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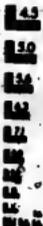
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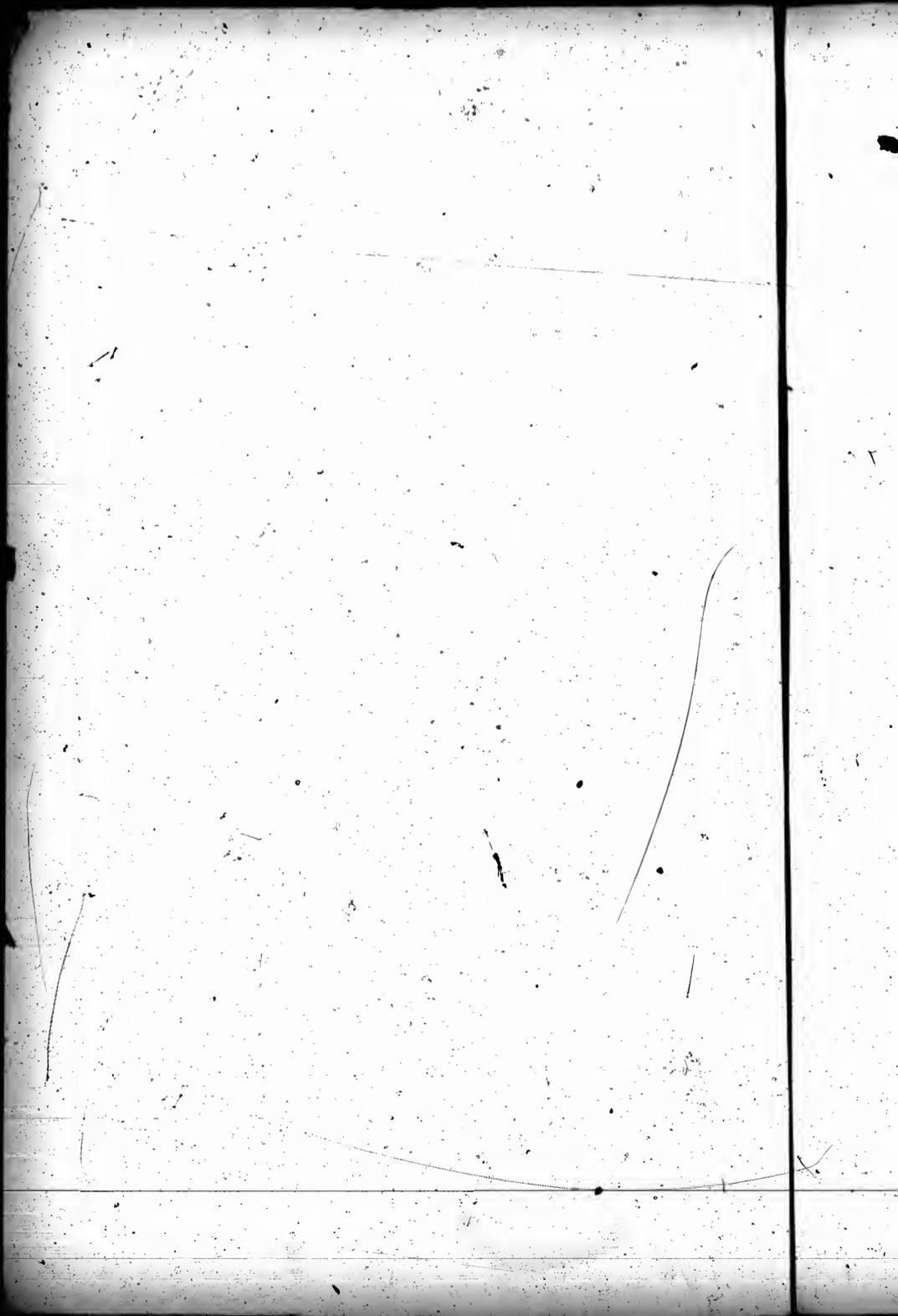
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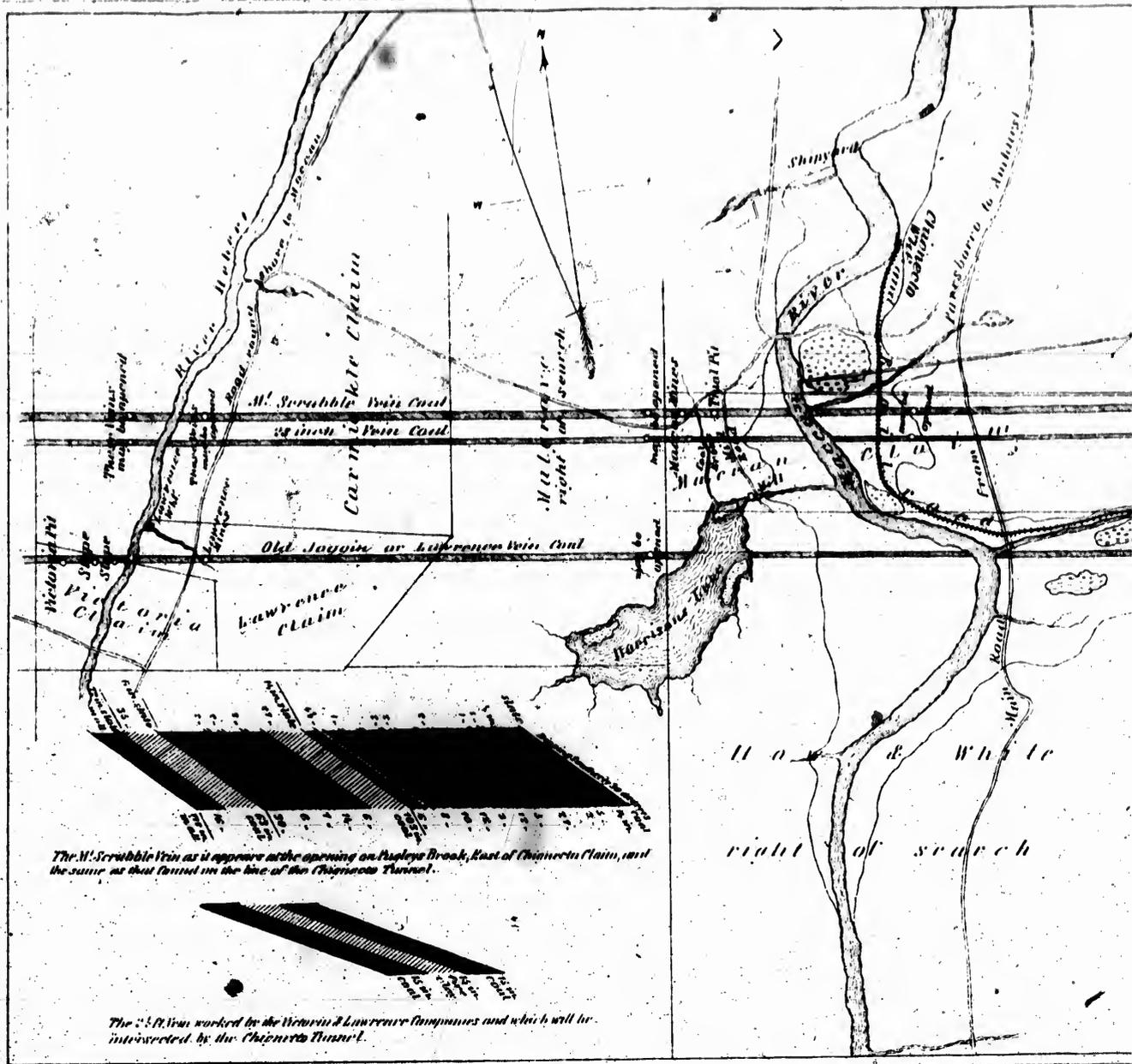
CUMBERLAND COUNTY,

