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TOWANDA:

Wednesday Morning, March 21, 1895.

REPORT OF THE COMMITTEE OF WAYS & MEANS, RELATIVE TO THE COMPLETION OF THE NORTH BRANCH CANAL, WITH AN APPENDIX, BY A CITIZEN OF NORTHERN PENNSYLVANIA.

The liberal views expressed by the Committee of Ways and Means in the annexed report, on the subject of completing the North Branch Canal, and the lamentable want of information which would seem to exist in some other portions of the State, in regard to the merits of this work, and a sufficient apology, by a citizen of Northern Pennsylvania, for a report already taken, of appending a few notes and tables, which are believed pertinent to the subjects discussed; and not altogether unworthy the attention of those who feel an interest in the progress and prosperity of the old Keystone Commonwealth.

The Committee of Ways and Means, to whom was referred the proposed re-emption of the work on the North Branch extension of the Pennsylvania Canal, in pursuance of notice given, beg leave to submit the following

SUPPLEMENTARY REPORT:

This canal, we find, was undertaken by the act of the 9th of April, 1827, by which the Canal Commissioners were required to locate and put under contract a canal up the valley of the Susquehanna to Northumberland, and to examine and survey a route from Northumberland up the North Branch, to the State line. On the 24th of March, 1828, the Legislature directed the Canal Commissioners to "locate and contract for constructing a canal, locks and other works necessary thereto, from Northumberland to the New York State line, on the North Branch of the Susquehanna, thus making about twenty years since this work was first undertaken by the State. In 1828, the canal was accordingly commenced and fifty-six miles of it, extending from Northumberland to Nanticoke, at the southern gorge of the valley of Wyoming, were completed in 1830, at a cost of one million ninety-three thousand and fifty-one dollars and thirty-nine cents. In 1830, that portion of the work extending from Nanticoke to the mouth of the Seneca, or seventeen miles, was put under contract, and completed in 1831, at a cost of three hundred and two hundred and thirty-four dollars and eighty-two cents; making the aggregate cost of the whole work up to this point, one million three hundred and ninety-five thousand two hundred and eighty-five dollars and eighty-two cents.

The extreme north portion, called the "Toga line" extending from the village of Athens, at the State line of Bradford County, southward to Wyandott, in the same county, a distance of thirty-six miles, was next placed under contract, in 1836. The last portion contracted for, was the "Tunkhannock line," extending between Wyandott and the Lackawanna river, a distance of fifty-four miles, which was commenced in 1838. From 1838 to 1841, the work progressed with great energy, but in May of the latter year, owing to her financial embarrassment, the State directed a suspension of work on all the unfinished lines of improvement, and the North Branch extension shared the common fate. The whole extent of the work above the mouth of Lackawanna (to which point the canal is in operation) is embraced in one hundred and eighty-five sections, and when suspended, sixty-two of these were finished at intervals, making altogether thirty-two and a half miles. Three-fourths of the work upon the other sixty-four sections, a distance of thirty-six miles, was also done. The remainder fifty-nine sections, all light work, a distance of twenty-five and a half miles, were never put under contract. The following is a

RECAPITULATION.

62 secs. or 32 1/2 miles, finished.
64 " " 32 " three-fourths of the work done.
59 " or 25 1/2 " all light work, not under contract.
185 " 94 miles.

