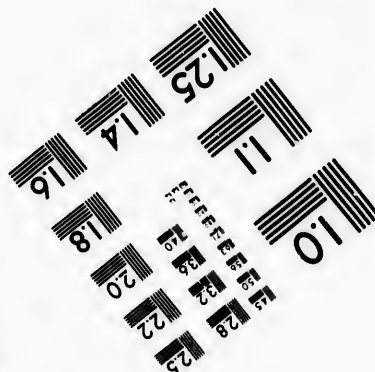
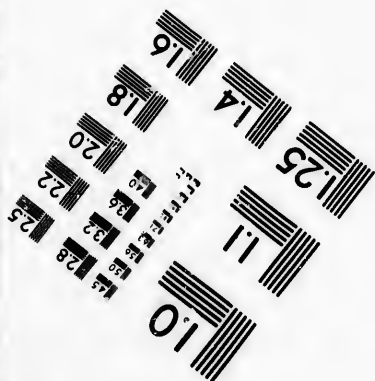
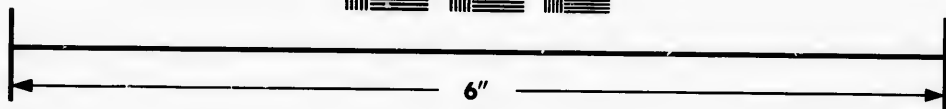
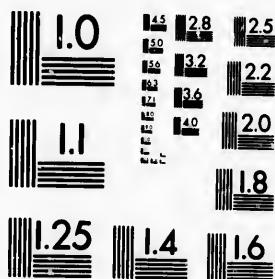


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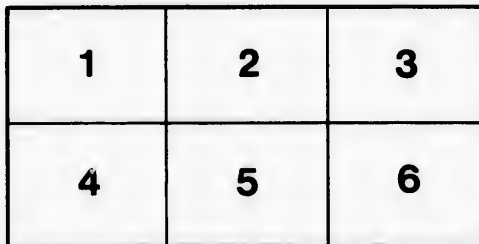
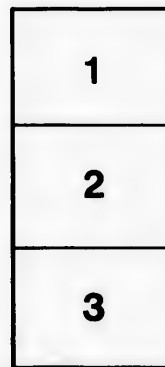
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# RECIPROCAL COAL

*Would give the New England  
States Cheaper Fuel.*

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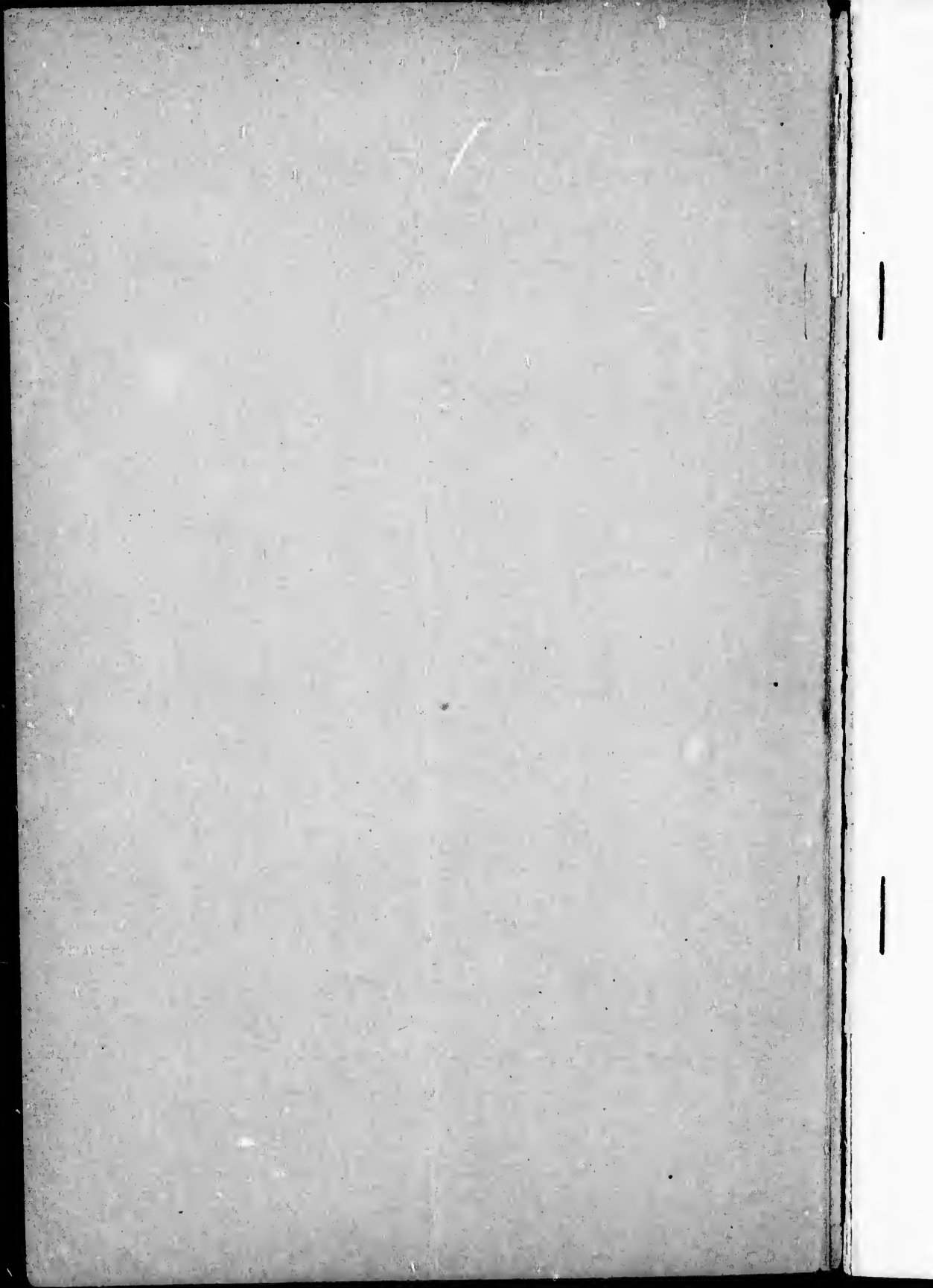
A REPLY

TO

WILLIAM WHITMAN,

PROTECTIONIST.

By  
D. J. Kennelly.



RECIPROCAL COAL  
WITH CANADA  
WOULD GIVE THE  
NEW ENGLAND STATES  
CHEAPER FUEL.

AN ANSWER TO WILLIAM WHITMAN, PROTECTIONIST.

BY

D. J. KENNELLY,  
RECIPROCATIONIST.

NEW YORK:  
HENRY I. CAIN, PRINTER, 35 VESSEY STREET.  
1892.

## INTRODUCTORY.

A copy of Mr. Whitman's pamphlet, "Free Coal, would it give New England Manufacturers Cheaper Fuel?" was handed to me in Boston a few days ago, but, although travelling on my business, and, therefore, in possession of little available data, yet so satisfied was I of the erroneous conclusions of the writer, that I determined to offer a refutation with as little delay as possible.

In regard to Mr. Whitman, I learn he is a gentleman from Canada, long settled in Massachusetts, where he is highly esteemed—a manufacturer, and a fervid believer in protection.

Of myself I am a coal operator in the province of Nova Scotia and favor reciprocity with the United States.

I take this hurried opportunity of tendering my thanks to Alfred Winsor, Esq., President of the Boston Tow-Boat Company, of Boston, for the opportunity he afforded me, a week ago, of inspecting the "Automatic Coal Shovel" at work, discharging coal in Boston.

New York City, February 11th, 1892.

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# RECIPROCAL COAL.

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A few days ago, by the courtesy of the President of the Boston Tow Boat Company, I was afforded an inspection of the Automatic Coal-handling Apparatus at work, discharging coal out of a 2,000 ton barge just arrived from Newport News. The coal was handled by the automatic shovel in a very effective manner, discharging from the barge at the rate of 120 tons per hour, and if worked continually would complete 2,000 tons in about 17 hours. If quicker despatch were needed, a second shovel, standing on a track near at hand stood ready for work. I felt greatly pleased with what I saw, and could understand how by the use of other machines, conjoined with a system of steamers and barges, a large quantity of coal could be much more economically handled than by the present system of carrying in steamers alone, whose unloading would be effected by their steam winches only.

It was while returning from this inspection in one of the company's tugs, that, noticing the prevalence of the English flag flying from the vessels in the Harbor, I remarked to the courteous official who accompanied me "Is it not a pity that, here in the harbor of Boston, there is scarcely to be seen one American flag flying from an over-sea vessel—nearly all are English."

"Yes," he replied, "but then we can do better with our money than to put it into ships." I said: "What about the steamers and barges in which you bring coal to Boston from Newport News and other ports?"—"Oh!" he replied, "those vessels pay us fairly well, although I acknowledge their first cost here to have been nearly double the sum for which they could have been had in England." Thereupon we compared notes on the subject of the cost, to him, of carrying coals by his own

steamers and barges in United States waters, and the cost to me of carrying coal in Canadian waters, chiefly from Cape Breton, Nova Scotia, up the St. Lawrence to Montreal, in steamers hired in the English market, at per gross ton register per month, from May to October. I am not at liberty to give the costs furnished by my informant, but I can state, they were, pro rata, far in excess of those paid by me. He admitted the navigation between Boston and the Southern coal ports to be easier and more favorable from every point of view than that of the St. Lawrence from Cape Breton. He also, as frankly admitted that even with the acknowledged economical system of carrying coal in his steamers, with barges in tow, there would be a loss to him were he only to receive the rates I was paying hired steamers, although these same rates gave a substantial profit to the English shipowner. Why is this? Well, the reason is not far to seek. Fifty years ago England had in force the restrictive navigation laws that more or less are governing the United States Mercantile Marine to-day. But she had the wisdom to break from shackles that were believed vicious to her trade, and, behold her, to-day, the greatest ocean carrier in the world! I venture very respectfully to ask if from this there is not something to learn by the sixty-three millions of people in the United States?