NOVA SCOTIA.

AMHERST, N. S.
1864.







The M. Scrabble Win as it appears at the opening on Pusey Brook, East of Chippewa Claim, and the same as that found in the line of the Chippewa Tunnel.

The S. P. Win worked by the Victoria & Lawrence Companies and which will be intersected by the Chippewa Tunnel.

Kerr, Hickman & Baker's Claim

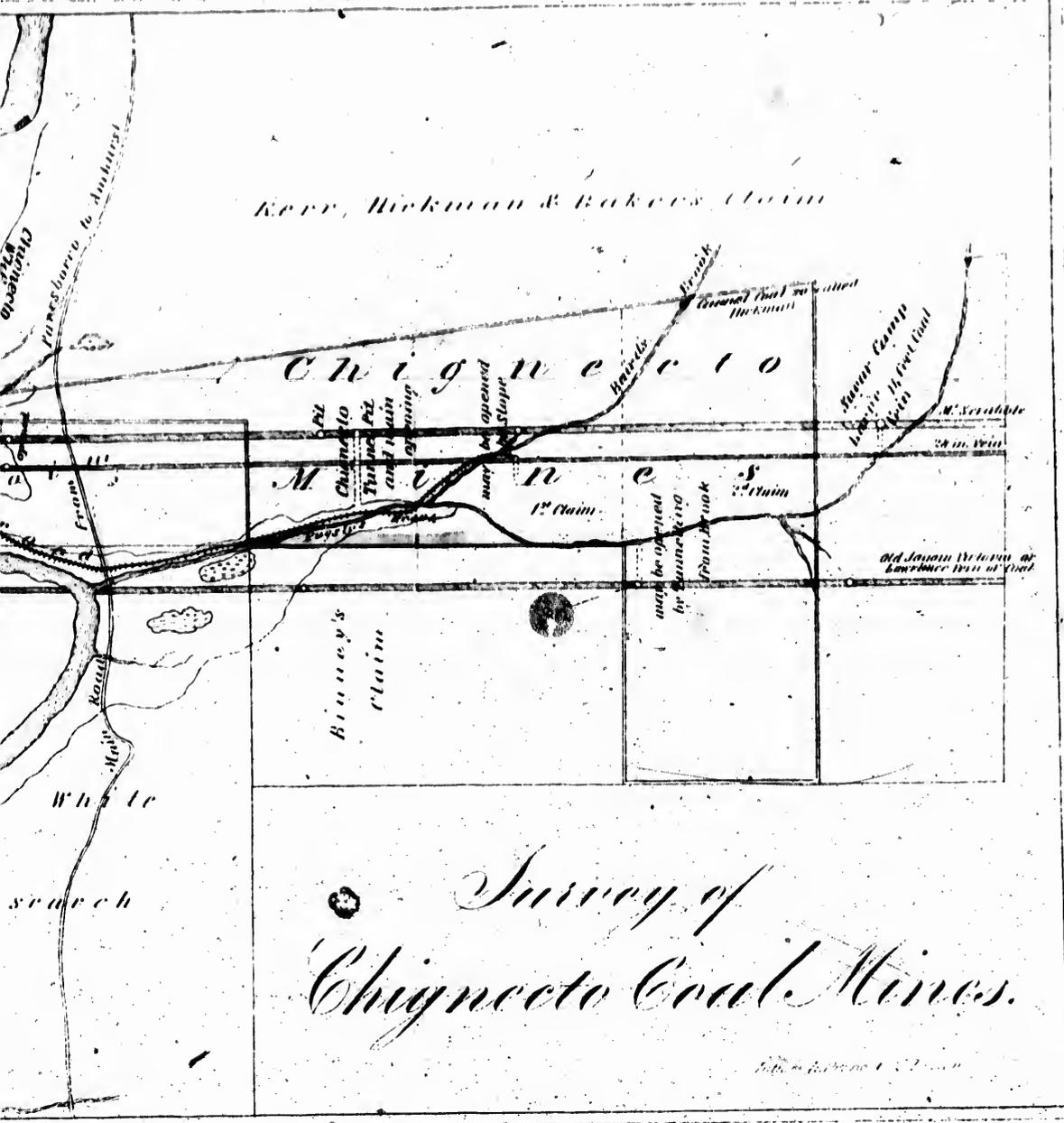
Chignecto

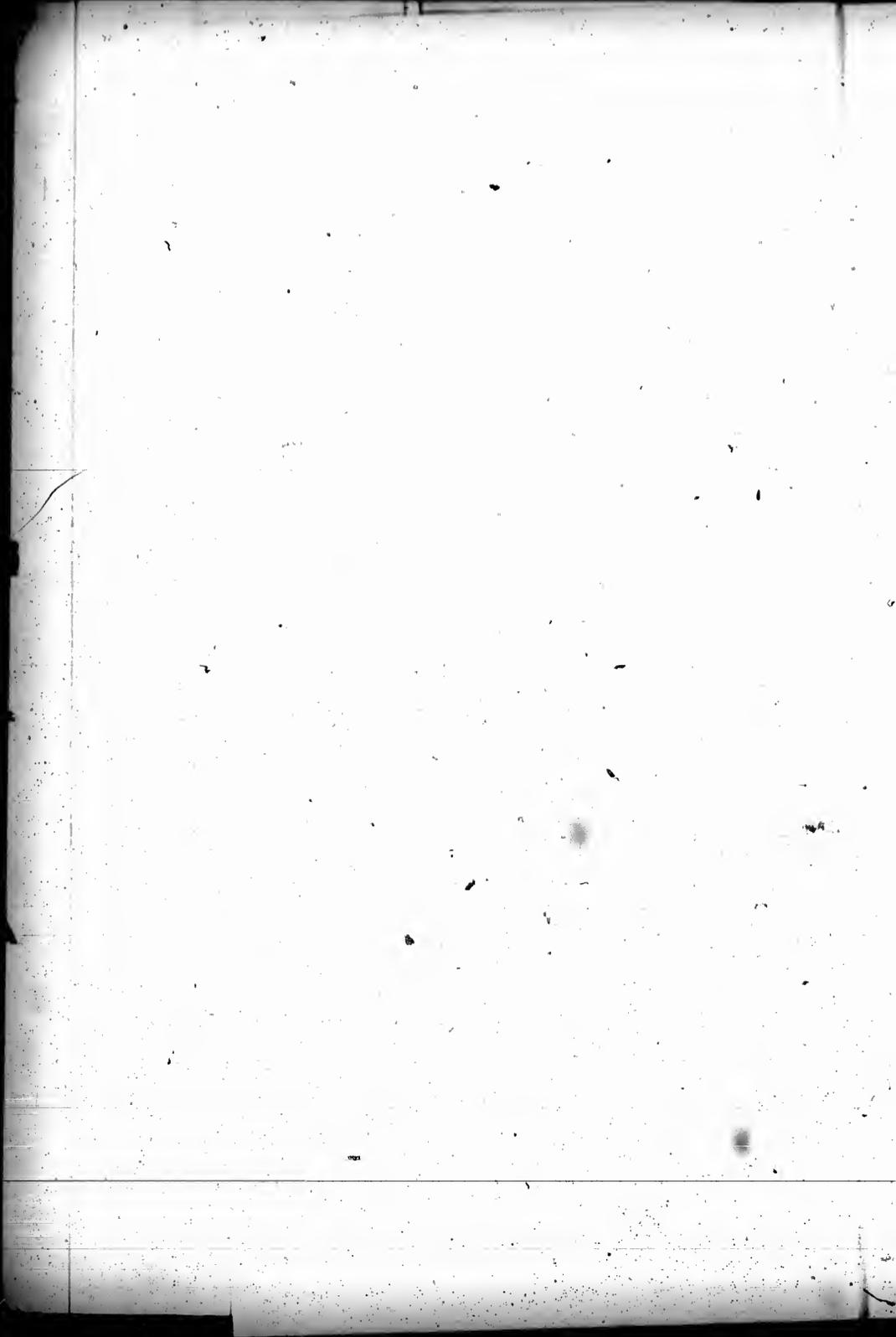
M. V. N. S. Claim

Binney's Claim

Survey of Chignecto Coal Mines.

John A. Bannan & Co. Surveyors





ONTARIO

COAL MINING COMPANY,

CUMBERLAND COUNTY,

NOVA SCOTIA.



AMHERST, N. S.
1864.

OFFICERS
OF THE
CHIGNECTO COAL MINING COMPANY.

President:
JOHN BABSON.

Directors:
JESSE A. LOCKE,
JOHN S. PINKHAM,
JOHN BABSON,
S. T. SANBORN,
J. D. LELAND,

Treasurer and Secretary:
HENRY V. DEGEN.

TREASURER'S OFFICE:
23 CORNHILL, BOSTON.

6215
622-33
C34

CHIGNECTO COAL MINES.

COAL has been, still is, and will continue to be, an inexhaustible source of wealth. A Spanish writer, not long since, instituted a comparison between the productive value of the silver and gold mines of America and that of the coal mines in England. The author exhibits a balance in favor of the latter of nearly two hundred and thirty millions of francs = £9,286,000 sterling annually.* The immense wealth that has been produced by the development of the coal mines in Pennsylvania is too well known to require more than passing mention; and a single mine, the Albert, in Hillsborough, N. B., the stock of which cannot probably be had at any reasonable price, is known to yield its shareholders a princely income.

