



n The

HURSDAY, MARCH 13

Poetry.

THE CHAMBER OVER THE GATE.

BY HENRY W. LONGFELLOW.

Is it so far from thee
Thou canst no longer see
In the Chamber over the Gate
That old man desolate,
Weeping and wailing sore
For his son, who is no more?
O Absalom, my son!

Is it so long ago
That cry of human woe
From the walled city came,
Calling on his dear name,
That it has died away
In the distance of to-day?
O Absalom, my son!

There is no far nor near,
There is neither there nor here,
There is neither soon nor late,
In that Chamber over the Gate,
Nor any long ago
To that cry of human woe,
O Absalom, my son!

From the ages that are past
The voice comes like a blast,
Over seas that wreck and drown,
Over tumult of traffic and town;
And from ages yet to be
Come the echoes back to me,
O Absalom, my son!

Somewhere at every hour
The watchman on the tower
Looks forth, and sees the fleet
Approach of the hurrying feet

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THE COPPER MINE IMBROGLIO.

There are from forty to fifty men at work at present in the Copper Mine at Nelson's Lake in this County. It is unfortunate that two companies contend for the possession of this property. A Mr. McBain represents one company, a Mr. Ross the other. It were idle and rash for us to attempt to settle by a stroke of the pen a dispute which has been for some time before the Courts of law. So far as we have been able to look into the matter, the difficulty has become somewhat complicated in consequence of the action of the late Government. We understand that sometime ago the matter was brought before the Judge in Equity and that he decided in favor of Mr. McBain. But on appeal from that decision, Chief Justice Young, if we remember right, referred the dispute back for adjudication to the Government that perpetrated the original blunder. Thus the matter rests at present, and fears are entertained that there may be serious trouble between the contending claimants. About a month ago Mr. McBain with a few men was quietly at work in the Mine, when the Ross party with a crowd of men appeared on the scene and by sheer strength of numbers forced McBain out of possession. Now we beg leave to hint to both parties that this is a very foolish, a very criminal, nay that it is likely to prove a very bootless and expensive method for settling the dispute. We know of no principle of law, or of equity, or of morality, that can justify anybody in taking possession of disputed property by sheer force and ruffianism. Surely there is law enough in the land to determine this dispute and put the rightful owner of the property in peaceful possession. If the present Government can take the matter up there is a clear cause for their immediate interference. There is much sympathy for Mr. McBain, because he has been to much trouble and expense in working up the mine thus far. Rumor hath it that his friends are prepared to make a sudden raid upon the Ross party and drive them away. This would only, we are persuaded, serve to aggravate the difficulty and possibly lead to serious trouble, for there is no doubt but the lads in possession—like Afghans—would give the enemy a warm reception, as there is no lack of powder, fire-arms, and other stimulating materials, on the ground.—*Antigonish Casket.*

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that every quantity of ore that may be desired.

Already a level has been driven to the main vein at a depth of 350 feet from the surface, and a breadth of ore of the highest class has been intersected, averaging from nine to twenty-three feet.

THE FURNACE.

There is at present only one blast furnace in operation, but the construction of another furnace will be commenced early next spring. The altitude of the existing one is 30 feet, its diameter nine feet at the boshes, and it will smelt 2,300 tons of iron per annum. The blast engine is driven by an over-shot water wheel 20 feet in diameter and five in width. The blowing cylinder has a diameter of five feet, with a five-foot stroke.

The average yield of iron is about 50 per cent, and the consumption of charcoal varies from 135 to 145 bushels per ton of metal.

In July of the present year, 1872, the quantity of pig iron produced and the materials used in the process were as follows:— Pig iron produced, 222½ tons; ore used, 407 tons 16 cwt 1 qr 18 lbs; ankerite (flux), 77 tons 5 cwt 1 qr 17 lbs; charcoal (hardwood), 31,711 bushels, or 142½ bushels charcoal per ton of iron.

The former cost of hardwood charcoal was six cents a bushel, but during the last year the price has increased to seven cents a bushel, owing to the general rise in labour and the necessaries of life.

The works gave employment to about 110 charcoal burners, who, in 1871, produced about 158,140 bushels. The mode of preparing charcoal is that of burning in circular piles about 12 feet high and 25 to 30 feet in diameter. The wood is placed upright instead of horizontally; it would be more economical, as experience has proved, to lay the wood horizontally in preparing the heap; a saving of from 8 to 10 per cent would be effected by adopting the horizontal method as practised in Sweden.

