Logan who was there at the time refers to it in this way - he says " There was no one, however to present me, and if I had not spoken without presentation, nothing would have been said at all, for as it was, I began addressing Her Majesty instead of Her Majesty to me - this perhaps was somewhat contrary to etiquette, and one of her Commissioners told me that I had been ' un peu audacieu ' - This chance meeting, so to speak, gave Her Majesty the opportunity of saying what she did touching on the Canadian section .... I gave Prince Albert an anecdote, showing him how little Canada was known in France - A respectable Frenchman said to me " Le Canada est en Peru, n'est - ce- pas ? "

Awards began to come to Logan - He was presented by the Emperor with the medal and the Cross of the Legion of Honor, for his map and minerals - and a greater distinction awaited him at the hands of his own Sovereign, for Her Majesty was pleased to confer on him a Knighthood for services rendered at the for 1851 and 1855. The Geological Society also awarded him the Wollaston Medal a great honor. Again in 1862, he is asked to represent Canada at yet another great Geological Exhibition - On arriving at London he says " I have multitudes of dinners, soirces, and conversaziones, but I avoid all I can ..... I am sick and tired of all such hubbub " -

During this visit, the report came one day that Mr President Lincoln had been assassinated - "Whether true or false "I cannot say says Logan, but if Johnson becomes President I think Canadian securities will fall, as he seems red hot for hanging everyone and making war with England - the loss of Lincoln would be a most serious affair for the world at the present moment ..... I breakfasted with Galt and Cartier this morning, it turns out the death of Lincoln is all too true ".

On returning to Canada, he found his older brother ill, when in Montreal he went every evening to see him to ' Rockfield ' on Logan's farm, where he frequently spent the night. After his brothers death, this fine house became Logan's solitary home. This whole property some years later was known as Logan's Park, but unfortunately this name was changed to " Parc Lafontaine ".

Logan made a very valuable collection of minerals, matallurgical products books, drawings, laboratory apparatus and had a fine collection of the indigenous and migratory birds of Canada - At one time he was appealed to by Audebon for some information or help for his great book. To show his industry - At one time he used to make with his own hands, four manuscript copies of the annual report of progress of the Survey, each being 100 pages in length. He had an ever growing museum and an office at no. 4 St James St. Logam was gifted with a rare sense of 1 humour and supplied with annecdotes for all occasions, he was equally welcome in the drawing-room, country Inn, farmhouse on stage coach.

Logans observations and maps illustrating the structure of the Canadas and especially the coal fields, prepared in the vast wilds of that country amid hardships and privations unknown to European Explorers, will be the imperishable records of his fame as a practical geologist - His devotion and untiring energy won for him the approbation of his fellow geologists - It was said of him that he was the first Canadian who achieved for himself a European reputation in the field of science. At a Natural History <sup>S</sup>ociety dinner, they speak of Logam " As Canadas brightest ornament in science, and her honoured and cherished son " .

The aforesaid on the life of Logan, has taken up rather a lot of space, but I believe readers will be interested in it for two reasons - one, because it tells about Canada's first geologist of note, and two, because the information has been taken from a very worthwhile book compiled and written by Bernard J. Harrington.

And now to tell you more of B.J.H. - He was of medium height, slight agile and well built - he wore a short neatly trimmed beard, and his face was dominated by expressive hazel eyes. His bald head was the cause of many student jokes - the old Arts Building where he held his lectures in the early days was cold and draughty, and the students remarked " no wonder the professor has lost his hair. It was a strange thing, that he never touched cheese or butter, and as a substitute the doctor ordered him to have cream - this he took with his oatmeal at breakfast time. B.J. felt that my Mother's decisions as to the children were always right, and supported her in every way,-when necessary, he took over the spanking of the boys, this he did with a long carved wooden paper cutter known as the " spankeritis ". It was said that he had an unusually keen sence of smell, a valuable asset to a chemist - when returning home rather late one night, he noticed as he entered the college gates on Sherbrooke St. a distinct smell of gas, which grew stronger as he walked up the avenue - on investigation, he found that the single gas jet, over the entrance to the main building was out, without being turned off !

It was in November 1907 that B.J.H died at the age of 59, a worn out man who had given and given of all his strength, and who accomplished more in those all too short years, than many who had had a longer span of life. At the time of his death, he had been President of the Natural History Society of Montreal, and was for many years editor of the Canadian Naturalist, later known as the " Canadian Record of Science " - He was a Fellow of McGill University, of the Royal Society of Canada and of the Geological Society of London - he was also a member of the American Institute of Mining Engineers and of the American Chemical Society - He was vice-President of the Chemical Section of the British Ass. for the advancement of Science.

