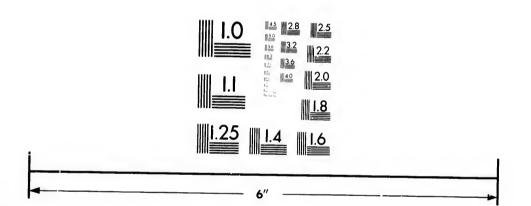
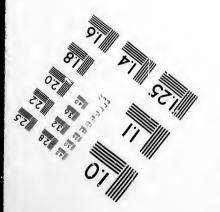


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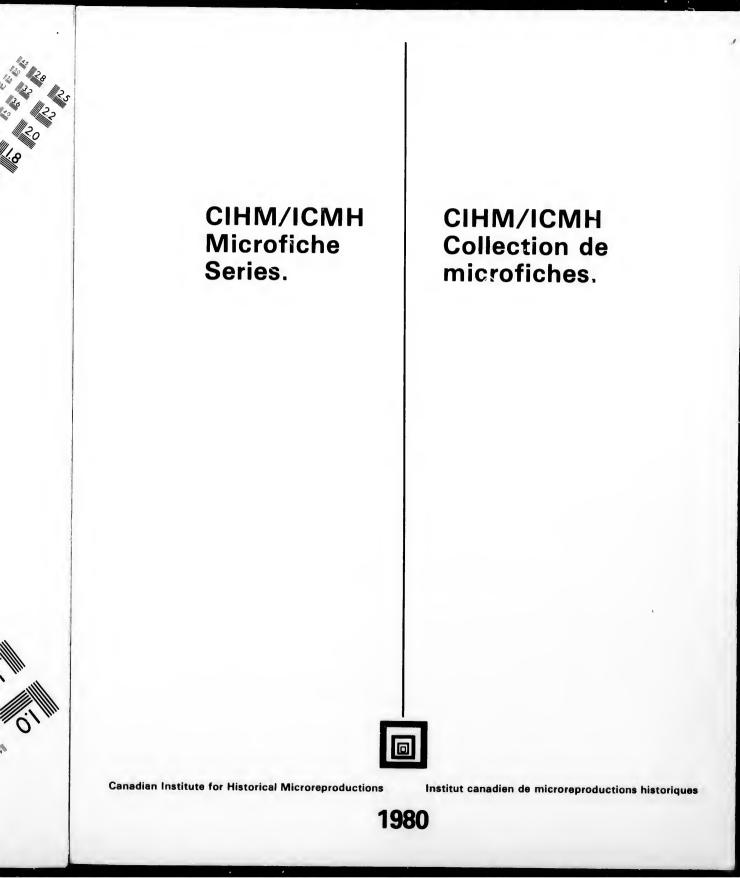




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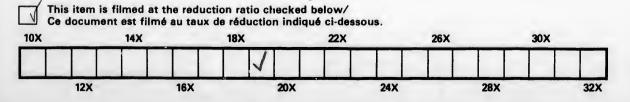
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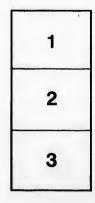
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A HISTORICAL SKETCH

OF THE

DISCOVERY and **DEVELOPMENT**

OF THE

COAL AREAS

OF NEWFOUNDLAND

UP TO DATE.

JAMES P. HOWLEY, F.G.S.

BY

Printed by order of Government, 1896.

ST. JOHN'S, N.F.: "EVENING TELEGRAM" JOB-PRINT, 1896.



A HISTORICAL SKETCH

Of the Discovery and Development of the Coal Areas of Newfoundland up to date.

BY JAMES P. HOWLEY, F.G.S.

THE admirable history of the Cape Breton coal fields, their development, trade, &c., by Richard Brown, F.G.S., published in 1871, is a standard work upon all that relates to the important industry which has given to that fortunate little island a world-wide fame. Mr. Brown goes back to the earliest occupation of the island, relates the many vicissitudes connected with its French and English ownership, its frequent change of hands, and its final conquest by the latter nation in 1758.