Swedish charcoal is usually made from the pine; the Nova Scotian charcoal is made exclusively from hardwood, principally white birch, with beech and maple, and the relative weights of the product would be as 170 (soft wood) is to 227 (hard wood) or 16-4 pounds to 21-9 pounds for the charcoal bushel. The

not on his own account, but
sympathy with Mr. Cartier.
The latter received a baronetcy, the
gent naturally wished that Mr.
ould be considered. In the mean-
e new arrangement had been
nder which the order of the Bath
onger open to colonists. Mr. Galt
rdly have been offered a C.M.G.
aving declined a C.B., but the
conferred upon him was in
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deration. The other case referred
x *Minerve* is that of Sir Francis
which is not in point, as both the
d K. C. M. G. conferred on that
an, were in recognition of special
in other Colonies. *La Minerve*
o appointments made in other
of the Empire, but these have
a for special services, and on
that were deemed sufficient.
e recognition of the services of
in the Colonial office is referred
at were objectionable. But surely
gushed Colonial Statesmen like
ssell, Earl Grey, and the Earl of
re placed in the 1st class, there
o objection to the bestowal of the
s on such men as Sir Frederick
Sir T. F. Elliot, Sir Clinton Mur-
d Sir Henry Taylor. The first
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their retirement from the public
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own and hurled over the Falls,
can be formed of the feelings of those
board. In another moment they felt they
would be swept into the seething and boiling
waters not far distant, and their apathy gave
way to cries for help from some, and from
others a prayer arose to Almighty God for
preservation.

At this moment, when they could distin-

guish no object a head, the boat suddenly
struck against something hard, and the one
nearest the bow sprang forward and grasped
a projecting rock. It was Goat Island,
scarcely a
BOAT'S LENGTH FROM THE FALLS,
and in a moment the people had left the boat,
were safe and had escaped a watery grave.

Their position now was a serious one. The
night was terribly cold, they were surround-
ed by a dense fog, and the roar of the Falls
precluded the possibility of their being heard
from the adjoining shores or from the Sus-
pension Bridge. The woman was almost
perishing from the cold. One of the men
took off his overshoes and placed them on
her feet, and everything possible was done for
her comfort that sympathy for her suffering
and unprotected condition could suggest.

In this situation the half frozen people
remained for two hours, every minute seem-
ing almost like an age, until at last the fog
cleared away. At this time the fog had
turned and turned and risen sufficiently to
enable them to stem the current of the river,
and pull away from their cheerless and un-
comfortable place of refuge, and accordingly
they all got into the boat and soon arrived
at Pleasant Point, their intended destina-
tion.

The poor people were so completely be-
numbed with cold that it was nearly daylight
before they recovered from the effects of the
chill and exposure.

The Gazette

MONTEAL, TUESDAY, JAN 7, 1873.

EPITOME OF LATEST NEWS.

Napoleon has again submitted to an opera-
tion with favourable results.

Bands of Carlists have entered Catalonia;
their intention is to commence a "vigorous
campaign."

The new census of France shows the popu-
lation to be 36,102,921, a decrease of 366,935
since 1866.

The commercial treaty between France
and England was signed on Saturday; it
awaits ratification.

Greece has signified her willingness to
submit the troublesome question of the
Laurium mines to arbitration.

Stokes was yesterday sentenced to be
hanged on the 28th February next. His
counsel moved for a stay of proceedings.

The Ottawa *Free Press* opines that the
Hon. Messrs. Archibald and McDougall will
be invited to form part of the Cabinet. Who
knows?

Germany is busy with a measure defining
the authority of the superior clergy over
their subordinates, and regulating ecclesias-
tical appointments.

The British Government have no anxiety
about the North Pole. The invitation of
the Royal Geographical Society to pay the
cost of the proposed expedition to the Arctic
regions is declined with thanks.

An Irish deputation waited on Pio Nono
with an address; also, a quota of Peter's
Pence. His Holiness, in his reply, deplored
the course of "the people who permitted the
spoliation of the Church," congratulated the
Irish, and dismissed the deputation with an
apostolic blessing.