Having said so much, it remains for me to turn to the consideration of the subject matter of Mr. Whitman's pamphlet with the object of refuting the statements made by him regarding Nova Scotia coals. To do this, I propose first, to establish certain facts from precise data which, fortunately, I am in a position to produce, and with these facts proved to the satisfaction of the reader, I show, unquestionably, that TWELVE out of the fifteen propositions set forth by Mr. Whitman on pages 29, 30 and 31, are wholly wrong, that the thirteenth is partly right and partly wrong, and that while the remaining two are in the main correct, they are immaterial for the purpose of his contention.

Mr. Whitman deals with data for the year 1890, but has introduced matter more favorable to him from business done in 1891. I shall give him all the benefit of his later data, and, therefore, accept the year 1891, from which to obtain my proofs.

## PROOF OF COST OF DELIVERING COAL IN MONTREAL.

In the year 1891, the corporation I represent, delivered at Montreal and at a place near to it (Sorel) 85,727 long tons of bituminous coal. The coal was carried in three English steamers, hired by the gross registered ton, per month, for the open season of the St. Lawrence taken at five months. It is immaterial for the purpose of my proof, but it had better be stated that an additional quantity of about 18,000 tons was delivered in the St. Lawrence ports, in steamers paid by the trip, and that the costs per trip, were about the same to me as the costs of the time steamers.

The three hired steamers were the

"Samuel Tyzack"	at 9s	per month	\$2.16
"Edinburgh"	" 8s 6d	"	2.04
"Maud Hartman"	" 8s 6d	"	2.04

I had to furnish to the vessel bunker coals free of cost, during the period of their hire, and also to pay all charges incurred, except wages and provisions of crew, and insurance on vessels' hulls.

The total cost to me, per ton, delivered from these three vessels at the end of the season (October, 1891,) was \$1.33<sup>24</sup>, made up as follows :

Hire of steamers per ton of coal delivered	.66 <sup>55</sup>
Bunker coals at selling price - - - - -	.07 <sup>59</sup>
Trimming charges - - - - -	.06 <sup>08</sup>
Pilotage - - - - -	.08 <sup>75</sup>
Stevedore - - - - -	.26 <sup>31</sup>
Dumping in Montreal - - - - -	.04 <sup>14</sup>
Montreal port charges - - - - -	.00 <sup>75</sup>
Wharfage and weighing - - - - -	.09 <sup>82</sup>
Insurance on Coal - - - - -	.01 <sup>45</sup>
Sydney Harbor charges - - - - -	.01 <sup>80</sup>
	\$1.33 <sup>24</sup>

Now, being desirous that my readers should follow me clearly, I state that this \$1.33<sup>24</sup> covered every charge of every description paid by me to deliver one long ton of coal to the buyer in Montreal.

The question of amount of commission paid to agents is not material, for Mr. Whitman does not deal with it and, therefore, neither do I.

MY NEXT POINT IS TO ESTABLISH THE RELATIVE COST OF CARRYING COAL TO BOSTON in these same steamers, supposing that I deflected them to that port from Sydney, Cape Breton, instead of sending them to Montreal, and this deflection, for my purposes, may be for one month or for the whole five months of the St. Lawrence season.

The "Samuel Tyzack" and "Maud Hartmann" each made thirteen trips up the St. Lawrence. The "Edinburgh," due to an accident, beyond her control, made twelve only. Otherwise she also would have made thirteen trips.

These thirteen trips, or twelve and a half round trips from Sydney to Montreal, were made in 170 days, or a little over thirteen days per round trip.

To explain the twelve and a half round trips: Each vessel came on pay when reported ready for loading at Sydney, and was declared off pay on the delivery of her last cargo in Montreal.

It will be assumed that my hired steamers can be as readily unloaded at Boston, as at Montreal. I stated on the opening page that, within the last few days, I had seen at Boston coal unloaded by a single automatic shovel at the rate of 120 tons per hour.

In Montreal, working night and day, with her steam winches, it took at best thirty hours to unload 2,400 tons from the "Samuel Tyzack." Therefore, ONE automatic shovel will do in Boston, in twenty hours, what the four steam winches of a steamer will do in Montreal in thirty hours, not to mention the CONSEQUENT ECONOMY due to the displacement of manual labor by the steam shovel.

But I am willing to accept, for the purposes of my contention, that Boston stands only on the same plane as Montreal, in regard to facilities for discharging and despatching of the vessel.

Now, as my steamer, in her twelve and a half round trips from Sydney to Montreal, covers 2,187½ miles more ground than she would cover in the same number of trips while run-

ning from Sydney to Boston, it follows she would make fifteen and a half trips to Boston in the same time that she made twelve and a half to Montreal. I place this part of my proof in the position least favorable to myself, for it is undoubted that the down current between Montreal and Quebec, the intricate navigation of that part of the St. Lawrence, and the detention due to anchoring for tides, invariably one and frequently all, cause delays which, in a period of five months, probably result in an additional cost of, at least, three cents per ton against Sydney and the St. Lawrence, as compared with Sydney and Boston.

Disregarding, for the present, this point in my favor, I find that my steamer, which had cost me .65<sup>55</sup> between Sydney and Montreal, will now cost between Sydney and Boston .54<sup>97</sup>

#### PORT CHARGES OF BOSTON COMPARED WITH THOSE OF MONTREAL.

I arrive at the comparison of these charges as follows:—

A few years ago the SS. "Highland Prince" discharged for us at Montreal. Exclusive of agents' and commission charges her total expenses were \$925.00.

Later, she discharged at Boston with the following expenses:

Tonnage dues 1,400 tons, at 3c per ton	\$ 42.00
Inward pilotage, 17 feet	76.50
Outward " 13 "	26.00
Custom House	12.00
Consul	2.50
Running lines	6.00
Discharging 1,750 tons at 25c	437.50
	<hr/>
	\$602.50
Montreal expenses	925.00
	<hr/>

Montreal in excess of Boston expenses, \$322.50

OR .18<sup>42</sup> CENTS PER TON IN FAVOR OF BOSTON.

But while the charges have remained stationary in Boston, the stevedores of Montreal have lately been compelled to advance the price for discharging coal, three cents per ton.

**CONCLUSIVE PROOF OF FREIGHT AND CHARGES  
TO BOSTON.**

I have therefore conclusively proved the following, and the data is obtained from the books of my company:

Cost per long ton of coal delivered in Montreal during 1891.	\$1.33 <sup>24</sup>	
Difference of cost of freight of long ton delivered in Boston, being the difference between .66 <sup>55</sup> cents and .54 <sup>07</sup> cents,	.12 <sup>48</sup>	
Difference of charges between Montréal and Boston as above,	.21 <sup>42</sup>	
	<hr/>	
Total of differences of cost and charges,	.33 <sup>90</sup>	.33 <sup>90</sup>
		<hr/>

Total charges on one long ton of coal delivered in Boston from Sydney, Cape Breton.	.99 <sup>34</sup>
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**WHAT THEREFORE IT WILL COST TO DELIVER  
ONE LONG TON OF COAL IN BOSTON.**

During the year 1891 run of mines coal, or coal of the character supplied to manufacturers, was sold at Sydney and from the other Cape Breton collieries f.o.b. \$1.45 nett, the long ton of 2,240 pounds, but for competing points it was sold for \$1.35.

I therefore adopt the competing price f.o.b.	\$1.35 <sup>00</sup>
Delivery in Boston, as above.	99 <sup>34</sup>
Duty paid United States.	75 <sup>00</sup>
	<hr/>

Total for which one long ton can be delivered at Boston	\$3.09 <sup>34</sup>
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In other words coal could be delivered by me in Boston at \$3.10 per long ton, duty paid.

But may I not fairly claim that, by the adoption of the improved method of transporting my coal in steamers towing barges, instead of, as now, in hired steamers at per month, I can save, at least, 10 cents per ton and also claim the additional saving of, at least, 10 cents per ton in handling

by the automatic shovel, and thus by this reduction of 20 cents in my expenses make my price to the consumer \$2.90 instead of \$3.10? I do not, however, press this view, but rest on my proof that I can put a long ton of coal into Boston at \$3.10 duty paid, and, having proved this fact, I do not apprehend much difficulty in refuting the twelve propositions to which I have referred.

The limited time at my disposal prevents me from traveling over a great deal of ground not pertinent to the question asked by Mr. Whitman in his pamphlet, although it contains much that is in itself valuable and interesting as a contribution to coal literature.

He asks: "Free coal, would it give New England manufacturers cheaper fuel?" It seems to me if I succeed in disproving his second proposition, on page 29, I shall have succeeded to the full, for really that covers the whole ground in dispute. His proposition is: "That New England now procures her coal supply more cheaply than they could procure it from Nova Scotia with the duty removed." This is certainly a very bold proposition and, if true, a very alarming one for us who are coal operators in Nova Scotia.

Mr. Whitman says:

"It seems to me, in view of the disadvantages by which nature burdens Massachusetts as a manufacturing State, that SINCERE protectionists might be justified in demanding free coal, as a partial offset to these disadvantages, if it could be demonstrated that the removal of the duty would make an appreciable difference in the cost of fuel consumed in manufacturing."

The SMALL CAPITALS are mine. I confess it is difficult for me to understand how any sincere protectionist, and I believe Mr. Whitman is one and a protected manufacturer, could seek to take a stone out of the wall of protection, lest in doing so the whole structure should topple. It would be just as difficult for me to understand a free trader asking for protection on any one article used by him in his business. He goes on to say:

"The investigation was not conducted to demonstrate any preconceived theory on the subject; and the results are impartially presented. All statements made have been carefully verified, and it is believed that none of them can be

successfully challenged. They reveal a state of facts so wholly different from that commonly entertained as to surprise the writer. They show that free coal would not result in the saving of a single dollar to New England, in the cost of the coal she consumes. **EVEN IF ANY CHEAPENING OF COAL COULD FOLLOW, IT WOULD BE ACCOMPANIED BY A CORRESPONDING REDUCTION IN THE COST OF COAL CONSUMED ELSEWHERE IN THE UNITED STATES, SO THAT THE RELATIVE POSITION OF NEW ENGLAND WOULD REMAIN UNCHANGED.**"

When Mr. Whitman printed the above over his name, I can imagine how judicial must have been his research,—no preconceived theory—results impartially presented—all statements carefully verified, revealing a state of facts as to surprise the writer. Free coal would not save a dollar to New England, even if it did it would be of no good, for other states would reap the same benefit, and New England would not be a bit the better. But, Mr. Whitman, your protectionist instincts had the best of you in the latter part of your conclusion, for, when it came to sharing with the other states the benefit to be derived from free coal, you dropped the judicial, and, as a protectionist, in a converse way, said: "No, for if our State cannot have all the benefit for itself, let the free coal go."

