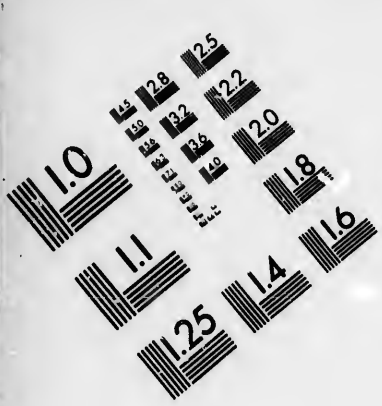

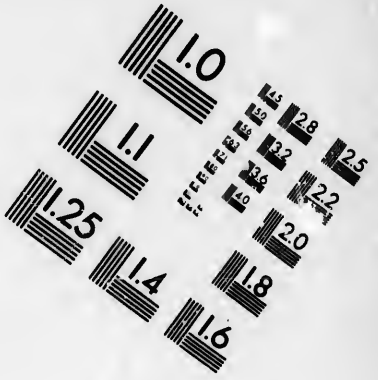

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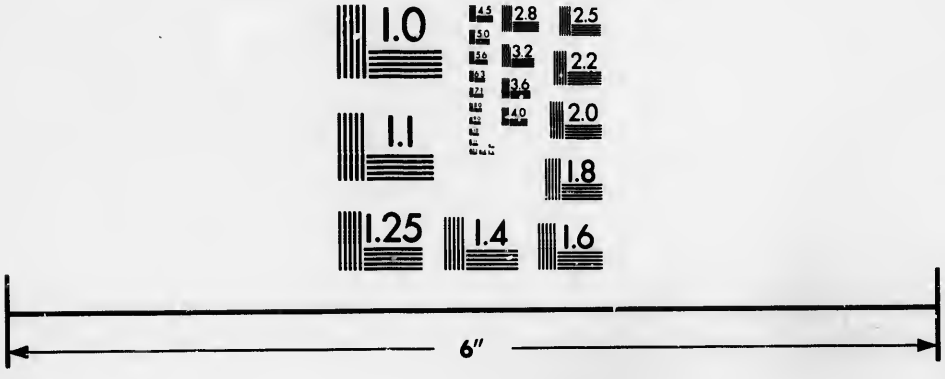

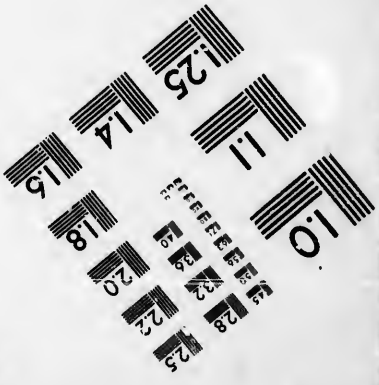

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INFLUENCE

OF THE

RAILROADS

OF THE

UNITED STATES

IN THE CREATION

OF ITS

COMMERCE AND WEALTH.

NEW YORK:
JOURNEYMEN PRINTERS' CO-OPERATIVE ASSOCIATION,
166 WILLIAM STREET, NEAR BEEKMAN.

1869.

NEW YORK, Dec. 21, 1868.

HENRY V. POOR, Esq.:

Dear Sir—

In the present financial situation of the country, the matter of chiefest importance to be considered is the amount, the rapidity of growth, and the probable increase for the future of its *internal commerce*, with the methods and instruments of its creation. A proper exhibit of the amount and value of this commerce will, I believe, assure not only your own people, but the world, of the entire solvency of the nation, and will show how easy it will be, in a few years, to deal with its present financial burdens, especially if we push the construction of Railways so as to open to settlement other portions of our wide domain, where the results already achieved can be repeated on a still grander scale. From your well-known familiarity with this subject, I shall feel greatly obliged if you will furnish me with a statement of the progress of our public works; with that of their commerce, its present magnitude and value, and its probable future development, and of the expediency of opening up, by the aid of the Federal Government, the vast regions lying to the west and north-west of Lake Superior, and which are designed to be traversed by the Northern Pacific Railway.

I am, very respectfully,

WM. B. OGDEN.

NEW YORK, Dec. 30, 1868.

Hon. WM. B. OGDEN:

Dear Sir:

The internal commerce of the United States, unlike that of any other country, has been almost wholly the creation of public works. The markets for its products, whether for home consumption or for exportation are, and always have been, within a narrow strip of territory skirting the seaboard from Baltimore, northward, to Portland. The early settlements, from the want even of ordinary highways, were necessarily made upon the lines of navigable watercourses. As such settlements moved inland, the lack of suitable avenues for the transportation of their products to market was felt to be a serious check to their prosperity and progress. Agriculture was the sole pursuit of the pioneer. Among such a population there could be no room for the exchange of products, as all were engaged in similar industries. Such articles, consequently, as would not bear transportation to the sea-coast over the rough, and for a considerable portion of the year, almost impassable roads, possessed little other value than to minister, directly, to the comforts or sustain the life of the producer. There might be abun-

dance, but there was no wealth. There was little stimulus to industry, because it could not reap any adequate reward.

The expulsion of the French from the interior basin of the continent, enlarged immensely the ideas of, and imposed corresponding duties upon, the colonists. It was then seen that they would, in time, overrun the continent. The mode of connecting settlements to be made within the great valley with those of the East, both for commercial and political ends, naturally became a subject of deep and general interest. It engaged the attention of WASHINGTON immediately upon his arrival at manhood. He first conceived the idea of uniting the waters of the Chesapeake with those of the Ohio, by rendering navigable the Potomac and James Rivers. Previous to the breaking out of the War of Independence, he crossed the mountains and made an elaborate examination of the country separating the Ohio from the head-waters of the Potomac. The political troubles then speedily following interrupted his plans, but these were vigorously resumed immediately upon the close of the war. Through his efforts the States of Maryland and Virginia united in an appropriation in aid of his proposed work. A company was formed for the construction of a water-line, by way of the Potomac, of which he was chosen president. With similar objects in view he made a journey to the State of New York, followed up the Mohawk to the summit which divided the waters flowing into Lake Ontario from those flowing into the Hudson, and saw, with prophetic eye, that in this depression of the continent would be the great future highway for the

commerce of the interior. The new duties to which he was soon called henceforth absorbed all his powers, and with his withdrawal from active co-operation his plans were for a time abandoned; but the idea of their ultimate realization never lost its hold upon the people of his own State.

The remarkable facilities offered by the line of the Mohawk, and the rivers interlocking with this and flowing into Lake Ontario, suggested, at an early day, its improvement; and a company was formed in the last century, under the name of the *Western Inland Navigation Company*, by which works were constructed allowing the passage across the summit of boats of fifteen tons burden. But these works were so imperfectly constructed as to be almost wholly unremunerative, and, after fruitless efforts to maintain them, they were at length wholly abandoned.

After the failure of this attempt, little was done for the reopening of this line till 1810, when a committee of the New York Legislature was raised to "examine the route of the Western Inland Navigation Company, with the improvements thereon." The war of 1812 soon following, again put an end to all movements in this direction till the return of peace. The war, however, had one good effect—it demonstrated the imperative necessity of such a work; and in 1816 a Board of Commissioners was appointed to consider the whole subject. This Board reported at length and favorably, and on the 15th of April, 1817, an act was passed "providing for the construction of the Erie Canal." The work was commenced on the 4th day of July of the same

year, and on the 4th day of November, 1825—eight years thereafter—the waters of the great Lake were mingled with those of the Ocean: a day ever to be held memorable in the history of our country.