The present winter will long be remem-
bered for its disastrous storms, which have
brought in their train death and suffering to
thousands of human beings and caused an
incalculable loss to property. It will be seen
by our London letter that in one month,
five hundred persons have lost their lives
on the coasts of England alone.

By telegrams received at noon yesterday,
we learn that Secretary Fish wished to retire
from the Cabinet at the end of the present
term, but the President, who wishes to re-
tain him, hoped he might be induced to re-
main until all questions connected with the
Treaty of Washington are finally disposed
of. The United States Commissioner of
Fisheries will make an attempt to stock the
great lakes with salmon. New Orleans is
reported to be in its periodic state of poli-
tical turmoil; and President Grant explains
that his Government has no designs on the
Sandwich Islands.

ORDERS OF MERIT.

We were rather surprised at noticing
in a recent number of the *Globe* a stupid
and ill-natured article copied from a
Western Grit journal on the sub-
ject of titles conferred by the Crown for
meritorious services. The article in ques-
tion was thoroughly Republican in its tone,
and by no means in accordance with the
professed Monarchical principles of the
Ontario Grit leaders. It is not our
intention at present to discuss the ex-
pediency of granting hereditary dignities
either in the Canadian Dominion or in
other colonies of the Empire. It is not
likely that such dignities will be conferred
on colonists except under exceptional cir-
cumstances, and we admit that it is not
desirable that they should be. The
article to which we refer was written with
the view of impressing the public with the
belief that in conferring the order of St.
Michael and St. George the Royal Govern-

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ward of long and meritorious services and
usually on the retirement of the incum-
bant from office. It may be, admitted
that meritorious services are not invari-
ably recognized as they ought to be and
that on the other hand distinctions are
conferred without sufficient ground; but
on the whole the best possible security is
that which is obtained by the mode of ap-
pointment.

It is one of the difficulties connected
with appointments to orders of merit
that they are to a considerable extent
the result of chance. Persons have the
fortune to be placed in positions which
afford them opportunities of rendering
services which might have been equally
well performed by others of their coun-
trymen. The gentlemen who received the
C. M. G. for their services in repelling the
last Fenian raid, may not have been bet-
ter officers than many others in the Cana-
dian militia, but it was their chance to be
on duty on that occasion, and it was
deemed by the Sovereign a fit occasion to
confer certain honorary distinctions. So
with regard to the expedition to Mani-
toba which led to a certain num-
ber of decorations. It is not many
years since a very untoward oc-
currence took place with reference to
appointments of Canadians to the Order
of the Bath, and we cannot but fear that
the article in *La Minerve*, to which we
have referred, is calculated to revive the
feeling which prevailed so generally
among the French Canadian people at
the time when the success of the Con-
federation scheme was considered a suit-
able occasion for conferring the distinc-
tion of the Bath on some of the delegates.

That feeling originated in a complete mis-
conception, and it would be unfortunate
if a similar misconception should lead to
a misunderstanding that could not be so
easily solved as the last. In strict accord-
ance with established usage, the Imperial
Government determined to mark their
satisfaction at the results of the negotia-
tion for effecting the Union of the British
American Provinces by conferring the
Order of the Bath on a limited number of
the delegates. It was decided to confer
the dignity of K. C. B. on the gentleman
selected by the delegates themselves as
their chairman, and to confer the C. B.
on a limited number from each of the Pro-
vinces. This arrangement was strictly in
accordance with usage, and although
any divergence from it might have
led to complaints, it failed to give
satisfaction simply because the French
Canadians, almost to a man, adopted the
view taken in the late article in *La Minerve*
"Ce n'est pas certainement rendre justice à
notre nationalité!" There cannot be a
doubt that if Mr. Cartier had been select-
ed by his co-delegates as chairman he
would have been honoured with the dis-
tinction of K. C. B., and that Mr. Mac-
donald would have only had the C. B.
We are quite willing to admit that having
reference to past political services and to
the antecedents of both, Mr. Cartier would
have been entitled to be put on an equal
footing with Mr. Macdonald, but in view
of the special occasion the distinction of
C. B. was all that the ordinary delegates
could claim, and it was unreasonable to ex-
pect that more than one K. C. B. could have
been given or that the Government could
have undertaken to discriminate between
the ordinary members of the convention.