Let us now examine the sources from which Mr. Whitman draws the information on which is based the sweeping proposition contained in his second proposition, given above, and, to do this, I extract the following from his page 8:

"The practical question is, If the duty upon foreign coal was repealed, could I save the whole or any part of that duty upon the coal I consume?"

He replies to this question as follows:

"In seeking the answer to this question, I have not drawn my conclusions from books. They are founded upon the actual business experience of men who have handled and used the coals both of the United States and Nova Scotia, and upon the reports and data furnished by men long familiar with provincial coal mines. I acknowledge my indebtedness to Mr. E. Gilpin, Jr., the Inspector of the Nova Scotia mines, for much valuable information regarding them and their products, and also to Mr. D. McDonald, Collector of the port of Pictou, Nova Scotia. I am greatly indebted also to Mr. F. H. Odiorne, who has handled all varieties of foreign and domestic coal at the port of Boston for more than thirty years, and whose



knowledge of the whole subject is not exceeded by that of any man in New England. Of the books consulted, I have found the most valuable to be Walter R. Johnson's "Coal Trade of British America, with Researches on the Characters and Practical Values of American and Foreign Coal," published in 1850.

"This inquiry must necessarily be limited to the coal mines of Nova Scotia. They are the only coal deposits so situated commercially and geographically that they can come into competition with the coal mines of the United States. The inquiry may also be confined exclusively to bituminous coals for industrial purposes only. There are no mines of anthracite coal outside of the United States; and for domestic purposes bituminous coals have long been superseded by the anthracite coals of Pennsylvania, which are much better adapted for household use."

Having carefully read, and read again, the pages of Mr. Whitman's pamphlet, I am unable to discover the persons referred to by him as men of "business experience" who have both handled and used the coals of Nova Scotia. In this sense he cannot refer to Mr. Gilpin, the very efficient and estimable Inspector of the Nova Scotia mines, nor to Mr. D. McDonald, Collector of the Port of Pictou, Nova Scotia. He must therefore refer to Mr. Odiorne, "whose knowledge of the whole subject is not exceeded by any man in New England." Curiously enough, we have been treated to a great deal of Mr. Odiorne, of late, in Canada, particularly at Ottawa, at the hands of those who are anxious that there shall be no reciprocity in coal with the United States. Now, I do not seek to detract from Mr. Odiorne in any way. I assume he is a gentleman of considerable experience in his business as a dealer in coals. I called upon him a few mornings ago, and he did me the kindness of furnishing me with the copy of Mr. Whitman's pamphlet, to which I am now making reply. The copy bears the stamp "H. Odiorne & Co., Commission Merchants, Boston." I thanked Mr. Odiorne and ventured to express to him the belief that I could compete with coal delivered in Boston, even with the duty on. But he, with some warmth, informed me the thing was impossible, that he knew what he was talking about, that he was an expert, and that no man knew more about coals than he—and as the atmosphere

of Mr. Odiorne's office seemed to me to be getting perceptibly warmer, well, I said "good morning," and found my way to the street. But why did Mr. Odiorne "warm up" when I ventured to express the belief that I could put coal into Boston even with the duty on? Can it be that in Mr. Odiorne's person is summed up ALL the business experience of the men who have handled and used the coals both of the United States and Nova Scotia, to whom Mr. Whitman expresses himself as so greatly indebted, who has handled all varieties of foreign and domestic coal at the Port of Boston for more than thirty years, and finally, "whose knowledge of the whole subject is not exceeded by that of any man in New England?" Or is there a possibility that Mr. Odiorne is so enamored of the duty placed on coal by his own government, and equally so that the like condition operates against American coal under the so called "National Policy" of Canada, that he consents to sink the business instinct of a dealer in coals, for the pleasure of posing as Mr. Whitman's man, whose knowledge of the whole subject of coals exceeds that of any other in New England?

No doubt Mr. Odiorne has reason to be proud of the unique position to which Mr. Whitman has advertised him. I cheerfully admit that Mr. Odiorne knows how to buy and sell coals, and it will be sad to hurl him from the pedestal to which he has been raised by Mr. Whitman; but hard facts will bring him assuredly to the ground.

Assuming, then, that Mr. Odiorne is the "business experience" of Mr. Whitman, for I do not find any one else mentioned in this connection throughout the whole pamphlet, I find myself in conflict with a gentleman "whose knowledge of the whole subject is not exceeded by that of any man in New England."

I take, then, from page 16 his statement, as follows:

"The price of Cumberland coal in 1890 was \$2.40 per ton free on board at Baltimore, and \$2.50 per ton free on board at Philadelphia. These prices may be taken as standards, for while some coals have been delivered at less prices than these, yet the best bituminous coals for manufacturing purposes cost, laid down in Boston, about the same as the Cumberland coals. Therefore, the cost in 1890 for the Cumberland coal delivered

at the wharves in Boston was as follows:

If shipped from Baltimore, cost free on board,	\$2.40
Freight, - - - - -	1.25
Insurance, - - - - -	.02
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Total cost at wharves in Boston, -	\$3.67
If shipped from Philadelphia, the cost was as follows:	
Cost free on board at Philadelphia, -	\$2.50
Freight to Boston, - - - - -	1.00
Insurance, - - - - -	.02
	<hr/>
Total, - - - - -	\$3.52

Sea freights can usually be obtained at less than the rates I have mentioned. The present rate this 18th of February, at the most inclement season of the year, from Philadelphia to Boston, is \$1.00 per ton. This I can vouch for, because it is an actual transaction made by me this day.

Since this paper was written, season contracts have been made from Philadelphia at 90 cents, and from Baltimore at \$1.00. There have been rates on single shipments as low as 50 cents from Philadelphia and 60 cents from Baltimore, during the season of 1891.

“In view of the foregoing it is fair to say that Cumberland coal in 1890 was laid down by vessels at the wharves in Boston for \$3.52 per ton of 2240 pounds.”

I accept Mr. Whitman's foregoing figures of a transaction made on the 18th February, 1891, giving the total cost ALONGSIDE at wharves, \$3.52, which sum, with discharging costs, 25 cents, added, totals \$3.77 landed. I have shown that I can land coal at \$3.10, and am therefore 67 cents cheaper than Cumberland coal. It is true Mr. Whitman meets me here with an allegation that Sydney coals are 25 per cent. inferior to the Cumberland coals, see page 25 of his pamphlet. I admit the inferiority of my Sydney Emery coals to those of Cumberland to the extent of 28 cents per ton, as I shall clearly prove further on. How does he arrive at this startling announcement of the 25 per cent. inferiority? At his page 8, already quoted, he says: “I have not drawn my conclusion from books,” and in truth I do not find that he does excepting in one case, and that is from W. R. Johnson's investigations into coal, made in the years 1842 and 1843, and not in 1843 and 1844, as stated by Mr. Whitman. He also states on page 25, that “Mr. Johnson is regarded as standard

authority on this subject." That is how Mr. Whitman seeks to make out the great superiority of Cumberland coal over Sydney coal. Now, at the time Mr. Johnson was making his researches, the sales of coal in the whole of Nova Scotia were, in 1843, 105,161 tons, and that from probably two or three working seams only, whereas, to-day, there are in that Province 19 working collieries, operating from several seams, and, it may be said, many of these collieries selling, each more than the whole total of 1843.

Mr. Whitman says at pages 24 and 25 :

"So far as I can ascertain, the only exhaustive inquiry made into this subject was that made by Walter R. Johnson for the United States Government in 1843 and 1844. At that time the bituminous coal mines of the United States had not been at all developed, and but little was known regarding the value of bituminous coal for manufacturing purposes.

"Mr. Johnson afterwards published a book in 1850 entitled, 'The coal trade of British America, with Researches on the Characters and Practical Values of American and foreign coals.' In this book it is stated that the number of pounds of water at 212 degrees evaporated by one pound of Nova Scotia coal is as follows :

Pictou coal,	-	-	8.41	} average,	-	8.44
			8.48			
Sydney coal,	-	-	-		-	7.99

"In the same table will be found five tests of the Maryland bituminous coals, the average of which gives an evaporative power of 9.98. This shows that the Cumberland coals of Maryland had a value 18 1-4 per centum greater than that of the Pictou coals, and 25 per centum greater than that of the Sydney coals.

"Mr. Johnson in summing up his report makes the following statement : 'It will not fail to be remarked that the justly celebrated foreign bituminous coals of Newcastle, Liverpool, Scotland, Pictou, and Sydney, which constitute the present reliance of the great lines of Atlantic steamers, are fully equalled or rather surpassed in strength by the analogous coals of eastern Virginia; that they are decidedly surpassed by all the free-burning coals of Maryland and Pennsylvania, and that an equally decided advantage in steam-generating power is enjoyed by the anthracite over the foreign coals tried, whether we consider them in equal weights or equal bulks.'

"Mr. Johnson is regarded as standard authority on this subject."

Now, as a fact, and Mr. Whitman is silent upon the point, Mr. Johnson confessed 42 years ago the insufficiency of his own tests made eight years before the publication of his book. I happen to be familiar with Mr. Johnson's writings. But, if verification is necessary, I refer to the able and exhaustive paper contributed by Mr. William Kent, M. E., to the "Engineering and Mining Journal," which appeared in its four numbers of October, 1891, thoroughly investigating the labors of Mr. Johnson, and, where he could, mentioning his appreciation of them, but, none the less, pointing out factors of errors which Mr. Johnson himself, with manly honesty, had admitted, from the manner of his investigation, must inevitably be found.

"This, then, is the standard authority with which Mr. Whitman seeks to stigmatize the coals of Nova Scotia of to-day which, fifty years ago, were lying buried unheeded and unknown. Yet, Mr. Whitman states, "The results are impartially presented."

I have shown that Mr. Whitman's "standard authority" consists of an obsolete volume, the writer of which admitted at the time of its publication that his results were open to question, and which results later researches fully verified as erroneous. In other words Mr. Whitman applies Mr. Johnson's remarks made about fifty years ago in regard to one grade of coal, to products then unknown and since admitted to be of very superior quality.