His oldest living daughter says of him - " My Father was very thoughtful and full of little unobserved kindnesses, never asking or even thinking of recognition - It was said many times over, that he was the best loved professor in the University, always ready to explain and help those slow at learning, and when reproof was needed, left no bitter feeling from correction ".

Frank Adams, Dean of Science, speaks of him in this way - " He was a man of retiring disposition, but warm hearted and unselfish to a degree, a personal friend of all his students and beloved by all who were fortunate enough to make his acquaintance ".

The Chemistry and Mining Building was B.J's pride and jow - Old Joseph Grimsdale who was caretaker there for so many years looked upon Dr Harrington as its Guardian Angel, and if anything went wrong, day or night Dr H. was consulted at once. When interesting or important visators came to McGill, perhaps many of them who had been former students, they had only to ask, where Dr Harrington's building was ? and without hesitation, anyone on the grounds would point to the n\_ew Chemistry Building, where on going up to the first floor, they would find B.J. ensconced in his fine office, directly over the front door, with his spacious laboratory adjoining - In the laboratory Dr H. would brew tea, which all agreed could not be equalled, this B.J. said was only due to the water being freshly boiled.

In a radio talk, Nevil Norton Evans pays the following tribute, -" Dr Harrington's attainments are heralded far and wide, and bring renown to himself, and to the institution which supports him - all honour to such men. Of his more intimate characteristics, his kindliness and his ready wit, it is not easy to speak. His outward appearance has fortunately been preserved in the form of an excellent portrait in oils in the Redpath Museum, of which he was for years Honorary Curator . But it was his conscientiousness, his intense interest in his students, above all his kindliness, that so endeared him to those priveleged to work with him. His students came back from grest distances to see him, after they had been out in the world - many with stories of great success, and they came in love and gratitude to the man who had given them much. When the McGill Summer Mining School made its first visit to B.C. in 1902, the trip was much heralded in advance, and at most of the stations at which we stopped, McGill graduates in all branches of engineering were down to greet us; and it was very noticeable that the first question after the personal greeting was almost invariably " And how's B.J. ? "

20.

A very successful meeting, being the first reunion of graduates in the 2/ Faculty of Applied Science was held inMontreal in April 1909. As part of the programme, a dinner was held at which there were 126 graduates - Among the reminscences were those which had to do with the life and work of Dr B.J. Harrington - A toast to his memory was drunk in reverent silence. The older graduates called to memory the days of small things in the old Arts Building, when the graduating class in Applied Science numbered about 5, they also remembered that in those days Dr H. lectured upon very many different subjects, and they can now realize how much effort this meant, and how important his work was in the upbuilding of the University - From these days to the present, the expansion of the Faculty of Applied Science has been in every way remarkable, and the labours of Dr Harrington are traceable all through the growth. Apart from his professional attainments, his many lovable qualities and the generous help and advice which he was at all times ready to extend, have made him reverred and remembered by all.

At a subsequent dinner of members, the suggestion ws made, that it would be a gracious act for all graduates to unite in endowing a professorship to his memory — the sympathy of those present was immediately enlisted, and a sum of about \$ 20.000 was promised from those who sat at the table.

Jeffrey Burla	and \$ 5000.00	Arthur Childs	\$ 5000.00
Milton Hersey	\$ 5000.00	David Ogilvy	\$ 1000.00
E.P.Mathewson	\$ loog.oo	C.W. Trenholme	\$ 500.00
	-H		-

In every direction of Dr Harrington's manifold activities, the work which Dr H. undertook was successful, and every effort he could put forth was to further the interests of his students and of the University. It was felt by the Faculty of Applied Science, to be very desirable that some permanent memorial should be placed in the halls of the University - and that this memorial could best take the form of a portrait - The first subscription came from a gentleman who is in charge of some mines in the middle of Siberia, and the last from one of our most successful graduates whose home is in Boston - The letters received from the graduates in connection with this memorial were in every case expressive of kindly memories of Dr H. treasured by the writers, the relation between them, as one graduate stated, being rather that between father and son than of teacher and student. We have had no man in the University who has emerted a more wide-spread and wholsome influence on a long series of generations of students.

At a reception given on Nov. 21/08 by the Dean of the Faculty of Applied Science and Mrs Adams in the large lecture hall of the Redpath museum, an oil painting (portrait ) of the Late Bernard Harrington was presented to the Principal on behalf of certain graduates. In presenting the portrait of Dr H. Dr Adams said.

" In the last few years McGill has suffered some very serious losses which can only be designated disastrous - and among these losses, not the least was that of Prof. H. who attained a unique position in our University life - This afternoon we have come together for the purpose of presenting to the University a tangeable memorial."