INCORPORATION OF THE N. B. CANAL COMPANY.
At the next session of the Legislature after the suspension of the work, the citizens of the counties in which the work was suspended lay in the completion of the improvement in the valley of the Susquehanna, demanded that the Commonwealth should either finish what, in its present form, they declared to be a public nuisance, or give it up to be completed by individual enterprise. The State yielded, and passed a law authorizing the incorporation of a company to finish that portion of the line extending from the mouth of Lackawanna to the northern mouth of the State. Subsequently, by supplement to the original law, thirteen miles of the finished "Wyoming line," extending from the Lackawanna downward, to the mouth of Solomon's creek, four miles below Wilkesbarre, were added to the work at first proposed to be given up by the State. In June 1844, at Wilkesbarre, it appears that the books for the subscription of stock were opened, and the stock was all subscribed to the amount of a million of dollars, which was the capital of the company. The first installment of one dollar a share, was all paid. About one hundred and fifty thousand dollars of this stock was subscribed by inhabitants along the valley of the Susquehanna, and citizens of Philadelphia. The remainder eight hundred and fifty thousand dollars was taken by three or four individuals from New York, claiming to represent other persons, capitalists in that city. But the agreeable anticipations of a speedy completion of the canal, based upon this ready subscription of the whole of the stock, and upon the statement of the individuals taking the great majority of it, at the time, were doomed to ultimate disappointment. Whether, as is variously alleged by citizens of that region, these persons were speculators, the agents of others of the same kind in New York city, who obtained possession of the stock for the mere purpose of "fancy speculation"; or whether, as others have contended, they were acting for another and rival work, is not for us to determine. It does appear, however, that the people of Northern Pennsylvania made every exertion to get the company to go on with the project; but as a majority of the stock was held abroad, and that, too, by persons who seemed pre-determined to do nothing, the time fixed in its charter for its commencement expired, without any effective action on the part of those who controlled its destinies.

would neither proceed to complete the work, nor part with it to others, the capital would probably have been *bona fide* subscribed by their own citizens, and the canal finished. Such we have found to be an outline history of this unfinished improvement, which the State, by the unanimous voice of the citizens of the region through which it passes, and many elsewhere, is again asked to complete. A resumption even in part of the improvement system, while the State is still deeply involved in debt, and her credit but recently restored, is unquestionably a matter for the gravest reflection. But the committee think considerations of superior urgency, and of financial propriety, unite in favor of completing the unfinished work on the North Branch line; and thus placing it in a situation to reimburse some of the immense outlay already made; to pay an interest into the State Treasury instead of abstracting yearly a large amount from it; it is perhaps fortunate for the interests of the Commonwealth, that the unwise bestowal of this valuable improvement upon a company was not perfected. The same regrets which are beginning to be expressed at the abandonment of the Erie extension, and the sacrifice of the four millions which that work cost, have resounded throughout the State in deeper tones, and been expressed in stronger terms, had the North Branch Canal been likewise thrown away into the hands of a private corporation; and had the large sum already expended upon it become the stock in trade of speculators, leaving the State only the record of the debt and the semi-annual demand for the payment of the interest.

THE COST OF THE EXTENSION TO THIS TIME.

In estimating the expediency of resuming the work on the North Branch extension, it is right to look at the amount it has already cost the Treasury. In a report of the Surveyor made in 1847, by a late member of the Board of Canal Commissioners, Mr. Foster, he says there has been expended upon what was termed the "North Branch extension," the sum of *two millions four hundred and eighty-four thousand nine hundred and thirty-nine dollars and sixty cents*. On more critical examination, we find the sums appropriated to have been in the following detailed amounts, at the dates named; and we thought it expedient to compile the interest on each sum respectively, for the purpose of showing more clearly the exact cost of the work up to the present time:

Date	Am't of appropriation	Int. to this time
Feb. 28, 1836	\$150,000 00	\$90,000
Jan. 9, 1838	300,000 00	50,000
Jan. 14, 1838	300,000 00	145,000
Feb. 3, 1839	220,000 00	105,000
July 18, 1839	400,000 00	175,000
Jan. 11, 1840	600,000 00	267,500
May 4, 1841	513,714 90	198,000
Total	2,243,714 90	
Damages, &c.	191,000 00	Int. for '41, 74,000
	2,434,714 90	1,100,000
Add compound interest for 8 years,		860,000
		1,960,000
		2,484,714
Total cost of improvement to this time,		4,484,714

We have already said that the resumption, even partially, of our internal improvement system, is a subject for the gravest reflection. But the abandonment of such high enterprise as the one under consideration appears to be one on which so much money has already been expended,—is, in our view, of still deeper moment; and is a conclusion which ought not to be adopted, until every reasonable effort has been made to escape it. Until this canal is finished no benefit can result from the immense expenditure the State has already incurred. She will continue to pay interest upon the debt incurred, without deriving the slightest income. If it could be made sufficiently productive to pay even expenses and repairs, and a part of the interest, the State would be gaining, although it may require a small present sacrifice in going on with the improvement.