To have conferred the distinction on the
ground of national origin would have been
a deviation from the established usage,
and one that we trust will never be sanc-
tioned by a British minister. While it
was found impossible to recede from
the decision as to the limitation of the
distinction of K. C. B. to the Chairman of
the delegation, there was evidently a
great desire on the part of H. M. Govern-
ment to soothe the feelings of Mr. Cartier,
and of the large class of the population
who felt aggrieved at the apparent pre-
ference given to his colleague. A way
was easily found. It was ascertained that
Mr. Cartier would be satisfied if he re-
ceived the dignity of a Baronet, which
was readily conferred on him, and which
was not a violation of any established
usage.

Since that time few opportunities have
occurred of conferring orders of merit on
Canadians. *La Minerve* quotes three cases
in which the K. C. M. G. has been con-
ferred on gentlemen who are not French-
Canadians. We shall briefly refer to these
cases. Mr. Rose had closed his political
career and retired from public life be-
fore he received the K. C. M. G. While
Minister of Public Works it was his
fortune to have superintended all
the arrangements connected with the
visit of the Hair-apparrent to the
Throne, and to have given very
great satisfaction to His Royal Highness.
This service was duly recorded, and at a
the Mr. Rose was brought into
connection with the Imperial Govern-
ment on the occasion of the negotiation
of the Intercolonial Loan.

Mr. Rose merited the honour
on him, but even if we were of
y opinion we should acknowledge
reference to sound principle in the
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rendered to the Crown by one
reer had been closed. The case
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NOVA SCOTIA IRON MANUFACTURE

The Acadia Iron Works.

[FOR THE GAZETTE.]

The recent rise in the price of iron has given considerable importance to ores in Nova Scotia lying within working distance from the magnificent seams of coal which are found in Nova Scotia proper, and the Island of Cape Breton. Up to the present day, however, with one exception, no iron smelting and manufacturing works have been in continuous operation. The Acadia works at Louisderry, Colchester County, have long been known as furnishing iron and steel of very superior quality, and these are the only existing representatives of an industry which soon promises to become of considerable magnitude in the Province.

The development of coal mines, the discovery of beds of iron ore in close proximity, and the completion of the Intercolonial Railroad in Nova Scotia, with subsidiary branches, point to stirring times in iron and coal, and a lucrative employment for capital.

The Acadia iron works were commenced in 1849, and up to the present day charcoal has been used as the fuel for smelting, and an expansive but very superior iron produced. The Intercolonial Railway has established connection between the coal seams of the Cumberland Basin at Springhill and the Acadia mines, the distance apart being about thirty-four miles, thus facilitating to a remarkable degree the production of cheap iron and the extension of the works.

Added to these increased facilities of production, the concurrent advantages to be derived from a considerable rise in the value of the marketable product, the certainty of an inexhaustible supply of iron ore and superior coal, there is now to be chronicled the introduction of new capital, with the impulse and energy which the name and association of one of the most successful and enterprising men of the day—Sir Hugh Allan of the "Allan Line"—in the further development and working of the Acadia Iron Mines of Nova Scotia.

A brief description of what has been done, and a glance at what is proposed to be done, may place a rising industry, susceptible of immense development, fairly before the mining public, and in a shape hitherto impracticable on account of the great drawback in all new countries, namely, the want of suitable means of communication, now supplied by the Intercolonial Railroad and its offshoots.

THE ORE AND ITS DISTRIBUTION.

The property extends over a space of thirteen miles in length on the south flanks of the Cobequid range of mountains. At and near the junction of the carboniferous rocks and older metamorphic strata a great fracture or rather a series of fractures appear to have occurred which are the seat of the veins holding the ore. These fractures have been traced for a distance exceeding thirty miles, and they vary in breadth from thirty to one hundred and fifty feet. The vein stone chiefly consists of the mineral ankerite, a mixture of the carbonates of iron, lime and magnesia. The ankerite is itself a poor iron ore containing from 16 to 25 per cent of carbonate of iron. It is used in the smelting furnace as a flux.

The ore itself occurs chiefly in the form of brown hematite or limonite, in the botryoidal stalactitic and compact forms. It is from this ore that the furnace is in the main supplied.

Red hematite is also of no uncommon occurrence, and is used to mix with the brown ore in certain proportions. Specular ore is found in small masses and scales; it is used for fettling in the puddling furnaces.