Previous to the opening of the Erie Canal, the cost of transporting a ton of merchandize from Buffalo to Albany, as stated in the report of the Board of Commissioners already referred to, was $100. The time required was twenty days. Such a statement affords a good illustration of the cost of transportation, at the time, over ordinary highways. Watercourses were almost the only routes of commerce in the interior. The produce then grown in the western portion of the State of New York was floated, in arks, down the Delaware and Susquehanna Rivers to market. For the great interior basin, the Mississippi was almost the sole outlet; but the navigation of this river was so expensive and hazardous, and so slow, as to restrict its commerce to a very few articles of high value in proportion to their bulk. It served, as does the Missouri, at the present day, as the necessary route for a limited amount of travel, for the transportation of Government supplies, and a few articles of merchandize; but it was wholly inadequate to the commercial and social wants of the vast region it traversed.

The opening of the Erie Canal instantly reduced the cost of transportation from Buffalo to Albany from $100 to $10, and ultimately to $3 per ton. The effect of such reduction was electric. *It was, to its whole extent, a profit to be divided between producer and consumer.* All the Western

States, for the purpose of availing themselves of it, immediately undertook the construction of similar works. The State of Ohio constructed two lines of canal from Lake Erie to the Ohio. Indiana undertook a still more elaborate system, and constructed a line of canal from Lake Erie to the lower Ohio, but which was, in great part, abandoned almost as soon as opened. The State of Illinois, after many failures, finally succeeded in constructing a canal from Lake Michigan to the Illinois River. All these works, for a time, served a highly useful purpose, but they were by no means adapted to the demands either of commerce or travel. They were practicable on only a very limited number of routes. They were constantly liable to interruption during the season of navigation, and were wholly closed, by ice, for a considerable portion of the year. The power then and still employed on them resided in *muscles*, feeble and impotent compared with that used upon the Railway—the forces of nature, infinite in extent, yet trained and docile to the will of man. Their further construction, consequently, was abandoned so soon as the success of this, the greatest of all human contrivances, became fully assured.

Although the construction of Railroads was commenced in this country immediately after the celebrated experiments on the Liverpool and Manchester Railroad, in 1830, had proved that steam power could be successfully applied to locomotion, it proceeded at a very slow rate till the discovery of gold in California. This event constituted an epoch

in the history of the nation. Its stimulus was felt in every department of national industry and enterprize.

The following statement will show the progress of the Railroad mileage constructed in the United States, for each year from 1835 to 1868, inclusive:

Year.	Miles in Operation.	Annual Increase of Mileage.	Year.	Miles in Operation.	Annual Increase of Mileage.
1835	1,098	.....	1852	12,908	1,926
1836	1,273	175	1853	15,360	2,452
1837	1,497	224	1854	16,720	1,360
1838	1,913	416	1855	18,374	1,654
1839	2,302	389	1856	22,017	3,643
1840	2,818	515	1857	24,508	2,491
1841	3,535	717	1858	26,968	2,460
1842	4,026	491	1859	28,789	1,821
1843	4,185	159	1860	30,635	1,846
1844	4,377	192	1861	31,256	621
1845	4,633	256	1862	32,120	864
1846	4,939	297	1863	33,170	1,050
1847	5,599	669	1864	33,908	738
1848	5,996	397	1865	35,185	1,277
1849	7,365	1,369	1866	37,017	1,832
1850	9,021	1,656	1867	39,244	2,227
1851	10,982	1,961	1868	42,277	3,033

The least number of miles opened in any one year was 159 miles, in 1843; the greatest in 1856, when 3,643 were opened.

From the opening of the first Railroad, in 1830, to the acquisition of California, in 1848, a period of 19 years, 5,996 miles of line were constructed, being an average of 316 annually. From the date of that event up to the breaking out of the Civil war, a period of 12 years, 24,639 miles were constructed—being an annual average of 2,051 miles. From the last date to the present, 12,624 miles have been opened in a period of eight years, or 1,440 miles, annually. During the war the construction of these works, as a matter of course, fell off largely. Since the restoration of peace their

construction has been pushed with renewed vigor—3,037 miles having been opened during the past year. There are now fully 15,000 miles in progress. Their construction, in fact, never proceeded more rapidly than it does at the present moment.

Railways, unlike canals, are everywhere practicable. Nothing retards their progress. They traverse lofty ranges of mountains with the same ease, almost, that they do wide extended plains. The reduction they effected in the cost of transportation gave a market at his door, to the producer, in every portion of our vast domain. A familiar illustration will give the best possible idea of the value of this new method over the old. The cost, for example, of transporting Indian corn and wheat over ordinary highways will equal 20 cents per ton per mile. At such a rate the former will bear transportation only 125 miles to market, where its value is equal to 75 cents per bushel. The latter only 250 miles, when its value is $1.50 per bushel. With such highways only, our most valuable cereals will have no commercial value outside of circles having *radii* of 125 and 250 miles respectively. Upon a Railroad the cost of transportation equals one and a quarter cents, per ton, per mile. With such a work, consequently, the circle within which corn and wheat, at the prices named, will have a marketable value, will be drawn upon *radii* of 1,600 and 3,200 miles respectively. The area of a circle with a *radius* of 125 miles is 46,875 square miles; that of a circle drawn upon a *radius* of 1,600 miles is nearly 200 times greater, or 7,680,000

square miles. Such a difference, enormous as it is, only measures the value of the new agencies employed in transportation, and the results achieved, compared with the old.

The commerce of our Railroads may be said to date from the same great event that gave such a stimulus to their construction. The earlier roads were rude and unsubstantial structures compared with the permanent and finished work of the present day. They were adapted neither to high speed nor to a heavy tonnage traffic. The lines built were chiefly those between the more important cities in the Eastern States, for the accommodation of their passenger traffic. The commerce between them was still carried on almost wholly by water. No great lines expressly designed as outlets for the interior basin of the continent were constructed till 1851, when the Erie Railway was opened. The links comprising the New York Central had been opened at an earlier day, but they were not designed for freight, and were restricted in its transportation for the benefit of the Erie Canal. These restrictions were not removed till the opening of the Erie Railroad. The other great lines connecting the West with the East were not opened till a still later date; the Baltimore and Ohio not till 1853, the Pennsylvania not till 1854. Of the great interior lines, the Illinois Central was not completed till 1856; the Pittsburg, Fort Wayne and Chicago was not fully opened in 1858; the Chicago and Rock Island, which was the first line to unite Lake Michigan with the Mississippi, was opened in 1854; the Michigan Central and Southern Railroads, connecting Lake Erie with Lake Michi-

gan, were ened in 1852. The great bulk of their tonnage traffic, as l be hereafter shown, has been the creation of the last ten years. The rapidity of its growth and its present extent is even more wonderful than that of their mileage. We have the means of estimating the growth, extent and value of such traffic, with the accuracy, almost, that we have of determining their mileage.