Every year there flows from our State Treasury, on account of this unfinished work, in the form of interest, at least one hundred and fifty thousand dollars, calculating the principal at only Canal Commissioner Foster's estimate of the cost. If nothing be done, and the extension remains in its present condition, the interest which will have accrued and been paid for it in this view, in the course of the next seven years, will be an aggregate sum of \$1,050,000. At the expiration of seven years, we will not only have paid one million one hundred thousand dollars merely in interest, but the completion will then be farther off than ever; because time and the elements, with neglect, will have caused the improvement to become still more dilapidated, required a large sum than is now requisite, to put it in order for business. In the mean time, the credit of the State, and her ability to borrow a small amount of money, will become even less than at present. Staggering under a load of debt, and a continually increasing burden of taxation, to pay the interest, in part, for unfinished and unproductive improvements—all prospect of the redemption of the principal is shut out; all hope of ultimate liquidation is at an end; and capitalists will decline taking a share on any terms, which would be the pledge of the State, for its redemption within a reasonable period. In truth, the Commonwealth owes it to her bondholders, as well as to the people of the north, at once to take measures to push this work on to completion and profitable use. To abandon to ruin an improvement of acknowledged paying resources, that has already cost, in principal and interest, not less than a million and a half of dollars, because it needs an expenditure of one million one hundred thousand dollars more to put it in operation, is certainly making wasteful use of our creditors' money; and it would not be surprising if they should despair of ever seeing it returned to them again. Rightly may capitalists doubt the paying ability of a State which thus acts; and be willing to part with its securities at three-fourths their nominal value. It is a thriftless economy which sacrifices half its talents in the earth; or which proposes to depend upon the credit by the exercise of neither judgment, energy or enterprise, in developing the vast resources of this great Commonwealth; but sits down irresolutely, like a stolid agriculturist, who, with a fine farm and a rich soil, refrains from purchasing a horse and plough with which to cultivate it, lest he should run for a small sum deeper in debt.

The committee are further sustained in their conviction of the impolicy, in a financial point of view, of this sinking, hopeless recovery, the immense outlay on the North Branch of the Susquehanna,—by the facts and arguments of the friends of the work in question, in regard to its becoming speedily a source of rich and certain revenues to the Commonwealth, redeeming all it has cost, and adding to relieve the people from the burden of taxation. It is our duty, in this connection, to present these facts and arguments for the consideration of the Legislature.

Here a wide field opens upon us. In the items of extending tonnage, going north, we may embrace, First, and mainly,—Anthracite coal of the Wyoming and Lackawanna valleys. Second,—Iron, including pig-iron and castings from the furnaces, in the entire valley of the Susquehanna, and to a considerable extent, eventually from those of the Juniata.

Third,—Bituminous coal. Fourth.—Lime. Fifth.—Merchandise, produce and miscellaneous freight. In the descending tonnage may be included, First.—Lumber from the Northern counties of Pennsylvania, and those counties of New York, bordering upon the Chemung, the Conchocton and Cassinett rivers. Second.—Cypsum, or plaster, from the Cayuga lakes; and salt from Syracuse, Salina, Montezuma, and other towns of the salt region. Third.—Miscellaneous freight, produce, merchandise, &c.

The amount of these several articles of tonnage which would probably be transported on the canal, can be best determined by ascertaining the natural and artificial resources of the country through which it is to pass, and the immense chain of inland navigation, of which it forms a central and uniting link. The unfinished improvement on the North Branch of the Susquehanna, it will be remembered, are between the mouth of the Lackawanna and the northern boundary line of the State. From this to Elmira is the " Junction canal," seventeen miles in length. This line, as we are assured, is provided for; a company has been organized under a very favorable charter from the State of New York, and only awaits the commencement of the Pennsylvania work to begin their operations. Running all the way, in the valley of the Chemung river, it will be cheaply and expeditiously made. The dam at the village of Athens creates a pool, which extends even beyond the State line; at this point, and about the upper part of this pool, runs the New York Erie railway, which is to be finished to Elmira the ensuing summer.