With regard to the development of its coal mines, a few desultory attempts were made by both nations during the earlier periods of occupation, but only so far as to

Raise Supplies of Fuel for the Troops garrisoning the fortifications of Louisburg and Halifax. After the conquest, the English Government, strange to relate, pursued the same blind policy which has done so much to retard the development of our own island. They would neither work the mines themselves nor allow others to do so, notwithstanding the frequent and urgent representations made by the Colonial Governors and others in authority, with regard to their extent and value to the kingdom. For a number of years they merely continued to raise sufficient for the requirements of the garrisons. Small bodies of troops were kept constantly on the site of the principal workings to

Prevent any Attempt at Regular Mining, and the soldiers themselves were employed in the very uncongenial work of mining, as colliers. Notwithstanding all their vigilance, however, vessels from the New England Colonies carried on a lucrative trade in stealing coal from the cliffs and conveying it to their homes. It was somewhat akin to our smuggling traffic with St. Pierre, and rendered them liable to the seizure and confiscation of their vessels, if not worse punishment. In the meantime, numerous applications were being made to the Government, chiefly by army officers of distinction, who had served in the various wars of the period, for grants to work the coal mines.

Offers to Pay a Handsome Royalty, Establish Settlements, Build Towns, &c.,

and every inducement that could be brought forward to strengthen their applications were made, but all to no purpose. His Britannic Majesty, with the advice of the English Board of Trade, invariably refused his assent, and even went so far as to positively forbid any attempt to work the mines on an extensive scale. All this time the illicit traffic by the colonists continued to grow in proportions, till at length the Government awakened to the futility of keeping the coal locked up any longer, seeing their inability to cope with the smugglers. In 1788, the first lease for mining was granted to one Thomas Moxley. Other leases followed from time to time, all being of short duration, from seven to ten years only, and

Subject to a Heavy Royalty Per Ton.

At intervals between the expiration of one lease and the commencement of another, the Government took over the mines and worked them; but, like most enterprises of the kind worked on Government account, they did not pay, the profits being eaten up in salaries to numerous and unneessary officials. It does not appear that the private speculators derived much profit either in their attempts to mine the coal, for nearly all of them failed to carry out the terms of their leases. This is not a matter to cause much astonishment, however, when it is considered they were obliged to pay from three to four shillings sterling per ton royalty, and were at the same time

Compelled to Sell for About Ten or Eleven Shillings per Ton.

All this has long past now, and the coal industry of the tight little island of Cape Breton is established on a per manent footing. It has grown to large proportions and has still greater possibilities before it. The industry is the mainstay of its thrifty and industrious inhabitants, and without it Cape Breton would, indeed, be a very insignificant colony. No one who has visited the island of late years can fail to be struck with the importance of its coal trade and what it means to the

Prosperity of the Country.

We must all hope that the day may come when a similar prosperity awaits our Island home by the development of her so much neglected mineral resources, not the least of which, I am convinced, will be her coal mining industry. With regard to this latter, we have only as yet reached that stage of beginning to believe that we really do possess this valuable commodity in available quantity. The enterprise of the Messrs. Reid, railway contractors, in mining and bringing into St. John's, on the 1st day of November last, a car load of native coal, over the N. & W. Railway, from the Grand Lake region, has marked an era from whence to date

The History of Coal Mining in Newfoundland. Owing to the lapse of time, and changed circumstances under which we now live in these North American colonies, we are not likely to create any such interesting historical record as that surrounding the industry in our sister colony. The time will come, however, when a true history of all that is worth recording in this connection will have to be written. It is with a view, then, to leave correct data for the future historian, while all that relates to its discovery is still fresh in memory's receptacles, as much as for general information, I now publish the following statement of the

Actual Known Facts.

To begin at the beginning, the earliest mention of the existence of coal in this island was, I believe, made by the celebrated circumnavigator, Captain Cook. In reference to the country on the western side of the island, he is quoted as saying: "There are in Newfoundland as well as in Cape Breton, such rich coal mines that, if the Crown would but grant leave to work them, their produce would be sufficient to supply all Europe and America abundantly with this commodity, and some are even so commodiously situated, that coals might be thrown

Directly from the Coal Works

themselves into the ships as they lie close to the shore." "I had," says the author, (Dr. John Rienhold Foster, 1786), "this intelligence from my late friend, the great circumnavigator, Capt Cook, who for several years successively explored the shores of this island." Mr. Wm. E. Cormack, that intrepid traveller who, in 1822, crossed the island in his philanthropic endeavor to open up communication with the aboriginal Red Indians, with a view to bringing them to civilization, is the next authority I can find who refers to our coal deposits. Cormack was a man of superior education for his time, and possessed a good knowledge of the natural science,