Perhaps in no direction has the eye of the New England capitalist been drawn with so sure a prospect of safe, profitable, and permanent investment as to the coal fields of Nova Scotia. The immense and increasing consumption of this fuel for domestic use and for making steam in cotton and woollen factories, locomotives and steam vessels, and for the manufacture of gas and the working of iron, guarantees a demand for it in our very midst which can only be limited

* "Taylor's Statistics of Coal," 1855.

by the supply; and which cannot fail under judicious management to insure profitable returns.

The Chignecto Coal Mines are situated near the Macan River, about eleven miles from the village of Amherst, in the County of Cumberland, Nova Scotia, and about the same distance from the Chignecto Bay, an arm of the Bay of Fundy, from which they derive their name. The coal is from the same veins now worked at the Joggins, and at the Macan Mines, and is closely allied to the Pictou and Sidney coals, well known in our market.

This carboniferous strata, embracing a multitude of veins varying in thickness, are clearly developed at the Joggins, a continuous cliff, from eighty to one hundred feet high, on the south shore of Chignecto Bay, where they have long been profitably worked. Sir W. E. Logan, in his geological report to the provincial government of Canada, in 1845, mentions the fact that "thicker coal-beds exist to the eastward of the Joggins, — a fact that has been abundantly confirmed in the openings that have been made on the Chignecto and adjoining claims, one vein alone exhibiting a thickness of fifteen feet of coal, a sectional view of which is given on the diagram attached to this pamphlet.

By a reference to that diagram, it will be seen that openings have been made at two different points; namely, in the line of the Chignecto tunnel and on Baird's Brook. One of the openings on the line of the tunnel has been found to contain three feet four inches good coal, while another just opened, some two hundred feet farther west, according to a letter received from Mr. Patrick, the Company's Superintendent, measures "four feet six inches of good coal."

The tunnel, which has been excavated in the side of a hill,

is on a level with the railroad conveying the coal to the shipping point. It has already been prosecuted some four hundred feet, and will, when completed, intersect the two-foot vein now worked by the Macan Mining Company, and the Mount Scabble vein which is one of the most valuable now worked at the Joggins. When reached by the tunnel, the coal in these veins will be some hundred and fifty feet below the surface, — a pretty sure guarantee of its superior quality.

The situation of the mine presents a great advantage over those where the coal and water have to be raised to the surface, often from a great depth, and at a heavy expense. By tunnelling into the side of the hill, the mine frees itself of water, and the coal is easily conveyed to the vessel.

Mr. Patrick, under whose superintendence the mine has been thus far developed, computes that at least two hundred tons per day can be easily and profitably mined and shipped from this point.

In view of the enormous rates of exchange, the Directors have wisely concluded to suspend operations on the tunnel for the present and confine themselves to the development of the coal at Baird's Brook, from whence it can be brought to our market early in the spring. The work on the tunnel can be resumed as soon as the state of the currency will justify it, or if delayed until spring, can be easily prosecuted while the coal is being shipped from the upper vein, on Baird's Brook, the profits of which, it is estimated will pay the expense of excavation, beside yielding a fair dividend on the first year's operations.

The following analysis of coal from the Victoria Mines, on the Hebert River (the same in kind as the Chignecto),

made by two distinguished analyzing chemists, will convey an idea of its character.

Dr. Hayes, of this city, speaking of its quality, says, —

“It is strictly a gas-producing coal. Of one hundred parts, it contained

Loose volatile matter,.....	36.00
Carbon in Coke left,.....	51.84
Gray Ash,	12.16
	<hr/>
	100.00

“In the gas, a small proportion of sulphuretted carbon is found; but the general characteristics of the gas correspond to those of Pictou coal gas. 4.17 cubic feet of gas were afforded by 1 lb. of the coal, which is a larger volume than Pictou coal makes.

“As a basis coal, therefore, this sample promises to be highly desirable for gas manufacturing, the coke being gray-black and quite dense, and affords much heat in burning.

“In burning and affording heat, it holds a place between Sydney and Pictou kinds, closely resembling the latter.”

Mr. Foulis of St. John, N. B., says, —

“The specific gravity of the coal is 1.345, and it would be an excellent article for gas-making purposes when mixed with cannel coal and where good coke is required, as the latter takes the shape of the vessel in which it is made.”