In several States the amount of the tonnage traffic of their roads is required by law to be returned to their respective Legislatures. In the State of New York the returns are required to classify the various articles carried, in the same manner as the tonnage of the canals. The value of all the articles carried on the latter, together with the aggregate value of the several classes, is given. We have consequently only to apply the estimate of the value of the canal to the Railroad tonnage to ascertain, accurately, the value of the latter. The extent and value of the canal with that of the Railroad tonnage of this State will be shown in the following statements:

STATEMENT *Showing the No. of Tons of Freight carried on all the Canals of the State of New York, from* 1858 *to* 1867, *inclusive.*

	TONNAGE CLASSIFIED.							Tonnage of all Descriptions.
	Products of the Forest.	Products of Animals.	Vegetable Food.	Other Agricultural Products.	Manufactures.	Merchandize.	All other Articles.	
1858	1,232,968	65,166	1,208,589	6,136	295,903	188,441	667,989	3,665,192
1859	1,542,035	36,151	773,655	6,978	299,421	211,182	912,262	3,781,684
1860	1,509,977	19,882	1,659,158	3,714	268,759	250,360	838,364	4,650,214
1861	1,052,392	19,282	2,122,237	2,854	280,256	135,096	895,518	4,507,635
1862	1,569,674	68,269	2,422,598	3,169	364,887	167,927	1,002,271	5,598,785
1863	1,628,688	87,625	2,144,084	4,366	319,432	172,278	1,201,219	5,557,692
1864	1,478,921	43,498	1,523,881	5,457	282,354	143,984	1,374,846	4,852,941
1865	1,467,315	27,281	1,662,697	6,113	281,832	154,968	1,129,448	4,729,654
1866	1,769,994	18,810	1,763,931	3,319	302,241	179,878	1,737,047	5,775,220
1867	1,744,252	16,614	1,415,887	6,016	320,844	219,880	1,964,832	5,688,325

STATEMENT *Showing the Average Value per Ton of the Several Classes of Freight carried on the Railroads and Canals of New York, 1858 to 1867, inclusive, according to the Annual Returns of the Auditor of the Canal Department.*

	VALUE PER TON OF THE SEVERAL CLASSES.							AVERAGE VALUE PER TON.	
	Products of the Forest.	Products of Animals.	Vegetable Food.	Other Agricultural Products.	Manufactures.	Merchandize.	Other Articles.	Canal.	Railroad.
1858..	$7 27	$134 97	$33 12	$208 98	$31 61	$324 96	$13 29	$37 85	$100 25
1859..	7 00	214 57	31 83	237 70	29 24	308 13	14 77	34 97	122 81
1860..	7 05	252 98	29 96	295 66	30 18	336 52	14 30	36 73	125 92
1861..	6 14	206 49	25 06	246 10	23 97	367 94	10 45	28 97	109 17
1862..	7 20	162 84	29 71	363 01	33 75	498 08	11 77	36 29	129 90
1863..	8 24	174 12	39 59	221 42	48 35	530 64	17 54	43 29	155 97
1864..	15 27	348 49	65 21	276 92	79 98	558 05	23 80	56 54	181 31
1865..	14 32	368 24	42 87	381 30	64 07	662 25	27 30	54 17	212 11
1866..	16 25	392 23	44 14	415 23	60 84	556 87	21 32	46 92	179 14
1867..	16 61	341 58	52 74	211 09	52 60	493 65	21 85	49 21	139 63

STATEMENT *Showing the Value of the Tonnage carried on all the Canals of the State of New York, from* 1858 *to* 1867, *inclusive.*

	VALUE OF THE SEVERAL CLASSES OF TONNAGE.							Value of Tonnage of all Classes.	Average Value per Ton.
	Products of the Forest.	Products of Animals.	Vegetable Food.	Other Agricultural Products.	Manufactures.	Merchandize.	All other Articles.		
1858..	$8,963,443	$8,795,570	$40,064,541	$1,282,267	$9,352,955	$61,236,319	$8,873,809	$138,568,844	$37 85
1859..	10,798,769	7,757,020	24,628,923	1,658,658	8,757,059	65,072,972	13,487,357	132,160,758	34 97
1860..	10,654,710	5,030,067	44,710,838	1,098,072	8,113,177	84,252,425	11,989,909	170,849,198	36 73
1861..	6,462,614	3,981,586	53,177,787	702,347	6,718,273	49,707,729	9,365,557	130,115,893	28 97
1862..	11,305,954	11,117,228	71,971,741	1,150,401	12,314,651	83,640,903	11,733,453	203,234,331	36 29
1863..	13,421,909	15,257,555	84,866,206	966,750	13,044,051	91,417,513	21,072,477	240,046,461	43 29
1864..	22,589,060	15,158,907	99,381,523	1,511,134	22,582,718	80,391,550	32,785,747	274,400,639	56 59
1865..	21,011,122	10,046,125	71,293,470	2,330,872	18,095,266	102,627,877	30,832,372	256,237,104	54 17
1866..	28,754,821	7,377,796	77,854,997	1,378,141	18,389,992	100,169,211	37,038,718	270,963,676	46 92
1867..	28,977,470	5,675,202	74,671,499	1,269,962	16,877,334	108,545,569	42,939,676	278,956,712	49 21

STATEMENT, *Showing the No. of Tons of Freight carried on all the Railroads in the State of New York, from* 1858 *to* 1867, *inclusive.*

	TONNAGE BY CLASSES.							
	Products of the Forest.	Products of Animals.	Vegetable Food.	Other Agricultural Products.	Manufactures.	Merchandize.	All Other Articles.	Tonnage of all Descriptions.
1858	303,236	734,995	914,206	77,174	325,596	562,378	556,140	3,473.725
1859	364,150	796,938	966,417	107,693	406,931	741,432	675,722	3,859,283
1860	373,424	895,519	1,103,640	143,219	511,916	783,811	930,244	4,741,773
1861	540,079	1,067,070	1,220,332	211,209	568,691	719,017	1,133,691	5,460,409
1862	422,743	1,377,929	1,389,238	291,163	702,421	873,366	1,449,275	6,506,135
1863	462,105	1,598,112	1,311,515	400,785	921,808	1,153,586	1,349,893	7,197,804
1864	584,496	1,499,490	1,379,738	644,391	799,033	1,204,481	2,031,933	8.143,562
1865	527,299	1,345,361	1,220,500	392,037	732.661	1,146,286	2,024,708	7,388,852
1866	730,605	1,322,770	1,581,785	*445,480	1,019,382	1,334,768	2,775,686	9,210,486
1867	900,866	1,290,815	1,565,509	617,964	1,056,304	1,298,408	3,613,815	10,343,681

STATEMENT *Showing the Value of the Tonnage carried on all the Railroads in the State of New York, computed at the Average Valuation of Canal Tonnage, for Ten Years, from* 1858 *to* 1867, *inclusive.*