More Especially of Geology and Mineralogy. He was a close observer also, and in his itinerary made many valuable references to the various natural features, etc., of the country; most of which have since been fully verified. Although Cormack did not actually see the coal deposits of Bay St. George himself, he must have seen specimens, for he says, "Coal of excellent quality is exposed in strata in the bed and banks of a rivulet between the first and second Barasway River, about seven and nine miles from its mouth." Again, he says, "the land between Codroy and where the coal occurs is low and flat, so that in the event of the coal being raised, it could be conveyed by means of a *railroad* from the mines to the shipping." All this is perfectly true, and now, after a lapse of nearly three-quarters of a

Century, Cormack's Prognostication

is about to become a *fait accompli*. Yet this intelligent man, long since laid to rest in a quiet churchyard at New Westminster, British Columbia, was looked upon as a mad enthusiast by his much wiser neighbors, and the generations who have succeeded him. In 1840, Mr. J. B. Jukes, M. A., F. G. S., F.C.P.S., who was employed by the local government in making a geological exploration of the island, visited the West Coast, and ascended the Middle Barachois River of Bay St. George to inspect this coal deposit. He it was who gave the first authentic account of the coal seam there, since named after him, the "Jukes' Seam." He entered pretty fully into the geological features of this western country, and describes the seam there measured by him,

As Being "Three Feet Thick."

He adds that, "the quality of the coal exposed was good, being a bright caking coal." Mr. Jukes on this same occasion also paid a flying visit to the Grand Lake, and saw one small seam of coal six inches in thickness on Coal Brook, which flows into the south-east corner of the lake. Many references were subsequently made to these coal finds by Bonnycastle, Pedley and other writers, all founded upon Jukes' Report. Bonnycastle, writing in 1842, when speaking of the western side of the island, says: "Here, midst profound solitudes, and vast prairies, forests and innumerable large lakes, we find the grand

Mystery Almost Brought to Light

of the continuation of the coal formation of Nova Scotia and Cape Breton, the great coal basin of the St. Lawrence, probably the largest in the world, reaching from the Gaspé territory on the one hand, and covering a vast portion of Newfoundland on the other." Again he says, "former visitors on this part of the coast, beginning with the French navigators and with Cook, asserted, as Mr. Jukes has proved, that coal, gypsum, iron, limestone, marble, the freestone for building, are abundant." And yet again, he adds: "To show that the coal is similarly abundant, to that on the opposite side of the gulf, in Cape Breton and Nova Scotia, we find the rocks associated with it, and on which it reposes exactly the same, whilst the quality of the coal in the

Specimens 'I Have Seen of It'

appears to be perfectly alike in all." These references, however, with the exception of those of Mr. Jukes, as is usually the case with unscientific observers, are not strictly in accordance with facts. A new era in geological discovery was inaugurated by the establishment of the present Geological Survey, under the able direction of the late Alexander Murray, C.M.G., F.G.S., in 1864. Soon our knowledge, not only of the geological structure of our island, but of its varied resources, and its hitherto unmapped topographical features, began to dawn upon us as a veritable revelation. Only the very crudest and most hazy ideas of

Its Magnificent Lakes and Waterways,

its unrivalled scenery, and the vastness of its unexplored interior were prevalent. It was as much a "terra incognita" as the regions surrounding the poles of the earth are to-day. Mr. Murray being not only a close observer and painstaking geologist, but likewise a surveyor of superior attainments, soon began to map in the principal features of the country from actual survey, and shape out something liks a presentable map of England's oldest colony, so long a great blank on the physical delineation of the globe. In 1865 he made his first journey across the island, by way of the Indian Brook of Hall's Bay and the

Sandy Lake and Grand Lake Waters

of the southern branch of the Humber, to St. George's Bay, surveying the entire route as he journeyed along. His map of the Great Lake, this magnificent sheet of water nearly fifty-six miles long, with its huge enclosed island, afforded us the first real idea of this great inland sea, and henceforth it took its place on the map of the island as one of its principal and most interesting features. But Mr. Murray's main object, as he informs us in his report for that year, was to ascertain the correctness or otherwise of the existence of coal in the interior. To use his own words: "I was to a considerable extent influenced by various