A certain connection is then made with the Chemung canal. This canal unites with the Seneca lake, which is forty miles in length, narrow, deep and never frozen, lying precisely in the requisite direction, is navigated by steamboats all seasons; making, for its extent, the cheapest possible avenue of transportation. The canal, in connection with the Erie canal of the State of New York; so that when the unfinished line on the North Branch is complete, there will be through the heart of the two great States of Pennsylvania and New York, an unbroken line of canal navigation, uniting Chesapeake and Delaware bays with Lake Erie, Lake Ontario, Lake Champlain and all the other vast inland seas of the north. The Atlantic may be reached in the shortest time by St. Lawrence, by land down the Ohio and Mississippi to the Gulf of Mexico. If the mind recurs to the vast network of canals and railways in each State, which will thus be connected together in their very centres, it is impossible to avoid the conclusion that this uniting link is a necessary, and must be a productive improvement. Indeed, we shall wonder why it has been so long neglected. We proceed to the details of its probable tonnage:

ATTRACTIONAL COAL. One of the articles upon which the friends of this improvement mainly rely as an item of revenue, is the transportation of anthracite coal northward into the fertile and flourishing regions of central and western New York, and those of other States contiguous to the great northern lakes. This country, with the exception of the State of New York, (of which we shall speak hereafter,) may now be said to be only in its infancy in respect of improvement. Its boundless forests have hardly been recalled before the triumphant march of human industry. A immense tide of emigration has for some years been setting toward the west, and after overspreading the borders of our inland seas, it will throw back upon the great commercial emporiums on the seaboard, and upon the inland cities in its path, a corresponding reflux of wealth and prosperity. The country embraced in this vast territory contains a population of some four millions. Such a population enjoying the proper advantages, will more than double in every fifteen years. It now possesses but one available avenue to the Atlantic, for heavy transportation, if we except the more difficult passage by the Gulf of St. Lawrence. It has none and can have none, until it connects with the Erie canal, and the present improvement in anthracite coal, as will be seen by reference to the local position of the mineral.

The great depository of anthracite in the United States, and the only one of any material value, is Pennsylvania. An able geologist, in a recent work describes this interesting region as a group of elongated hills, having axes ranging in exact conformity to the base of the Allegheny mountains. When viewed from the latter, they bear a striking resemblance to those long rolling lines of earth, wave behind wave, in long succession, which break upon a flat shore. A century ago, this region was styled upon our maps, the not an apt title of the " wilderness of St. Anthony." Until within the last twenty years, except in some of its valleys, this region remained a solitary solitude. But at length, the miner entered this rude domain—canals have penetrated it on all sides of the most useful description have traversed its basin after basin of its mineral treasures (worth infinitely more than all the glittering wealth of California,) have been discovered—tract after tract has seen the establishment of collieries within limits, until, in the course of a single year, 1847, three millions of tons have been sent to tide water, producing an aggregate of twelve millions of dollars! From our commercial emporium alone, eleven hundred thousand tons of anthracite, annually cleared coastwise that year; laden with a million and a quarter of tons of coal for the use of our sister States; giving to Philadelphia upon this one article nearly half a million greater tonnage than all which arrived at the city of New York "during" the same period!

That sagacious statesman, De Witt Clinton, once aptly remarked, "that without coal there can be no staple manufactures; without manufactures there can be no flourishing internal trade; and without internal trade there can be no elevation of national prosperity." How fully is this remark sustained by the late experience of this country!—leaving out of view the results in Europe. "An accomplished engineer of our own State, has forcibly and essentially illustrated the truth of this remark. In the foundations of which, are our coal mines. In the machine shop and factory; on the railroad and canal; on the rivers and the ocean—it is steam, that is henceforth to perform the labor, overcome resistance, and vanquish space. It is not for human intellect to assign a limit to this power in a country where, as in this, are so many of the elements, and not more than a thousand tons of anthracite, annually raised and sent to market; nor the increase alone more than a thousand tons per day, and compensating rapidly upon that. Each railway requires iron for its track, engines and cars, and frequently for its stations. Each new steamer, requires coal to drive it—iron for its engine, sometimes for its hull—and five tons of coal for each ton of iron it consumes. Every steamboat that is launched, and every ton of coal fed into the interior, gives employment to a man, and the cost of a ton of hard wood varies during the year, from two dollars and fifty, to three dollars and twenty-five cents per cord." Much of the wood at Syracuse and the salt villages is brought by canal from a distance of thirty miles; and the comparatively low price is because the state of New York charges so toll on fuel used in the manufacture of salt. In looking at the descending trade, we shall again recur to the probable consumption of coal in the manufacture of salt. In Syracuse and the salt villages, a fair estimate of this consumption is forty thousand tons. Without further details upon this branch of the subject, it must be obvious from what we have already said, especially to any one acquainted with Western New York, and the country bordering on the lakes; who knows the scarcity and high prices of fuel throughout all this flourishing region, and the populous towns with which it is so thickly studded, that two hundred thousand tons of anthracite coal will at once be required, and find a ready market from the outlet of this coal to the city of Boston, much more distant, and at a cost of a dollar a ton more, consumes annually for manufacturing purposes, half this amount of Pennsylvania anthracite. For all purposes, last year, had been transported one hundred miles on the Schuylkill and Lehigh improvements, two hundred and fifty eight thousand tons.