It was formerly supposed that the brown ore was most abundant near the surface, but recent discoveries have established this fact, that this ore may exist at any accessible depths in the great fractures on the Cobequid range.

At one locality, about two miles from the furnace, adit levels have been driven on this course of the vein (east and west nearly), which in a vertical depth of about 350 feet expose upwards of twenty thousand tons of ore, with an increase in thickness of the deposit as the depth becomes greater. The thickness of the vein of ore is here at some points over twenty feet. Masses of the country rock or "horses" are numerous in the veinstone and occasionally in the brown ore. Sometimes the mass of veinstone assumes the form of a breccia, whose angular particles are cemented by the mineral ankerite. In the brown ore vein "horses" are not uncommon, and the whole mass of the vein is so honey-combed and vesicular that surface water rapidly penetrates from the highest to the lowest adit level in a vertical altitude of 350 feet.

About half a mile north of the great vein is another vein, but little is known of its capabilities, the stores of ore in sight being sufficient for several years consumption.

Throughout the extent of the property, a distance of thirteen miles, the brown ore has been traced at the surface, and in many places it has been quarried, but systematic mining has only been commenced in the western section. The vein, as proved about two miles to the west of the works, appears to establish the important fact that this extraordinary distribution of iron ore is not generally confined to the surface in a wedge shaped form as formerly supposed, but extends downwards to great depths, being in fact a true fissure vein or series of fissure veins of vast extent and depth. An excellent description of this extraordinary deposit was written by Dr. Dawson in 1849, and is reproduced in the 2nd edition of his *Acadian geology* 1868. Papers on the Louisderry iron ores, &c., have been published by Dr. Honeymann in the transactions of the Nova Scotian Institute of Natural Science, and by Dr. Howe in his "Mineralogy of Nova Scotia."

COST OF MINING.

The average cost of mining the ore, exclusive of "dead work," &c., is one dollar or 4s. 2½d per ton, delivered at the mouth of the level. The ore has to be carted to the furnace, a distance of two miles, from one point, and three miles from another, at a cost of 60 cents or 2s. 6d, and 84 cents or 3s. 6d sfg. per ton respectively, in the absence at the present time of rail or tramways. The total cost of the ore at the furnace, with the addition of the dead work, &c., is about two dollars and fifty cents or ten shillings and sixpence sterling a ton.

The ankerite or flux, is found in abundance close to the furnace, and when lime-stone is required it is brought a distance of three miles from beds which appear to lie nearly parallel to the course of the veins, or about due east and west magnetic, the variation being 21 degrees west.

The mean elevation of the country where the ore is obtained is 600 feet above the sea level, and the mountain range is intersected by profound narrow valleys or gorges at right angles to the course of the veins and cutting them to the depth of from 300 to 380 feet, so

price of Swedish charcoal is 4 cents for 13½ lbs., and of Nova Scotian charcoal 7 cts for 21½ lbs.

In Sweden, generally, two tons of ore require 166 bushels of pine charcoal, weighing 13½ lbs a bushel, to produce one ton of cast iron. At the Acadia mines two tons of ore yield one ton of iron with the consumption on the average of 150 bushels of hard-wood charcoal, weighing 21½ lbs to the bushel. At Hull, in Canada, the consumption of hard wood charcoal for the ton of metal was 170 bushels. At the St Maurice iron works (Quebec) the ore yields 43 per cent of iron, with a consumption of 161 bushels of mixed wood charcoal. At Marquette, on Lake Superior, 140 bushels of charcoal are required to produce a ton of iron from ores yielding 55 per cent. At Detroit the red hematite of Lake Superior yields 65 per cent of iron with the consumption of 140 bushels of soft wood charcoal; and in some of the blast furnaces in New York and Michigan the consumption is stated to be as low as 100 to 105 bushels per ton of iron.—(Vide Dr. S. Hunt in the Geol. of Canada.)

At the Acadia works the quantity of charcoal consumed in the manufacture of iron varies considerably. In September, 1871, 22½ tons of metal were produced with an average consumption of charcoal not exceeding 135 bushels per ton. In August, 1871, the amount consumed per ton was 140 bushels. In July, 1872, the average consumption was 142½ bushels, while the general average in former years is stated to have been 150 bushels per ton, which, however, included the charcoal required to heat up the furnace at least twice a year.