	VALUE OF TONNAGE BY CLASSES.							Total value of tonnage of all descriptions.	Average value per ton.
	Products of the Forest.	Products of Animals.	Vegetable Food.	Other Agricultural Products.	Manufactures.	Merchandize.	All other articles.		
1858..	$2,204,526	$99,203,265	$30,278,503	$16,127,822	$10,292,089	$182,750,355	$7,391,101	$348,247,661	$100 25
1859..	2,549,050	171,060,986	24,395,053	25,658,626	11,898,662	228,457,442	9,980,414	473,939,133	122 81
1860..	2,632,639	226,548,396	33,065,054	42,344,129	15,449,625	263,768,078	13,302,489	597,110,410	125 92
1861..	3,316,085	220,339,284	30,581,520	51,978,535	13,631,523	264,555,115	11,737,071	596,139,133	109 17
1862..	3,043,749	224,381,958	41,274,261	100,695,081	23,706,709	435,006,137	17,057,967	845,165,862	129 90
1863..	3,807,745	278,263,261	51,922,879	88,741,815	63,906,659	612,138,875	23,677,113	1,122,458,347	155 97
1864..	8,925,254	522,557,270	89,972,715	89,984,755	44,569,417	672,160,622	48,360,005	1,476,530,048	181 31
1865..	7,550,912	494,415,734	52,322,835	149,483,708	46,941,590	760,227,903	55,274,528	1,567,217,210	212 11
1866..	11,872,331	518,830,477	69,819,990	184,976,660	62,019,201	743,292,256	59,177,625	1,649,988,540	179 14
1867..	14,963,384	440,916,588	82,564,945	130,446,021	55,561,590	640,959,109	78,961,858	1,444,373,495	139 63

STATEMENT *Showing the Aggregate Tonnage of all the Canals and Railroads in the State for the Years* 1858 *to* 1867, *inclusive.*

	CLASSES OF TONNAGE.							
	Products of the Forest.	Products of Animals.	Vegetable Food.	Other Agricultural Prod'ts.	Manufactures.	Merchandize.	All other Articles.	Total tonnage of Railroads and Canals.
1858	1,536,204	800,161	2,122,795	83,310	621,499	750,819	1,224,129	7,138,917
1859	1,906,185	833,089	1,540,072	114,671	706,352	952,614	1,587,984	7,640,967
1860	1,883,401	915,401	2,762,798	146,933	780,337	1,034,171	1,768,608	9,391,987
1861	1,592,471	1,086.358	3,342,569	214,063	848,947	854,113	2,029,209	9,968,044
1862	1,992,417	1,446,198	3,811,836	294,332	1,067,308	1,041,303	2,451,546	12.104,920
1863	2,090,793	1,685,737	3,455,599	405,151	1,341,240	1,325,864	2,551,112	12,757,496
1864	2,063,417	1,542,988	2,903,619	649,848	1,081,387	1,348,465	3,406,779	12,996,503
1865	1,994,614	1,372,642	2,883,197	398,150	1,014,493	1,301,254	3,154,256	12,118,506
1866	2,500,599	1,341,580	3,345,716	448,799	1,321,623	1,574,646	4,512,733	14,985,706
1867	2,645,116	1,307,429	2,981,396	624,580	1,377,148	1,518,288	5,578,647	16,032,006

STATEMENT *Showing the Relative Proportions of the Several Classes of Tonnage of all the Canals and Railroads of the State for Ten Years, from* 1858 *to* 1867, *inclusive.*

	CLASSES OF TONNAGE.							Total of all classes of Tonnage.
	Products of the Forest.	Products of Animals.	Vegetable Food.	Other Agricultural Prod'ts.	Manufactures.	Merchandize.	All other Articles.	
Canal	30.73	0.82	34.21	0.09	6.18	3.74	24.02	100.00
Railroad	7.85	17.99	18.78	5.02	10.62	14.80	24.94	100.00
Total	17.55	10.74	25.37	2.93	8.74	10.11	24.55	100.00

STATEMENT *Showing the Relative Proportions of the Value of the Several Classes of Tonnage for a period of Ten Years, from* 1858 to 1867, *inclusive.*

	AVERAGE VALUE OF TONNAGE BY CLASSES.							Total average value of all classes Ton'ge.
	Products of the Forest.	Products of Animals.	Vegetable Food.	Other Agricultural Prod'ts.	Manufactures.	Merchandize.	All other Articles.	
Canal	7.78	4.56	30.97	0.68	6.46	39.04	10.51	100.00
Railroad	0.60	31.60	5.00	8.70	3.44	47.45	3.21	100.00
Total	1.83	26.92	9.44	7.31	3.94	46.09	4.46	100.00

Railroad	0.60	31.60						
Total	1.83	26.92	9.44	7.31	3.94	46.09	4.46	

STATEMENT *Showing the Aggregate Value of the Tonnage of all the Canals and Railroads in the State for the Years* 1858 *to* 1867, *inclusive.*

	VALUE OF TONNAGE BY CLASSES.							
	Products of the Forest.	Products of Animals.	Vegetable Food	Other Agricultural Products.	Manufactures.	Merchandize.	All other Articles.	Total Value of all Classes of Tonnage.
1858	$11,167,969	$107,998,835	$70,343,044	$17,410,089	$19,645,044	$243,986,674	$16,264,910	$486,816,505
1859	13,347,819	178,758,006	49,023,976	27,317,284	20,655,721	293,562,414	23,467,771	606,100,991
1860	13,287,349	231,578,463	77,775,892	43,442,261	23,562,802	348,020,503	25,292,398	767,959,608
1861	9,778,699	224,320,870	83,759,307	52,680,882	20,349,796	314,262,844	21,102,628	726,255,026
1862	14,349,703	235,499,186	113,246,002	101,845,482	36,020,760	518,647,040	28,791,420	847,400,193
1863	17,229,654	293,520,816	136,789,085	89,707,565	76,950,710	703,556,388	44,749,590	1,362,504,808
1864	31,514,314	537,716,177	189,354,238	91,495,889	67,152,135	752,552,172	81,145,752	1,550,930,677
1865	28,567,034	505,461,859	123,616,305	151,811,580	65,036,856	862,855,780	86,106,900	1,823,459,314
1866	40,627,152	526,207,873	147,674,987	186,354,801	80,409,193	893,461,467	96,216,343	1,920,951,816
1867	43,940,854	446,591,790	157,236,444	131,715,983	72,438,924	749,504,678	121,901,534	1,723,330,207

The tonnage for 1867, of the Railroads of New York equaled 3,501 tons to the mile of road. The tonnage of the Railroads of Massachusetts equaled 5,394,137 tons, or 3,853 tons to the mile. That of the Railroads of Pennsylvania equaled 35,387,370 tons, or 7,864 tons to the mile. The total for the three States equaled 51,125,140 tons, or 5,826 tons to the mile. The number of miles of Railroad within the States which returned their tonnage traffic equaled 8,775 miles.

If we estimate the total tonnage for the other States, having a mileage of 30,469 miles, to equal that of the States named, the aggregate for all would exceed 100,000,000 tons, or 2,500 tons to the mile. There can be no doubt that the actual amount exceeded the above aggregate. A large deduction should be made, however, for duplications—probably 25,000,000 of tons. Estimating the total traffic at 100,000,000 tons, the *net* tonnage equaled 75,000,000 tons. Such an aggregate would give an average tonnage of about 2,000 tons for each mile of road. As the tonnage of the Railroads of the three States named, deducting duplications, equaled 38,343,855 tons, it would, on the part of the other Railroads, require a tonnage of only about 1,200 tons to the mile to give the total estimated aggregate. The average for most of the States largely exceeded this rate.

The following statement of the tonnage of 18 lines, taken as representatives of all the others, will show that the progress of the tonnage for the past ten years has been fully up to the ratio of the Railroads of the State of New York:

STATEMENT of Tonnage Carried over the Specified Railroads Yearly, from 1858 to 1867, inclusive.