The bituminous coal of Bradford would also find an extensive market in this region. For smiths' use it is now hauled by teams forty and fifty miles into the state of New York. It is also preferred by many for ordinary domestic purposes. The time of Columbia county would supply all the country northward to the State line.

birth to new enterprises, new wants and new commerce. The manufacture of iron, and the propulsion of machinery, require coal.—The quantity increases with the expansion of public improvements; these extend the area of civilization, and consequently agricultural wealth. This wealth needs transportation, and this transportation needs coal and iron." Apply this reasoning to the local position and unequalled resources of Pennsylvania, and how proud and certain is her speedy triumph over the temporary financial embarrassments which now clog her onward path. A little energy and firmness of purpose; a searching revision of her system of taxation, and all will be well.

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The bituminous coal of Bradford would also find an extensive market in this region. For smiths' use it is now hauled by teams forty and fifty miles into the state of New York. It is also preferred by many for ordinary domestic purposes. The time of Columbia county would supply all the country northward to the State line.

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RECAPITULATION.

200,000 tons Anthracite, 1c toll 94 miles,	\$288,000
30,000 " Bituminous, 1c "	28,200
40,000 " Iron and castings, 1c "	37,600
50,000 " Cypsum, say 50c.	25,000
20,000 " Barrels of salt.	4,000
Lumber, boards and shingles.	80,000
50,000 miscellaneous tonnage.	50,000
Estimated aggregate of toll,	\$584,800

GENERAL FINANCIAL VIEW. It has been well said, that short and isolated improvements are seldom productive, but always in this country as well as in Europe, long canals, and railways afford the richest returns for the cost and labor of construction. Not only is the North Branch improvement a part of the most extended chain of inland navigation in the world, but it will also have the advantages that have everywhere resulted to those works which, depending mainly, for revenue upon the transportation of the most common and more bulky articles of commerce. The English canals, and those of all Europe, employed in the transportation of coal and iron, have gone on steadily increasing in value, until some of them have reached a point of value five times the cost of construction. This too, in many instances, like those of the Grand Junction canal, between London and Liverpool, and the Duke of Bridgewater's canal, between Liverpool and Manchester, where costly and complete railways are running by their sides. The capacity of these English canals, is much less than those of Pennsylvania, and they are every way inferior, in regard to the manner of construction. In this country, the proposition is most triumphantly sustained, by the effects of the improvements on the Schuylkill, on the Lehigh and Delaware, and the Delaware and Hudson canals. The Schuylkill navigation was opened in 1828; and the tolls upon anthracite coal the first year amounted to only nine thousand seven hundred dollars on five thousand five hundred tons. In 1841, after a steady increase each year, it had reached the sum of four hundred and eighty-two thousand four hundred and sixty dollars, upon five hundred and eighty-four thousand six hundred and ninety-two tons.