The profit with which the coal has been worked in the neighboring mines may be judged of in part from the following abstract from the report of the Victoria Company: —

“Taking 30,000 tons as the quantity shipped in one year, the result of the season's operations will be as follows: —

Expense of mining and delivering on board vessel 30,000 tons at \$1.00,.....	\$30,000
Incidental expenses, wear and tear, salaries, etc.,.....	3,000
	<u>\$33,000</u>
30,000 tons realized, at \$2.00,.....	60,000
Profits of season's business,.....	<u>\$27,000</u>

The selling price of coal in the above estimate is too low; the actual price being \$2.50. It is sold for house consumption at the mouth of the mines for \$3.50 and upwards.

"The Lawrence Coal Company commenced shipping coal within the last twelve months, and the results thus far justify their expectation to divide this year ten per cent. upon their capital of \$200,000, notwithstanding the very considerable amounts expended on the necessary permanent work at their mines."

In the judgment of Mr. Patrick, who has opened most of the veins in this section, taking into consideration the facilities for mining, and the quality and quantity of the coal, the CHIGNECTO Claim is pre-eminently the most valuable of any that has been developed.

The mining rights of the company, the title of which is derived directly from the British Government, consist of two square miles, lying, as will be seen by the accompanying map, in the immediate vicinity of Macan River, where vessels of the largest size will be able to approach the Company's wharf.

The following testimonial from the Hon. R. B. Dickey, of Amherst, N. S., cannot fail to give confidence in the accuracy of the surveys embraced in the accompanying diagram and the estimates which are yet to follow.

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AMHERST, NOVA SCOTIA, }
 July 8, 1864. }

For the information of the Chignecto Coal Mining Company, I beg to state that I am acquainted with Mr. Samuel O'Donnell, Deputy Crown Land Surveyor in this district, and also with Mr. William Patrick, Superintendent of the Company's works at Macau.

Mr. O'Donnell's attainments as a surveyor are of a high order, and he has been retained in office under several successive changes of administration. I am of opinion that confidence may be placed in his plans and statements in connection with the duties of his office.

I have great pleasure in stating my belief that Mr. Patrick is an honest man, and that full reliance may be felt in his statements. He has had extensive experience in coal mining, and has the reputation of possessing considerable theoretical and practical knowledge in such matters.

R. B. DICKEY, *M. Leg. Council.*

Of the accuracy of the drawing, the following is Mr. O'Donnell's certificate:—

I hereby certify the above plan of coal claims, with roads, rivers, and streams, to be correct. Also, the coal veins marked and described on said plan, together with the sectional plans, showing the relative size or thickness of said veins, with the exception of the fourteen-foot vein, on the eastern claim, which I have not yet examined, but from my acquaintance with Mr. Patrick, I have no reason to doubt his statement in respect to it.

SAMUEL O'DONNELL,

*D'y Surveyor of Crown Lands, Inspector of Mines, etc.
 for Co. Cumberland.*

AMHERST, 6th July, 1864.

I beg further to state that since writing the above, I have examined the fourteen-foot vein alluded to by Mr. Patrick, and found it to be as he has represented.

SAMUEL O'DONNELL, *Deputy Surveyor.*

8th July, 1864.

The following, addressed to the Treasurer, has just been received:—

CHIGNECTO COAL MINES, }
 Sept. 20th, 1864. }

DEAR SIR:

Having completed my examination of the coal opened on Chignecto Property, I now send you a sketch of it. The Baird Brook opening, taking into account its easy access, size, quality, and facility for drainage, is one

of the most valuable mines yet opened in this county. There are full seven feet of good workable coal in the vein, with very little slate or fire clay about it. Outside of Spring Hill, which is about twenty miles from shipping, it has no equal in the county for size, unless we except the Sugar Grove opening, about a mile to the east, which is not yet in operation. It is surpassed by none in quality, and resembles much the two-foot vein at Macan. The coal dips southerly, at an angle of about thirty degrees, enough to make it very advantageous for mining; and as the land rises, and the coal with it, from sixty to one hundred and ninety feet above the bed of the brook, much is gained in the matter of draining. We have, on an average, one hundred and eighty-five feet of cover, equal to a pit one hundred and eighty-five feet deep in ordinary localities or flat lands, while the pit from whence the coal and water are taken is but eighty feet in depth. The nearest shipping place to this opening is about three and a quarter miles on the Macan River. The brook on which the mine is opened empties into the Macan River, and as the land along the river and brook is almost level, with a slight descent from the opening to the place of shipment, the railroad route is as favorably situated as could be desired. The tunnel opening (which is one and a quarter miles nearer the shipping point) exceeds anything I have seen in this country for draining facilities, the coal passing at this place through the highest part of the hill, with a cover of one hundred and eighty-seven feet. From this point you can work east and west on the coal (equal to two mines opened in the ordinary way), affording an excellent opportunity of doubling the business if required, and without extra cost of opening for that purpose. This, when in operation, will probably be the most economical working mine, as it will be entirely self-draining for many years. The Chignecto property, consisting of two claims of six hundred and forty acres each, embracing the two openings herein spoken of, is the most valuable property yet in operation in this coal region, and it is doubtful whether there is any in the province that will yield a better return for the small amount of capital required to work it. I send you a calculation of what it will cost to raise and deliver two hundred tons per day on board of vessels.