But as I have to prove my case, I am compelled, very reluctantly, to enter the lists against Pictou coal. I may say it is no longer a question, with users of coal, as to the superiority of Sydney coals over Pictou. This question has been solved in favor of Sydney. But if there be any comfort to us in having that fact proved, we shall not long enjoy the victory, for it is beyond doubt the Pictou field will cease to be productive within a century, whereas the coal known to us, in Cape Breton, will last for many centuries.

The Pictou coals have been prized for their hardness, just as much as the Sydney coals were prejudiced by their softness. But a time came when it was discovered that "hardness" was not everything in coal, and, also, that "softness" did not mean

inferiority when associated with rich carbon. This was exemplified by me three years ago, in the following way: I called upon one of our customers, a large manufacturer in Montreal, who, during the past year, had been using Pietou coal and also ours. The engineer, having been sent for, came into the office, and having been told that I was there about coal, he exclaimed, "Oh, we don't want any more of that coal, for we have no room left for the ashes." His mistake was explained, and, I believe, we received the whole order for the year. Nevertheless, Pietou coal is not quite so bad as engineers have represented it.

In order to answer the onslaught made by Mr. Whitman on Cape Breton coals, I am bound to offer the following in defence of them: My company, in the earlier years of its existence, obtained certificates, of which the following are a few. It has ceased to procure them of late years from the fact that the coals are now well known and established.

Extract from report of Engineer, H. M. S. "Spartan,"

Very good for generating steam quickly, 3 per cent, of ash, 6 per cent, of clinker, and large quantities of light brown and black smoke.

THE AMAZON STEAM NAVIGATION COMPANY, Limited,  
105 Gresham House, Old Broad Street,  
London, E. C., 1st December, 1887.

W. KIDSON, Esq.,

Secretary Cape Breton Co., 8 Union Court, E. C.

Dear Sir:—In reply to your favor of yesterday, I beg to subjoin a copy of report on the cargo of coal per "Herbert J. Olive" consigned to our agent at Para for trial on account of this company. I am, dear sir,

Yours faithfully,

(Signed.)

FRANCIS MORETON,  
Asst. Secretary.

Dear Sir:—In answer to your official note, dated 13th Oct. ulto., ordering to have a trial of the coals lately arrived per lugger "Herbert J. Olive," I beg to inform you that such trial has taken place on board the steamers "Morajo" and "Javary," and, after a comparison with the others existing in

our depot, it shows an economy of 6 per cent., as per Engineer's Journal, and the advantages of keeping the fires clean and producing few ashes, very important for the economy of the grates.

Having nothing further to inform you on this subject, I remain,

Yours faithfully,

(Signed.)

AUGUSTO ORELINE,  
Superintendent Engineer.

Capt. A. J. PERA LEAL,  
Marine Superintendent.

Extract from a report made to the English Admiralty by the Chief Engineer of Her Majesty's Steamship "Bellerophon:"

31st October, 1874.

Report of the Chief Engineer of H. M. S. "Bellerophon."

"Bellerophon" received 300 tons Sydney coal (Cape Breton) from (Phelan) Reserve Mine, belonging to the Cape Breton Company, Limited. This coal was found to generate steam quickly and maintained it well. When steaming easy, with a large amount of grate surface, the coal being fired on the front bars, the caked coal being pushed back, before again firing, the smoke was found to be moderate, averaging from 0 to 4 in denseness by Admiralty table.

From comparison of the diagrams taken when using the Sydney coal, and also when using a mixture of 2-3 Welsh and 1-3 North Country received from Halifax dockyard, the engines working at a similar speed, and under similar circumstances of wind and sea, the pounds of coal per horse-power were 3.73, and for Welsh and North Country, 3.70.

The Sydney coal was also tried mixed in equal proportions with Aberdare Merthyr, received at Quebec; the smoke from the mixture was found to be considerable when urging the fires, but not nearly so much as when using the Sydney coal alone; and when the fires were not being forced, the smoke was not more than No. 3 Admiralty table; under similar circumstances of speeds of engines, wind and sea, the pounds per horse-power were for the Sydney coal 4.2, and for the mixture of Sydney and Welsh, 4.3.

The per centage of ash and clinker from the Sydney coals alone was 10.9, and from the mixture of Sydney and Welsh 13.

The Sydney coal is a better steaming coal than I had been led to expect, and when steaming easy so that a large amount of fire grate can be used, and careful firing and attention paid to the smoke burning slides in the furnace doors, as well as the slides at the back of the furnaces, the dense black smoke which often issues from the funnels when using this and other Colonial coals can be so much reduced as to be between 0 and 4, Admiralty table, and when mixed with Welsh coal, no difficulty should be experienced in reducing the smoke to a less amount.

“The steaming qualities of Welsh and Sydney coal mixed will be found as good as Welsh and North Country mixed in equal proportions.”

(Signed.)

F. C. ALTON,

Chief Engineer H. M. S. “Bellerophon.”

MONTREAL, Sept. 25, 1874.

The quality of the coal is liked for steam and house purposes, and we would take it in preference to any other Cape Breton Coal if properly screened.

(Signed.)

LORD, MAGOR & MUNN.

MONTREAL, Dec. 22, 1874.

If you ship the Emery Coal a fair size, we believe a large quantity of it can be sold in this market, as it is undoubtedly a good steam coal.

(Signed.)

LORD, MAGOR & MUNN.

From J. Swinburne, Chief Engineer, S. S. “Ponyer Quartier.”  
London, January 7th, 1880.

“The coal supplied by you at Louisburg I am glad to say has given great satisfaction. We found it very quick to raise steam, while the clinkers from it are of no consequence and easily removed from the bars. The collection of dirt and soot in the combustion chambers was not nearly so great as that from the Welsh coal we had previously been using, inasmuch as we never once had to sweep tubes on the passage from St. Pierre to London, whereas before, this had frequently to be done. I think it equally as good as English coal.”



From J. M. Brevis, Chief Engineer S. S. "Bedouin."

August, 1880.

"Having used the Reserve coals supplied by the Cape Breton Company, at Sydney, on our last voyage, I have found them good, no difficulty in getting sufficient steam; with little or no clinker, and not destructive to bars.

Having previously coaled at other mines, I can vouch for the Reserve Mine Coal as being superior in every particular."

From J. Crawford, Chief Engineer S. S. "Minia."

Halifax, 1st May, 1881.

This is to certify that the Anglo-American Telegraph Company's cable repairing ship "Minia" has been coaled three times from the mines of the Sydney and Louisburg Coal Mining Company, Limited, and I have found it to be the best steaming coal I have used this side of the Atlantic. It is clean, very free from clinker, and easy on furnace bars. I may state I have run thirty-six hours without cleaning fires."

I would add that the "Allan" line of steamers have taken from us all the coal obtained by them in Nova Scotia during the past four years.

I close this part of my refutation by the following report, dated the 29th January, 1892, from Mr. Gilpin, Inspector of Mines, Nova Scotia, for transmission to my Company in London, but which, fortunately for the purposes of this answer, had not left my possession.

Halifax, N. S., Jan. 29, 1892.

D. J. Kennelly, Esq.

Sydney & Louisburg Coal and Railway Co., Ltd.

Dear Sir:—I beg to submit the following report on analysis of samples of coal from the Emery and Reserve Colliery of the Sydney & Louisburg Coal and Railway Company of Cape Breton.

Reserve seam. Coal fairly compact with a bright, pitchy lustre, and having some bands of an unknown lustrous jet black. The deposition planes are fairly covered with mineral charcoal. The coal breaks into elongated pieces having a rhomboidal shape. There are a few films of calc spar, and a little visible pyrites. The general appearance of the coal is very much in its favor.

Its composition is as follows:—

	Slow Coking.	Fast Coking.
Moisture, - - -	.35	.35
Volat. Combust. Matter, -	32.85	35.96
Fixed Carbon, - - -	61.99	58.88
Ash, - - -	4.81	4.81
	<hr/>	<hr/>
	100.00	100.00
Injurious Sulphur, - - -	1.15	1.15
Specific Gravity, - - -	1.28	1.28
Theoretical Evaporative, } Power, - - -	8.51	8.09

Ash pulverulent and brown in color. Comparing this analysis with one of the coal from the same seam made by me some years ago, it may be remarked that the coal at present worked is improved in quality, there being a decrease in the moisture, and a decrease of nearly one per cent. in the ash. The amount of fixed carbon also is greater, being 61.99, against 59.73. This increases the evaporative power as calculated from Regnault's formula (and here for comparison with the British Admiralty Naval steam coal trials) from 8.19 to 8.51 lbs. of water evaporated from 212° F. for each pound of coal burned. The percentage of injurious sulphur is a little less, the amount being under that usually found in Cape Breton coals.

The coal from the seam makes by practical test an excellent coke. The gas yield, as observed during the process of coking, appears to be large and of good quality. The coal is well adapted for house purposes and from its ready igniting and quick burning qualities makes a good steam coal.

**EMERY SEAM.** The coal from this seam is a little more compact than that of the Reserve Colliery. It is bright and breaks with a cubical fracture. The deposition planes held a good deal of mineral charcoal. A few small crystals of pyrites are observable on the deposition planes, and a few small nodules of pyrites. There is no stone visible in the coal. The coal does not make as much dust as that from the Reserve.

The coal gave on analysis:—

	Slow Coking.	Fast Coking.
Moisture, - - -	.75	.75
Vol. Combust. Matter, - -	28.68	30.95
Fixed Carbon, - - -	66.38	64.11
Ash, - - -	4.18	4.19
	100.00	100.00
Injurious Sulphur, - - -	1.30	1.30
Specific Gravity, - - -	1.29	1.29
Theoretical Evaporative Power,	9.12	8.88

Ash pulverulent and brown in color.