The Delaware and Hudson canal was completed in 1829. The next year, the amount of coal which passed over it, was seven hundred and thirty tons. Its coal transportation amounted to near four hundred thousand tons. The profits of this company must be very great—its dividends last year were eighteen per cent. How should we be divided, and its speculative value in land and improvements, we have no certain means of ascertaining. None of its stock is in the market at any price; and it may well be supposed to possess one of the most productive improvements in the Union. The Lehigh improvements show an increase to an extent equally surprising. The first year, 1820, the number of tons of coal taken to market was three hundred and sixty-five. In 1841, they were seven hundred and thirty-three thousand six hundred and forty-three thousand nine hundred and seventy-one tons. (It must be sufficient for any farther illustration of the value of these canals in this country which form avenues for the coal trade, to advert to the Delaware division of the Pennsylvania canal. It is, so far the only productive canal (regarding the original cost) in the State.

It would, at any hour, sell for a much larger sum than its cost—because it is a coal carrying canal, and an outlet from the Lehigh coal fields. It enjoys its great capacity of transportation, consequent upon the small amount of lockage. He uttered no paradox who declared it to be "the shortest canal of its length, and to have greater capacity than any other of its size in the Union." Its lockage averages only two feet per mile, and when it is remembered that nearly half of its lockage is raised equal to a mile in distance, in measuring the ability of transportation, the pointed allegation referred to is fully sustained.

In order to illustrate more forcibly, if possible, the value of this improvement, if the estimates of tonnage on anthracite coal be correct, it is deemed proper to submit the following calculation of probable revenue, as if the result from this single work. Mr. Foster's estimate of the amount necessary to complete the work, according to the plans and specifications which had been adopted at the time the work was suspended, was one million two hundred and seventy-seven thousand four hundred and fifty-two dollars, and eighty cents. We take this as the maximum cost of completion, as it is the most liberal estimate of the amount necessary to complete the work, according to the plan which was adopted; and we assume that the work will stand there.

North Branch in account with the Commonwealth	\$1,277,452
Amount advanced for completion, say	\$700,000
Nov. A. D. 1850	\$1,200,000
Add interest of same one year,	70,000
Total	\$1,270,000
Cr. By Tolls for 1851, on 200,000 tons,	138,000
Balance due,	1,190,000
Interest same one year,	71,400
Total	\$1,261,400

general is found. This valuable fossil is found in great abundance over the line of country one hundred miles in extent. The principal salinas are situated on the large marshy level around Onondaga lake. Here the flourishing city of Syracuse, and the smaller towns of Salina, Liverpool and Geddes have sprung up. The quantity of salt water at the Onondaga salina is inexhaustible; and if a requisite supply of fuel could be had, the manufacture might be extended almost indefinitely. It is said that small veins of salt water break out in places around the south-east end of the lake to the mouth of Nine Mile creek—a distance of ten miles. The prevailing opinion is, that under the whole of this region; and no very great depth, are large masses of fossil salt.

The quantity manufactured last year, was four millions seven hundred and thirty-seven thousand one hundred and twenty-six bushels; being nearly a million of bushels more than the production of 1877. We have stated the price of wood at from two dollars and fifty cents to three dollars and twenty-five cents—its consumption at one thousand four hundred per diem. One ton of anthracite is equal to four cords of the wood ordinarily used. Coal can be delivered by the North Branch route at three dollars and seventy-five cents and four dollars per ton at Syracuse. What is to prevent its taking the place of wood almost in this market; and thereby cheapen the price of salt? Then, and even at present prices, all the country bordering on the Susquehanna and its branches, would be supplied with Onondaga salt, through the North Branch Improvement. Nor would there be any competition here, with the Pennsylvania salines; for their market must ever be found west of the Allegheny.

Cypsum and water lime are considered articles of descending tonnage. Large quantities of cypsum are now used in Pennsylvania, and the amount would be greatly increased were it transported cheapened. These items we have put down together at thirty thousand tons; an amount which would soon be doubled.