	Boston and Worcester.	Western.....	New York Central.....	Erie.....	Hudson River.....	New York and Harlem.	Pennsylvania.....	Delaware, Lackawana and Western.....	Philadelphia and Reading.....	Philadelphia, Wilmington and Baltimore...	Cleveland, Columbus and Cincinnati.....	Plattsburg, Ft. Wayne and Chicago.....	Michigan Central.....	Michigan Southern....	Illinois Central.....	Chicago and Alton.....	Chicago, Rock Island and Pacific.....	Chicago, Burlington and Quincy.....
1858..	322,519	437,896	765,407	816,965	160,197	122,371	1,046,839	.....	1,730,426	.....	296,025	235,663	235,123	261,613	331,568	.....	201,068	.....
1859..	327,350	448,345	834,319	969,072	258,965	145,577	1,170,240	.....	1,967,541	.....	286,209	302,606	295,276	346,300	422,433	.....	.....	.....
1860..	352,999	505,547	1,028,183	1,139,554	337,952	153,511	1,346,525	.....	2,377,883	.....	296,635	465,204	378,570	398,679	490,343	.....	.....	.....
1861..	345,174	508,179	1,167,302	1,253,419	370,098	168,527	1,620,506	.....	1,964,493	165,352	416,736	526,379	463,112	452,703	720,868	.....	301,669	734,573
1862..	382,494	537,504	1,387,433	1,675,234	577,740	198,667	2,223,051	1,316,892	2,934,221	175,972	571,037	643,107	564,827	543,626	806,635	.....	285,144	835,563
1863..	413,731	663,927	1,449,604	1,874,634	656,967	233,981	2,454,876	1,510,405	3,951,595	217,034	607,063	805,525	542,410	556,979	952,814	.....	379,879	777,736
1864..	458,320	692,860	1,557,148	2,214,295	601,824	226,467	2,764,876	1,621,374	4,115,591	240,298	562,758	858,928	495,275	527,501	1,022,024	386,197	441,510	809,674
1865..	427,404	693,754	1,975,209	2,175,965	491,855	239,603	2,793,810	1,200,097	4,186,782	235,930	459,703	832,615	533,451	569,340	1,034,946	511,012	472,557	737,511
1866..	549,319	834,504	1,602,197	2,871,505	497,397	298,206	3,452,718	1,920,874	4,953,701	260,294	517,199	1,025,778	573,177	679,765	1,153,175	636,360	459,866	821,833
1867..	597,400	834,605	1,667,926	3,484,546	581,437	264,428	4,000,538	2,140,134	4,855,248	243,361	570,101	1,154,351	638,586	735,438	1,300,835	750,657	598,714	971,374

The length of the roads embraced in the above statement is 6,458 miles. Their tonnage for 1867 equaled 25,880,679 tons. The average per mile equaled 4,026 tons per mile.

The number of tons carried in 1858, by the roads in the preceding statement reported for that year, equaled 7,063,780 tons; the tonnage carried by the same roads in 1867 equaled 21,784,153 tons: the rate of increase consequently exceeded 200 per cent. in the ten years. In the same period the number of miles of *new* line opened equaled 12,276 miles—the mileage in 1858 being 26,968, against 39,244 in 1867. If the tonnage in 1867 of the new roads be added to that of the lines in operation in 1858, the total increase in ten years equaled fully 300 per cent. The total increase, in the ten years, consequently equaled 57,250,000 tons—a rate equaling 5,725,000 tons annually. A very similar rate of increase was maintained from 1850 to 1858, a period of eight years. The total *net* tonnage for 1850 equaled about 5,000,000 tons. A rate of increase upon this amount similar to that shown from 1858 to 1867 would give very nearly the quantity estimated for 1858.

The following table of the results of the operations of the Railroads of New York for the past ten years will show that the increased tonnage of the roads has been accompanied with a corresponding service performed. The number of tons carried one mile, in 1858, was 420,604,609; in 1867, 1,192,818,673 tons; the rate of increase being nearly 200 per cent. The earnings of the road increased in similar ratio:

RAILROADS OF THE STATE OF NEW YORK.

STATEMENT *Showing the Length of Line in Use and the Equipment thereon and the Cost, together with the General Results of Operations for the Ten Years*, 1858 *to* 1867, *inclusive.*

	MILES OF RAILROAD.			EQUIPMENT.				COST OF ROAD, ETC.		Distance run by Locomotives hauling Train.	PASSENGER TRAFFIC.			FREIGHT TRAFFIC.				EARNINGS.		Expenses per cent.
	Main Line and Branches	Second Track and Sidings, etc.	Total Equivalent Single Track	Engines	CARS. Passenger.	Baggage, Mail and Express.	Freight.	Amount.	Per Mile.		Number of Passengers.	Passengers carried one mile.	Passengers to Mile of road.	Tons of Freight.	Tons carried one mile.	Tons to mile of road.	Aggregate Value of Freight.	Gross.	Net.	
								$	$									$	$	
..	2,516	937	3,353	738	877	239	9,012	134,971,832	53,646	11,563,318	11,250,073	373,159,179	4,471	3,473,725	420,604,609	1,331	343,247,661	18,664,486	6,846,697	63.32
..	2,527	1,007	3,534	748	822	234	9,241	136,455,473	53,999	11,869,778	12,133,059	370,939,486	4,803	3,859,283	433,425,441	1,527	473,940,233	18,363,034	7,273,483	60.39
..	2,566	1,033	3,599	748	822	248	9,438	139,571,616	54,392	12,375,145	9,305,978	332,935,206	3,626	4,741,773	564,050,505	1,848	597,110,410	20,477,599	7,824,923	61.75
..	2,658	1,062	3,720	755	867	244	9,592	144,718,732	54,449	14,031,926	8,634,189	337,954,636	3,269	5,460,409	669,556,875	2,054	596,139,133	21,211,242	7,445,176	64.90
..	2,710	1,079	3,789	769	834	242	10,639	148,313,179	54,730	15,349,873	8,707,789	344,230,277	3,213	6,506,135	821,160,067	2,491	644,165,862	25,722,473	10,502,286	59.17
..	2,729	1,096	3,825	799	898	215	11,115	151,289,901	55,434	16,611,861	10,291,813	421,563,394	3,771	7,197,804	931,569,125	2,637	1,122,458,340	32,396,743	12,963,809	59.98
..	2,787	1,141	3,908	814	859	259	12,729	158,691,317	57,337	18,674,856	13,442,324	586,150,730	4,359	8,143,562	944,857,060	2,943	1,476,530,033	40,494,437	12,645,964	68.77
..	2,935	1,184	3,989	962	1,001	292	15,284	167,318,492	59,025	21,012,056	15,976,815	721,554,353	5,956	7,333,852	850,716,361	2,606	1,567,222,210	47,815,535	10,209,233	78.36
..	2,891	1,238	4,079	1,002	1,188	291	15,313	171,689,508	59,337	23,803,394	16,886,937	710,897,620	5,841	9,210,436	1,059,863,237	3,166	1,649,988,140	50,249,227	12,373,085	75.38
..	2,955	1,293	4,248	1,075	1,114	352	16,525	182,015,750	61,595	21,012,056	17,377,465	656,524,676	5,881	10,343,681	1,192,818,673	3,501	1,444,373,495	49,661,572	14,787,399	70.23