Rumors Regarding the Presence of Coal in certain parts of the interior, and considered it a matter of the first importance to do my utmost to develop the extent and distribution of the formation, should it prove, as it has done, to exist." Mr. Murray did not, however, on this occasion, find any actual out-crop of coal on the Grand Lake, but met with numerous fragments of that material washed up on its shores. The six-inch seam described by Mr. Jukes was not visible, having, as Mr. Murray says, "probably in the interval since his (Jukes') visit been covered over by debris from above." Judging from the abundance of loose pieces of coal near the inflowing Sandy Lake River, he adds: "There is clearly a seam of

Coal Near the Outlet of the Main Brook."

Later on in the same season he examined a portion of the St. George's Bay carboniferous area, and mentions a small seam of coal as occurring on Indian Head Brook, (now Riviere Blanche), on the north side of the Bay, but he had not time to examine the Jukes seam on the Middle Barachois River. Other work, especially amongst the copper-bearing rocks of Notre Dame Bay, then occupied the attention of the Survey for several years successively, and it was not till 1873 that the St. George's Bay coal region was again visited. This time the present writer accompanied Mr. Murray in his exploration. While the latter devoted his attention chiefly to workingout the

Structural Details of the Geological Features,

the former was occupied in making topographical surveys of the coast line, ascending and dialling the principal We visited and examined the seam river courses, etc. on Riviere Blanche, which proved to be but six inches Another irregular seam on the same brook was thick. just discovered, but it was of little importance. The Jukes seam, and another laying above it on Middle Barachois River, were closely examined, and their outcrops measured. A section is given in the report for 1873 showing, according to Mr. Murray, the Jukes seam to contain 3 ft. 6 in. of coal, and that above (the Cleary seam) 1 ft. 5 in. coal. It was the writer's good fortune while measuring the Robinson's Head River, next east of the Middle Barachois.

To Discover Another Good Seam,

containing four feet of excellent coal. Mr. Murray named it the Howley seam at the time. Other work again occupied the attention of the Survey until 1879. and no further coal discoveries were noted. In the latter year the Government had concluded to institute a series of boring tests in the vicinity of the Grand Lake. A boring apparatus was purchased, and an experienced man from Scotland engaged to carry out the experiment. A trial was made near the mouth of Sandy Lake Stream, where the loose coal was seen strewn on the shore. The bore-hole reached a depth of 250 feet, and a few thin coal seams were passed through, the largest of which only attained a thickness of sixteen inches. The boring was continued the following year,

But With No Better Result.

This seemed to throw a damper upon the prospects of available ccal deposits occurring in the Grand Lake region, and even Mr. Murray himself began to entertain grave doubts that any appreciable portion of the true coal measures would be found here. The Bay St. George area, of which there might be some hope, remained in abeyance also, no further attempt being made to explore it. In fact, a general consensus of opinion seemed to have been arrived at, that our coal areas were of too limited an extent to call for further outlay in that direction.

With This Opinion I Could Never Concur, more especially after a visit to Cape Breton, and an inspection of the Sydney mines section. When, after the retirement of Mr. Murray, and his decease in 1884,

I succeeded him as Director of the Geological Survey, the subject of continuing the exploration of our carboniferous areas was repeatedly urged. Not, however, until several years had elapsed was it entertained again. At length, in 1889, permission was obtained to devoteanother season to the further exploration of the Bay St. George coal field. Much scepticism was expressed at the time

By Members of the Executive,

as to the prospects of there being coal of value in theregion, and it was only after repeated assurances that I succeeded in convincing them, upon geological grounds, that the coal should be there, and if it was I would most certainly find it. I' told the Colonial Secretary and Surveyor General of the time, that I believee there were millions of tons of coal yet undiscovered in the island. I even asked the former official to take a note of what I had stated, and see how near I could go to proving my assertions. The result of that season's work, as set forth in the report for that year, 1889, I think, speaks for itself, and amply bore out what was then claimed.