THE MEAN CALCULATION OF WHAT IT WILL COST TO RAISE AND DELIVER TWO HUNDRED TONS OF COAL PER DAY ON BOARD OF THE VESSELS.

70 miners, \$1.50 each.....	\$105.00
10 men trimming wagons below.....	10.00
2 horses and drivers.....	4.00
2 roadsmen below.....	2.50
Lumber and props for mine.....	5.00
Smith striker and iron.....	10.00
Two bottomers.....	2.00
Two bankers.....	2.00
Carried forward.....	\$140.50

Brought forward.....	\$140.50
One engineer.....	1.50
Oil and coal for engine.....	3.00
6 horses, 3 drivers, on R. R.....	0.00
2 men trimming wagons.....	2.00
Two men repairing R. R.....	2.00
One man at wharf.....	1.00
One weigher.....	1.50
Tear and wear of wagons.....	2.50
Oil and extras, nails, etc., etc.....	5.00
Royalty, 10 cts. per ton.....	20.00
	<hr/>
What is reloaded from bank, 8 cts.....	\$188.00
	16.00
	<hr/>
	\$204.00

You see from my figures that, when everything is completed, the cost of delivery on board of vessels will not exceed \$1.00 per ton. There will be some extra expense in keeping the works in repair in the winter, while inactive, which may possibly swell the cost to \$1.20 per ton; but it cannot reasonably exceed this, so that at the rate coal is now selling, a moderate business, say 25,000 tons per annum, would yield a net profit of at least Fifty Thousand Dollars. Add to this the tunnel opening, which will yield like returns, at about the same cost, and it constitutes a very valuable property, affording to capitalists a rare chance to get profitable and speedy returns. A reasonable amount of capital energetically and well managed, cannot fail to give satisfactory results to the Chignecto stockholders.

Yours truly,

WILLIAM PATRICK.

To H. V. DEGEN, ESQ.,
Treasurer of Chignecto Coal Company.

BY-LAWS.

ARTICLE I.

The Annual Meeting of the Stockholders of this Company shall be held at Amherst, in the County of Cumberland, Province of Nova Scotia, on the Second Monday in July, in each year, and such meeting may be adjourned from time to time without giving public notice of such adjournment.

ARTICLE II.

The Officers of the Company shall be a President, five Directors, of whom the President shall be one, and a Treasurer who shall act as Secretary.

ARTICLE III.

The Directors and Treasurer shall be chosen at the Annual Meeting of the Company, by a majority of the Stockholders present, in person or by proxy, at such meeting. The Officers elected shall continue in their respective offices until the succeeding annual meeting, or until others are chosen and accept in their stead.

ARTICLE IV.

The President shall be chosen by the Board of Directors from their own number, at their first meeting after their election, or at some adjournment thereof.

ARTICLE V.

The Directors shall have power to fill any vacancies occurring in their own Board or in the other offices of the

Company, the officers so elected by them, to hold until the next annual meeting of the Company, or until others are chosen in their stead.

ARTICLE VI.

It shall be the duty of the President to preside at all meetings of the Company and of the Directors, and in the event of his absence, resignation or inability, a President *pro tempore* may be appointed.

ARTICLE VII.

The President shall vote at the Board as a Director and in case of there being an equal number of votes for and against any question before the Board of Directors, the President shall have a casting vote.

ARTICLE VIII.

On every occasion when, in conformity with the By-Laws of the Company, the votes of the Stockholders, as such, are to be given, each Stockholder shall be entitled to give one vote for each share he holds.

ARTICLE IX.

All Stockholders may vote by proxy, provided that such proxy produces sufficient written authority from his constituents so to act.

ARTICLE X.

The Directors shall have the general supervision and control of the affairs of the Company. They shall hold their first meeting upon due notice given by the Secretary of the Company, and thereafter they shall meet at such times

and places as they shall deem necessary and convenient, and the Secretary shall give written or printed notice of the time and place of each meeting to each Director.