As is shown in the preceding statements, the tonnage of the New York canals is required by the Legislature to be classified under seven general heads, viz.: "Products of the Forests," "Products of Animals," "Vegetable Food," "Other Agricultural Products," "Manufactures," "Merchandize," and "Other Articles." The value of all the articles comprising these classes is given in detail. The average value equaled $49 21 per ton. The railroad companies of the State are required to return their tonnage under the same classifications, but are not required to return the value of the same. If a valuation be put upon this tonnage similar to the ascertained value of the canal tonnage, the average value of the railroad tonnage equaled $139 63 per ton. The wide difference in the aggregate is owing to the fact that the tonnage of the canals is composed of cheap and bulky articles, in the transportation of which speed is of little account. For example, the tonnage for 1867 of animal food on the canals equaled only 16,614 tons, having a value of $5,675,202: while the "Animal Food" borne on the railroads equaled 1,290,815 tons, having a value of $440.916,588. The canal tonnage of "Other Agricultural Products," consisting of butter, cheese, etc., equaled only 6,016 tons, having a value of $1,269,962. The same kind of railroad tonnage equaled 617,964 tons, having a value of $130,446.021. The number of tons of the "Products of the Forest" carried on the canals equaled 1,232,968 tons, having a value of $11,167,969. The tonnage of similar articles carried on the railroads equaled 303,236 tons, having a value of $2,204,526. The total value

of the 5,688,325 tons carried on the canals equaled $278,-956,712. At a similar valuation, the value of the 10,343,681 tons borne upon the railroads equal $1,444,373,495.

Applying a similar estimate of value, and which cannot be regarded as excessive, to the tonnage of all the roads of the United States, the aggregate value for 1867 of such tonnage —75,000,000 tons—equaled the enormous sum of $10,472,-250,000—a sum exceeding five times the total amount of the national debt! The total increase in value of this tonnage since 1857 has equaled $7,854,187,500, a rate of increase equal to $785,418,750 annually. Such annual increase equals nearly one-third of the national debt; is nearly six times greater than the accruing interest on the same, or twice greater than the total aggregate of the public expenditures.

Potent as is the Railway, wherever constructed, in the creation of wealth, and in stimulating industry and commerce, its most remarkable achievements are to be found in the North-Western States, where, of all other parts of the world, agriculture, from the fertility of the soil and the ease with which it can be brought under cultivation, reaps the largest returns.

The subjoined statement will show the progress of Railways in the eight North-Western States since 1850, with that of their tonnage, and the value of the same, together with their population in 1850 and in 1860, and the valuation of the same, copied from official returns for the years named:

STATEMENT *Showing the Number of Miles of Railroad in the Eight North-Western States in* 1850, 1860 *and* 1867, *respectively, with the Number of Tons of Freight Carried on the Same, with the Value of such Tonnage, at* $150 *per Ton; the Population of said States and the Census Valuation of the same for* 1850 *and* 1860, *respectively.*

STATES.	Miles of Railroad in Operation.			Tons of Freight carried.			Value of Freight to $150 per ton.			Population.		Valuation.	
				Estim'd at 300 t'ns per mile of road.	Estim'd at 600 t'ns per mile of road.	Estim'd at 1,500 tons p. m. of road.							
	1850.	1860.	1867.	1850.	1860.	1867.	1850.	1860.	1867.	1850.	1860.	1850.	1860.
Ohio	575	2,946	3,393	172,500	1,767,600	5,097,000	$25,875,000	$265,140,000	$764,550,000	1,980,329	2,339,511	$504,726,100	$1,193,898,422
Indiana	228	2,163	2,306	63,400	1,297,800	3,459,000	10,260,000	194,670,000	518,850,000	988,416	1,350,428	202,550,264	528,835,371
Michigan	342	779	1,463	102,600	467,400	2,194,500	15,390,000	70,110,000	329,175,000	397,654	749,113	59,787,275	257,163,983
Illinois	111	2,799	3,224	33,300	1,679,400	4,836,000	4,995,000	251,910,000	725,400,000	851,470	1,710,951	156,265,000	871,860,232
Wisconsin	20	905	1,036	6,000	543,000	1,554,000	900,000	81,450,000	233,100,000	305,391	775,881	42,056,595	273,671,666
Iowa	.....	655	1,283	.....	393,000	1,924,500	.....	58,950,000	288,675,000	192,214	675,918	23,714,633	247,333,261
Minnesota	.....	.....	482	.....	.....	723,000	.....	.....	108,450,000	6,077	172,123	26,..,033	52,294,413
Missouri	.....	817	985	.....	490,200	1,477,500	.....	73,530,000	221,625,000	682,044	1,182,012	137,247,707	501,214,393
Total	1,276	11,064	14,177	382,800	6,638,400	21,265,500	$57,420,000	$995,760,000	$3,189,225,000	5,403,595	8,955,937	$1,126,709,647	$3,926,276,796

The statement last given shows that the mileage of the railroads in these States increased from 1,276 miles in 1850 to 11,064 in 1860, and to 14,177 miles in 1867; that the tonnage of these roads increased, in the same time, from 383,800 tons in 1850 to 6,638,400 tons in 1860 and to 21,265,500 in 1867. The value of the railroad tonnage in 1850 was $57,420,000; in 1860, $995,700,000; and in 1867, $3,189,325,000! The valuation of the property in these States increased from $1,126,709,647 in 1850 to $3,926,276,793 in 1860. Of the total tonnage in 1867 of all the roads of these States more than one-third of it was transported upon eight great roads entering Chicago, as will be seen by the following statement:

Name of Road.	Tons of Merchandize carried.
Pittsburg, Fort Wayne and Chicago	1,154,351
Michigan Central	633,586
Michigan Southern	735,433
Illinois Central	1,300,835
Chicago and Alton	750,857
Chicago, Burlington and Quincy	971,378
Chicago and Rock Island	598,714
Chicago and North-Western	1,982,427
Total tons	8,227,581

All these immense results have been accomplished by the enterprise of our people, and without pecuniary aid from the Federal Government, except in the construction of the Pacific Railway and its branches. The Government, however, has made, from time to time, liberal grants of land, which have been instrumental in the construction of several thousand miles of line. The grants first made, and which served as a precedent for all others, were to the Illinois Central Railroad, in 1850. They led to the immediate construction

of that important work, and gave a great impulse to the construction of other important lines within it. Grants still more liberal were made to the States of Michigan, Wisconsin, Iowa, Minnesota and Missouri. Without them hardly a mile of Railroad would have been constructed either in Iowa or Minnesota. But for them the Pacific Railroad itself would have been wholly without an Eastern outlet. They have been instrumental in securing construction of the great Continental Line earlier, by years, than it otherwise would have been. They have been the direct means of adding hundreds of millions, annually, to the wealth and commerce of the country. As the lands reserved upon the lines of the anticipated roads, and corresponding in amount to the grants made, readily sold at double the ordinary rate, the Government reaped a positive advantage from them, in addition to those which the roads themselves have secured to it.