The Coal Seams Already Known To Exist

on Robinson's Head and Middle Barachois Rivers were first visited, and thoroughly uncovered, so that accurate measurements, and good average specimens of their quality could be obtained. The Howley Seam was uncovered for 150 feet along its out-crop, and was found to attain a thickness of 4 ft. 2 in. good solid coal. The Jukes Seam was traced over a quarter of a mile, and various openings made across the strike of the seam. It. was found to vary from three to eight feet in thickness, and averaged 4 ft. 6 in. It is a beautiful quality of coal, of a brittle nature, presenting a brilliant, sometimes iridescent lustre, and would seem to be somewhat analogous in appearance to what is

Known in Scotland as Cherry Coal,

though it partakes more of the nature of caking coal. The Cleary seam above this gave a thickness of 2 ft. 2 in. It is a good solid coal, breaking out in oblong blocks, and much resembles Glace Bay coal. Twelve other seams, varying in thickness from a few inches to six feet, were discovered on the Middle Barachois River. Two others besides the Howley seam on Robinson's Head River, and four more, including the Shears' seam on the Northern Feeder, a tributary of the latter River. The principal seams in the section,

The Actual Existence and Dimensions

of which have been so far ascertained beyond question, are:-

The Jukes Seam4	feet	6	inches.
The Cleary Seam2	"	2	66
The 18-inch Seam 1	66	6	66
The Slaty Seam1		4	"
The Clay Seam1	66	8	66
The Rocky Seam1		5	*6
The Murray Seam5	66	4	66
The Howley Seam4	66	2	66
The Shears Seam1		2	"

The Murray Seam, which shows the greatest average thickness of coal, is made up of alternate layers of coal and shale. It is a

Tough, Rather Slaty Coal,

much inferior, at least, at its out-crop to the others. It was named after the late Director of the Survey, Alex. Murray, C.M.G., F.G.S. The Shears seam, though so small, is a very superior quality of coal, approaching a semi-anthracite in hardness and brilliancy of lustre. It is a very clean coal, remarkably free from impurities. Altogether, the coal seams contained in the St. George's Bay trough, that have been as yet discovered, aggregate about 27 feet in thickness. They are all repeated by being again brought to the surface on the opposite side of the trough, where several of them were seen and uncovered. The area occupied by these coal seams has not as

Yet Been Definitely Ascertained,

nor is it my intention now to make any haphazard assertions as to what it may probably amount to. As set forth in the commencement of this paper, I shall not go beyond an actual statement of the facts observed. Were I permitted to continue the exploration of this region, I have little doubt that long ere this I should have been in a position to furnish reliable information on this head. To illustrate the importance of what such information would mean, it may be stated that an aggregate of 27 feet of coal, provided the seams maintained their ascertained thickness throughout, should, for every square mile of superficial area they may be found to underlie, contain about

25,920,000 Tons of Coal.

All that is known with certainty at the present time is, that on the Middle Barachois River, the trough has a width of at least two miles, while in its longitudinal extent coal has been found to outcrop at points five miles apart in a straight line, from the most easterly to the most westerly known limits. Turning now to the Grand Lake, or central carboniferous region, which lays just one hundred miles to the northeastward from the Bay St. George trough, it has been seen how far our knowledge of this coal field extended up to the coal boring operations in 1879-80. The results of those two season's work were certainly far from encouraging.

In 1890 the Staff of the Geological Survey was employed in making the preliminary survey for the proposed extension of the N. W. Railway, from the Exploit's valley to the West Coast, upon which the contract for its construction with the Messrs. Reid was subsequently based. It is not necessary to enter into details of that survey here, but it may be stated that no time was available for geological research, and consequently, though the Grand Lake region came within its limits, nothing further was ascertained as to its coal deposits. In the report for that year, however, it was strongly urged that a further and more minute examination of the district should be undertaken. To quote the

Exact Words from the Report in Question, they are as follows: "I can hardly conceive that in such an extensive area of over 500 square miles, where the presence of coal is indicated at all, there should not be some more promising deposits; and I think it well worthy of consideration as to whether this great central carboniferous area does not warrant such an extensive exploration as that hinted at above." "While on this subject, it may be as well to remark, that previous to last year's investigation of the St. George's Bay carboniferous area, it was generally thoug' the latter also was destitute of workable coal seam. It had been regarded as occupied almost entirely by the lower and unproductive members of the series, viz.:

The Carboniferous Limestone and Mill-Stone-Grit _ Formations,

but I now have the satisfaction of informing you, that upon referring the fossil plants then collected, to Sir Wm. Dawson, Principal of McGill University, Montreal, and one of the most eminent authorities upon fossilbotany in North America, he has, in one of his letters to me, made the following reference thereto: "I may say that the specimens now sent, indicate a development of the coal measures not unlike that of Eastern Cape Breton, with which I fancy your beds may be connected under the Gulf." "This is much more evident in the specimens you have sent than in those previously collected by Mr. Murray, which had the aspect of lower coal measures or even of the mill-stone-grit series."

This is a Most Important Announcement, coming as it does from so distinguished a source. In a later letter Sir Wm. adds: "Your Government might make a point as to the West Shore, by informing the English Government of the value of the coals on the West Coast, and their prospective importance to Britain and Newfoundland, as well as to the other colonies. You have the nearest coal to England on this side of the Atlantic." In the following year, 1891, the Government were pleased to adopt the suggestion of giving the Humber River area a more thorough search for coal, especially in view of the contemplated extension of the railway system to the western side of the island. On leaving for the scene of operations, the

Colonial Secretury, Hon. R. Bond, Said to Me, "If you can find a workable coal seam at Grand Lake it will be the means of insuring the construction of the railway to the West Coast." I replied that I would do my utmost, and if it were there I believed I could find it. The result of this and the succeeding season's work is contained in the published report of the Geological Survey for 1891-92, under one cover. As many of those interested in this subject may not have seen these reports or cared to wade through the geological details, I shall only give a summary of the

Actual Facts Ascertained from an Economic Point of View.

The existence of a long, narrow trough of true coal measures on the south side of Grand Lake was established, commencing at a point about four miles from its head, which was traced easterly as far as Kelvin Brook, a distance of over six miles. Here it was lost to view, being covered over by an immense accumulation of superficial drift, which spread over a large area of flat country, lying between Grand and Saudy Lakes on the Southern branch of the Humber River. Several small streams flowing into Grand Lake afforded the only sections of the strata which were at all accessible, and these only

After an Immense Amount of Labor

in removing the dense forest growth, and then costeaning the banks wherever any prospect of reaching the bedrock presented itself. The principal brooks thus explored were Aldery Brook, Coal Brook, and Kelvin Brook, which occur at intervals of about two miles and a half, succeeding each other from west to east as named above. Two other smaller rivulets, unnamed, were also explored. Very perfect sections of the coal measures were obtained on Aldery and Coal Brooks. On the former, in a horizontal distance of about one-quarter of a mile, thirty

Separate Outcrops of Coal were Observed,

crowded together, with but a comparatively small amount of intervening rock strata. Owing to the doubling up of the strata composing this section, there is, of course, a repetition of the different layers, and in reality the thirty outcrops only represent fifteen actual distinct coal seams. Most of these are quite small, varying from a few inches to a foot in thickness. Those over a foot are as follows:

					rt.	111.
No. 6	Outerop	contains	coa	1	 2	0
No. 7	"	66			1	6
No. 8	66	42	66		 1	8
No. 12	66	44	66		 1	3
No. 15	66	66			 3	ŏ
No. 16		66			 	5

Another section of the same measures, on the opposite

side of the brook, gave a better showing in some respects,

No, Six Seam was About the Same,

but Nos. 10, 11, 12 & 13 seemed to have come together, forming one large seam, containing fourteen feet of coal. No. 14 outcrop showed 2f. 10in. coal; No. 15, 2f. 2in. No. 16, 2f. 6in, and No. 25, 1f. 7in. The coal contained in Nos. 6, 7, 16 and 25, is of excellent quality, as is also that of some of the smaller seams; but the fourteen foot seam, and also No. 15th outcrop is soft, and rather impure on surface exposure. On Coal Brook the same section is exposed in part, and here the trough has a wider spread, measuring about thirty chains across in a horizontal line. Eighteen outcrops of coal were uncovered here representing nine separate seams. The remainder of those

Seen on Aldery Brook,

if they exist, could not be reached, owing to the great depth and toughness of the superficial deposits. Only four of these seams showed over one foot of coal, viz. :

				F	't. In.
No. 2	Outcrop	contains	coal.		1 4
No. 4	"	66	66 .		3 5
No. 11	66	"			1 6
No. 12	44	66	66 .		2 4

No. 4 is a good seam, and the coal is of excellent quality. It was from this outcrop the Messrs. Reid obtained the car load of coal mentioned at the commencement of this paper. On Kelvin Brook but a very small section of the measures is exposed. It contains, however,

Six Outcrops of Coal.