I notice on some specimens a wash of clay, and presume but for this the percentage of ash would have been slightly lower. The percentage of volatile combustible matter and ash being less in this coal than in the Reserve coal. The fixed carbon is larger in proportion, giving a fuel theoretically capable of evaporating 9.12 lbs. of water by one pound of coal. The coal approaches in composition the bituminous grade of the well-known Welsh steam coals, and should have excellent results in furnace boilers. It should also be a good house coal judging from the manner in which a small sample burned in a grate. The sample forwarded did not appear to have much slack; this quality should make it an economical coal for storing and for transportation. I remain yours truly,

E. GILPIN.

I have no doubt that had the other colliery proprietors of Cape Breton been aware of Mr. Whitman's unfounded denunciation of the Sydney coals (which in effect are from the different seams now being worked on the Island of Cape Breton) they could and would as successfully have rebutted the charge against them as myself.

Having given Mr. Gilpin's analysis of two of the Sydney seams, of each of which my Company owns about 16 square miles, in addition to other good workable seams, I return to the misstatement made by Mr. Whitman on page 25, where he alleges that the Cumberland coals had a value of 25 per centum greater than that of the Sydney coals, and instead of taking his

false factor of 7.99, I use the true one of 9.12, the evaporative power of the Sydney "Emery" coals, as given by Mr. Gilpin. Taking that of Cumberland coals as 9.98, these two factors establish the superiority of Cumberland coal over Sydney "Emery" to the amount of 28 cents per long ton delivered. And when, therefore, Cumberland is selling DELIVERED as low as \$3.77, they being the best figures given by Mr. Whitman, see his foot note to page 16, the relative value to the buyer of Sydney "Emery" is \$3.49, but as the price at which it is delivered here is \$3.10 he (the buyer) saves 39 cents per ton on the transaction.

Consequently the operator in Sydney, instead of putting the coal at \$1.35 f. o. b., can do so at \$1.74 + freight + charges + duty = \$3.49, the equivalent for Cumberland at \$3.77. I think I have succeeded in making this clear to the understanding of the most earnest protectionist, and may I venture to hope even to the understanding of Mr. Odiorne.

I would be glad to pass over Mr. Whitman's reductio ad absurdum matter on page 20, but fear to do so lest it might be said that, being unanswerable, I had to leave it without reply. He says:

"In 1890 the coal imports into the United States from Nova Scotia and NEW BRUNSWICK amounted only to 36,317 tons, and this was composed chiefly of culm and screenings, which constitute about one sixth of the total output of the mines, and upon which the duty is only 30 cents per ton, a duty amounting to but little more than the cost of discharging the vessel at Boston. Only a part of this quantity came to New England."

As a fact, the coal imports into the United States from Nova Scotia in 1890 amounted to 50,854 tons, a portion of this being round coal which went to New York. New Brunswick does not export coal. Again he says at page 20:

"Of the Nova Scotia coals which are available the best are mined at Pietou, and of these the coals from the Acadia mines are preferable.

Cost free on board at Pietou,	-	-	-	\$2.50 per ton.
Freight to Boston,	-	-	-	1.50
Insurance,	-	-	-	.05

Cost at wharves at Boston WITHOUT DUTY,	\$4.05
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"This coal has a commercial value of about 50 to 75 cents per ton less than that of Cumberland coal, which as I have already shown, was delivered at the wharves in Boston from Philadelphia, at an average cost of \$3.52 per ton in 1890. At the present time, Feb. 18, 1891, the best Cumberland coal can be laid down at wharves in Boston at the same price; namely, \$3.52 per ton.

"The next best grade of Pietou coal is procured from the Albion or old Pietou mines.

It costs free on board at Pietou,	-	-	-	\$2.25 per ton.
Freight to Boston,	-	-	-	1.50
Insurance,	-	-	-	.05

Total cost at wharves in Boston WITHOUT DUTY, \$3.80

"The commercial value of this coal in Boston is 75 cents per ton less than that of Cumberland coal, and yet the Cumberland coal can be landed at 27 cents per ton cheaper."

Here Mr. Whitman displays his absurdity. The question of the supposed superiority of the Pietou coals has already been dealt with. The Acadia coal is, without question, the best of the Pietou field, and, comparatively, but little of it remains unworked.

The local market takes a large quantity of the Pietou coals. The total sales for 1891 were 430,509 tons, of which 277,753 tons were absorbed locally.

Mr. Whitman quotes the LOCAL prices for Acadia and Albion coals, and would have his readers believe that these \$2.50 and \$2.25 are the going f. o. b. prices for say Montreal or places elsewhere outside of the local market. He then proceeds to show how these coals, admittedly inferior to the Cumberland, could not be placed in Boston, WITHOUT DUTY, except at a price in excess of the better Cumberland coal. Mr. Whitman might as fairly take the prices of my bunker coals and use them as my cargo f. o. b. prices. This is scarcely honest reasoning. The results are (NOT) impartially presented.

Finally, as a climax, Mr. Whitman on page 27, again and for the last time, quotes Mr. Odiorne as follows:

"Mr. F. H. Odiorne has furnished me with the cost of delivering screened coal from the Acadia mine free on board at Pietou, from 1878 to 1884 inclusive. These costs are as follows without fractions:

1878	-	-	-	-	-	-	\$2.09
1879	-	-	-	-	-	-	1.52
1880	-	-	-	-	-	-	1.48
1881	-	-	-	-	-	-	1.39
1882	-	-	-	-	-	-	1.48
1883	-	-	-	-	-	-	1.51
1884	-	-	-	-	-	-	1.44 "

What the object was of giving these costs from 1878 to 1884 inclusive, I am unable to understand. Why leave off at 1884? and why apparently seek to stultify the statement at page 20, "costs free on board at Pictou \$2.50?" Is Mr. Whitman attempting to show that in those years these were the costs f. o. b. outside of the local market? I have now finished with this part of my answer to Mr. Whitman. So far I have encountered only two authorities who are put forward to support his statements, namely, Mr. F. H. Odiorne, and a book by Mr. Johnson containing uncertain data on coals worked out 50 years ago. I need not say more about Mr. Odiorne or the book. I cannot trace that the third gentleman, Mr. D. McDonald, did more than is stated at page 19 as follows:

"D. McDonald, Esq., Collector of the port of Pictou, Nova Scotia, writes me that Pictou Harbor is closed from early in December till the latter part of April, say four and a half to five months in the year."

Now, of the fourth, Mr. E. Gilpin, Jr. I shall be able more conveniently to classify this gentleman's statement under the next stage of my answer, which has reference to what I may term EXPERT testimony, as given by Mr. T. B. Brown, Mr. J. H. Bartlett, Mr. Kennedy and Mr. Gisborne.

Writing of the extent and capacity of the Nova Scotia coal mines, Mr. Whitman says at page 20:

"The coals of Cape Breton are much inferior to those of Pictou. Mr. T. B. Brown, the eminent Canadian authority, at a meeting of the Canadian Society of Civil Engineers in 1888, said of these coals:

"The coal that came from Cape Breton was very friable, and those who saw it leave the collieries in large, round, handsome pieces averaging the size of one's head, would be surprised to see it arrive here as small as it might be seen at any time on the wharves."

Mr. Kennedy at the same meeting used the following language :

“Mr. Kennedy could corroborate what Mr. Brown had said in regard to the friability of the coal. It was not altogether a question of handling. The coal would arrive here in large lumps, but about a week or two after landing on the wharf, the lumps would fall to pieces of their own accord. This he presumed was occasioned by the action of the weather. It seemed to him that it would scarcely pay to handle such coal carefully, because it would fall to pieces any way.”

Mr. Whitman continues :

“The best of the Cape Breton coals, those from Sydney, cost the same as the Albion coal from Picton; namely, \$3.80 per ton at the wharf in Boston. It is not necessary to consider the cheaper and inferior of the Cape Breton coals. It would be difficult to dispose of them in New England, because in addition to the reasons previously stated, they contain so much sulphur, and are especially liable to spontaneous combustion.”

The “eminent Canadian authority, Mr. T. B. Brown,” it is my misfortune not to know. I had not even heard of him before, and had he been conversant with coal, it seems to me I ought not to be so wholly ignorant about a person so gifted. Even employing his testimony, it remains to see to what extent Mr. Whitman is aided by it.

Again Mr. Kennedy, of whose identity I am also wholly ignorant, says: “The coal would arrive in large lumps which would fall to pieces of their own accord.” This gentleman’s perceptive faculties are evidently of a high order. He seemed to have watched the lumps of coal fall to pieces of their own accord. But what did it matter, it would scarcely pay to handle such coal carefully, (he ought to have said “delicately”) because it would fall to pieces anyway. What perverse coal!

Mr. Whitman continues at page 26 :

“It is therefore important to inquire into the possibility of the price of Nova Scotia coal being reduced to American consumers, first by diminished cost of production, and second, by the diminished cost of freight. A careful investigation leads me to believe that there is no prospect whatever for diminished cost of production. Mr. T. B. Brown, already referred to, at a meeting of civil engineers, stated as follows:—

“It might not be appropriate at an engineers’ meeting to say so, but he would remark that there had not been that

superabundance of profit in the business to encourage or enable those engaged in it to launch out in the improvements that such a trade demanded."

Mr. J.H. Bartlett made the following statement at the same meeting: "The trade between Nova Scotia and the Province of Quebec is growing, but even with the duty of 60 cents per ton on imported coal, there is a very small margin in the Montreal market between the prices of American bituminous coal and that from Nova Scotia."

The "Eminent Authority" appears to have spoken with some compunction and, be it remarked, all this is but pure surmise on the part of these gentlemen, for they do not produce a single proof to support their statements.

Mr. Whitman affords us no information as to the nature or object of the meeting at which they were said to have been present; he does not even give the name of the paper read and discussed. His readers are left to gather that it was a meeting of the Canadian society of civil engineers.

Now, had these gentlemen been mining engineers or men conversant with coal in one or more branches of that industry their statements would naturally command a certain amount of attention and possibly respect. But, for the purpose of decrying the coal of Nova Scotia, this possible hole and corner conversation of theirs is imported into a pamphlet, printed with an evident purpose, and these gentlemen, whoever they may be are made, perhaps, the unwilling tools for working out the specific object of the writer. Did Mr. Whitman make them aware that their irresponsible utterances were to be used for the purpose of discrediting one of the chief natural products of their own country? or, as is most probable, are they to-day ignorant of the peculiar position they occupy in his pamphlet? It is trusted for their own sakes that they are not aware of the position in which they are thus placed.