It will be readily understood that in the foregoing statements of the relative quantities of charcoal consumed at iron works in the production of a ton of pig iron, other conditions besides variations in the quality of the ores have to be taken into consideration before an accurate comparison can be made. The bushel measure, for instance, used at different works frequently varies in capacity. At some of the American furnaces the bushel contains 2,800 cubic inches, and this is stated to be the usual measure in the eastern States; although bushels of 2,600 and 2,675 cubic inches are also used. Hence, comparisons by the bushel without the exact capacity is given are loose and unsatisfactory. Again, at some works the charcoal is measured as it goes to the furnace, while at others the quantity received from the charcoal burners is made the basis of calculation. Experience shows that this difference in the mode of measurement causes an apparent consumption of 8 or 10 per cent more charcoal when the amount received from the charcoal burners is adopted for comparison. At the Acadia mines this is the practice pursued.

PIG IRON PRODUCED.

The total amount of charcoal pig made at these works from their first establishment in 1849 to the present time reaches about thirty thousand tons of the aggregate value of \$968,000, or £200,000 sterling. A considerable portion of this has been worked up into bars, steel, &c., in various subsidiary departments which will now be described.

THE FORGE.

Adjoining the blast furnace is the forge, a building one hundred and eighty feet long, sixty in breadth. Here are five puddling and one heating furnace; a fifty horse-power steam engine for driving one set of bar rollers and one set of sheet rollers. A twelve horse power engine is used for driving the fan supplying the blast to the furnace, working the force-pump and the bar shears. There is also in the forge a twenty-five hundred weight steam hammer.

THE STEEL WORKS.

These are in a capacious and well built structure, two hundred and fifty feet by forty in dimensions, and situated about a quarter of a mile from the forge.

They contain one smelting furnace, with eight holes, capable of turning out two tons per day of crucible steel. One converting furnace, with two pots, capable of converting twenty tons of bar iron each charge.

Two steam hammers, one 20 cwt., and one 7 cwt.

Three heating furnaces.

One fine boiler, 20 horse power.

One engine, 8 horse power, for driving fan, &c.

One twenty-five horse power engine with ten inch train of rolls.

The cast steel produced here is equal to the best Sheffield brands.

THE CASTING HOUSE.

Adjoining the steel works is an extensive establishment for castings, among which chilled wheels for railway purposes are the most prominent. In 1871 three thousand three hundred and fifteen car wheels were manufactured, and in nine months of the present year the number of car wheels produced reached 3,769.

These wheels are sent to different parts of the Dominion, a few have also been despatched to Mexico and to India.

This department of the works is carried on in a T shaped building, whose total length is three hundred and ten feet, with a breadth of forty feet. It is supplied with two furnaces and excellent and powerful machinery for all the details of the manufacture.

FUTURE PROSPECTS.

The completion of the Intercolonial Railway and its connection by short branch lines with the Acadia Iron Works on the one hand, and the Springhill coal seams on the other, will effect a great change in future operations. Hitherto every article not produced on the spot has been carted from Truro, a distance of twenty-one miles, at an average cost of four dollars, or upwards of 16 shillings ster. a ton. Carriage by rail will reduce the cost to one-eighth of the past rates, or even less. The Company have constructed about nine miles of excellent roads to the adit levels where the ore is stored, and at present about 4,000 tons are maintained in store in advance of the furnace from the great deposits which have been reached. Another 4,000 tons lies ready on the surface of the ground, having been obtained from surface workings.

The Springhill coal from the five eleven-foot seam opened by the Springhill Company, which has been shown by experiments and analysis to be of the best quality, can be laid down at the works on completion of the short branch line to the Intercolonial now in course of construction, at a cost of \$2 16 or 3s. sfg. a ton.

The requirements of the iron works will reach 40,000 tons of coal per annum on completion of the second blast furnace, and their influence will necessarily be immediately felt to the advantage of the coal proprietors and the authorities of the Intercolonial Railway.

In view of the great abundance of ore now known to exist far and wide on the flanks of the mountain range, where these works are seated, and the great facilities which easy and cheap transportation by rail will afford, coupled with an abundant and accessible supply of cheap fuel of excellent quality, it is not unwise to predict a future industry in the Cobequid Mountains which will exercise very considerable influence upon the prosperity of the Province.

H. Y. H.