No. 1 consists of soft coaly and shaly layers alternating, three feet eight inches of which is coal. No. 5, contains 2 feet 6 inches of rather impure coal, but No. 6, is made up of two layers of excellent bright black coal, divided by a layer of carbonaceous shale. The lower coal is 3ft. 6in. thick, and the upper 2ft. 8in., making in all 6ft. 2in. of good coal. The shaly layer in the middle is about one foot in thickness, but appeared to become somewhat thinner as the seam was sunk upon. As it was impossible to go beyond a few feet down at the time, owing to the influx of water from the river, it could notbe clearly ascertained whether it maintained this

Same Character to any Extent.

In all probability, the shale in the middle may thin out entirely, or become more and more real coal, as the seam is developed. In either case it will be seen that this is one of the most promising coal seams so far discovered in the Grand Lake district, though, perhaps, not the best coal as regards quality. The results of these two seasons operations were considered of sufficient importance and promise as to warrant the application of the boring rod again. In the following year, 1893, the Governmentpurchased a

Sullivan Diamond Boring Drill,

and after much delay and heavy labour, consequent upon the transporting of so cumbersome an apperatus to the Grand Lake, in the then condition of the country, boring was commenced near the head of the Lake. Seven different attempts were made to reach the bed rock, all of which, except one, failed. Such was the enormous depth of the superficial deposits, amounting to over 140 or 150 feet, and made up as they were of tough sand, gravel, and innumerable boulders, of all sizes, that could not be moved out of the way, hole after hole had to be abandoned. Only at a bend of Kelvin Brook, near the shore of the Lake, and about a mile north from the lowest part of the section already

Uncovered on Coal Brook,

were we successful in penetrating to the underlying rock formation. Even here, 105 feet of the surface deposit had to be passed through. The boring was continued down to a depth of 335 feet without finding any true seam of coal. A few thin impure carbonaceous shaly layers, just showing a sign of coal, were met with. It became quite evident that we had struck a portion of the formation below the actual coal bearing measures. Though this result was of a negative character, it was not without value in a scientific point of view. It clearly demonstrated the fact that an anticlinal fold in the strata. occurred, whereby the coal seams proved to exist near the mouth of

Sandy Lake River in 1879,

must occupy a separate and distinct trough from those discovered on the South side of the Lake in 1891-2. What the value or extent of this more northerly trough may be can never be determined without the continued and extensive use of the boring rod. During the past season of 1895, our knowledge of the more southern trough has been greatly increased, by the discovery of two seams of coal, and indications of others at a point on the line of railway, four and a half miles to the eastward of the Kelvin Brook section,

And on the Same Line of Strike.

This discovery places beyond all reasonable doubt the fact, that the coal measures form a continuous trough, from about one mile to the west of Aldery Brook, to the point on the railway line above indicated, a total distance in a straight line of eleven miles. Certain observations made during this past season also, seem to point towards a widening of the trough in its easterly extension, but much yet remains to be accomplished before any definite conclusion can be arrived at as to what may be the full extent and importance of this promising coal field. In conclusion, I may add, that the foregoing is a plain statement of the actual facts regarding our knowledgeof the

Coal Fields of Newfoundland up to the Present Time.

I have confined myself strictly to what I know and can prove to be correct. I have taken considerable pains to gather all possible information of a reliable character outside of what was already in my possession, and have refrained from putting forward anything of a speculative nature whatever. In the interests of the country generally, it is to be hoped that authoritative statements which can be amply borne out, will be the means of attracting the attention of those whom it would be desirable to interest in our coal deposits, which I am convinced, no overcolored, grossly exaggerated and unsupported assertions are likely to effect.

JAMES P. HOWLEY.