Mr. Gisborne at the same meeting, is quoted as having stated:

"The colonial coal fields were eagerly fought for, and unstintedly provided with powerful machinery and transport facilities. Within a brief period, however, the British coal fields were proved to have two or three centuries of mineral supply in reserve, and the bright outlook for Nova Scotia



mines was relegated to the future. Cape Breton coal became a drug on the market, even at less than \$1.40 per ton at the mines. His company collapsed after the expenditure of over \$2,000,000, having made no profit out of which they could pay interest upon their bonded debt. The property passed out of the hands of the share-holders, and thus he had abandoned mining ventures and returned to his first love, electrical science."

Of Mr. Gisborne's identity I cannot, as in the other cases, claim to be ignorant. Indeed I have known him but too well. And before proceeding further I desire to say that the time must shortly come when Mr. Gisborne's services as an electrical engineer, as an explorer in Newfoundland, and for his work in the inception of the first Atlantic submarine cable, shall receive their due meed of reward. Having said this I must also state that unfortunate was the day for myself and my friends and for our pockets, when Mr. Gisborne "left his first love, electrical science," to enter the practical domain of coal in the Island of Cape Breton. The statement that the company collapsed after the expenditure of over \$2,000,000 is slightly erroneous. The collapse was for \$3,125,000—to which has to be added, after Mr. Gisborne's collapse as railway contractor for the company, a further sum of \$73,850.

I joined that ill-fated company early in 1874 as its managing director, and shortly after was deputed to Sydney to report on the property. I saw sufficient mal-administration on the part of Mr. Gisborne to compel his resignation. He was at the time chief manager and engineer of the company, and also contractor for the building of the company's railroad to Louisburg.

I give one amusing instance of the work of the electrical scientist turned into the Mining Manager. Having cause to know that Mr. Gisborne had been pumping one of our three collieries (the Schooner Pond) for eleven months with varying success, but never to get the workings clear of water, I determined to inspect the pit, and accompanied by Mr. Gisborne and a few of the leading employees; went to the deep until our progress was stopped by the water. Replying to queries of mine, Mr. Gisborne stated that after all the pumping for eleven months they had been unable to discover the place

of inflow. I asked if he had "TASTED" his way along the water course? He did not appear to apprehend, so I went to work. he and the others following, I tasting the water as I went, About half way up I found the water change, and I asked the men to search round for the inflow. We had not gone very far when the water was discovered flowing through a break in the surface, over which, above ground, a stream was flowing, and into this stream the water for eleven months had been pumped from the pit only to circus back again into the workings. I at once closed up the mine, which I would have done in any case, for I found that in addition to the expense of pumping, there was being paid a heavy tax for way leave through the adjoining "Ontario" colliery, which gave us a dead loss on mining. The coal was excellent.

Unfortunately I could not deprive Mr. Gisborne of his contract to build the road to Louisburg, the failure in accomplishment of which work by him practically led to the collapse of the company, eventually reconstructed into the existing Sydney & Louisburg Coal and Railway Co., Ltd. After some litigation carried to a successful issue against Mr. Gisborne, he returned as he says, to his first love. He is not correct in stating that this property passed out of the hands of the stockholders, for a few of us yet remain. I may add while on the subject that the company managed by Mr. Gisborne (the Cape Breton Co.) was formed by the amalgamation of three English coal companies, and, I may say, more or less extravagantly managed from England, but with Mr. Gisborne came the climax; for his capacity for spending money recklessly, because ignorant of coal mining, was great. No sound industrial concern, however well backed, can long stand the strain of continued incompetent management.

Messrs. Brown and Kennedy are careful to point out what they consider a serious defect in Nova Scotia coal, namely, its softness and friability. "The coal would arrive in large lumps and fall to pieces." These gentlemen were evidently ignorant of the fact that the friability and falling to pieces of which they complain is due to the absence of foreign matter, which forms the cementing element in bituminous coals, and where present is found ABUNDANTLY in the ash pit of the furnace as ashes.

The friability is due to the purity of the carbon composing the coal, and the absence of foreign matter is exhibited by the small quantity of ashes.

But let us examine this question practically. I do so in the manner in which I have put it to manufacturers using steam, and who had habitually given me large orders for round, i. e., screened coal. I have said, "Why do you order screened coal for your furnaces, and pay me 15 or 20 cents per ton more than for unscreened coal from the pit which, for your purposes, are more economical than the dearer round coal?" The manufacturers usual reply is; "Why, we like lumpy coal!" "Well, yes," I reply, "Lumpy coal looks well in a domestic grate, but why pay for this luxury under your steam boiler?" I then proceed to put in my economic education as follows:

Watch a large lump of coal when thrown into your furnace, and what do you see happen? You will see it triturated by the fire upon which it has been thrown. That trituration, or breaking of the coal, usually is effected by a certain amount of energy in heat units exerted, and therefore, lost to your boilers for obtaining steam. The measure of that loss can be understood by the muscular energy employed by the foreman to break the same lump of coal before he proceeds to feed it when made small, to the furnaces. "Why then," I say, "do you buy the expensive round coal which your foreman has to break, or lose effective heat by compelling your furnace to do it for him, while you can obtain a more effective if not so large a coal at a lower price? The result is, my orders are for more "run of the mine" coals, and less of the screened. Messrs. Brown, Bartlett, Kennedy, and, I believe, Mr. Gisborne, are Civil Engineers. Do they not know that various kinds of economic appliances are being made for breaking coal to feed it small to furnaces?"

I sincerely concur with Mr. Brown's remark on the inappropriateness of discussing the profits of a business (coal) with which he or his friends are not shown to have had any special means of obtaining facts.

I have now to see how far Mr. Whitmans statements are borne out by Mr. Gilpin's communications to him. I give the following from page 18:

"The production of the Nova Scotia coal mines in 1889 was 1,756,279 tons. Of this there was sold 1,555,107 tons. The difference was consumed or sold at the mines. E. Gilpin, Jr., Esq., Inspector of Nova Scotia mines, writes me that in 1890 there was an increase in the output over 1889 of about 250,000 tons, making the total amount of coal raised in 1890 about 2,000,000 tons. About one sixth of the entire coal product is described as slack, which I believe to be what we call culm of coal; that is, the screenings that cannot generally be worked to advantage except by admixture with other coal. Mr. Gilpin also writes me that in 1891 "the output of Nova Scotia coal could be increased 50 per centum over that of 1890, and that in the following year, 1892, the output could be raised to double the present amount; and the pits at present open, if worked to meet the full demand, could at the end of two years be prepared for an annual output of between three and four millions of tons."

In the same letter Mr. Gilpin writes me as follows: "Our coal fields can be developed to meet any demand that can be made upon them from those districts in the United States which commercially or geographically are likely to want our coal, and I think this development can be effected with rapidity as regards operations under ground, and shipping and transport facilities above ground."

And yet he states at page 29, his fifth proposition, as follows:

**FIFTH**, "That the productive capacity of Nova Scotia coal mines is limited. Under the most favorable circumstances, their annual output at the end of two years could not be more than doubled. Any possible increase in output, with steadily increasing domestic consumption, cannot be large enough to affect the price of coal in the United States."

And he seeks to bolster the latter part of the proposition by telling his readers of the accident at the Spring Hill Mines, Nova Scotia, on February 21, 1891.

Let us examine. There are to-day 21 coal pits, including slopes at work in Nova Scotia. Of these 11 are on the Island of Cape Breton, 6 in Pictou Co. and 4 in Cumberland Co.

In Cape Breton four collieries will be worked this year by coal cutting machines. I have a plant of Ingersoll cutters worked by compressed air at work now. Two other Ingersoll plants are being prepared for immediate operation in collieries

situated close to me. And the fourth is at work with an electric cutting Jeffrey machine. I understand machines are being also introduced at other collieries in Nova Scotia. These Iron Cutting Machines can and will, without grumbling, work constantly night and day, if required. Our Nova Scotia miners are in the main, a steady, intelligent body of men. They are mainly of Scotch descent. I have worked largely in coals and shales in Scotland, but I am of opinion the coal miner of Nova Scotia is an all around better miner than the Lanarkshire relative. I have no hesitation in stating, corroborating Mr. Gilpin's statements, that our coal fields can be developed to meet any demand upon them from the United States.

In regard to facilities for shipment—I have in the past year, in fourteen hours shipped more than once 2,400 tons of coal from one shute only. I have five shutes, and were it necessary, and with abundant rolling stock, I could ship from my company's pier, which for night work is lighted by electricity, at least 12,000 tons in twenty-four hours.

The two collieries of the General Mining Association, and the International Coal Company, all in Sydney Harbor, have also excellent facilities for shipping coal.

What we term the "Outport collieries" of Cape Breton, namely: The Caledonia, Little Glace Bay, Gowrie and Ontario, have their special means of shipment at places outside of the Harbor of Sydney.

Below I give in tabulated form the shipments from the various collieries in Nova Scotia:

Colliery	CAPE BRETON Co.			Increase.
	1890	1891		
Sydney & Louisburg Coal & Railway Co.	139,777	154,656	inc.	14,879
Gowrie,	124,641	152,233	"	27,592
Caledonia,	145,000	145,000		—
G. M Ass'n,	160,500	144,000	dec.	16,000
Internat'n'l,	133,000	130,000	"	3,000
L. G. Bay,	108,500	115,000	inc.	7,500
Victoria,	77,367	94,000	"	17,000
Bridgeport,	28,700	30,000	"	1,300
Gardener,		22,000	"	22,000

CUMBERLAND Co.

Spring Hill Mines,	377, 572	405,698	inc.	28,126
Joggins	"	53,409	60,000	" 6,591

PICTOU Co.

Drummond,	154,556	136,396	dec.	18,160
Acadia, } Albion, } Vale, }	242,697	237,605	"	5,095
B. Diamond	32,000	32,000	est.	—
Muir's Mine,	1,000	3,000	inc.	2,000

SALES BY COUNTIES.

Cape Breton,	1890	917,000	
" "	1891	982,000	
Increase	-	65,000 tons	
Cumberland,	1890	438,599	
"	1891	465,693	
Increase	1891	27,091	
Pictou,	1890	430,500	
"	1891	409,000	
Decrease '91	-	-	21,500

GRAND TOTAL NOVA SCOTIA COLLIERIES.