Sincerely second in importance to the coal of Pennsylvania, are her resources for the large and successful manufacture of iron; and only second in value to anthracite coal will prove, in contributing to swell the revenues of this canal when it is completed, and a few years in operation. The iron business of the Union, already great, is steadily increasing. In 1845, the number of blast furnaces had reached to five hundred and forty, yielding four hundred and eighty-six thousand tons per annum; the bloomeries, forges, rolling and slitting mills, nine hundred and fifty—yielding two hundred and ninety-one thousand six hundred tons of bars, hoops, &c.; blooms thirty thousand tons; castings, machinery and stove plates, &c., one hundred and twenty-one thousand five hundred tons. The aggregate value of these productions is estimated at thirty-four millions of dollars. Pennsylvania produces, it is said, more than one-half this amount. Our furnaces alone, number three hundred and sixteen; of which forty-three are for the making of iron with anthracite coal; producing about one hundred and twenty thousand tons of iron annually, being more than one-third the total of pig iron manufactured in the United States. Well may the "Keystone State" look with a jealous eye to her coal and iron interests. Why her immense resources are largely developed, and all the necessary outlets made, will be able to produce coal, and to manufacture iron sufficient not only for half the United States, but for half the world—even in this "iron age." One of those necessary outlets would seem to be the North Branch extension of the Pennsylvania canal. In Western New York and on the Allegheny river, a wide and profitable market for Pennsylvania iron would be opened by its completion. A gentleman resident in that State, well informed on the subject, and engaged himself in the iron business, assured an informant of the committee, that not less than forty thousand tons would be required, and be taken to market through this route. Upon diligent inquiry in the limited time allowed for this report, we can learn of but two furnaces in the northern part of New York (whose most of her iron is made) which manufacture pig iron for market. One, the Roscoe furnace, in St. Lawrence county, owned by George Parrish, Esq., produced in 1845, fifteen hundred tons of pig iron; of this, three hundred tons were made up into castings, the remainder was sold at Buffalo, a distance of three hundred miles; and at Rochester, two hundred and fifty miles off. The other furnace is the one at Iron River, on the Chautauque, and is owned by a gentleman of Boston, Mr. Gray. The quantity of pig iron it produces annually, we are unable to state, but it is probably but little, if any, greater than the Roscoe furnace yields.

Thus to supply the consumption of iron by three quarters of a million of people, rich and prosperous, there are but two native furnaces, making annually not quite so much as one anthracite furnace in this State! What a market is here presented, ready to be taken possession of by the iron manufacturers of Pennsylvania, upon the opening of this natural outlet from the center of the iron region into the heart of a youthful empire to be supplied. We should be able to entirely command this market for our iron; because having a direct means of communication and transportation, we could easily sell it much cheaper than that which is brought by a circuitous route, and from a long distance, could possibly be afforded at a Western New York price. At Elmira, New York, we learn, that one mercantile establishment sells two hundred tons of bar iron every year, brought from Centre county, in Pennsylvania. It is handled by teams from Elmira to Lycoming county, at an expense of nine dollars per ton, having been delivered at Ralston, which is twenty-five miles from Williamsport, by the Bald Eagle and West Branch canals, and the Williamsport and Elmira railroad. The two furnaces in Elmira use annually six hundred tons of pig metal, and probably consumes two hundred tons of cast iron. The Eagle foundry at Buffalo employs seven hundred tons of pig metal, and three hundred tons of Lehigh coal, at ten dollars per ton. Almost every town and village in Western New York have similar establishments; perhaps not in all cases so extensive, but in many of them even more so.

To supply these numerous furnaces with pig iron, would afford a largely remunerating item of the ascending tonnage; not less, it may well be presumed, than the estimate furnished us—say forty thousand tons annually.

DESCRIPTION OF RETURN FREIGHT. One obvious advantage the North Branch improvement possesses, is that of a return freight, regular and certain, which reduces, of course, the cost of transportation both ways. The lumber sent to market from Bradford county annually, is fairly estimated at twenty millions of feet, to say nothing of that manufactured higher up the Susquehanna, and in the region traversed by the Chemung, and its branches. All this lumber would go on the canal when completed; and bringing the risk less, the boards are better for use, and bring a higher price in market—amply repaying the increased expense of transportation. If Pennsylvania may congratulate herself upon her inexhaustible resources in coal and iron, so may New York point with pride to her numerous beds of gypsum and her rich and productive salines. As many features, the geology of Western New York is curious—almost as worthy. North of the great ridge of limestone, which traverses the country from east to west, a ledge of gypsum commences; and here, also, is a range of salines. On the border of the gypsum and salt regions, there is a tier of limestone alternating with sandstone, and full of organic remains—adjacent to which was the site of hard wood varies during the year, from two dollars and fifty, to three dollars and twenty-five cents per cord.