The progress of such a State as Illinois, for example, due to its Railroads, affords a striking illustration of the importance of these works, considered in reference to the public revenues. The value of their tonnage in 1867 equaled $725,400,000. The increase of its value since 1860 has been at the rate of $70,000,000 annually. The present annual increase equals $100,000,000. The increase of numbers, due to the same influence, equals 100,000 annually. The Federal taxes of all kinds equal $10 per head of our whole population. The population of Illinois at the present time equals 2,500,000, or one-fifteenth of the whole. It pays, consequently,

$25,000,000 annually into the public treasury. The annual increase in the amount of such taxes paid by this State equals $1,000,000, or would equal this sum provided the present rates were maintained. Its ability to pay so vast a sum is derived almost wholly from its public works. In 1850 its population was only 851,000, or one-thirtieth of the whole. The proportion of its wealth to the total aggregate was in much smaller ratio. Could any policy, therefore, have been wiser than the grant of public lands to the great line, which opened up to settlement a large portion of its territory, till then inaccessible, and stimulated, in a powerful manner, the construction of other important lines? If the whole cost of this work had been a gratuity, the Federal Government would have been vastly the gainer thereby. The interest on its cost is, say, $2,000,000. It has, however, been instrumental in adding, annually, more than five-fold that sum to the public revenues, to say nothing of its influence upon the trade and commerce of the country.

If such be the fact, is it not wise to continue a similar policy, adapted, as to the form of aid, to the conditions presented, so that the example of Illinois may be repeated, as you remark, upon a still grander scale, upon other portions of our wide domain? To the west and north-west of Lake Superior is a region exceeding Illinois five times in extent. Many portions of it equal that State in fertility of soil; and if possessing an equal population would equal it in the value of its products. It is a vast prairie, of which this

State embraces only a mere fraction, 1,200 miles in extent east and west, with a length north and south of nearly 2,000 miles (a considerable portion of it lying within the British Possessions), and having an area of nearly 2,000,000 square miles. It is watered by the more western of the great lakes, the Mississippi and its tributaries, the Saskatchawan, and other great rivers lying still further to the north, and differs little from those portions of it occupied by the States of Illinois, Iowa and Minnesota, except in geographic position. It is similar in soil, minerals and flora, and to a great degree in climatic conditions. It has its greatest width of arable land upon the route of the proposed road. It has a rich and friable soil, mostly destitute of wood, and for these reasons can be brought immediately under cultivation, and yields, under the rudest culture, the most bounteous returns. Hence the marvelous rapidity with which our people have spread themselves over the accessible portions of it, and the progress they have made in population and in wealth.

The more marked points of difference between that portion of the great plain lying east of the mountains to be traversed by the proposed road, and that occupied by the Western States, is the lack, in the former, of means of access by water-courses adapted to the wants both of travel and commerce. The lakes, with the Mississippi and its numerous tributaries, gave ample means of such access to extensive portions of all the Western States, and a foothold to the early settlers, from which they could push further inland, and a market for their p[illegible]. The only naviga-

ble rivers of the section under consideration are the Missouri, the Yellow Stone, and the Red River of the North. The latter has its outlet in Lake Winnipeg, and is, of course, useless till reached by a Railroad. In such case it will become a most valuable auxiliary to such a work. The great length of the Upper Missouri and Yellow Stone; their uncertain, hazardous and expensive navigation in summer; their total interruption, for many months each year, by ice, wholly unfit them to become the routes of commerce for the region they traverse, embracing an area of some 250,000 square miles. The cost, by river, of transporting a barrel of flour from the mouth of the Yellow Stone to St. Louis, a distance of 2,000 miles, far exceeds its value at the latter place. The river is now used as a matter of necessity for the transportation of Government supplies, of high-priced merchandize, peltries, and the precious metals, but even for these articles, with a Railroad upon its banks, it will be entirely disused.

The only way in which this vast region can be reached and occupied is by a railway, which shall bear the same relation to it that *natural* water-courses did to Michigan, Illinois and Wisconsin, and other Western States. A highway must in all cases be provided, in advance, for the pioneer, to serve both as a means of access and as a market for his products. If the Western States had not been accessible by natural routes of commerce and travel, their settlement, to any considerable extent, would necessarily have remained in abeyance till artificial ones had been constructed. Such settlers

as might have forced their way inland would have possessed neither wealth nor commerce. Where such conditions exist, the oversight of Nature must be corrected by the hand of man. An artificial highway, vastly superior to any natural one, must be opened by the collective strength of the nation, through the great region described. The tide of population will follow fast after it. By the time the mountains were reached from the lakes, two or three communities, carved out of the territory traversed, would have all the conditions fitting them to become States of the Union—for population, equally with wealth, are the creation of works that give employment and supply the means of subsistence. Foreigners are attracted to us just in the ratio as such employment and means of subsistence can be had. Were this not so, the wealth of the country increases in ratio that labor is well employed. England is infinitely richer for the countless number of colonists which for centuries, almost, she has poured forth. The productive capacity of those that remain behind still far exceeds all the demand that can be made upon it. Such demand now chiefly comes upon the colonies she has founded, and which now contain a population nearly twice greater than her own.

New England, the mother of the North-West, is in the same way made rich and prosperous upon the labor of her children, upon a more genial soil. The power of production, the world over, far outruns the capacity for consumption. Wealth and comfort, consequently, increase in ratio as new

fields of industry and new kinds of employment are opened; and no enterprise is so advantageous to all as one that plants, and opens up to settlement and commerce, a virgin soil.

The opening up of new territory to settlement, particularly in the North-West is, and has for a long time been the means of attracting to this country an immense number of immigrants from the Old World. No small portion of our progress and prosperity is due to such emigration which now brings to our shores a very superior class of foreigners, possessed, in the aggregate, of very large amount of means. From careful inquiries made by the Commissioners of Emigration for the port of New York, it was estimated by them that the better class of immigrants brought with them, in money, $200 per head. Those possessing such an amount probably equal 200,000 annually, so that from this source alone the addition, each year, to the cash capital of the country equaled, say $50,000,000. The North-West is a particularly attractive region to immigrants from the north of Europe, a race of the same stock as our own, and who, in all respects, are a most desirable addition to our population. Should the Northern Pacific Railroad be constructed, a new impulse will be given to this immigration, and will help to swell the tide of population which will follow fast in its train. There can be no doubt that by the time the proposed work reaches the mountains a population of at least 300,000 would be drawn to its line. The quota of such a number to the public treasury would equal $3,000,000 annu-

ally—a sum three times greater than the interest on the bonds that would be issued. In a few years after its completion such revenues would be trebled in amount, so rapid would be the influx of immigrants and the development of the resources of the territory traversed. The process of aiding this work, consequently, would be a paying one to the Government from the start. There is not a doubt that it has been largely the gainer by the advances it has made to the Union and Central Pacific Railroads and their branches. These roads have been instrumental in adding hundreds of thousands to the population of the States of Missouri, Iowa, Kansas, Nebraska, California and Nevada, in all of which their influence has been most powerfully felt, and many millions added annually to the public revenue.