1890	1,786,000
1891	1,856,692

Total increase - 70,582

While the statement of Mr. D. McDonald may be correct that Pictou Harbor is closed from early in December till the latter part of April, it would be wrong to infer from this that Sydney is closed for so long a period—for it is usual to ship coals from that harbor to the end of December or middle of January, and to resume shipment again about the middle of April. Sydney Harbor remained free from ice this year until the last day of January, but this is an unusual occurrence.

Mr. Whitman says at page 21 :

"The best of the Cape Breton coals, those from Sydney, cost the same as the Albion coal from Pictou; namely, \$3.80 per ton at the wharf in Boston. It is not necessary to consider the cheaper and inferior of the Cape Breton coals. It would

be difficult to dispose of them in New England, because in addition to the reasons previously stated, they contain so much sulphur, and are especially liable to spontaneous combustion."

The stigma he thus casts on the Cape Breton coals not shipped in Sydney Harbor, some of which, as a matter of convenience, are shipped outside of Sydney, and are of the same seams as those of collieries shipping in Sydney Harbor, is one of the most grossly unjust criticisms contained in his pamphlet. He sweepingly denounces the coals of valuable working collieries, and has not the common decency to address a single fact in support of his dictum. This is not argument, it is outrage and of a gross character. But here is the answer. So far back as 1860, the Director of Naval Construction at Brest reported to the French Minister of Marine: "That the steam power of the Sydney coal is little inferior to that of Cardiff, while with respect to the amount of sulphur I find that, after deducting the harmless sulphur in the sulphate of lime of the ash, there remains but 1.24 per cent. or less than the average in 37 Welsh and 28 Lancashire coals, which is 1.42 in both cases, and 8 from Scotland which is 1.45. So that this coal will compare favorably in this respect with those from abroad, some of which are highly esteemed for steam purposes." It will be noted that the analysis given by Mr. Gilpin at my pages 20 and 21 are 1.15 and 1.30 per cent.

Dr. Harrison remarks in favor of our Sydney coals:

"It is now clearly demonstrated, in practice, that the sulphur of this (Reserve), and most other Cape Breton coals disappears harmlessly in the sulphate of lime of the ash, and hence the good character this Company's coal obtains for its clean and economic action for steam as well as gas purposes." Having, I believe, satisfactorily disposed of this part of Mr. Whitman's "results impartially presented," I quote from his page 27:

"The difficulties incident to working these mines, which are far below the level of the sea, and many of which mines in Cape Breton are really under the sea, render it practically impossible to make any material reduction in the cost of mining Nova Scotia coals."

Here is another misrepresentation of fact made by Mr. Whitman.

Of the ten working collieries of Cape Breton, that of the "General Mining Association," commonly known as the "Old Sydney Mines," and to a certain extent, the "Low Point Barrasois," commonly known as the "Victoria" colliery, work below the sea. While of the remaining eight collieries, one, the Bridgeport, is working with "deeps" above sea level, and consequently is unwatered by gravitation, while another colliery to the "rise" of the Bridgeport is capable, to a large extent, of being unwatered in the same way. The remaining collieries are working in land measures, and are being pumped in the usual way, and without difficulty, for the water in this district is not in great volume.

At page 28 Mr. Whitman, says:

"The statements already made in regard to the location of the mines are sufficient to show that it will be impossible to secure any material reduction in the cost of freight. In other words, any reasons that can be advanced for prognosticating cheaper freights between Nova Scotia and Boston will apply with equal force to freights between Philadelphia and Boston.

"An indisputable evidence, it seems to me, that no material reduction in the cost of mining Nova Scotia coals is possible, is that in the year 1890, the United States exported to the West Indies, including Cuba and Porto Rico, 308,823 tons of bituminous coal, while the exports to the West Indies in 1889 from Nova Scotia were but 3,983 tons. The West Indian markets are as open to Nova Scotia as they are to the United States; and if it were possible for Nova Scotia to compete with the United States upon equal terms in the West Indies, there certainly would be no such disproportion between their relative exports of bituminous coal as now exists. The exports of bituminous coal from the United States to the West Indies were in 1890 more than three-fifths larger than the exports of Nova Scotia to the United States at their maximum period in 1865. It would certainly be as easy for Nova Scotia to secure the West India trade against the United States as it would be to secure New England trade under the same conditions."

This is grim reasoning. The United States coal ports of Norfolk and Newport News are 1,210 miles, and Baltimore 1,400 miles nearer to the markets of the West Indies than are



the ports of Pictou and Sydney. The United States shippers have the further advantage, in most cases, of freighting, by a vessel with a returned freight secured to a port of the United States, an advantage that very seldom accrues to the shipper of coal from Nova Scotia, and yet, with these facts before him, Mr. Whitman has the hardihood to place reasoning of this kind before his readers. It now remains for me to refer to Mr. Whitman's summary set out on his pages 29, 30 and 31, which I give here in full.

**FIRST,** That New England is now supplied with coal from mines in the United States, which have forced all other competitors from her markets, and can hold the field without the aid of a duty.

**SECOND,** That New England now procures her coal supply more cheaply than she could procure it from Nova Scotia with the duty removed.

**THIRD,** That the condition of things described in the above two propositions is due to the wonderful development of the coal product in the United States, in consequence of which the coal product of the United States preponderates over that of Nova Scotia in the proportion of 70 to 1. As a result of this the prices of coal in New England are now established and will continue to be established by competing American mines independently of the cost of foreign coal.

**FOURTH,** That the removal of the duty upon foreign coal would not cause a New England demand for Nova Scotia coal, because she could still procure her supply from mines in the United States at a less cost than from Nova Scotia.

**FIFTH,** That the **PRODUCTIVE CAPACITY OF NOVA SCOTIA COAL MINES IS LIMITED.** Under the most favorable circumstances, their annual output at the end of two years could not be more than doubled. Any possible increase in output, with steadily increasing domestic consumption, cannot be large enough to affect the price of coal in the United States.

**SIXTH,** That the procuring of any material proportion of New England's coal supply from Nova Scotia with the duty removed involves a large reduction in the present price of Nova Scotia coal, **AND SUCH REDUCTION IS NOT POSSIBLE.**

**SEVENTH,** That even if it were possible for Nova Scotia mines to make the reduction in price necessary to meet the competition of United States mines in the New England market, it would not be done, because it would involve an equiva-

lent reduction on the very much larger quantity of coal required for domestic consumption in Canada.

“EIGHTH, That coal freights from American ports to Boston are lower than from Nova Scotia ports, and that there is more probability of reduction in freights from these ports than from Nova Scotia, because return cargoes can be generally secured and the season is all the year round.

“NINTH, That rates of insurance from American ports are and must continue to be less than from Nova Scotia ports, and IN A CLOSE MARKET WOULD ALWAYS TURN THE SCALE IN FAVOR OF AMERICAN COAL.

“TENTH, That interior New England points have the advantage of rail competition in the coals of the United States, which is constantly becoming closer, AND WHICH DOES NOT EXIST ON NOVA SCOTIA COALS.

“ELEVENTH, That in the relative value of the coals for manufacturing purposes, the advantage is so greatly in favor of our coals that Nova Scotia coals could not compete with them, even if the latter could be landed at Boston at a less price than American coals.

“TWELFTH, That the cost of coal in New England, even if it could be reduced, by reason of free coal, would be accompanied by a corresponding reduction in the price of coal in other localities, so that the relative difference in the cost of manufacturing, by reason of the cost of coal, between New England and other sections of the country would remain the same as now.

“THIRTEENTH, That the effect of reciprocity in coal, tested by ten years' experience, was simply to add the amount of the duty to the cost of Nova Scotia coal, both in New England and in the Dominion.

“FOURTEENTH, That the control of the West India market by the United States coals, where they compete on equal terms with Nova Scotia coals, epitomizes the whole question. The conditions which would exist in New England with free coal, practically exist in the West Indies now; and under these conditions our coals have driven the Nova Scotia coals out of that market. The same conditions existed in the United States during the seven years in which all coals used in our ocean and coastwise steam navigation were practically free, and there was little or no use of Nova Scotia coals for that purpose.

“FIFTEENTH, Finally, the Nova Scotia miners do not want reciprocity in coal, as is shown by the results of the recent

elections in the maritime provinces. The Canadians recognize the fact, which this investigation has established at every point, that the Nova Scotia coals cannot compete with those of the United States on equal terms, either here or in Canada, and that reciprocity in coal would work great injury to the Nova Scotia mines, by depriving them of a sufficient market for their support."

Having proved at page 8 that, even with the existing duty of 75 cents per ton against me, I can, in competition with United States Cumberland Coal, and other superior coals of that class, put my Sydney coals at a profit into Boston, I affirm that Mr. Whitman's first, second, third, fourth, sixth, seventh, and eleventh propositions are disproved.

Further, his fifth proposition is disproved by what he himself elicits from Mr. Gilpin. See Mr. Whitman's page 18, quoted at my page 30, where Mr. Gilpin says, "Our coal fields can be developed to meet any demand that can be made upon them."

In regard to his ninth proposition, I have shown at page 5, that the insurance upon coal from Sydney going up the St. Lawrence is but .01<sup>45</sup> cents per ton, as against 2 cents admitted by Mr. Whitman. See page 13. This is a very clear refutation.

In regard to the eighth proposition, I have already shown that under the system of carrying coal in my hired steamers, as indicated on page 8 my freightage is lower than that shown by Mr. Whitman. But I admit that the advantage of return cargoes is at present with the United States, although with reciprocity there would probably be a change in our favor.

As for the tenth proposition, I would point out that the Springhill collieries of Nova Scotia, on the Intercolonial Railway, which railway is in connection with the system of the United States, are only 240 miles by rail from the boundary of the New England States, and by all rail to Boston 599 miles. While, by combined rail and sea via Parsboro, Nova Scotia, the rail haulage is only 27 miles and sea carriage 448 miles, being in all a total from Springhill to Boston of 475 miles. Cumberland coal, via Piedmont, Baltimore and Ohio railroad, is hauled 206 miles to Baltimore, and that place

being by sea 810 miles from Boston, makes Cumberland from Boston by combined rail and ship 1066 miles.

The same coals will reach Boston, via Philadelphia, by combined rail and sea route of 770 miles, the rail haulage being 290 miles.