In further remarks Dr Hersey says of him - " He always stood in a peculiarly intimate relation with his students, and the influence he exerted over his students did not pass away when they left the University - they never returned to Montreal without calling upon Dr H., and the reception they were accorded by this distinguished gentleman made them realize his continued interest in them and their affection for him was thus ever increased..... I met recently a very distinguished American mining engineer who has several sons, whom he is sending to McGill after school, since he considered ours the best Mining School on the Continent, and he was struck by the success that our men have met with in his country - the whole of the copper smelting of the United States, on its technical side is now in the hands of Canadians, most of whom are McGill graduates and this is true to a considerable extent of the lead smelting - and these men for the most part were trained by Dr H.

" The University has lost one of its prominent mambers and sincerest workers and one who upheld the best traditions of the Institution - Respected by all, he was best known among his fellow-workers in the Faculty of Science, and in that department bringing out the best that was in each individual man who came under his influence. Few men have done more to advance the Mining industries of Canada. "

At this same function Dr Peterson makes these remarks.

" I was intimately associated with my good old friend Dr Harrington for several years - after graduating I was his assistant for 2 years and special lecturer in advanced chemistry for some years after - One thing that struck me, as it did all his students who came into the wholesome atmosphere of Dr H's department, was the kindly feeling he had for everybody, the invariably kind word he had for every student and particularly for the junior men - I may say, in fact, that at times when students got into difficulties, either in the lab. or perhaps socially - on Theatre Night, for instance - that Dr Harringtons' office in the Chemistry Building was what was popularly termed, " The clearing house of Grief " He had always an exceedingly helpful word for everyone.

This fine portrait, which was one of Robert Harris' most successful works, has recently been transferred to the McDonald Chemistry Building - It is a speaking likeness, and portrays him in a scarlet gown and hood.

#### The Montreal Gazette prints the following .

Sir William Caler is commemorated not only as a great figure of the past, who did a great work, - his influence will never be ended - for his great achievement lay not only in what he himself wrought, it lay rather in the yielding of himself to the zest of learning.

So greatly did this zest prevade him, that others were moved by it - and it is felt even now, despite the years since his passing, it is felt because such zest is the secret of why any scholar is made great, or why any University has within it the breath of a true academic life . . . McGill is fortunate in its great tradition of scholarly zest, and it does well to treasure the example of such men as Osler - but Osler is only one, Lord Rutherford was another great man of the same zeal for learning - Indeed the late Dr Tory used to recall how he had once come into the physics lab. at McGill to find Prof. Rutherford literally skipping about the floor in exaltation of a new discovery -

Nor should McGill forget such other good men touched by the same devotion ret such men as Bernard J. Harrington, who with equipment in the old Arts Building little better than a deal table and a kitchen sink, taught the men who were later mining half the copper in the world.

In bringing this short biography to a close, let me use Mr Hersey's words -

" Dr Harrington certainly belongs to those who have joined

## " The choir invisible

Of those immortal dead who live again

In minds made better by their presence "

L.W-S-/60

### Sheffield Scientific School of Yale College

New Haven, Connecticut -

Januaryb18th. 1872

To the

Director of the Geological Survey of Canada.

#### Sir:

Having learned that Dr B.J.Harfington is a candidate for the position of chemist and mineralogist of the Geological Survey under your charge, we take pleasure in placing before you our estimate of his qualifications for such a position.

Dr Harrington was for two years a member of this institution and at the last commencement was, on examination promoted to the degree of doctor of philosophy, the highest degree of our University. During his residence here he devoted himself with great success in our laboratory to the study of chamical analysis, mineralogy and metallurgy. He became an accurate and expert analyst, making also excellent progress in theoretical chemistry. In mineralogy he was awarded the first prize for his proficiency, and he gave admirable proof of his metallurgical knowledge by a very able investigation of the Siemens' Martins' steel process which he presented as his inaugural disserttation.

In view of these facts, we take great satisfaction in coedially recommending Dr Harrington as a gentleman whose scientific attainments and personal character eminently qualify him for the position to which he aspires.

Trusting that you may secure his services - we are Sir

Very Respy Yours

George J. Bush Professor of Mineralogy.

Samuel W. Johnson - Professor of Analytical Chemstry

Oscar D.Allen - Professor of Metallurgy.

# Little Metis

July /93.

## Dear Dr Harringtio,

My attention has been called in connection with my resignation of office to several oversights which I should endeavour to remedy. One is the lack of recognition of your services in working up under great difficulties and the preesure of other work the Department of Mining Engineering in the Faculty of Applied Science. This I hope is now in the way of being permanently provided for, and I feel that it owes its existance and prosperity almost entirely to your voluntary exertions. This should have been suitably acknowledged when you were relieved from the work. and I take blame to myself for failing to suggest this; but the time was one of great pressure and enxiety and my mind was wholly occupied with the necessity of relieving you from the work and at the same time providing for the chair.

This explanation I think ir right to place in your hands in case at any time it should be of use.

Sincerely yours

J.W. Dawson.