The coincidence of the line of the proposed road with that of the great depression in the continent, occupied by the St. Lawrence, the Missouri and the Columbia, adds immensely to its importance. This depression not only indicates the proper route for crossing it, but secures the most favorable climatic conditions, and the greatest possible extent of arable lands. Increase of elevation is always accompanied by a diminished temperature. With an ascent of 300 feet the mercury falls one degree; Lake Superior is elevated only 600 feet above the sea. The valley of the Red River of the North has an elevation of about 900 feet above the sea. Lake Winnipeg about 700 feet. From the low elevation of this portion of the great basin, Indian corn is successfully grown in extensive

sections of it. Wherever this cereal can be grown the climate must be genial and temperate. The climate of every portion of the continent regularly meliorates upon going west, so that upon the Missouri, where the line of the proposed road has an elevation of 1,800 feet, and at the base of the mountains, where it has an elevation of 3,000 feet, the range of the thermometer is not lower at any portion of the year than it is upon the great plain lying immediately west of Lake Superior. The low depression of the territory upon the route of the proposed Railroad is one of the most remarkable features of the continent. The elevation of the Missouri at the mouth of the Yellow Stone is only 2,100 feet above the sea; that of the Union Pacific Railroad upon the same meridian is 6,000 feet above. The difference in elevation gives to corresponding portions of the northern route a much more temperate climate than is found upon the southern one.

Upon going further north the subsidence of the great plain still continues, with a corresponding melioration of climate. It is probably milder in the Valley of the Saskatchawan than upon corresponding meridians in the Valley of the Missouri.

Within the mountain ranges the climate is mild and equable in all seasons of the year, owing to its proximity to the Pacific. Upon that coast the range of the thermometer agrees, as is well known, very nearly with that on the western coast of Europe, in similar parallels.

Of the whole length of the Northern Pacific Railroad, 1,725 miles, not over 250 miles will have an elevation ex-

ceeding 3,000 feet above the sea, while of the Union Pacific Railroad, 1,100 miles, of a total length of 1,657 miles, are more than 4,000 feet above the sea; more than 500 miles of it has an elevation of 7,500 feet above the sea.

The relation of the great water line of the St. Lawrence to the proposed work will vastly increase its utility and importance. This line, whether its eastern outlet be the harbor of New York or the Straits of Belle Isle, extends half way across the continent. With a Railroad from its western extremity to the Pacific, the land carriage of freight, for at least eight months each year, will not exceed 1,750 miles. The cheapest of all modes of transportation is by water, when the conditions are favorable. Freight will be transported from the head of Lake Superior, by water, in the season of navigation, at one-third the cost of its transportation by Railroad. The proposed work, consequently, is the complement of a grand highway of commerce across the continent, more than one-half of which is navigable for ships of 1,000 tons burden. With the slight elevation of the whole route, with the favorable grade and allignment of the Railroad, and with a water line for more than half the distance of unequaled excellence, the Northern Pacific Railway must become the route of commerce between ocean and ocean. For cheapness of transportation it must be without a rival. Its advantages will be such as will enable it to become the route to America, and to Europe of the products of the *East*, and secure to this country, beyond question, a trade which has enriched every people through which it has passed, and

which, for the future, if we will only take the necessary steps, will be monopolized by our own.

The importance of the relation that Lake Superior sustains to the territory lying to the west and north-west of it, is well illustrated by that sustained by Lake Michigan to the territory lying to its west and south-west. This lake, as part of the great water line already described, must always be one of the chief outlets for such territory. Its value and influence, in this respect, can hardly be estimated. It has added millions of inhabitants to the territory dependent upon it, and hundreds of millions to the value of its products. Yet the area of arable land in this territory, now so rich and populous, and whose trade has lined the western shore of this lake with flourishing cities, one of which now occupies the third rank in the United States in population and commerce, will bear no comparison with that which must have its future outlet through Lake Superior. A circle drawn from Chicago upon a radius of 600 miles includes, to the west, all the fertile portion of the great plain; while west and north-west from Lake Superior a circle drawn upon a radius of twice such extent would not exceed the limits of fertile soil. A line of considerably less length than that from Chicago to the Missouri River would connect directly Lake Winnipeg with Lake Superior. The former is the centre of a hydrographic basin, second only in extent, in fertility and in the ultimate value of its products, to that of the Mississippi. Lake Superior seems to have been placed by the hand of Providence in the centre of the continent to

render this extensive and valuable, but now distant territory, accessible both to settlement and to commerce. It must for all time command the commerce of a territory thrice larger than that dependent upon Lake Michigan, and though portions of it are now embraced within the British possessions, its commerce must wholly pass through our territory and be monopolized by our own people; and, in time, to commercial will be added political ties.

In two or three years more the national revenues resulting directly from these works will far exceed the charges upon the advances made, so that long before the principal sum falls due, it will have been many times repaid. But such a statement by no means covers the whole ground. The construction of the great Continental Line has been the means of carrying, westward, fully 300 miles, the interior system of railways, and of adding, already, more than 1,000 miles to its aggregate of completed line. In balancing the account the increase of revenues due to this additional mileage, and which probably far exceeds that derived from the great trunk line and its branches, is to be offset against the advances made. A correct account would show the Government to be largely the debtor, while such balance must continue to increase in much greater than simple ratio. The additional advantages which are to result from the opening of a line from ocean to ocean are certain to transcend all ordinary calculation.

It is objected, that no additions should be made to the public debt by aiding works like the one proposed. It is

now in vogue to denounce all such propositions as swindles —as frauds upon the public treasury. The slightest consideration will show the ridiculousness of all such talk. If the Railroads of the United States could have been constructed in no other manner, it would have been the soundest policy for Government to have assumed their construction, even without the expectation of realizing a dollar of direct income from them. The actual cost of these works have been about $1,200,000,000. The interest on this sum is $72,000,000. They have created a commerce worth $10,000,000,000 annually. Such a commerce has enabled the people to pay $400,000,000 into the public treasury with far greater ease than they could have paid $100,000,000 without them. But for them it would have been impossible for the people to have maintained the war against the rebellion, or sustained the financial burdens which it imposed, but which have been borne with such comparative ease. No line of ordinary importance was ever constructed that did not, from the wealth it created, speedily repay its cost, although it may never have returned a dollar to its share or bondholders. If this be true of local and unimportant works, how much more so must it be of great lines, which will open vast sections of our public domain, now a desert, but abounding in all the elements of wealth. No one pretends that the aid asked for would not build the road. If so, Government will ultimately be repaid ten-fold all its advances.

While, fortunately, there are but few cases which would justify the Government in extending aid to Railroads,

there are some in which its interposition becomes its highest duty. No act could be so promotive of the general welfare as the opening, by its aid, both to the Northern and Southern routes. Upon the latter is an immense extent of territory, full of natural wealth, but which, without a Railroad, is utterly beyond the reach of settlement or commerce. Aid extended to both lines, instead of weakening the public credit, would greatly strengthen it. The method or source of the present financial strength and prosperity of the country is getting to be well understood. Our means will increase just in the degree in which we render available the wealth that now lies dormant in our soil. It would be felt that a reasonable amount of aid to each of these enterprises would diminish rather than increase the public burdens. Government would always be in advance instead of being out of pocket on account of such aid.

I have not dwelt upon the value of the territory within and west of the mountain ranges, although it is probable that this portion of the line will be the most valuable and productive. All this region is known to possess great agricultural capabilities, and to be rich in all the more valuable minerals. Its great water-courses would prove valuable auxiliaries to the road, as well as greatly facilitate its construction.

I have the honor to be,

Very respectfully,

HENRY V. POOR.