The Secretary shall notify meetings of the Directors upon the request of any two of their number by giving written or printed notice of the time and place thereof to each Director.

The Directors may appoint such Superintendents and agents as they may deem necessary and best, and they may make arrangements for the compensation of the Treasurer, Superintendent, Agent, or any other person or persons employed by the Company, in such way and manner as they shall deem best.

The Directors shall make and lay and cause to be paid all necessary assessments, and shall from time to time order such division of the profits of the Company as they may think advisable, and at any of their meetings a majority of the whole number shall constitute a quorum for the transaction of business.

ARTICLE XI.

Before any Stockholder shall be required to pay any call or assessment on his Stock, ten days' previous notice shall be given by the Treasurer of the time and place of payment.

ARTICLE XII.

The Treasurer shall have the custody of all moneys, valuable papers, books, and accounts of the Company, subject at all times to the inspection and control of the Directors. He shall pay out money, taking suitable vouchers therefor,

and give or negotiate such notes or bills of exchange for such amounts and at such times as the business of the Company may require and the Directors may order, but for no other purpose, and he shall or may indorse notes, checks, or bills of exchange received by the Company in the prosecution of their business, making careful record thereof in the books of the Company. He shall record all transfers of stock and shall cancel and carefully preserve certificates of all stock transferred, and shall perform all other duties pertaining to the office of Treasurer.

As Secretary, he shall keep a record of the proceedings and doings of the Company, and of the Directors at their meeting. In the event of his absence from any meeting, a Secretary *pro tempore* shall be chosen by such meeting.

As Treasurer, he shall give a bond with sureties satisfactory to the Directors for the faithful performance of his duties in such sum as the Directors may reasonably require.

ARTICLE XIII.

Special meetings of the Company may be ordered by the Directors at such times as they shall deem best, and they shall order a meeting to be called on the written application of persons owning one third of the shares of the said Company; all such meetings shall be held at such time and place, in the Province of Nova Scotia, as the Directors shall order, and the Secretary shall give notice of the time and the place of every annual meeting and special meeting, by depositing a written or printed notice in the Post Office of the place where the Secretary's office is located, with postage prepaid, two weeks before the meeting,

to the address of the stockholder according to the stock record of the Company, the notice, and by the publication in some newspaper printed in the City of Boston, in the State of Massachusetts, or in some paper printed in the County of Cumberland, Nova Scotia, for at least fourteen days previous to the time specified for holding such meeting.

The Secretary shall record the date on which he so deposits and publishes such notice upon the Record Book of the Company, and such record shall be conclusive evidence of the fact. At any annual or special meeting of the Company three persons or corporations holding or representing in person or by proxy a majority of the shares of the Company shall constitute a quorum for the transaction of business.

ARTICLE XIV.

The corporate seal of the Company shall be a circle on which shall be borne the name of the Company and the year of its organization 1864, of which seal the Treasurer shall have the custody.

ARTICLE XV.

Certificates of Stock shall be issued by the President and Treasurer of the Company, at the order of the Directors to holders of blocks or fractions of blocks in proportion of one hundred twenty shares to each block or of one fiftieth part. All assessments previously ordered by the Directors having been first paid. These certificates of stock shall be sealed with the seal of the Company signed by the Treasurer and countersigned by the President, and shall be in the following form:—



No. _____ Shares.

THE CHIGNECTO COAL MINING COMPANY.

This certifies that _____, of _____, is entitled to _____ shares in the Capital Stock of the Chignecto Coal Mining Company, organized under the Corporation Laws of the Province of Nova Scotia, subject to the By-Laws of the Company, and transferable by assignment on the books of the Company and surrender of this certificate.

Witness the Seal of the Company, at Amherst, in said Province, this _____ day of _____, 18—

Seal of

_____, PRESIDENT COMPANY.

_____, TREASURER.

On the reverse of which certificate shall be the following transfer:—

For value received _____ hereby sell and transfer to _____, of _____, _____ Shares in the written described Capital Stock of the Chignecto Coal Mining Company, numbered _____. Dated this _____ day of _____, 18—

ARTICLE XVI.

These By-Laws may be altered, amended, and added to, at any annual meeting of the Company, or at any special meeting, in the call for which notice is given that an alteration, or amendment of, or an addition to, the By-Laws will be proposed.