The Clearfield coals, Pa., all hauled to Philadelphia, 250 miles, and are carried from thence by sea to Boston 480 miles, in all 730 miles.

The Kanawha coals, as regards Boston, are in no better position. How then does Mr. Whitman attempt to support this contention? I am unable to say.

The twelfth and thirteenth propositions I do not challenge because I entirely fail to see their relevancy. As to the statements contained in Mr. Whitman's fifteenth proposition, I emphatically deny them in toto.

Having, I believe, successfully refuted Mr. Whitman's arguments against Nova Scotia coals, and having proved the benefit to be derived by their use in the New England States, I would state that the coal of Nova Scotia is held by the Crown.

Coal leases for a period of 20 years renewable are made by the Provincial Government, and there is paid by the lessee a royalty of ten cents per long ton of screened coal, or  $7\frac{1}{2}$  cents on unscreened coal sold to consumers. Coal used for colliery purposes is free. The various collieries are subject to periodical inspection by Inspectors of Mines, who are officers appointed by the Government, and who are careful to see that the regulations in force governing underground workings are duly carried out with the dual object of economical mining and preservation of life. An annual report is issued by the Department of Mines, in which, in addition to other useful information, is given full particulars of the general work of the collieries, and statistics of useful information connected with the coal industry of the Province.

I now propose to sketch very briefly the existing condition of the Nova Scotian coal trade within the limits of its present market, viz: the Maritime Provinces Nova Scotia, New Brunswick and Prince Edward Island, the St. Lawrence ports,

also Newfoundland, and, to a very small extent, the West Indies.

I have already at page 5 shown the costs on the ton of coal ex ship in Montreal during 1891 to be \$1.34. This was screened coal sold generally at \$3.20 per long ton, run of the mine at \$3.00, and screenings, or slack, at \$2.40 per ton ex ship.

It may be taken, therefore, that the coal would be shipped in Sydney at \$1.86 f. o. b., minus agents' charges, the run of the mine being relatively twenty cents less. This would be for the St. Lawrence trade. To the trade generally the prices of Cape Breton coals at the various collieries, during the same year, were for screened coal f. o. b., \$1.60 or \$1.70 net per long ton, and for run of mine coal twenty cents less.

The General Mining Association's coal has ever commanded a higher price in the local market, and would obtain, in some instances, as high as \$2.15 net for screened coal. But, as I have already pointed out at page 8, where coals were for delivery at competing points, say for markets supplied by the Joggins and Springhill collieries, the prices would be lower than those I have given above.

Having said so much in regard to prices as they are, I would state briefly the chief causes which have conspired against the progress of the Nova Scotian collieries and have led the operators to sell at such low rates. Primarily they are the facts of our not having access to the United States market, which leaves a very limited zone open to Nova Scotia, and the resultant fierce competition among the many collieries for its supply.

Our coals also are unjustly decried in New England as inferior and liable to combust spontaneously. The latter is a very serious accusation to make against them, and if proof be wanted to the contrary, I point to the large dumps of run of mine and screenings which are to be found in the vicinity of Montreal, lying in quantity from the month of October to the month of June following. Yet we read of no destruction of these coals by spontaneous combustion, although I admit sometimes there will be a little heat in the slack dumps.

Indeed, within the past few days, I have seen an application in writing from a Boston dealer in United States coals, to a friend in the trade in Montreal, asking to be supplied with "pointers" whereby he might successfully cope with some of his American coals then burning from spontaneous combustion. I have no doubt that the applicant in this case will recognize the correctness of my statement on reading this pamphlet. Mr. Whitman should have examined the dumps of United States coals in Boston before he took upon himself to vilify the coals of Nova Scotia.

Let me now say a word on spontaneous combustion. It is really first an inflammation set up in coal where dumped, by the presence of foreign matter, which may be pyrites and slate on the one hand, and on the other may be even sawdust or chips of wood. It is known that while the coals from two distinct seams may be safe each by itself and free from liability to combust spontaneously, yet, when mixed together, they will in all probability first heat and then combust. It may be taken as a fact that coals, however clean in themselves separately, will, when mixed, be in danger of spontaneous combustion.

To return. Owing to climatic conditions, by being shut out from our principal market, the province of Quebec, for six to seven months in each year, we are compelled, in order to rush our coal to Montreal in the short open season, to dump, i. e. "bank" our coal at the pit mouth, during some or all of the winter months, there to remain till the opening of navigation, when it is again handled at a cost loss of eight to ten cents per ton. But the loss does not cease here, for the coal in its rehandling, and, also from exposure, slacks considerably, and when screened for shipment there is a further loss of about fifteen cents per ton.

Now, with reciprocity in coals, how changed would be the conditions. For with the market of New England open to us, we would ship direct from the pit through Louisburg, an all-the-year-round open port on the Atlantic, twenty miles from the collieries and already connected by rail, so that by this means the vicious system of "banking" coal and its consequent losses would become a dead and buried thing of the past.

Yet there are those among us who cry that reciprocity in coal means "BLUE RUIN," and the inevitable loss of our Montreal market. Well, I do not deny that there would be disturbing conditions at the start, and that our American friends would make a rush, something in the nature of "jumping our claims." But I, for one, would not fear the ultimate result of the attack, even in Montreal, for, with all that we hear of the invasion of United States coal I question if there has been during the year 1891 one long ton of it sold delivered in that city at under \$4.30. If there be, I ask to be informed. In proof of this I instance a transaction made public in a letter published in the Halifax Herald (Nova Scotia) written by Mr. Leekie, formerly well known in coal circles, stating that a company in New York, in which he was interested succeeded in contracting in the year 1891 for 30,000 tons of coal at \$2.90 per ton, the lowest rate at which they had ever succeeding in getting it, and as Montreal is more than 200 miles further than New York from the nearest of the American mines, it is clear that no large quantity of American unscreened coal could reach that place under \$4.00 per ton. As I have shown, we delivered screened coals there last year (1891) at \$3.20 per ton, and if to this be added sixty cents duty on the ton of 2,000 pounds paid by the Americans, it brings our coal to \$3.87 against their \$4.30. If I am right, what have we to fear in the shape of "blue ruin," when we meet our American friends in the reciprocal market of Montreal? Granted, we shall not have all that market to ourselves as now, but we shall have what will be infinitely more to our advantage, the open markets of the New England States, with a steady monthly shipment, and coal banking a thing of the past. If in this paper I have shown that I can place coal in New England now at a small measure of profit, how much better will be my position when released from the payment of seventy-five cents per ton of coal in the reciprocal hereafter!

But there is another side to this question, of greater importance than any already touched upon, concerning the Nova Scotia coal industry. At present we are twenty-one distinct collieries pushing for a Canadian market, viz: in Cape Breton

eleven, Pictou six, and in Cumberland four; with an area over all of about 280 square miles, by an average of about 20 feet of working coal.

From the great number of comparatively minor collieries thus striving against one another in the same field, it can be readily seen what an immense advantage could be derived by their combination. Now we have distinct establishments of an expensive character maintained by each colliery. Then we would have skilful combined management governing the whole group, with but practically one coal for the whole market.

I have calculated that by such a system, aided in great part by modern coal cutting machinery, there would be at least a saving of 18 cents per ton, in putting coal into ships, while the additional saving by an economical system of transporting in steamers and barges, and the handling of coals at ports of delivery, would be certainly 14 cents per ton additional, and if to this be further added 5 cents saved on agencies there will be a total saving of 37 cents per ton.

Taking therefore as a basis for computation the sales of 1891, viz: 1,856,000 tons, if I am right there would be an added revenue at least of \$686,720 to that already earned by all these collieries. This sum would at first appear large, but when we reflect upon the necessarily extravagant system in operation, due to the circumstances pointed out, it will be found that the estimate is rather under than over stated.

Look at the expenses of managing 21 distinct collieries; the competition in the freight market for ships, which this year has ranged for the same work from eleven shillings to eight shillings and six pence; the various competing commissions for business; the undercutting of prices to obtain sales—and in this latter connection I may mention that I myself within the last few days, in the case of a large railway had, to drop 15 cents per ton on a heavy order which I would have secured had I not been undercut to that extent by a Nova Scotia colliery; and, finally, consider the immense disadvantages of disconnected operations in the various pits. To understanding



men such an array of facts cannot, I think, be otherwise than convincing of the enormous economy to be effected by a combined arrangement, without in any way giving cause for dissatisfaction to the consumers.

There is one fact I ought not leave unstated for it has an important bearing upon our Cape Breton Coal Industry. Including Newfoundland in the North, to Cape Horn, the Southern extremity of North and South America, the magnificent harbour of Louisburg, Cape Breton, on the Atlantic Ocean, occupies the unique position of having only 14 miles distant from it, one of the finest beds of steam and domestic coal known to the world. It is a safe and commodious harbour, open all the year round. This fact has been doubted by some persons, but, for their information and proof, the writer states with no room for contradiction that during the whole winter of 1881-82, the severest winter for many years past, and no winter more severe has since been experienced, the Sydney and Louisburg Coal and Railway Companys' contracts for delivery were fulfilled punctually and with dispatch during each month into sailing vessel and steamer to the satisfaction of our general customers and of the captains of steamers calling for Bunker Coals. The harbour is close to the sea, easily entered, well sheltered, deep, and owing to its proximity to the Atlantic Ocean, free from ice all the year round—Louisburg harbour above all others was selected by the French and by them very strongly fortified at the cost of 6½ millions of dollars. History relates how it fell in 1745 before the brave men of Massachusetts, how it was again returned to France, and how, finally, in 1758, having been once more captured this famous fortress was levelled to the ground. This grand harbour is situated almost on a line of a great circle traversed by steamers on their way from Southern United States Ports to Europe. Louisburg, undoubtedly is destined to be the stepping off place for the short sea passage of 80 hours to Europe.

Before closing it remains for me to express my respectful admiration for the statesmen who, convinced by a sense of the advantages of reciprocity, have been, and are working for enlarged and more mutually beneficial trade relations with other

countries, and I sincerely trust that the same measure of success which has attended the efforts of the American government in this direction, may before long lead to the inauguration of closer business connections with Canada, which I believe will undoubtedly result to the unending benefit of both peoples.

D. J. KENNELLY.



